BLM

# U.S. Department of the Interior
# Bureau of Land Management

# Summary of the Analysis of the Management Situation

## Rock Springs Resource Management Plan Revision

**August 2013**

**PREPARING OFFICE**

U.S. Department of the Interior
Bureau of Land Management
280 Hwy 191 North
Rock Springs, WY 82901 USA
307–352–0256

## Mission Statement

The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

# Summary of the Analysis of the Management Situation

## Rock Springs Resource Management Plan Revision

**August 2013**

This page intentionally
left blank

# Table of Contents

**Acronyms** ..... **1**

**1. Introduction** ..... **11**

1.1. Introduction ..... 13
1.1.1. Purpose of the Analysis of the Management Situation ..... 13
1.1.2. General Description of the Planning Area, Geographic Scope, and Resource/Programs ..... 14
1.1.3. Key Findings of the Analysis of the Management Situation ..... 17

**2. Area Profile** ..... **19**

2.1. Resources ..... 21
2.1.1. Air Resources ..... 21
2.1.2. Geology ..... 33
2.1.3. Soil Resources ..... 52
2.1.4. Water Resources ..... 54
2.1.5. Vegetative Communities ..... 62
2.1.5.1. Riparian ..... 64
2.1.5.2. Forestry and Woodlands ..... 67
2.1.5.3. Rangelands (Uplands) ..... 70
2.1.6. Invasive Species and Pest Management ..... 72
2.1.7. Wildlife and Fisheries Habitat ..... 75
2.1.7.1. Wildlife ..... 75
2.1.7.2. Fisheries and Fish Habitat ..... 96
2.1.8. Special Status Species ..... 105
2.1.8.1. Special Status Species–Wildlife ..... 105
2.1.8.2. Special Status Species–Plants ..... 113
2.1.9. Wild Horse and Burro ..... 117
2.1.10. Wildland Fire Ecology and Management ..... 118
2.1.11. Cultural and Heritage Resources ..... 126
2.1.12. Paleontological Resources ..... 130
2.1.13. Lands With Wilderness Characteristics ..... 135
2.1.14. Visual Resources Management ..... 137
2.2. Resource Uses ..... 140
2.2.1. Energy and Minerals ..... 140
2.2.1.1. Leasable Fluid Minerals ..... 141
2.2.1.2. Leasable Solid Minerals ..... 150
2.2.1.3. Locatable Minerals ..... 162
2.2.1.4. Saleable Minerals ..... 164
2.2.2. Livestock Grazing Management ..... 166
2.2.3. Recreation and Visitor Services ..... 174
2.2.4. Comprehensive Trails and Travel Management ..... 179
2.2.4.1. Off–Highway Vehicles ..... 179
2.2.5. Lands and Realty ..... 184

2.2.5.1. Land Use Authorizations ..... 185
2.2.5.2. Utility Corridors and Communication Sites ..... 185
2.2.5.3. Withdrawals and Classifications ..... 186
2.2.5.4. Land Tenure Adjustments ..... 189
2.2.6. Renewable Energy ..... 193
2.2.6.1. Wind Energy ..... 193
2.2.6.2. Solar Energy ..... 195
2.3. Special Designations ..... 196
2.3.1. Areas of Critical Environmental Concern ..... 196
2.3.2. Wilderness Study Areas ..... 197
2.3.3. Wild and Scenic Rivers ..... 201
2.3.4. National Historic Landmarks ..... 203
2.3.5. Backcountry Byways ..... 203
2.3.6. National Historic Trails ..... 204
2.4. Social and Economic ..... 205
2.4.1. Tribal Interests ..... 205
2.4.2. Public Safety ..... 206
2.4.2.1. Hazardous Materials ..... 206
2.4.2.2. Abandoned Mine Lands ..... 206
2.4.3. Social Conditions ..... 207
2.4.3.1. Populations ..... 208
2.4.3.2. Economic Conditions ..... 211

**3. Current Management Direction ..... 221**

3.1. Resources ..... 223
3.1.1. Air Resources ..... 223
3.1.2. Soil Resources ..... 225
3.1.3. Water Resources ..... 240
3.1.4. Vegetative Communities ..... 245
3.1.4.1. Riparian ..... 245
3.1.4.2. Forestry and Woodlands ..... 245
3.1.4.3. Rangelands (Uplands) ..... 246
3.1.5. Invasive Species and Pest Management ..... 248
3.1.6. Wildlife and Fisheries Habitat ..... 248
3.1.6.1. Wildlife ..... 248
3.1.6.2. Fisheries and Fish Habitat ..... 273
3.1.7. Special Status Species ..... 277
3.1.7.1. Special Status Species — Wildlife (Including SSS Fish) ..... 277
3.1.7.2. Special Status Species —Plants ..... 278
3.1.8. Wild Horse and Burro ..... 280
3.1.9. Wildland Fire Ecology and Management ..... 283
3.1.10. Cultural and Heritage Resources ..... 287
3.1.11. Paleontological Resources ..... 301
3.1.12. Visual Resources Management ..... 303
3.2. Resource Uses ..... 310
3.2.1. Energy and Minerals ..... 310
3.2.1.1. Leasable Fluid Minerals ..... 310
3.2.1.2. Leasable Solids Minerals ..... 314

3.2.1.3. Locatable Minerals ..... 318
3.2.1.4. Salable Minerals ..... 318
3.2.2. Livestock Grazing Management ..... 319
3.2.3. Recreation and Visitor Services ..... 324
3.2.4. Comprehensive Trails and Travel Management ..... 333
3.2.4.1. Off-Highway Vehicles ..... 333
3.2.5. Lands and Realty ..... 340
3.2.5.1. Utility Corridors and Communication Sites ..... 341
3.2.5.2. Withdrawals and Classifications ..... 342
3.2.6. Renewable Energy ..... 348
3.3. Special Designations ..... 348
3.3.1. Areas of Critical Environmental Concern ..... 348
3.3.2. Wilderness Study Areas ..... 350
3.3.3. Wild and Scenic Rivers ..... 351
3.3.4. National Historic Trails ..... 356
3.4. Social and Economic ..... 358
3.4.1. Tribal Interest ..... 358
3.4.2. Public Safety ..... 358
3.4.2.1. Hazardous Materials ..... 358

**4. Management Opportunities ..... 361**

4.1. Resources ..... 363
4.1.1. Air Resources ..... 363
4.1.2. Geology ..... 365
4.1.3. Soil Resources ..... 365
4.1.4. Water Resources ..... 369
4.1.5. Vegetative Communities ..... 395
4.1.5.1. Riparian ..... 396
4.1.6. Invasive Species and Pest Management ..... 396
4.1.7. Wildlife and Fisheries Habitat ..... 397
4.1.7.1. Wildlife ..... 397
4.1.7.2. Fisheries and Fish Habitat ..... 429
4.1.8. Special Status Species ..... 437
4.1.8.1. Special Status Species — Wildlife (Including SS Fish) ..... 437
4.1.8.2. Special Status Species- Plants ..... 453
4.1.9. Wild Horse and Burro ..... 456
4.1.10. Wildland Fire Ecology and Management ..... 458
4.1.11. Cultural and Heritage Resources ..... 462
4.1.12. Paleontological Resources ..... 469
4.1.13. Land with Wilderness Characteristics ..... 470
4.1.14. Visual Resources Management ..... 470
4.2. Resources Uses ..... 479
4.2.1. Energy and Minerals ..... 479
4.2.1.1. Leasable Fluid Minerals ..... 479
4.2.1.2. Leasable Solids Minerals ..... 488
4.2.1.3. Locatable Minerals ..... 499
4.2.1.4. Salable Minerals ..... 501
4.2.2. Livestock Grazing Management ..... 503

4.2.3. Recreation and Visitor Services ..... 518
4.2.4. Comprehensive Trails and Travel Management ..... 523
4.2.5. Lands and Realty ..... 523
4.2.5.1. Land Use Authorizations ..... 524
4.2.5.2. Utility Corridors and Communication Sites ..... 525
4.2.5.3. Withdrawals and Classifications ..... 526
4.2.5.4. Land Tenure Adjustments ..... 526
4.2.6. Renewable Energy ..... 527
4.2.6.1. Wind Energy ..... 527
4.3. Special Designations ..... 528
4.3.1. Areas of Critical Environmental Concern ..... 528
4.3.2. National Historic Landmarks ..... 543
4.3.3. Backcounty Byways ..... 543
4.3.4. National Historic Trails ..... 544
4.4. Social and Economic ..... 546
4.4.1. Public Safety ..... 546
4.4.1.1. Abandoned Mines ..... 546
4.4.2. Social Conditions ..... 546
4.5. Areas of Relative Importance to Guide Land Uses and Management ..... 546

**5. Consistency/Coordination with Other Plans ..... 547**

5.1. Local, State, Federal Management Plans ..... 549
5.1.1. Cooperating Agencies ..... 550

**6. Specific Mandates and Authority ..... 553**

**7. Scoping Report or Summary of Scoping Report ..... 561**

**8. List of Preparers ..... 573**

**9. Glossary ..... 577**

**10. References ..... 619**

**Appendix A. ROCK SPRINGS FIELD OFFICE FIRE MANAGEMENT UNITS (FMU) 625**

## List of Figures

Figure 1.1. Rock Springs RMP Revision Planning Area ..... 15
Figure 1.2. Resource Interactions ..... 18
Figure 2.1. Rock Springs, Wyoming, Wind Rose ..... 26
Figure 2.2. Standard Visual Range (kilometers)—Bridger Wilderness Area ..... 29
Figure 2.3. Standard Visual Range (kilometers)—Mount Zirkel Wilderness Area ..... 30
Figure 2.4. Total Nitrogen Deposition—Pinedale Wyoming, Site ..... 31
Figure 2.5. Total Sulfur Deposition—Pinedale, Wyoming, Site ..... 31
Figure 2.6. Total Nitrogen Deposition—Centennial, Wyoming, Site ..... 32
Figure 2.7. Total Sulfur Deposition—Centennial, Wyoming, Site ..... 32
Figure 2.8. Stratigraphic Nomenclature Chart ..... 34
Figure 2.9. Potential for Conventional Oil and Gas ..... 41
Figure 2.10. Potential for Conventional Coalbed Natural Gas ..... 43
Figure 2.11. Locatable Minerals ..... 49
Figure 2.12. Mineral Material (Salable) Potential ..... 51
Figure 2.13. Rock Springs Field Office Major Watersheds ..... 56
Figure 2.14. Green River Basin 2008 ..... 57
Figure 2.15. Timber Compartments ..... 68
Figure 2.16. Planning Area Fire Management Units ..... 124
Figure 2.17. Planning Area FIRE Occurrence by FMU 1998–2009 ..... 125
Figure 2.18. Potential Fossil Yield Classification ..... 134
Figure 2.19. Trends in Oil and Gas Development in the Planning Area ..... 145
Figure 2.20. Trends in Applications for Permits to Drill in the Planning Area ..... 146
Figure 2.21. Trends in Geophysical Notices of Intent in the Planning Area ..... 147
Figure 2.22. Trends in Wells Plugged in the Planning Area ..... 149
Figure 2.23. Coal Resources ..... 151
Figure 2.24. Oil Shale Resources, Surface Ownership Acreage ..... 156
Figure 2.25. Rock Springs Field Office Trona Resources ..... 160
Figure 2.26. BLM Land Distribution across Counties ..... 208
Figure 2.27. County Population Trends ..... 209
Figure 2.28. Unemployment Rates (2000-2010) ..... 214

This page intentionally
left blank

## List of Tables

Table 1.1. Federal Surface Lands and Federal Mineral Estate Within the Planning Area (acres) . 16
Table 1.2. Resources, Resource Uses, and Topics Discussed in the AMS ..... 16
Table 2.1. National and Wyoming Ambient Air Quality Standards ..... 22
Table 2.2. Federally Mandated Class I Areas Near the Rock Springs Planning Area ..... 25
Table 2.3. Summary of Climate Data ..... 25
Table 2.4. Background Ambient Air Quality Concentrations ..... 27
Table 2.5. Surface Water Classes in Wyoming ..... 59
Table 2.6. Groundwater Occurrence from Green River ..... 60
Table 2.7. Rock Springs Field Office Plant Communities within the Planning Area ..... 62
Table 2.8. PFC 10–Year Comparison ..... 66
Table 2.9. Wyoming Weed and Pest Control Act Designated List ..... 72
Table 2.10. Wyoming Weed and Pest Declared List by County ..... 73
Table 2.11. Potential Priority Habitats and Associated Wildlife in the Planning Area ..... 76
Table 2.12. Existing Conditions and Habitat for Priority Wildlife Species in the Planning Area . 77
Table 2.13. Big Game Habitat Use and Size ..... 84
Table 2.14. Common Raptor Species in the Planning Area ..... 91
Table 2.15. Fish Species in the Planning Area ..... 98
Table 2.16. Threatened, Endangered, Proposed, and Candidate Wildlife Species That May Occur in the Planning Area ..... 105
Table 2.17. BLM Wyoming Sensitive Wildlife Species ..... 107
Table 2.18. Characteristics of Sagebrush Rangeland Needed for Productive High-Quality Greater Sage-Grouse Habitat in Wyoming ..... 109
Table 2.19. Greater Sage-Grouse Habitat and Lek Sites by Land Ownership in the Planning Area ..... 109
Table 2.20. Special Status Plant Species in the Planning Area ..... 114
Table 2.21. Fire Regimes ..... 119
Table 2.22. Fire Regime Conditions Class ..... 119
Table 2.23. Fuels Condition Class (CC) by FMU ..... 121
Table 2.24. Prescribed Burn Projects 1992 to 2010 in the Little Mountain FMU ..... 121
Table 2.25. Approved/Planned Prescribed Burn Projects ..... 122
Table 2.26. Mechanical Fuels Reduction Treatments (WUI) Completed ..... 122
Table 2.27. Ten-Year (1998–2007) Fire Occurrence by Fire Management Unit ..... 123
Table 2.28. Fire Occurrence 1984 to 2010 Planning Area ..... 123
Table 2.29. Acreage and Number of Oil and Gas Leases by County ..... 143
Table 2.30. Well Statistics by County for the Planning Area, as of October 2010 ..... 144
Table 2.31. Oil and Gas Units in Planning Area and Production Status ..... 148
Table 2.32. Federal Coal Leases in the Planning Area ..... 152
Table 2.33. Federal Coal Exploration Licenses in the Planning Area ..... 153
Table 2.34. Oil Shale Resources, Surface Ownership Acreage ..... 157
Table 2.35. Federal Sodium Leases in the Planning Area ..... 161
Table 2.36. Summary of Livestock Authorizations in the Planning Area ..... 166
Table 2.37. Summary of Allotment Classifications ..... 167
Table 2.38. BLM Wyoming Guidelines for Livestock Grazing Management ..... 169
Table 2.39. Projects Implemented in the Planning Area ..... 170
Table 2.40. Authorized AUMs by Allotment ..... 170
Table 2.41. Authorized AUMs ..... 173
Table 2.42. OHV Designations ..... 181
Table 2.43. Existing Withdrawals ..... 186

Table 2.44. Proposed Withdrawals ..... 187
Table 2.45. Current and Pending Recreation and Public Purpose Act Leases in the Planning Area ..... 190
Table 2.46. Summary of Wild and Scenic Rivers Suitability Review of BLM-Administered Public Lands That Meet the WSR Eligibility Criteria Along Waterways in the Green River Resource Area (September 1992) ..... 201
Table 2.47. Current and Historical Population in the Study Area ..... 209
Table 2.48. Labor Earnings by County (Percentage of 2009 Total) ..... 211
Table 2.49. Total Personal Income by Place of Residence (Percentage of 2009 Total) ..... 212
Table 2.50. Employment by Sector (Percent of 2009 Total) ..... 213
Table 2.51. Estimated Mineral Production (Sweetwater County) ..... 215
Table 2.52. Income Indicator for the Study Area (2005–2009) ..... 219
Table 2.53. Race and Ethnicity (2010) ..... 219
Table 3.1. List of Relevant BLM Plans and Amendments ..... 223
Table 3.2. Current Management for Air Resources ..... 223
Table 3.3. Current Management for Soil Resources ..... 225
Table 3.4. Current Management Decisions for Water Resources ..... 243
Table 3.5. Current Management Decisions for Vegetative Communities– Riparian Management 245
Table 3.6. Current Management Decisions for Forests, Woodlands, and Forest Products Management Decisions ..... 245
Table 3.7. Current Management Decisions for Vegetative Communities– Grasslands and Shrublands Management ..... 246
Table 3.8. Current Management Decisions for Invasive Species and Pest Management ..... 248
Table 3.9. Current Management Decisions for Wildlife ..... 248
Table 3.10. Current Management Decisions for Fisheries ..... 273
Table 3.11. Current Management for Special Status Species — Wildlife (Including Fish) ..... 277
Table 3.12. Current Management for Special Status Species —Plants ..... 278
Table 3.13. Current Wild Horses Management Decisions ..... 280
Table 3.14. Current Management for Unplanned Ignitions (Wildfires) ..... 283
Table 3.15. Current Management Decisions for Cultural and Heritage Resources ..... 287
Table 3.16. Current Management for Paleontological Resources ..... 301
Table 3.17. Current Management Decisions for Visual Resources ..... 303
Table 3.18. Current Management Decisions for Geothermal ..... 310
Table 3.19. Current Management Decisions for Oil and Gas ..... 310
Table 3.20. Current Management Decisions for Coal ..... 314
Table 3.21. Current Management Decisions for Oil Shale ..... 315
Table 3.22. Current Management Decisions for Sodium (Trona) ..... 317
Table 3.23. Current Management Decisions for Locatable Minerals ..... 318
Table 3.24. Current Management Decisions for Salable Minerals ..... 318
Table 3.25. Current Management Decisions for Livestock Grazing ..... 319
Table 3.26. Current Management Decisions for Recreation ..... 324
Table 3.27. Current Management Decisions for Off Highway Vehicles (OHV) ..... 333
Table 3.28. Current Management Decisions Travel Management ..... 339
Table 3.29. Current Management Decisions for Land Ownership Adjustments ..... 340
Table 3.30. Current Management Decisions for Utility/Transportation Systems ..... 341
Table 3.31. Current Management Decisions for Withdrawals (Withdrawals to be Pursued) ..... 342
Table 3.32. Current Management Decisions for Withdrawals to be retained ..... 344
Table 3.33. Current Management Decisions for Withdrawals to be revoked (Withdrawals which no longer serve the purpose for which they were established will be revoked.

Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection.) ..... 344
Table 3.34. Current Management Decisions for Renewable Energy Management Decisions .... 348
Table 3.35. Current Management Decisions for Areas Critical of Environmental Concern (ACEC) ..... 348
Table 3.36. Current Management Decisions for Wilderness Study Areas ..... 350
Table 3.37. Current Management Decisions for Wild and Scenic Rivers ..... 351
Table 3.38. National Historic Trails ..... 356
Table 3.39. Social and Economic Conditions ..... 358
Table 3.40. Tribal Interest ..... 358
Table 3.41. Current Management Decisions for Public Safety-Hazardous Materials ..... 358
Table 4.1. Adequacy of Current Management Direction for Air Resources ..... 363
Table 4.2. Adequacy of Current Management Direction for Soil Resources ..... 365
Table 4.3. Adequacy of Current Management Direction for Water Resources ..... 369
Table 4.4. Adequacy of Current Management Direction - Vegetation - Grasslands and Shrublands Including Riparian ..... 396
Table 4.5. Adequacy of Current Management Direction for Invasive Species and Pest Management ..... 396
Table 4.6. Adequacy of Current Management Direction for Wildlife ..... 397
Table 4.7. Adequacy of Current Management Direction for Fisheries ..... 429
Table 4.8. Adequacy of Current Management Direction for Special Status Species — Wildlife 437
Table 4.9. Adequacy of Current Management Direction for Special Status Species- Plants ..... 453
Table 4.10. Adequacy of Current Management Direction for Wild Horse and Burros ..... 456
Table 4.11. Adequacy of Current Management Direction for Wildland Fire Ecology and Management ..... 458
Table 4.12. Adequacy of Current Management Direction for Cultural and Heritage Resources 462
Table 4.13. Adequacy of Current Management Direction for Paleontological Resources ..... 469
Table 4.14. Adequacy of Current Management Direction for Lands with Wilderness Characteristics ..... 470
Table 4.15. Adequacy of Current Management Direction for Visual Resources ..... 470
Table 4.16. Adequacy of Current Management Direction for Leasable Geothermal ..... 479
Table 4.17. Adequacy of Current Management Direction for Leasable Oil and Gas ..... 480
Table 4.18. Adequacy of Current Management Direction for Leasable Minerals — Coal ..... 488
Table 4.19. Adequacy of Current Management Direction for Oil Shale ..... 494
Table 4.20. Adequacy of Current Management Direction for Sodium (Trona) ..... 498
Table 4.21. Adequacy of Current Management Direction for Locatable Minerals ..... 499
Table 4.22. Adequacy of Current Management Direction for Salable Minerals ..... 501
Table 4.23. Livestock Grazing Management ..... 503
Table 4.24. Adequacy of Current Management Direction for Recreation and Visitor Services .. 518
Table 4.25. Adequacy of Current Management Direction for Travel Management ..... 523
Table 4.26. Adequacy of Current Management Direction for Land Use Authorizations ..... 524
Table 4.27. Adequacy of Current Management Direction for Utility Transportation Systems ... 525
Table 4.28. Adequacy of Current Management Direction for Withdrawals ..... 526
Table 4.29. Adequacy of Current Management Direction for Land Tenure Adjustments ..... 526
Table 4.30. Adequacy of Current Management Direction for Renewable Energy ..... 527
Table 4.31. Adequacy of Current Management Direction for Areas of Critical Environmental Concern ..... 528
Table 4.32. Adequacy of Current Management Direction for Back County Byways ..... 543
Table 4.33. Adequacy of Current Management Direction for Back County Byways ..... 543

Table 4.34. Adequacy of Current Management Direction for change for National Trails ..... 544
Table 5.1. Related Local, State, and Federal Management Plans ..... 549
Table 5.2. Cooperating Agencies ..... 550
Table 6.1. Federal Laws and Statutes ..... 555
Table 6.2. Executive Orders/Secretarial Orders ..... 557
Table 6.3. Handbooks and Manuals ..... 557
Table 7.1. Scoping Comment Submittals ..... 564
Table A.1. RSFO-01, Big Sandy and Steamboat Mountain FMU ..... 626
Table A.2. RSFO-02, Sweetwater FMU ..... 629
Table A.3. RSFO-03, Red Desert FMU ..... 633
Table A.4. RSFO-04, Little Mountain FMU ..... 636

# Acronyms

**ACEC:**
Area of Critical Environmental Concern

**ACHP:**
Advisory Council on Historic Preservation

**ACOE:**
U.S. Army Corps of Engineers

**AFMSS:**
Automated Fluid Minerals Support System

**AIS:**
Aquatic Invasive Species

**AML:**
Appropriate Management Levels

**AMP:**
Allotment Management Plan

**AMS:**
Analysis of the Management Situation

**APD:**
Application for Permit to Drill

**APHIS-WS:**
Animal and Plant Health Inspection Service Wildlife Services

**AQD:**
Air Quality Division

**ARPA:**
Archeological Resources Protection Act

**ATV:**
All-Terrain Vehicle

**AUM:**
Animal Unit Month

**BCA:**
Biodiversity Conservation Alliance

**BCT:**
Back Country Trail

**BLM:**
Bureau of Land Management

**BMP:**
Best Management Practice

**CAP:**
Coordinated Activity Plan

**CASTNet:**
Clean Air Status and Trends Network

**CBNG:**
Coalbed Natural Gas

**CC:**
Condition Class

**CCD:**
County Conservation District

**CDNST:**
Continental Divide National Scenic Trail

**CEQ:**
Council on Environmental Quality

**CERCLA:**
Comprehensive Environmental Response, Compensation, and Liability Act

**CFR:**
Code of Federal Regulations

**CRCT:**
Colorado River cutthroat trout

**CSU:**
Controlled Surface Use

**DEQ:**
Department of Environmental Quality

**DEQAML:**
Department of Environmental Quality Abandoned Mine Lands

**DOE:**
Department of Energy

**DOI:**
Department of the Interior

**DPC:**
Desired Plant Community

**EA:**
Environmental Assessment

**EIS:**
Environmental Impact Statement

**EO:**
Executive Order

**EPA:**
Environmental Protection Agency

**EPAct:**
Energy Policy Act of 2005

**ERMA:**
Extensive Recreation Management Area

**ERRP:**
Erosion Control, Revegetation, and Restoration Plan

**ESA:**
Endangered Species Act

**FAR:**
Functional At Risk

**FEMA:**
Federal Emergency Management Agency

**FERC:**
Federal Energy Regulatory Commission

**FGDC:**
Federal Geographic Data Committee

**FIFRA:**
Federal Insecticide, Fungicide and Rodenticide Act

**FIL:**
Fire Intensity Level

**FLPMA:**
Federal Land Policy and Management Act

**FMP:**
Fire Management Plan

**FMU:**
Fire Management Unit

**FR:**
Fire Regime

**FRCC:**
Fire Regime Condition Class

**GIS:**
Geographic Information System

**GMU:**
Geographic Management Unit

**GRRMP:**
Green River Resource Management Plan

**HAB/HAER:**
Historic American Buildings Survey/Historic American Engineering Record

**HAP:**
Hazardous Air Pollutant

**HBP:**
Held By Production

**HMA:**
Herd Management Area

**HMP:**
Habitat Management Plans

**HUC:**
Hydrologic Unit Codes

**IB:**
Instruction Bulletin

**IM:**
Instruction Memorandum

**IMPLAN:**
Impact Analysis for Planning

**INPS:**
Invasive, Nonnative Plant Species

**JMH:**
Jack Marrow Hills

**KSLA:**
Known Sodium Lease Area

**LAU:**
Lynx Analysis Unit

**LRMP:**
Land Resource Management Plan

**LUP:**
Land Use Plan

**LWC:**
Land with Wilderness Characteristics

**MBTA:**
Migratory Bird Treaty Act

**MET:**
Meteorological

**MIST:**
Minimum Impact Suppression Tactics

**MLP:**
Master Leasing Plan

**MMTA:**
Mechanically Mineable Trona Area

**MOU:**
Memorandum of Understanding

**MU:**
Modern Urban

**NAAQS:**
National Ambient Air Quality Standard

**NADP:**
National Atmospheric Deposition Program

**NASS:**
National Agricultural Statistics Service

**NCA:**
National Conservation Areas

**NEPA:**
National Environmental Policy Act

**NF:**
Non Functional

**NHL:**
National Historic Landmark

**NHPA:**
National Historic Preservation Act

**NHT:**
National Historic Trails

**NLCS:**
National Landscape Conservation System

**NOI:**
Notice of Intent

**NPL:**
Normally Pressured Lance Area

**NPS:**
National Park Service

**NRCS:**
National Resources Conservation Service

**NREL:**
U.S DOE National Renewable Energy Laboratory

**NRHP:**
National Register of Historic Places

**NSO:**
No Surface Occupancy

**NSS:**
Native Species Status

**NSU:**
No Surface Use

**OHV:**
Off-highway Vehicle

**ORV:**
Off-road Vehicle

**PFC:**
Proper Functioning Condition

**PFYC:**
Potential Fossil Yield Classification

**PILT:**
Payments in Lieu of Taxes

**PLO:**
Public Land Order

**PNC:**
Potential Natural Community

**PSD:**
Prevention of Significant Deterioration

**R&PP:**
Recreation and Public Purposes Act

**RAAT:**
Reduced Agent Area Treatment

**RCA:**
Reserve Common Allotments

**RCRA:**
Resource Conservation and Recovery Act

**RD&D:**
Research, Development, and Demonstration

**REE:**
Rare Earth Element

**RFD:**
Reasonable Foreseeable Development

**RMG:**
Wyoming State Resource Management Group

**RMP:**
Resource Management Plan

**RN:**
Roaded Natural

**ROD:**
Record of Decision

**ROS:**
Recreation Opportunity Spectrum

**ROW:**
Right-of-Way

**RSFO:**
Rock Spring Field Office

**RSGA:**
Rock Springs Grazing Association

**S&G:**
Standards and Guidelines

**SGCN:**
Wyoming's Species of Greatest Conservation Need

**SHPO:**
State Historic Preservation Officer

**SMA:**
Special Management Area

**SMCRA:**
Surface Mining Control and Reclamation Act of 1977

**SPM:**
Semi-primitive Motorized

**SPNM:**
Semi-primitive non-motorized

**SRMA:**
Special Recreation Management Area

**SRP:**
Special Recreation Permit

**SSS:**
Special Status Species

**SVR:**
Standard Visual Range

**SWA:**
Soil Write-up Area

**SWAP:**
Wyoming State Wildlife Action Plan

**SWPPP:**
Stormwater Pollution Prevention Plan

**TCLP:**
Toxicity Characteristic Leachate Procedure

**TCP:**
Traditional Cultural Properties

**TDS:**
Total Dissolved Solids

**TLS:**
Timing Limitation Stipulations

**TNEB:**
Thriving Natural Ecological Balance

**UDWR:**
Utah Department of Wildlife Resources

**UGRB:**
Upper Green River Basin

**USDA:**
U. S. Department of Agriculture

**USFA:**
U.S. Fire Administration

**USFS:**
U.S. Forest Service

**USFWS:**
U.S. Fish and Wildlife Service

**USGS:**
U.S. Geological Survey

**VOC:**
Volatile Organic Compounds

**VRM:**
Visual Resource Management

**WAAQS:**
Wyoming Ambient Air Quality Standards

**WARMS:**
Wyoming Air Resources Monitoring System

**WDA:**
Wind Development Area

**WDCI:**
Wyoming Division of Criminal Investigation

**WDE:**
Wyoming Department of Education

**WDEQ:**
State of Wyoming Department of Environmental Quality

**WDH:**
Wyoming Department of Health

**WDOE:**
Wyoming Department of Energy

**WDOR:**
Wyoming Department of Revenue

**WEAD:**
Wyoming's Economic Analysis Division

**WGFD:**
Wyoming Game and Fish Department

**WGSGCP:**
Wyoming Greater Sage-Grouse Conservation Plan

**WOGC:**
Wyoming Oil and Gas Commission

**WOGCC:**
Wyoming Oil and Gas Conservation Commission

**WSA:**
Wilderness Study Area

**WSEO:**
Wyoming State Engineer's Office

**WSGS:**
Wyoming State Geological Survey Industrial Mineral Report 91-3

**WSO:**
BLM Wyoming State Office

**WSR:**
Wild and Scenic River

**WUI:**
Wildland Urban Interface

**WWEC:**
West-wide Energy Corridor

**WYDOT:**
Wyoming Department of Transportation

**WYNDD:**
Wyoming Natural Diversity Database

# Chapter 1. Introduction

This page intentionally
left blank

# 1.1. Introduction

The Bureau of Land Management (BLM) Wyoming is revising the Resource Management Plan (RMP) for the Rock Springs Field Office (Planning Area). The Planning Area is currently operating under the 1997 Green River RMP (GRRMP). In 2006, a Record of Decision (ROD) was signed approving the Jack Morrow Hills Coordinated Activity Plan (JMH CAP). This ROD amended the 1997 GRRMP. The existing RMP, as amended, will be revised in a single process referred to as the Rock Springs Resource Management Plan Revision (Rock Springs RMP). For the purpose of this Summary of the Analysis of the Management Situation (AMS), the combined GRRMP and JMH CAP planning areas will be called the Planning Area (Map 1-1).

The purpose of the Rock Springs RMP revision will be to establish broad-scale desired conditions (goals and objectives) and allowable uses necessary to achieve the desired outcomes, provide comprehensive management direction for all resources and uses, and contain broad-scale decisions guiding future site-specific implementation decisions. This Summary of the AMS lays the foundation for the process of developing alternatives for the RMP. It has been prepared and follows the guidance under the US Department of the Interior, Bureau of Land Management, *Land Use Planning Handbook H-1601–1*, dated March 11, 2005.

## 1.1.1. Purpose of the Analysis of the Management Situation

The BLM prepares an AMS to analyze available inventory data and other information to characterize a particular resource, portray its existing management situation, and identify management opportunities to respond to identified issues. This Summary of the AMS details the current management situation, affected resources, and the condition of resources in the Planning Area. The Summary of the AMS provides consistent with multiple use principles-the basis for formulating reasonable alternatives, including the types of resources for development or protection (43 Code of Federal Regulations [CFR] 1610.4-4).

The Summary of the AMS is intended to describe the current conditions and trends of the resources and the uses/activities in the Planning Area in sufficient detail to create a framework from which to resolve any planning issues through the development of alternatives. This analysis describes the status, or present characteristics and condition of the public land; the status of physical and biological processes that affect ecosystem function; the condition of individual components such as soil, water, vegetation, and wildlife habitat; and the relative value and scarcity of the resources. The Summary of the AMS also addresses social and economic conditions that influence how people, communities, and economies interact with the ecosystem.

The Summary of the AMS is concise and focused on the issues relevant to resource management in the Planning Area. It is not intended to be an exhaustive review of everything known about the resources and resource uses in the Planning Area. Parts of the Summary of the AMS will be incorporated into the subsequent RMP and Environmental Impact Statement (EIS) as part of the no-action and action alternatives and in the discussions of the affected environment. Alternatives presented in the RMP and EIS will draw on the management opportunities identified in this document. Each alternative will include desired outcomes (goals and objectives) and the allowable uses and actions anticipated to achieve those outcomes. Considering a reasonable range of alternatives helps the BLM and its cooperators understand the various ways of addressing the planning issues and different scenarios for management of the resources and uses/activities in the Planning Area.

## 1.1.2. General Description of the Planning Area, Geographic Scope, and Resource/Programs

The Rock Springs Planning Area (Map 1.1) includes approximately 3.6 million acres of BLM-administered surface land and 3.5 million acres of BLM-administered mineral estate in portions of Lincoln, Sweetwater, Uinta, Sublette, and Fremont counties in southwestern Wyoming. The Field Office administers a variety of programs, including mineral exploration and development, renewable energy, wildlife habitat, outdoor recreation, wild horses, livestock grazing, and historic trails. The Planning Area includes 13 WSAs, 10 ACECs, five special recreation management areas, five wild horse management areas, and a variety of other areas where specific management prescriptions may be developed. Table 1.1, *Federal Surface Lands and Federal Mineral Estate within the Planning Area*, shows the total acreage within the Planning Area, including private, state and other federal ownership.

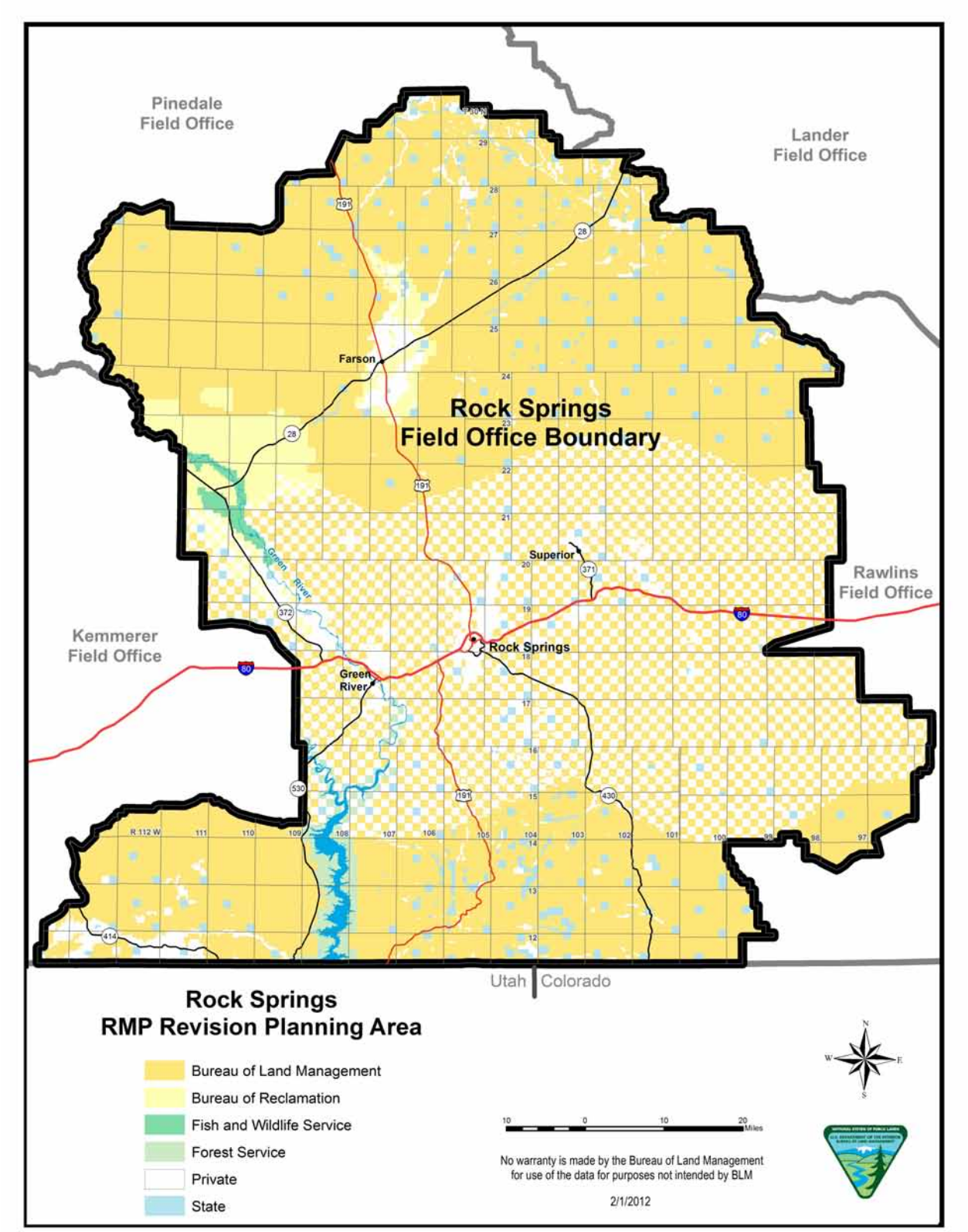



**Figure 1.1. Rock Springs RMP Revision Planning Area**

**Table 1.1. Federal Surface Lands and Federal Mineral Estate Within the Planning Area (acres)**

| COUNTY | BLM<br><br>Public Lands *(in Planning Area)* | Other<br><br>(Private, State, other Federal) | Total<br><br>All Ownerships | Federal<br><br>Minerals<br><br>(sub-surface) |
|---|---|---|---|---|
| Sweetwater | 2,866,264 | 1,597,147 | 4,463,411 | 3,013,913 |
| Sublette | 451,253 | 58,068 | 509,321 | 456,067 |
| Lincoln | 42,585 | 2,106 | 44,691 | 47,004 |
| Uinta | 74,983 | 22,648 | 97,631 | 82,158 |
| Fremont | 172,315 | 28,510 | 200,825 | 180,415 |
| TOTAL | 3,607,400 | 1,708,479 | 5,315,879 | 3,779,557 |

The primary categories have been grouped into four broad categories and are presented in these categories throughout this document. The categories are Resources, Resource Uses, Special Designations, and Social and Economic. Each category and topics discussed under each category of this Summary of the AMS are listed in Table 1.2 *Resources, Resource Uses, and Topics Discussed in the AMS.*

**Table 1.2. Resources, Resource Uses, and Topics Discussed in the AMS**

| Resources | Resource Uses | Special Designations | Social and Economic |
|---|---|---|---|
| Air Resources | Leasable Geothermal | Areas of Critical Environmental Concern | Social and Economic |
| Climate Change | Leasable Oil and Gas | Scenic or Backcountry Byways | Health and Safety |
| Geology | Solid Leasable Minerals | National Historic Trails | Tribal Treaty Rights |
| Soil Resources | Locatable Minerals | Wild and Scenic Rivers | |
| Water Resources | Salable Minerals | Wilderness Study Areas | |
| Vegetation: Forestry and Woodlands, Uplands, Riparian and Wetlands | Livestock Grazing | National Historic Landmarks | |
| Invasive Species and Pest Management | Recreation and Visitor Services | | |
| Wildlife and Fisheries | Travel Management | | |
| Special Status Species-Wildlife and Plants | Lands and Realty | | |
| Wild Horses | Renewable Energy | | |
| Fire and Fuels Management | | | |
| Cultural Resources | | | |
| Paleontological Resources | | | |
| Wilderness | | | |
| Visual Resources | | | |

## 1.1.3. Key Findings of the Analysis of the Management Situation

This section of the Summary of the AMS presents key findings identified during the development of the document. Many of these findings are issues and concerns expressed by the public during public scoping and/or identified by the BLM and cooperating agencies.

A majority of comments emphasized energy and minerals development, including renewable energy and oil and gas. Other issues of high interest included fish and wildlife management, special status species management, and special designations, such as ACECs.

One of the major key findings is the interaction between the resources and resource uses including, Special Designations (Figure 1.1).

| Resource Interactions<br>X = Interaction between resource in row with resource in column. | Air Resources | Geology | Soil | Water | Vegetation | Wildlife & Fisheries | Special Status Species | Wild Horse & Burro | Wildland Fire Eco and Management | Cultural Resources | Paleontological | Wilderness Characteristics | Visual Resources | Fluid Minerals | Trona | Coal | Locatable Minerals | Salable Materials | Livestock Grazing | Recreation | Travel Management/OHV | Forestry | Lands & Realty | Renewable Energy | Special Designations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air Resources | | | | | | | | | X | | | | | X | X | X | X | X | X | X | X | X | X | X | |
| Geology | | | X | X | | | | | | X | X | X | | X | X | X | X | X | | X | X | | X | X | X |
| Soil | | X | | X | X | X | X | | X | X | X | | X | X | | X | X | X | X | X | X | X | X | X | |
| Water | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Vegetation | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Wildlife & Fisheries | X | | X | X | X | | X | X | X | | | | | X | X | X | X | X | X | X | X | X | X | X | X |
| Special Status Species | X | | X | X | X | X | | X | X | | | | | X | X | X | X | X | X | X | X | X | X | X | X |
| Wild Horse & Burro | | | x | x | x | x | x | | | x | x | x | x | | | | | | x | x | | | | | x |
| Wildland Fire Eco and Management | X | | X | X | X | X | X | | | X | X | X | X | | | | | | X | X | | X | | X | X |
| Cultural Resources | | X | X | X | X | X | X | X | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Paleontological | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Wilderness Characteristics | | X | X | X | X | X | X | X | X | X | X | | X | | | | | | | X | X | | | | X |
| Visual Resources | | X | X | X | X | | X | | X | | X | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| Fluid Minerals | X | X | X | X | X | X | X | X | | X | X | X | X | | X | | | | X | X | X | X | X | X | X |
| Trona | X | X | X | X | X | X | X | X | | X | X | X | X | X | | | | | X | X | | | X | | |
| Coal | X | X | X | X | X | X | X | X | | X | X | | X | X | | | X | X | X | X | | | X | X | |
| Locatable Minerals | X | X | | X | X | X | X | | | X | X | | X | | | | | X | | | | | X | | X |
| Salable Materials | X | X | X | X | X | X | X | | | X | X | | X | | | | X | | | | | | X | | X |
| Livestock Grazing | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X |
| Recreation | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X |
| Travel Management/OHV | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X |
| Forestry | X | | X | X | X | X | X | | | | | | X | | | | | | | X | | | | | |
| Lands & Realty | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | | | X | X | X | X | | X | X |
| Renewable Energy | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X |
| Special Designations | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |

**Figure 1.2. Resource Interactions**

# Chapter 2. Area Profile

This page intentionally
left blank

The area profile describes the social, economic, physical, and biological environment of the Planning Area. This chapter of the Summary of the Analysis of the Management Situation (AMS) provides an overview of the resources, resource uses, special designations, and social and economic features of the Planning Area. For each resource, this chapter characterizes the resource in terms of indicators (used to assess the condition of the resource), current conditions (which describes the existing conditions of the resource), trends (which describes the direction of change in the resource between the present and some point in the past), forecasts (which predicts the change in the condition of the resource given current management), and key features (which describe features that guide allocations and/or management direction). Resource uses and social and economic features are characterized in terms of current conditions, trends, and forecasts. Special designations are characterized in terms of current conditions and areas being considered for future designation. This chapter of the Summary of the AMS provides the bases of the affected environment section of the Resource Management Plan (RMP) and Environmental Impact Statement (EIS).

# 2.1. Resources

# 2.1.1. Air Resources

Air quality and climate are the principle components of the Bureau of Land Management (BLM) Air Resource Management Program. Air quality is determined by the composition (chemical and physical) and concentration of atmospheric pollutants, meteorology, and terrain; it also includes noise considerations, smoke management, and visibility. Climate is the composite of generally prevailing weather conditions of a particular region throughout the year, averaged over a series of years (typically 30 years).

The BLM is responsible for considering and incorporating climate and air quality into multiple-use programs, for managing the public lands in a manner that will protect air quality, considering and analyzing impacts of its authorizations and programs on air resources, and complying with applicable air quality laws, statutes, regulations, standards, and implementation plans.

## 1. Regional Context

The Planning Area is located in southwest Wyoming where the topography is predominately high elevation plains varying from 6,000 to 10,000 feet above sea level. The relatively flat terrain is occasionally interrupted by mesas, hills, and steep bluffs. The area is buffeted by high to moderate predominantly westerly winds. The area is considered semi-arid because of the low precipitation and relative humidity. Regional sources of air pollutants include mining operations, oil and gas development, coal-fired power plants, windblown dust, and wildfire. Air quality in the region is also influenced by high winds that can transport air pollutants and dust from industrial sources and metropolitan areas to the west and north.

## 2. Resource-Specific Information

### *a. Indicators*

Air quality in a geographic area is defined by its visual appearance and measured concentrations of air pollutants. Specific air quality indicators include:

- Measured ambient concentrations of criteria air pollutants and hazardous air pollutants
- Measured ambient concentrations of visibility impairing pollutants: primarily nitrate and sulfate aerosols
- Measured concentrations of atmospheric deposition compounds in precipitation and surface waters
- The classification of air quality or visibility in specific areas as designated in the Clean Air Act or by state or tribal agencies.

***Criteria Air Pollutants***

The USEnvironmental Protection Agency (EPA) has established primary and secondary National Ambient Air Quality standards (NAAQS) for six criteria air pollutants. Primary ambient air quality standards define levels of air quality necessary, with an adequate margin of safety, to protect the public health. Secondary ambient air quality standards define levels of air quality necessary to protect the public welfare from known or anticipated adverse effects of a pollutant. Criteria pollutants include carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter (PM-10 and $PM_{2.5}$), sulfur dioxide ($SO_2$) and lead (Pb). The Wyoming Department of Environmental Quality (WDEQ) has established Wyoming Ambient Air Quality Standards (WAAQS) for these same criteria air pollutants and for one additional pollutant, hydrogen sulfide ($H_2S$). EPA also regulates emissions of oxides of nitrogen ($NO_X$) and volatile organic compounds (VOC). Table 2.1 shows the NAAQS and WAAQS for regulated criteria air pollutants.

**Table 2.1. National and Wyoming Ambient Air Quality Standards**

| Pollutant | Averaging Time | National Ambient Air Quality Standards(NAAQS) | | | Wyoming Ambient Air Quality Standards(WAAQS) | | |
|---|---|---|---|---|---|---|---|
| | | Primary | | | Primary | | |
| | | (ppm) | (ppb) | (ug/m$^3$) | (ppm) | (ppb) | (ug/m$^3$) |
| Carbon Monoxide | 1 hour | 35[a] | 35,000 | 40,000 | 35 | 35,000 | 40 (mg/m$^3$) |
| | 8 hour | 9[a] | 9,000 | 10,000 | 9 | 9,000 | 10 (mg/m$^3$) |
| Lead | Rolling 3-month | | | 0.15 | | | 0.15 |
| Nitrogen Dioxide | 1 hour | 0.1 | 100[b] | 189 | 0.1 | 100 | 189 |
| | Annual(Arithmetic Mean) | 0.053 | 53 | 100 | | | |
| PM-10 | 24 hour | | | 150[c] | | | 150 |
| | Annual (Arithmetic Mean) | None | | | | | 50 |
| $PM_{2.5}$ | 24 hour | | | 35[d] | | | 35 |
| | Annual(Arithmetic Mean) | | | 12.0[e] | | | 15.0 |
| Ozone | 8 hour | 0.075 (f) | 75 | 147 | 0.75 | 75 | 147 |
| Sulfur Dioxide | 1 hour | 0.075 | 75 (g) | 197 | 0.075 | 75 | 197 |

| Pollutant | Averaging Time | National Ambient Air Quality Standards(NAAQS) | | | Wyoming Ambient Air Quality Standards(WAAQS) | | |
|---|---|---|---|---|---|---|---|
| | | Primary | | | Primary | | |
| | | (ppm) | (ppb) | (ug/m$^3$) | (ppm) | (ppb) | (ug/m$^3$) |
| Hydrogen Sulfide | 1/2 hour average | | | | 0.05 | 50 | 70[(h)] |
| | 1/2 hour average | | | | 0.03 | 30 | 40[(i)] |

[(a)] Not to be exceeded more than once per year.

[(b)]To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

[(c)]Not to be exceeded more than once per year on average over 3 years.

[(d)]To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m$^3$(effective December 17, 2006).

[(e)]To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 12.0 µg/m3. (effective December 14, 2012)

[(f)]To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective March 27, 2008)

[(g)]To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb (effective June 22,2010).

[(h)] Not to be exceeded more than two times per year.

[(i)] Not to be exceeded more than two times in any 5 consecutive days.

### *Hazardous Air Pollutants*

Hazardous air pollutants (HAP) are those pollutants that are known or suspected to cause cancer or other serious health problems, such as chronic respiratory disease, reproductive disorders or birth defects. The EPA has classified 189 air pollutants as HAPs, including formaldehyde ($CH_20$), benzene, toluene, ethyl-benzene, xylene, and n-hexane. EPA and WDEQ have not established ambient air quality standards for HAPs (with the exception of hydrogen sulfide).

### *Visibility*

Visibility can be defined as the ability to see color, texture, and contrast at a distance and can be reported as visual range, in units of distance such as miles. Visibility can also be expressed in terms of deciview (dv), a measure for describing perceived changes in visibility. One dv is defined as a change in visibility that is just perceptible to an average person. Aerosols of nitrate and sulfate compounds, $NO_2$ gas, and other fine particulate matter are the primary visibility impairing pollutants.

To estimate potential visibility impairment, monitored aerosol concentrations are used to reconstruct visibility conditions for each day monitored. These daily values are then ranked from clearest to haziest and divided into three categories to indicate the mean visibility for all days (average), the 20 percent of days with the clearest visibility (20 percent clearest), and the 20 percent of days with the worst visibility (20 percent haziest). Since 1980, the Interagency Monitoring of Protected Visual Environments (IMPROVE) network has measured visibility in national parks and wilderness areas around the nation. There are six IMPROVE stations in Wyoming.

### *Atmospheric Deposition*

Atmospheric deposition refers to processes in which air pollutants are removed from the atmosphere and deposited into terrestrial and aquatic ecosystems. Deposition of air pollutants contributes to acidification of lakes, streams, and soils and affects other ecosystem characteristics, including nutrient cycling and biological diversity. Substances deposited include:

- Nitrogen and sulfur compounds (nitrates, nitrites, sulfates, and sulfites)
- Acids (sulfuric acid and nitric acid), which are commonly known as acid rain
- Nutrients (such as nitrates and ammonium).

Air pollutants can be deposited by either wet (precipitation via rain or snow) or dry (gravitational) settling of particles and adherence of gaseous pollutants to soil, water, and vegetation. The National Atmospheric Deposition Program (NADP) is an interagency-sponsored network of monitoring stations that measures wet atmospheric deposition. There are eight currently operating NADP stations in Wyoming. The Clean Air Status and Trends Network (CASTNet) is an interagency network of monitoring stations managed by the EPA that measures dry deposition. There are three currently operating CASTNet stations in Wyoming. The BLM operates six monitoring stations around the State of Wyoming that measure dry deposition as part of its Wyoming Air Resources Monitoring System (WARMS).

### *Classification of Areas for Prevention of Significant Deterioration and Visibility*

Section 162 of the Clean Air Act includes provisions for the Prevention of Significant Deterioration (PSD) of air quality. The goal of the PSD program is "to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreation, scenic or historic value." A classification system was established identifying allowable amounts of additional air quality degradation (increments) that would be allowed above legally established baseline levels. PSD increments have been established for $NO_2$, $SO_2$,and PM-10.

PSD Class Iareas have the greatest limitations, with a very limited amount of additional degradation allowed. National parks greater than 6,000 acres and wilderness areas greater than 5,000 acres that were in existence as of August 7, 1977, were automatically designated as Class Iareas under the PSD program. In addition, Section 164(a) and 164(c) give states and tribes, respectively, the right to designate other areas as PSD Class Iareas. The remainder of the nation (excluding non-attainment and maintenance areas) is designated as PSD Class II areas, where moderate deterioration and controlled growth is allowed. PSD Class III areas allow for maximum growth and degradation up to the NAAQS; no areas have been designated Class III. Areas that have violated NAAQS are designated non-attainment or maintenance areas, and additional growth and degradation are severely limited until the area is brought back into compliance with the standard.

There are seven federally mandated Class I areas for visibility in Wyoming. These seven areas are also PSD Class I areas, and in addition, the State of Wyoming has designated Savage Run Wilderness as a PSD Class I area. Table 2.2 shows the Class I areas located near the Planning Area and their distance from the Planning Area.

**Table 2.2. Federally Mandated Class I Areas Near the Rock Springs Planning Area**

| Class I Area | Distance From RSFO (km) | Direction From RSFO |
|---|---|---|
| Bridger Wilderness Area | 150 | North |
| Fitzpatrick Wilderness Area | 180 | North |
| Grand Teton National Park | 270 | Northwest |
| Mount Zirkel Wilderness Area | 230 | Southeast |
| Teton Wilderness Area | 280 | North |
| Washakie Wilderness Area | 320 | North |
| Yellowstone National Park | 350 | Northwest |
| Rawah Wilderness Area, CO | 250 | Southeast |

## *b. Current Conditions*

### *Climate*

The climate in the Planning Area is temperate, semi-arid with long cold winters and warm summers. The ecoregion classification for the Rock Springs Planning Area is the intermountain semi-desert province. The Planning Area lies within the Wyoming Basin and encompasses plains at 6,000 to 8,000 feet elevation with isolated hills and mesas. Average annual temperatures range from 40 to 50$^{o}$ F. Annual snow fall averages between 20 and 30 inches with snow depths rarely greater than a few inches. The growing season is short and dry, and the predominant natural vegetation consists of sagebrush and grasses. The prevailing wind direction is from the west, with average wind speeds of 10-15 mph however, wind gusts of 30 to 40 mph are not uncommon. Table 2.3 summarizes climate data for the Rock Springs Planning Area, and Figure 2.1 Rock Springs Wyoming Wind Rose illustrates predominant wind direction and speeds at the Rock Springs Airport.

**Table 2.3. Summary of Climate Data**

| Climate Component | Description | Value |
|---|---|---|
| Temperature | Summer min./max. temp.$^{o}$F | 50.5/82.3 |
| | Winter min./max. temp. $^{o}$F | 14.4/34.7 |
| | Mean annual temp. $^{o}$F | 45.3 |
| Precipitation | Mean annual precipitation (inches) | 8.8 |
| | Mean annual snowfall (inches) | 28.3 |
| Wind | Mean annual wind speed (mph) | 11.1 |
| | Prevailing direction | west |

Source: Western Regional Climate Center, www.wrcc.dri.edu, Rock Springs Fire Department, Wyoming, Station 487847, period of record 2003–2010 and Rock Springs Airport, Station KRKS, period of record 1996–2006.

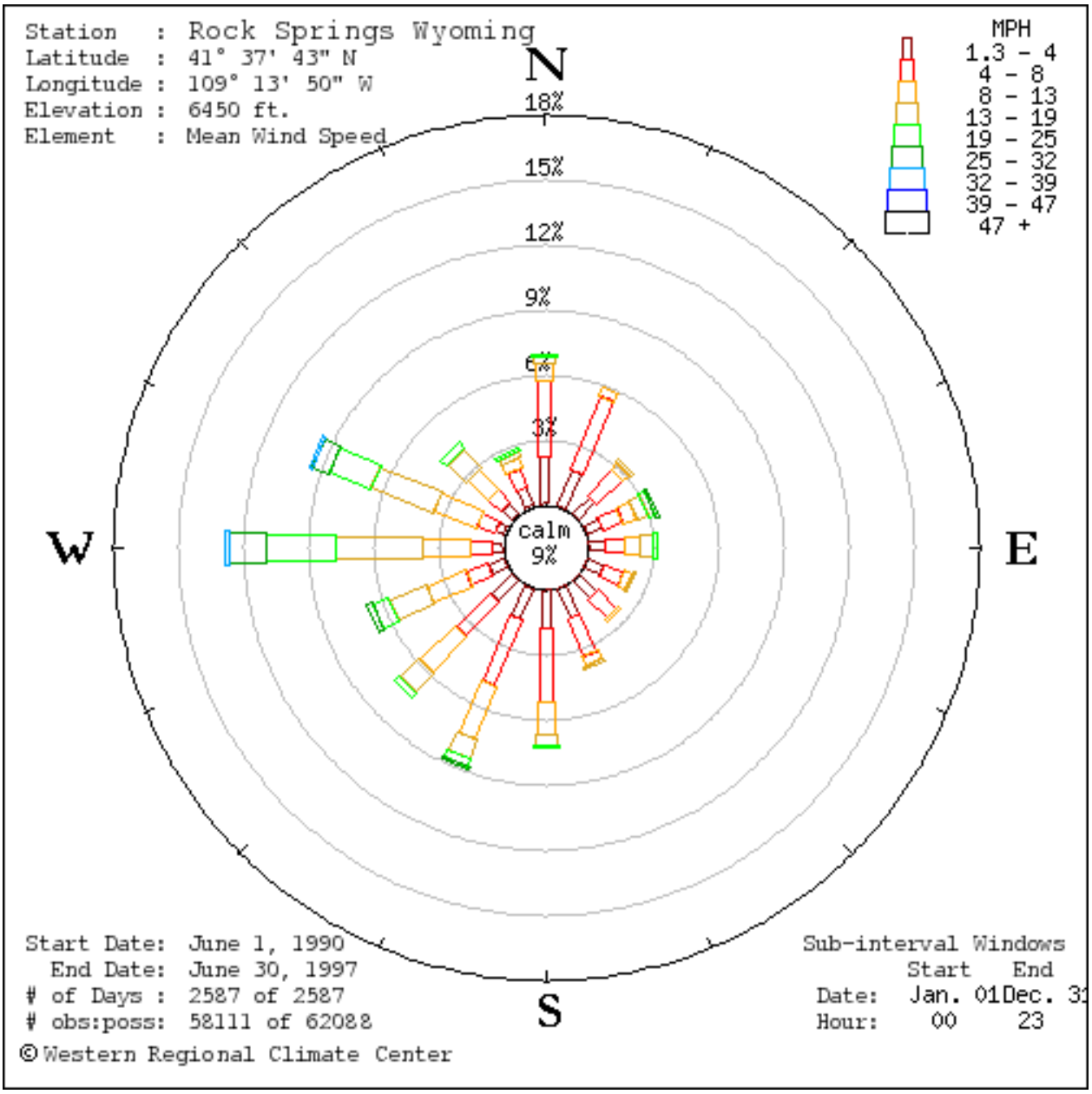



**Figure 2.1. Rock Springs, Wyoming, Wind Rose**

### *Existing Criteria Pollutants*

Air pollutants monitored at these sites include CO, $NO_2$, ozone, PM–10, $PM^{2.5}$, and $SO_2$. Background concentrations of these pollutants define ambient air concentrations in the region and establish existing compliance with ambient air quality standards. The most representative monitored regional background concentrations available for criteria pollutants as identified by WDEQ Air Quality Division (AQD)(WDEQ-AQD, 2011) are shown in Table 2.4.

**Table 2.4. Background Ambient Air Quality Concentrations**

| Pollutant | Averaging Period | Measured Background Concentration (µg/m) |
|---|---|---|
| CO | 1-Hour 8-Hour | 1,026 798 |
| $NO_2$ | 1-Hour Annual | 75 9.1 |
| $O_3$ | 8-Hour | 126.1 |
| PM-10 | 24-Hour Annual | 56 13.5 |
| $PM_{2.5}$ | 24-Hour Annual | 9.2 4.2 |
| $SO^{2.5}$ | 1-Hour 3-Hour 24-Hour Annual | 19.7 11.5 4.2 3.8 |

## *c. Trends*

### *Criteria Pollutant Concentrations*

Criteria pollutant concentrations are measured by WDEQ at the Moxa Arch, Juel Spring, Hiawatha Green and Rock Springs monitoring stations located within the Planning Area. Pollutants measured at the Moxa Arch station include nitrogen oxides (NOx), $O_3$, $SO_2$, and PM-10. Pollutants measured at the Juel Springs station include NOx, ozone, and PM-10. Pollutants measured at the Hiawatha Green station include NOx, ozone, and PM-10. Since 1983, coarse particulate matter with a diameter between 10 and 2.5 microns (PM-10) has been measured at the Rock Springs monitoring station. Data at the Rock Springs site do not exhibit any significant increasing or decreasing trend for PM-10 over the period of record from 2000 to 2010, and ambient concentrations are well below the PM-10 NAAQS.

In March 2008 the EPA promulgated a new NAAQS for ozone. The ozone standard was lowered from 0.08 parts per million (ppm) to 0.075 ppm based on the fourth highest 8-hour average value per year at a site, averaged over 3 years. The WDEQ-AQD evaluated whether a nonattainment area should be designated because of monitored ozone data in the Upper Green River Basin (UGRB). The AQD recommended that the UGRB be designated as nonattainment for the ozone NAAQS. The AQD based this recommendation on a careful review of the circumstances surrounding the incidence of elevated ozone events. Elevated ozone in the UGRB is associated with distinct meteorological conditions. These conditions have occurred in February and March in some (but not all) of the years since monitoring stations began operation in the UGRB in 2005.

On April 30, 2012, Wyoming received a letter from the EPA designating Sublette County and parts of Lincoln and Sweetwater counties as nonattainment for ozone. The nonattainment designation for the UGRB is effective July 20, 2012, in accordance with the EPA determination published May 21, 2012.

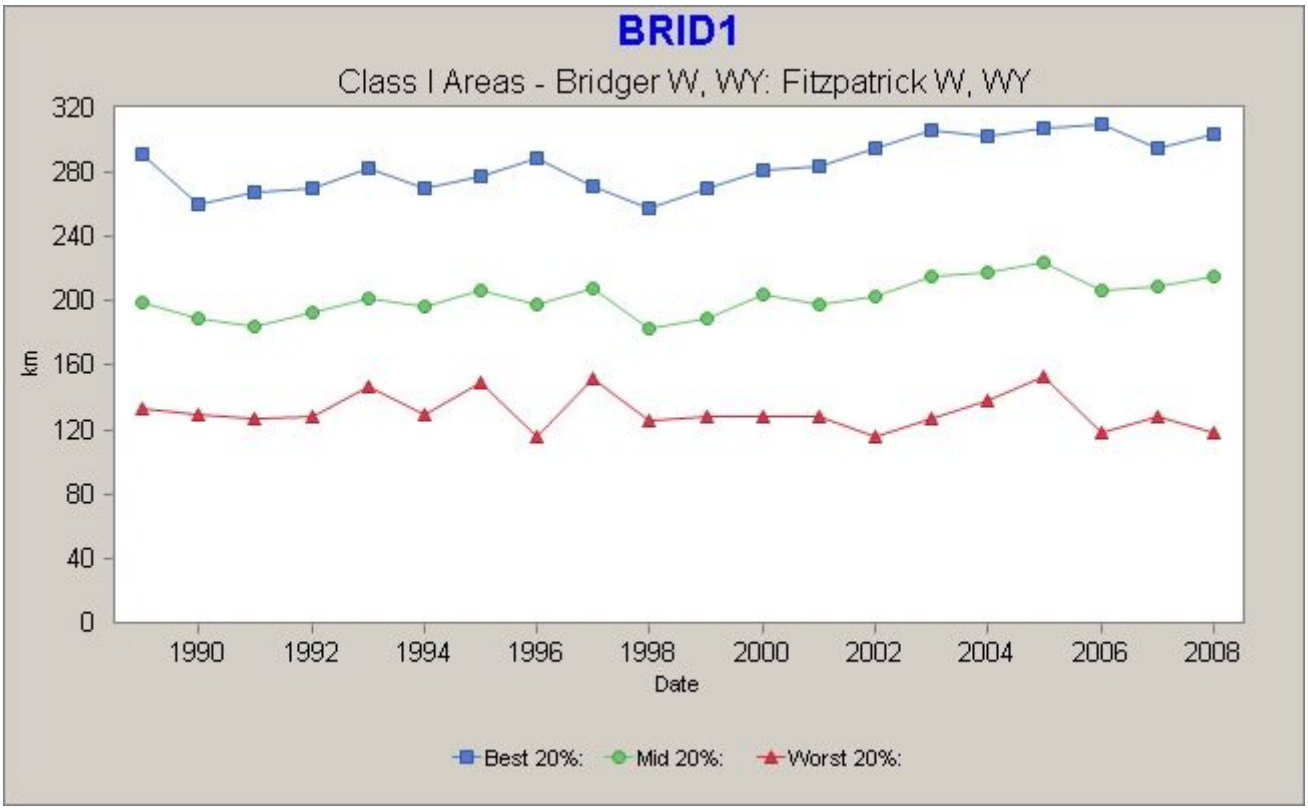
Ambient monitoring data summary supplied by WDEQ shows that ozone concentrations upwind and downwind of the Planning Area are often at 85 percent of the current ozone NAAQS. Although only limited ozone monitoring data from stations located within the Planning Area are currently available, preliminary data for the Juel Spring site show typical background 8-hour ozone concentrations of approximately 50 ppb but hourly concentrations have exceeded 75 ppb on at least three occasions since the station began operating (WDEQ). Preliminary 8-hour ozone data for the Moxa Arch site show background concentrations of 50 to 55 ppb but concentrations have approached 75 ppb on several occasions during its first year of operation (WDEQ).

The conclusion to be drawn from the ozone monitoring data is that elevated levels of background ozone concentrations exist within the Planning Area. Background ozone levels are at 85 percent of the ozone NAAQS and on occasion, approach or exceed the NAAQS. In addition to ozone concentrations at the upwind (Murphy Ridge) monitor tend to be lower, with fewer values exceeding the current ozone standard than at the downwind monitor (Wamsutter), indicating that local sources of air pollutant emissions are contributing to elevated ozone level. Background concentrations of sulfur dioxide, nitrogen dioxide, and carbon monoxide are well below the applicable NAAQS and WAAQS based on available monitoring data.

***Visibility***

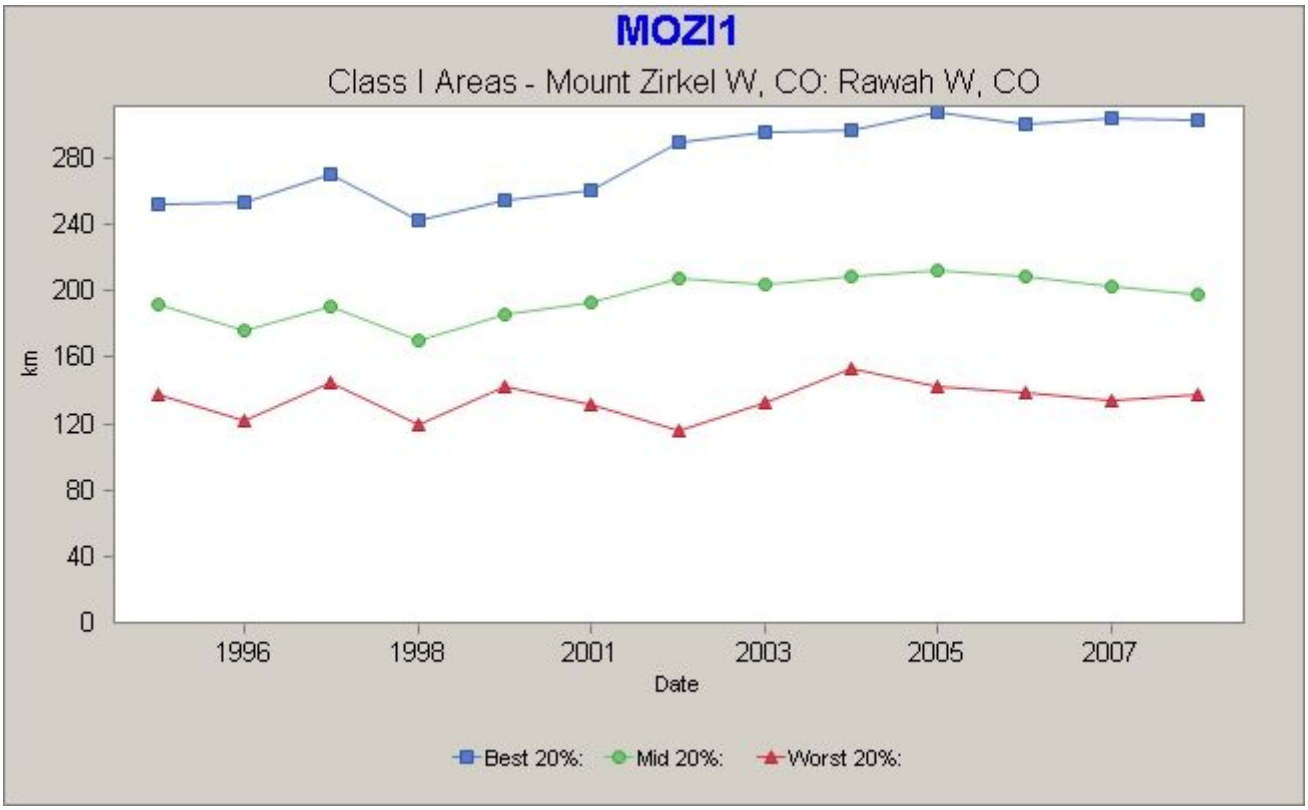
The IMPROVE monitoring program measures pollutants that contribute to visibility impairment, namely sulfate and nitrate aerosols, organics, elemental carbon, and soil. There are six IMPROVE visibility monitoring stations within Wyoming and several in the surrounding states. There are no IMPROVE monitoring sites located within the Planning Area; however, the Bridger Wilderness and Boulder Lake sites are located approximately 30 miles north of the Planning Area, and the Mount Zirkel Wilderness site is located in Colorado, approximately 50 miles to the south east.

Figure 2.2 displays the visibility monitoring results from the Bridger Wilderness Area in terms of standard visual range (SVR) in kilometers. SVR is the farthest distance at which an observer can see a black object viewed against the sky above the horizon; the larger the SVR, the cleaner the air. Visibility conditions can be measured in SVRs (miles).Visibility within the Planning Area is considered very good. Historical data from the Bridger site indicates there have been short periods of degradation of visibility, but overall there is a very slight trend in improved visibility for the 20 percent best visibility measurements and the mid 20 percent. The trend for the worst 20 percent visibility measurements remains flat over time. Data collected for the Mount Zirkel Wilderness area show an almost 40 km improvement in visual range for the best 20 percent of visibility measurements since 1994 (Figure 2.3). The mid and worst 20 percent visibility measurements show little to no improvement over time for this site.




**Source: IMPROVE Monitoring Program, http://views.cira.colostate.edu/web/Trends/**

**Figure 2.2. Standard Visual Range (kilometers)—Bridger Wilderness Area**




**Source: IMPROVE Monitoring Program, http://views.cira.colostate.edu/web/Trends/**

**Figure 2.3. Standard Visual Range (kilometers)—Mount Zirkel Wilderness Area**

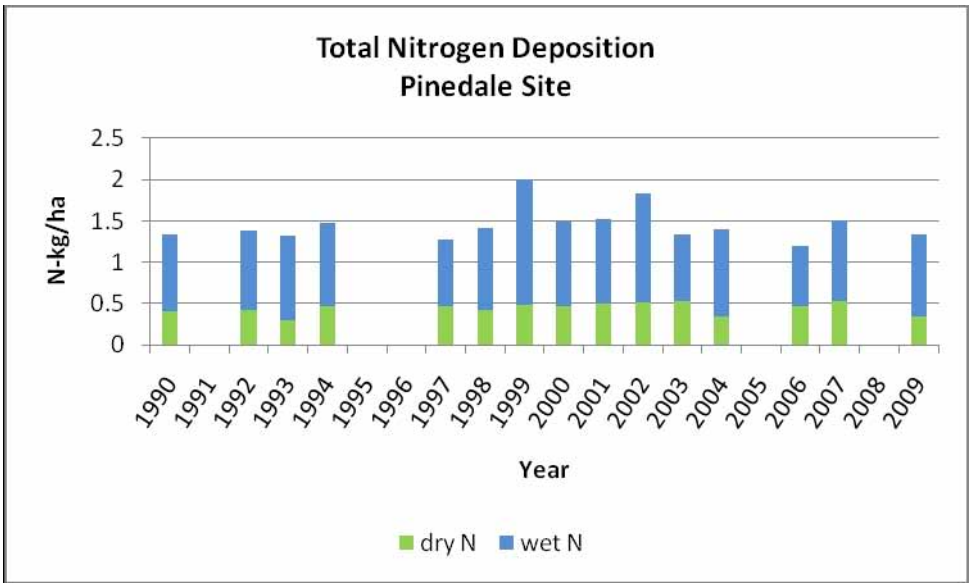
### *Atmospheric Deposition*

The closest total deposition monitoring stations are the CASTNet sites located near Pinedale, Wyoming, north of the Planning Area in the Bridger Wilderness, and the Centennial site located east of the Planning Area in the Medicine Bow National Forest. These monitoring stations measure dry deposition of nitrogen and sulfur compounds. Collocated at these two sites are NADP monitoring stations that measure wet deposition of nitrogen and sulfur compounds. Wet and dry deposition data are aggregated to give total nitrogen and total sulfur deposition values.

The BLM has compiled currently available research data on critical load values for Class I areas in the vicinity of this Planning Area. A critical load threshold is essentially a level of atmospheric pollutant deposition below which negative ecosystem effects are not likely to occur. These thresholds are typically given in units of mass per area per time such as kilograms per hectare per year (kg/ha/yr).

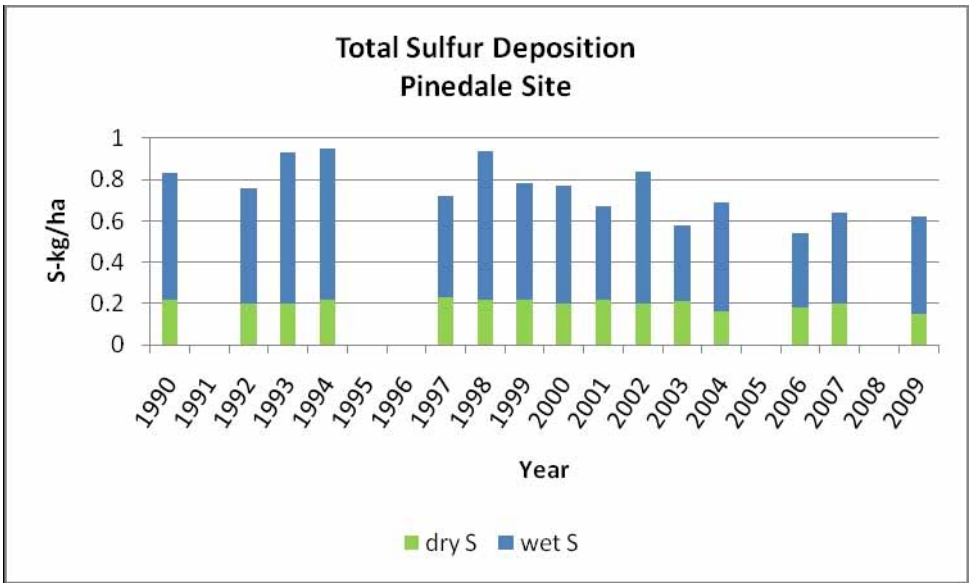
Figures 2.6 and 2.7 show nitrogen and sulfur deposition data, respectively, for the Pinedale CASTNet and NADP site and Figures 2.8 and 2.9 show the data for the Centennial CASTNet and NADP site. The trend for nitrogen deposition data has remained fairly stable over time at both sites. Nitrogen deposition at the Pinedale site is well below the critical load range. However, the nitrogen deposition at the Centennial site has reached the lower end of the critical load range. Average nitrogen deposition at Centennial (2.9 kg/ha/yr) downwind of the Planning Area is almost twice that at Pinedale (1.4 kg/ha/yr) upwind of the Planning Area, indicating that emission

sources in the Planning Area may be contributing to nitrogen deposition in the Medicine Bow National Forest. Sulfur deposition at both locations is well below the critical load range, with an average deposition rate at Pinedale of 0.8 kg-S/ha/yr and 1.3 kg-S/ha/yr at Centennial. Sulfur deposition at Centennial is consistently higher than at Pinedale.



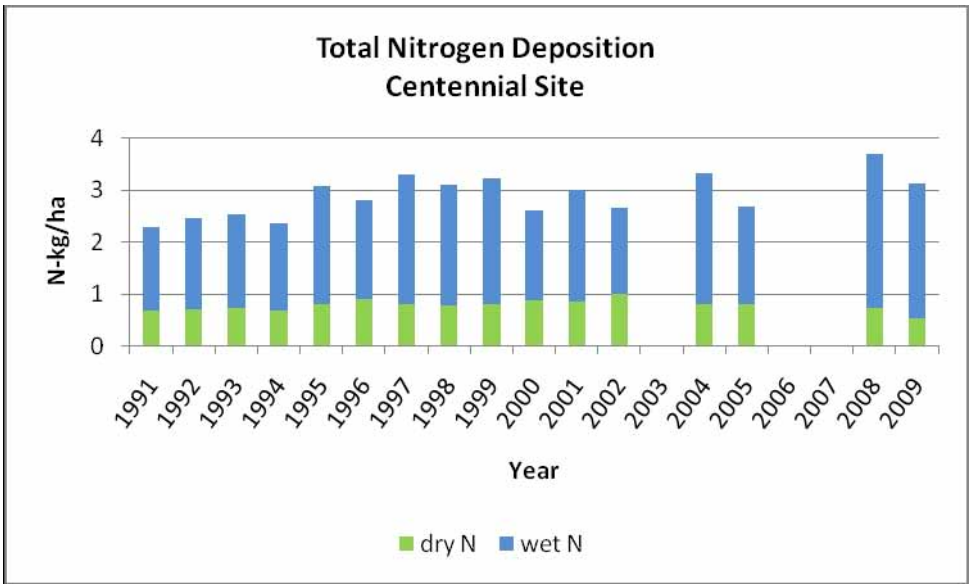

**Source: EPA, http://java.epa.gov/castnet/**

**Figure 2.4. Total Nitrogen Deposition—Pinedale Wyoming, Site**



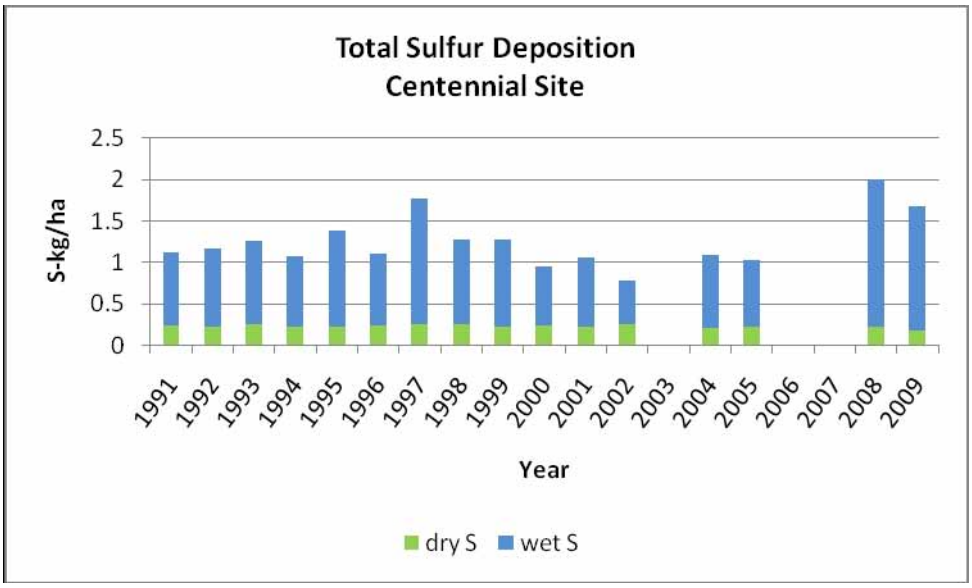

**Source: Source: EPA, http://java.epa.gov/castnet/**

**Figure 2.5. Total Sulfur Deposition—Pinedale, Wyoming, Site**




**Source: EPA, http://java.epa.gov/castnet/**

**Figure 2.6. Total Nitrogen Deposition—Centennial, Wyoming, Site**




**Source: EPA, http://java.epa.gov/castnet/**

**Figure 2.7. Total Sulfur Deposition—Centennial, Wyoming, Site**

## *d. Forecasts*

### *Climate*

Ongoing scientific research has identified the potential impacts of greenhouse gas (GHG) emissions (which include carbon dioxide [$CO_2$]; methane [$CH_4$]; and nitrous oxide [$N_2O$]) on

global climate. Through complex interactions at global scales, these GHG emissions cause a net warming effect of the atmosphere, primarily by decreasing the amount of heat energy radiated by the Earth back into space. Although GHG levels have varied for millennia, recent industrialization and burning of carbon sources have caused $CO_2$ and other GHG to increase dramatically globally and are likely to contribute to overall climatic change.

***Air Quality***

Air quality in the Planning Area is generally good. However, ambient concentrations of ozone are at elevated levels. Atmospheric deposition of nitrogen compounds downwind of the Planning Area are at a level of concern. EPA has proposed a revised NAAQS for ozone that will lower the current standard in the range of 60 to 70 ppb. Projected increases in oil and gas development and mining activities within the Planning Area will contribute to increases in emissions of ozone-forming pollutants as well as nitrogen compounds, GHGs, and hazardous air pollutants. Changing regulatory requirements and increased industrial activity will pose significant challenges for the BLM to minimize air quality impacts from its management activities and project authorizations.

### *e. Key Features*

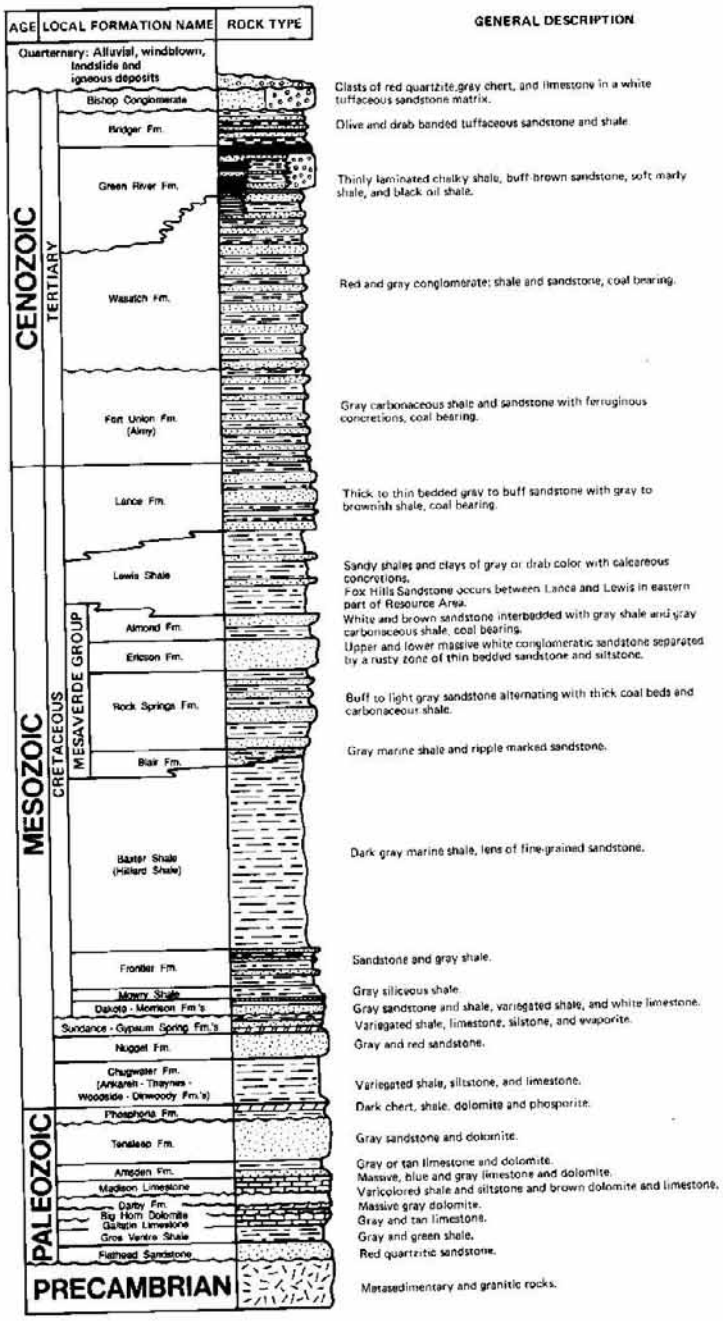
Key features of air quality resources are concentrations of criteria pollutants, hazardous air pollutants, GHGs, visibility impairing pollutants, and atmospheric deposition pollutants. Key features of climate include wind speed and direction, temperature, and precipitation.

## 2.1.2. Geology

### 1. Regional Context

Most of the Planning Area lies within a broad region of subdued relief that has been referred to as the Wyoming Basin physiographic province (Fenneman, 1931). Portions of this physiographic province lie partially or entirely within the boundary of the Planning Area. They include the Green River, the Great Divide, the Washakie Basins, and the Rock Springs Uplift. This province is made up of high plains and plateau areas and is bordered by mountain ranges and major uplifts of the Central Rocky Mountain Province. The southern end of the Wind River Range extends into the Planning Area on its northeast border. Surface features reflect erosion by wind and water in an arid, cold-temperature environment. In some instances, these features have been modified by faulting or volcanic activity. For more information on the regional context, see the paleontology section of this document.

## Historical Geology




**Generalized Stratigraphic Nomenclature Chart**
**Green River Planning Area**

**Figure 2.8. Stratigraphic Nomenclature Chart**

The Precambrian era is represented in outcrops of granitic rocks in the Wind River Range (which has been dated at 2.6 billion years) and metamorphic rocks that may be more than 3 billion years old.

For most of the Paleozoic era, the Planning Area lands were situated just east of a marine basin located close to the equator. They were frequently covered by warm shallow seas and were predominately the site of carbonate deposition with a high percentage of clastic sediment. Depositional sequences were interrupted by several withdrawals of the sea, followed by periods of erosion. The boundary between the marine basin and the shallow water mirrors the present arcuate trend of the Thrust Belt, which lies just west of the Planning Area.

The area was emergent following the Precambrian era and was gradually covered by a sea extending from the west, depositing first the Flathead Sandstone (of Middle Cambrian age), then the Gros Ventre Formation shales (of Middle to Upper Cambrian ages) that get thinner as they extend eastward across the region, and then finally the carbonate sequences of the Gallatin Limestone (of Upper Cambrian age).

Additional sequences may have been deposited over the region, but were then removed by erosion after the withdrawal of the sea. As a new sea began to invade the continent, the Bighorn Dolomite (of Upper Ordovician age) was deposited. This sequence of rock strata is only found in the northwest part of the Planning Area. Deposition in a near-shore marine environment persisted for a long period of time, but a new period of withdrawal of the sea was followed by an extensive period of erosion that removed all of the sediments deposited after the Bighorn Dolomite.

As the marine waters again moved into the area, they deposited carbonate sediments (Darby Formation, of Upper Devonian age) in a shallow marine setting. The Darby was probably deposited in the Great Divide and Washakie Basin areas, but later removed by erosion. The overlying Madison Limestone (of Lower to Upper Mississippian ages) is an open marine environment in its lower part and shows evidence of a shallower sea environment being deposited in the west. There is evidence of erosion taking place on the top of the Madison after its deposition.

Above the Madison, the Amsden Formation (of Upper Mississippian, Lower Pennsylvanian, and Middle Pennsylvanian ages) contains a widespread sandstone unit, which is present at its base, and then overlain by a middle unit of red shale, siltstone, and sandstone, which may have been derived from emergent areas of the Precambrian rock sequences in southeastern Wyoming. There is further evidence for this uplift, as seen by the presence of an erosion surface occurring within the Amsden. The upper part is made up of an interbedded limestone, dolomite, siltstone or sandstone, and gray shale (Petersen 1988).

Above the Amsden lies the Tensleep Sandstone (of Middle Pennsylvanian, Upper Pennsylvanian, and Permian age). The last major marine invasion spread across the area after deposition of this sandstone. During the deposition of the overlying Phosphoria Formation (of Permain age), a deep marine basin persisted to the west, and shallow marine conditions persisted across the Planning Area to a shoreline in central Wyoming. East of the marine basin, the Phosphoria Formation carbonate deposition predominated over a broad zone that extended across the Planning Area. Intertonguing sandstones in the carbonate sequences represent clastic shoreline sands being transported into the northern part of the Planning Area.

During the Mesozoic era, the North American continent gradually drifted into the northern latitudes. Most of the Mesozoic rocks within the Planning Area were deposited in a northern subtropical environment. A mountain building event that occurred in the Thrust Belt and other

mountain building in the rest of the state had a profound effect during the Late Mesozoic and the Early Cenozoic times.

An erosion surface separates the Paleozoic and Mesozoic rocks, indicating that the region was emergent at that time. Later, marine conditions returned to the area, depositing the Dinwoody Formation (of Lower Triassic age). Intertonguing of marine carbonates and clastics within the Dinwoody reflect sea level fluctuations during deposition. The Dinwoody intertongues with continental red bed of the Chugwater Formation (of Lower and Upper Triassic age) as the sequences of the Chugwater are traced to the southeast. The Chugwater Formation in most of the Planning Area is equivalent to the Woodside Shale, the Thaynes Limestone, and the Ankareh Formation, as described in the Over Thrust Belt. Marine sedimentation persisted with later deposition of carbonate and siltstone units of the Thaynes Limestone and the lower Ankareh Formation.

Regional uplift then began and permanently changed the depositional patterns that had dominated the region. The region became emergent, and a widespread erosion surface separated the lower Ankareh marine sequences from the continental deposits of the upper Ankareh. Terrestrial conditions persisted, after the Ankareh deposition as shown by widespread deposits of the Nugget Formation (of Upper Triassic or Lower Jurassic age). The Nugget Sandstone is a vast blanket of sand that was deposited in coastal dunes.

Overlying the Nugget Sandstone are limestones and shales of the Gypsum Spring Formation (of Middle Jurassic age) that were deposited when marine conditions returned. The Gypsum Springs changes to the east and south into red silty shales and anhydrites. As the sea retreated, interbeds of marine and non-marine sandstones and siltstones of the Sundance Formation (of Middle and Upper Jurassic age) were deposited. After the sea's withdrawal, the lower part of the Morrison Formation (of Jurassic age) was deposited.

During the Cretaceous age, episodic eastward faulting associated with mountain building continued in the Over Thrust Belt. Sediments derived from faulting accumulated in a depression extending across the Planning Area. Deposition was controlled by the interaction between mountain building pulses of clastic sedimentation and a fluctuating sea level. These deposits are thereby made up of clastic marine, transitional marine, and non-marine units. In contrast to earlier periods when sedimentation occurred in a shallow sea located generally to the east of the Planning Area, with clastic source areas located generally to the west.

The Upper Morrison Formation of Early Cretaceous age was laid down as a sequence of river and lake deposits. Thrust fault activity to the west initiated several periods of accelerated deposition of clastic sediments in this area. During times when faulting slowed, fine-grained clastic sediments were deposited in a brackish coastal region or marine environments. These units make up the Dakota Formation and the Mowry Shale. The Frontier Formation overlies the Mowry and is made up of predominantly river deposits in its lower part and mixed river and marine in its upper parts. There were two delta complexes that delivered Frontier sediment into the Planning Area. A western delta drained the Thrust Belt, and a northern one drained the area of the present day Wind River Range.

The next marine incursion came from the east across the region and resulted in the deposition of the thick Baxter (Hilliard) Shale. Movement on the Rock Springs Uplift began during the deposition of the Baxter. The uplift continued to be a positive area during the deposition of the Blair Formation. The overlying Rock Springs Formation was deposited along a northeast-southwest shoreline that transected the uplift area. The continental part of the formation

occupied the northwest part of the uplift and is represented by river sandstone, carbonaceous shale, and coalbeds. Southeastward these rocks undergo a change to beach and barrier island sands, and offshore sands and marine shale.

The overlying Ericson Sandstone is a river deposits, derived predominantly from the Thrust Belt and in part, from the newly uplifted Moxa Arch just west of the Planning Area and deposited across the Rock Springs Uplift area. The Almond Formation marks a change from stream sedimentation of the Ericson to a swampy lowland deposition. Throughout much of the uplift, the Almond Formation is divisible into a lower part, including floodplain, channel, swamp, and lake deposits, and an upper sequence of marsh, mudflat, lagoonal-bay, barrier beach, and offshore marine deposits.

The Lewis Shale represents the last major invasion of a seaway into the area and covered only the area from the Rock Springs Uplift, eastward. Then a nearly complete withdrawal occurred during the deposition of the overlying Lance Formation. This depositional phase was brought to an end by mountain building and ultimate complete withdrawal of the seas. By the end of the era, the North American continent was approaching its present day latitudes.

At the onset of the Cenozoic era, the Thrust Belt was in a late stage of development, and the ancestral structures of the Uinta Mountains, Wind River Range, Sierra Madre Range, and the Granite Mountains had formed on the margins of the Green River, Great Divide, and Washakie Basins. These basinal areas were then largely filled with river and lake deposits, nearly burying these mountain ranges. Volcanism to the north contributed large amounts of volcanic sediments to these basins. The climate started out warm-humid to arid-subtropical but then gradually cooled. Finally, a period of large-scale regional uplifts re-excavated the region and brought about the present day relief.

During the Tertiary era, the basin floors and slopes of the surrounding mountains were probably heavily forested and well populated with mammals, reptiles, and other vertebrates. Streams flowing from the mountains distributed sediments in the flood plains that were on the basin floor. The low-lying areas were occupied by swamps, ponds, and lakes. Sediments are represented by the Fort Union (of Paleocene age) and the Wasatch Formation (of Eocene age). After their deposition, the Lake Gosiute system developed, laying down sediments of the Green River Formation. The climate changed markedly to more arid cycles, and primates and other mammals, as well as crocodiles and turtles, began to disappear from the area.

The onset of volcanic activity in the Absaroka-Yellowstone region resulted in large amounts of volcanic debris being introduced by streams into these basins. This influx of sediment, coupled with the decline in mountain-building activity, caused the basin in the area to be filled. Late Tertiary time brought about the end of this depositional cycle with a major uplift of the Rocky Mountains. With the uplift, streams that had been flowing southward across the plain-like surfaces began to cut downward. These sediments are represented by the Bridger Formation (Middle and Upper Eocene), the Fowkes Formation (Middle Eocene to Upper Miocene), the Norwood Tuff (Upper Eocene to Lower Oliogcene), the Bishop Conglomerate (Oliognece), Browns Park Formation (Oligocene and Miocene), the Arikaree Formation (Miocene), and the South Pass Formation (Miocene and Pliocene). During the Quaternary, there was a series of volcanic extrusions that resulted in the formation of three basic type of volcanic rocks: Wyomingite, Orientate, and Madupite. These are found in scattered groups of lava-capped buttes and mesas that are located near the north end of the Rock Springs Uplift. These rocks make up Steamboat

Mountain, Boars Tusk, Pilot Butte and several other buttes. They also formed the Leucite Hills. Radiometric dating indicates an age of 1.25 million years.

During the Quaternary period, the older structures were gradually worn down and then exposed. The surrounding mountains were exhumed and the basins re-excavated to their present forms. The high mountains were glaciated several times during the Ice Ages. Some of the glaciers reached the edge of the basin and deposited sediments around its margin. Local volcanic centers developed, as well as Sand Dune fields such as the Killpecker Dune Field.

***General Geology***

The Green River Basin is a large structural and topographic basin drained by the Green River and its tributaries. In the north, this river flows in a broad shallow valley, while to the south, it becomes a canyon that reaches a depth of 1,000 feet. The floor of the basin lies between 6,000 and 8,000 feet above sea level and is a primarily flat to gently rolling plain. Tertiary sediments underlying the basin are predominantly soft to weak, with only a few beds that are more resistant. Where the rocks are flat-lying, the resistant beds cap low, flat tablelands and buttes.

The outer margin of the Green River Basin is defined by a series of escarpments formed by tilted beds of the Green River and Wasatch Formations. North of the town of Green River, the main escarpment forms a bluff known as White Mountain.

The flat-lying strata of the Green River Basin exert little geologic control on the drainage, resulting in a dendritic drainage pattern. Gravel terraces have developed along most of the major streams, and their elevations range from 5 to 10 feet above the river level to as much as 500 feet. The lowest terraces are slightly modified by erosion and are younger than the last glacial period. Higher and older terraces formed as a result of fluctuations in sedimentation brought on by successive glacial advances and retreats. They are progressively more modified by erosion and are commonly cut by canyons and deep ravines so that only scattered remnants remain. Most gravel pits in the Planning Area have been located on these terraces.

The widespread erosion that has shaped the floor of the Green River Basin has resulted in the development of considerable areas of intricately dissected badlands. Badlands are best developed in the soft, weak, mudstone of the Bridger Formation, which is relatively impervious and precludes infiltration of rain water. As a result, runoff is concentrated on the surface, collecting as overland flow, which erodes intricate networks of rills and gullies. As the gullies deepen, the ground surface becomes highly dissected.

The Moxa Arch lies in the western part of the Green River Basin. It is a large anticline that extends northward from the north flank of the Uinta Mountains at the Bridger Lake Field to the Big Piney-LaBarge Field. Folding of the arch involved Precambrian basement rocks, and subsurface data indicate that the main folding event occurred in the late Cretaceous, causing erosion of the older Mesaverde rocks on the crest of the arch. Younger Cretaceous and Tertiary rocks were then deposited across the unconformity and are not folded.

The Pinedale anticline in the northern Green River Basin is a large structure, being approximated 45 miles in length and 6 miles in width. The flanks appear to be relatively symmetrical, but the west limb may be reverse faulted. The structure probably formed during the uplift of the Wind River Mountains. Only the southern end of the anticline lies within the Planning Area.

The vast majority of the surface rocks in the Green River Basin are uncut by faults. However, they are locally faulted around the margins of the basin. The Continental Fault is approximately 55 miles long. It begins east of the Planning Area, passes between South Pass City and Oregon Buttes, and then passes out again near its western end. The Henry's Fork Fault is about 20 miles long, with most of its trace lying south of the Planning Area, in Utah. A segment about 4 miles long lies in T. 21 N., Rs. 108 and 109 W. The fault may have had as much as 12,000 feet of vertical movement (Hansen, 1969).

The Rock Springs Uplift is a broad, elliptical anticline that began to form after the Lance Formation was deposited in the late Cretaceous. Erosion has uncovered a sequence of Tertiary and Upper Cretaceous rocks. The rocks exposed on the uplift are cut by a number of faults, and data indicate that the west flank of the uplift is bounded by a thrust fault that does not reach the surface.

The crest of the Rock Springs Uplift is occupied by a large depression, called the Baxter Basin, which is carved into the soft weak rocks of the Baxter Shale. The Baxter Basin is about 15 miles wide and 40 miles long, and its floor is primarily a flat, featureless plain interrupted by considerable expanses of dissected badlands. This basin is enclosed by a series of concentric ridges formed by tilted, relatively resistant sandstone beds exposed on the flanks or the uplift. The ridges are separated by valleys that are eroded into softer beds of shale and coal.

Bitter Creek, a tributary to the Green River, flows entirely across the uplift in a westerly direction. It cuts through notches almost 1,000 feet deep on the west flank of the Rock Springs Uplift.

The Leucite Hills, at the north end of the Rock Springs Uplift are the remnants of a Quaternary volcanic field. They form a series of buttes that rise precipitously above the surrounding plains. Steamboat Mountain and South Table Mountain are buttes capped with high potassium lava flows. Boars Tusk, just northwest of the northern end of the uplift, is the remnant of a volcanic neck, as is Pilot Butte, the westernmost volcanic outcrop.

At the far northern end of the Rock Springs Uplift is an extensive dune field called the Killpecker Dunes. This dune field is at the western end of a narrow belt of dunes that stretches 150 miles to the east. The outer margins of the field are occupied primarily by dormant dunes while active dunes are found in the central portion of the field.

The Great Divide Basin is a structural basin underlying a topographic and internally drained basin. The Continental Divide splits near the southeast end of the Wind River Range and converges again at the north end of the Sierra Madre Mountains. Lake, swamp, and stream deposits of Tertiary age make up most of the bedrock and surficial deposits are predominantly soft and weak, causing the basin to be nearly flat and featureless, with occasional intermittent lakes and dry flats in the lowest areas. Low hills and ridges form the high ground that marks the two branches of the Continental Divide. Altitudes range from 6,500 to 7,500 above sea level.

The largest, most conspicuous features of the Great Divide Basin are dry-lake flats. These broad shallow depressions are the sites of former lakes that are being filled in by debris washed in from the surrounding highlands. Isolated sand and gravel terraces deposits with at least eight different terrace levels have been recognized. The youngest features are the Killlpecker Dunes, which extend across this basin.

The Wamsutter Arch is a low-relief anticline, extending eastward from the Rock Springs Uplift and separates the Great Divide and Washakie Basins.

The Washakie Basin is a structural and topographic basin south of Interstate 80 and east of the Rock Springs Uplift. The overall configuration of the basin is that of a very broad, roughly square bowl shape with an outward facing escarpment, developed on the Laney Shale member of the Green River Formation. On the west, the escarpment is known as Kinney Rim, and on the north, it is known as Laney Rim. Altitudes above sea level range from 6,100 feet in the drainage to 8,700 feet on Pine Butte.

Lake and river deposits of Tertiary age are exposed in badlands such as Adobe Town and on ridges across the Washakie Basin. Younger sediment and sand dunes fill the stream valleys and cover some areas of low relief. Only intermittent streams drain this basin. Most, such as Shell Creek and Sand Creek, are tributaries from the Little Snake River in Colorado. The north end of this basin drains into Bitter Creek, a tributary of the Green River.

The dominant feature of the Southern Wind River Range in the Planning Area is a very gently dipping erosion surface composed of Tertiary sediments. This surface blends the Precambrian core of the range with the Rock Springs Uplift and Green River Basin to the south and southwest. Relief in these foothills is 300 to 500 feet. The Sweetwater River and its tributaries drain the area.

This range is one of the most spectacular of the Precambrian uplifts in the state. It is basically a huge block of granite that has been moved by faulting south-westward over the Green River Basin. This fault, called the Wind River thrust fault, is covered by sediments on its southern end where it extends into the Planning Area.

## 2. Resource-Specific Information

### *a. Indicators*

#### *Oil and Gas Occurrences*

Figure 2.11 shows that most of the Field Office is consider as having a High Potential for Conventional Oil and Gas occurrence. The figure also shows that the only area that is considered to have a Low Potential for Conventional Oil and Gas is the Front Range of the Wind River Mountains.

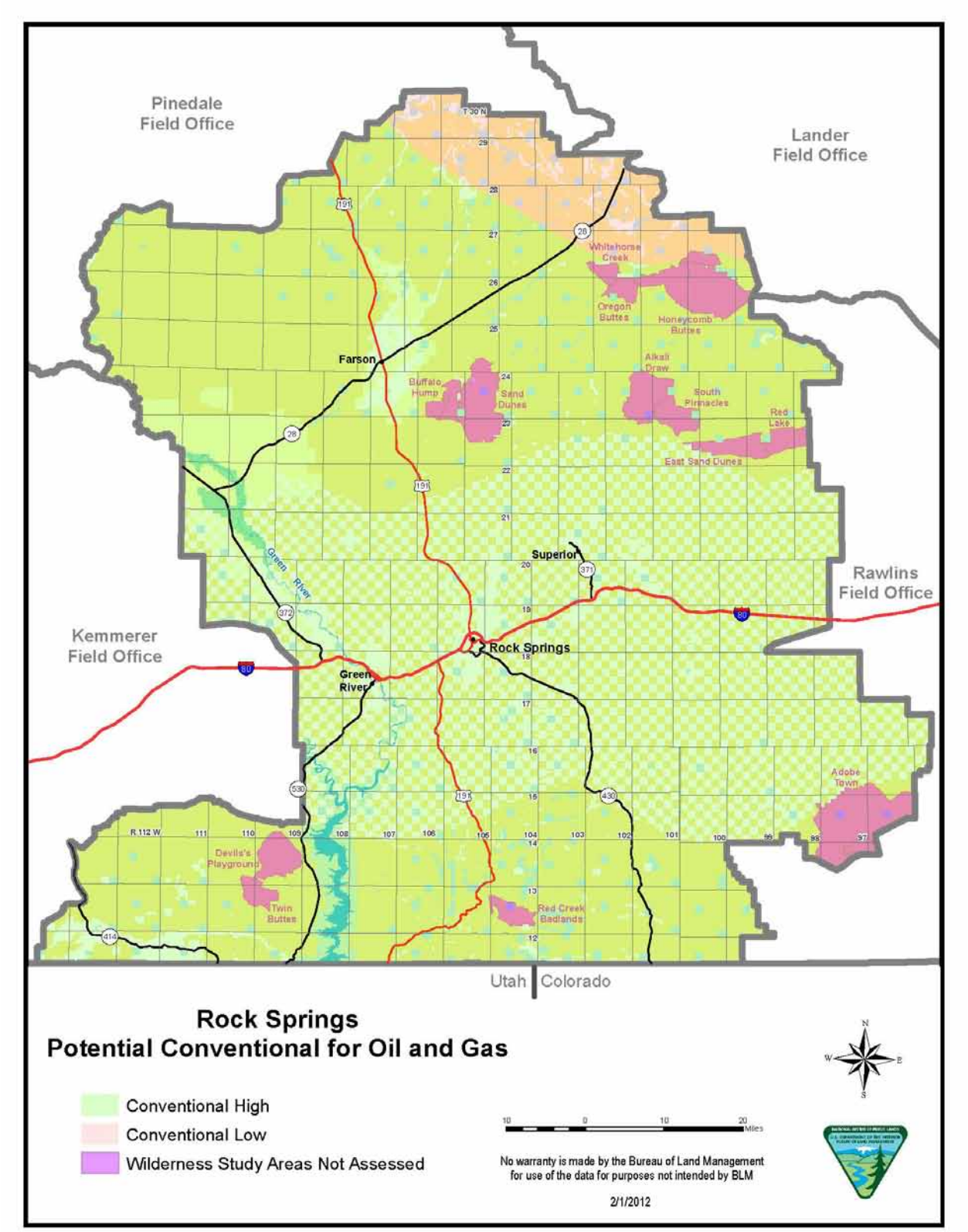



**Figure 2.9. Potential for Conventional Oil and Gas**

Coalbed Natural Gas: Around the Rock Springs Uplift and to the east in the Paleocene beds, there is a High Potential for Coalbed Methane. For the rest of the Rock Springs Field Office, there is a Low Potential. With newer and better technology these potentials could rise.

Figure 2.10 Potential for Conventional Coalbed Natural Gas shows the areas of High Potential and Low Potential for Coalbed Natural Gas. Once again note that the noted WSAs were not assessed.

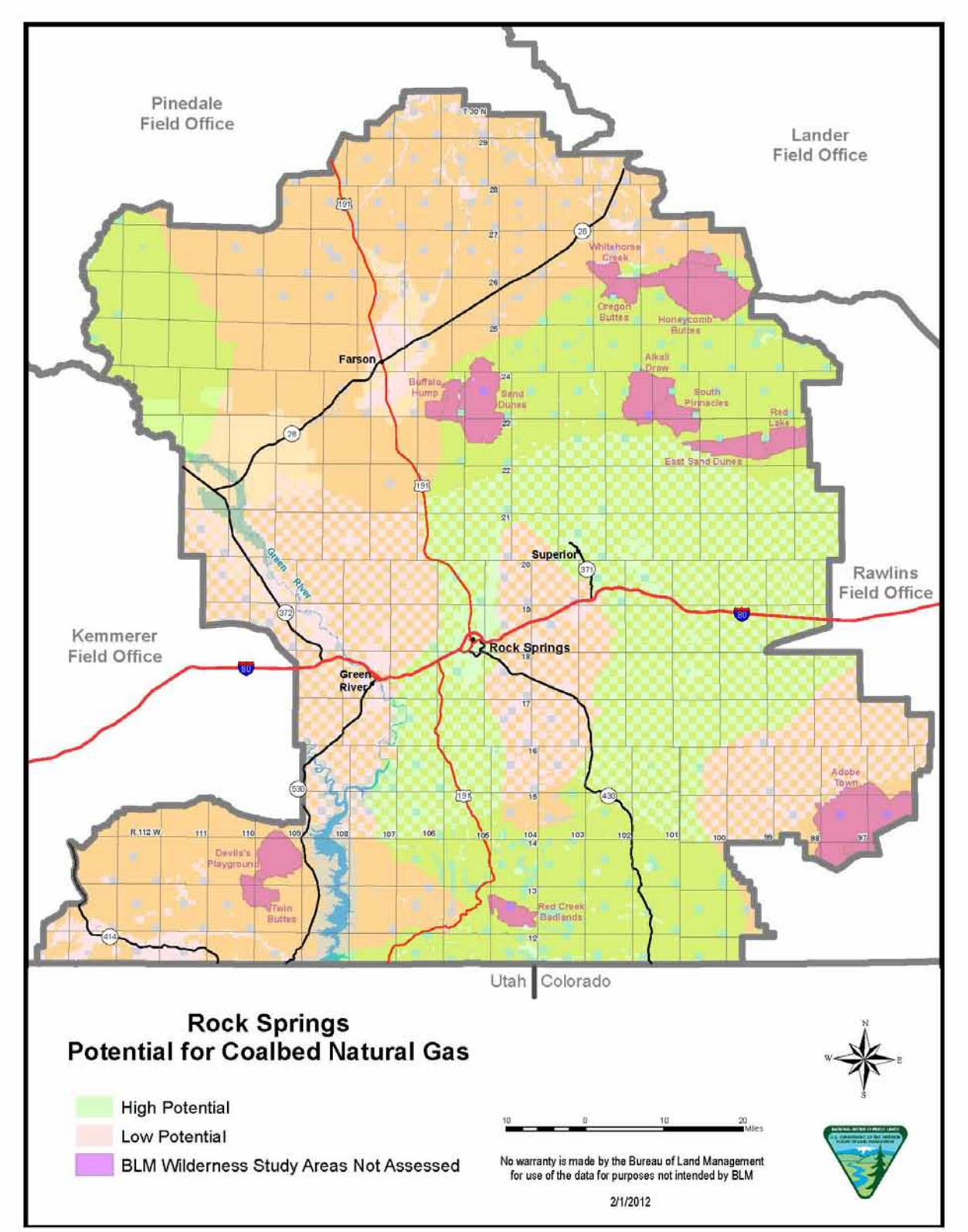



**Figure 2.10. Potential for Conventional Coalbed Natural Gas**

Between 1900 and 1916, a number of shallow wells were drilled on the Rock Springs Uplift in search of oil. A number of oil and gas shows were encountered but no wells were productive. Additional work began in the 1920's with the first discovery being the South Baxter Basin field in August 1922. The Ohio Oil Company tested the Dakota Formation, recovering 36 million cubic feet of gas per day. Drilling activity has occurred almost continuously since this discovery had resulted in the location of a large number of gas and oil fields along the axis of the Rock Springs Uplift and to the east, beyond the Planning Area boundary. Baxter Basin South is still productive and had produced 136.5 billion cubic feet of gas and 5,934 barrels of oil through 1992.

Additional fields discovered along the crest of the Moxa Arch near the present-day town of LaBarge led to activity that eventually extended in, to the Planning Area. The first Moxa Arch discovery within the Planning Area was the Church Buttes gas field, a Dakota Formation discovery, by Mountain Fuel Supply Company in 1946. Initial production was 12.5 million cubic feet of gas per day and 146 barrels of condensate. The Church Buttes field had produced 401 billion cubic feet of gas and 490,720 of oil through 1992.

Prior to 1926, no exploratory oil and gas well had been drilled in the Washakie Basin. With the discovery of natural gas at Hiawatha on the Wyoming-Colorado border, interest was kindled. The discovery well gauged 45 million cubic feet of gas per day from the Wasatch Formation. Subsequent exploratory activity resulted in the discoveries of major fields, mostly in Cretaceous rocks, at Canyon Creek in 1941, Table Rock in 1946, Trail and Desert Springs in 1958, Patrick Draw in 1959, and at Jackknife Springs Field in 1972. Exploration and development continues today.

Crude oil and natural gas composed chiefly of hydrocarbon compounds are found primarily in sedimentary rocks. They are mostly confined to sediments of marine origin, although minor amounts have been found in freshwater sediments. Petroleum hydrocarbons are derived from organic matter of microscopic plant and animal origin. This is substantiated by the fact that the largest petroleum accumulations occur in sedimentary basins with widespread organic debris and that petroleum hydrocarbons have been found closely associated with little-altered organic matter.

The earliest formed petroleum compounds tend to be very heavy, viscous oils. With increasing temperature and pressure, the heavy oils are "cracked," forming lighter oils and natural gas. The lighter constituents are more mobile and may migrate away from the rocks containing the organic debris, called the "source rocks," into more porous and permeable rocks called "reservoir rocks." Oil and gas are "trapped" when they migrate to a place where further movement is barred by structural and/or stratigraphic features, such as faults, impervious beds, or others. Both source and reservoir rocks are widespread throughout the Planning Area as evidenced by the large number of fields so far discovered. In the Planning Area there is a high potential for the occurrence of oil and gas in economic amounts.

**Trapping Mechanisms**

The following are the most common trap types. A structural trap, as show in the Rock Springs Uplift, has a closure in which oil and gas accumulates after migrating up-dip through strata. An impervious cap rock seals the accumulations against further vertical movement while water generally underlies and confines the hydrocarbon accumulation against the cap rock. The anticlinal structure, possibly modified by faulting, typifies the structural trap in the Planning Area. Exposed structures are readily apparent and thus receive the earliest and most extensive exploration effort. Buried or subsurface structures are more difficult to locate, requiring detailed geophysical and geologic analysis.

Stratigraphic traps, as illustrated in the Red Hill and Patrick Draw areas of the Great Divide Basin, may depend upon a change in the amount of space between grains of sediment (porosity) and/or how well those spaces are connected (permeability) to block the migration of petroleum hydrocarbons, allowing an accumulation of hydrocarbons to develop. Changes in porosity and permeability occur as a result of depositional history, such as the deposition of sand bars and alluvial stream deposits, or the truncation of permeable strata with subsequent deposition of an overlying impermeable formation. They may also result from later alteration and metamorphism to form a porous, permeable rock or from mineral deposition in preexisting pores to form a permeability barrier. Stratigraphic situations, which may trap a hydrocarbon accumulation, are not apparent at the surface as in the case of the surface anticlines and in only a limited manner at indicated by geophysical data. Their discovery depends upon detailed and time-consuming geological study.

Many producing fields are aligned along two major anticlinal structures. These structures are the Moxa Arch in the Green River Basin and the Rock Springs Uplift. Fields in the Washakie Basin, Great Divide Basin, and on the low relief Wamsutter Arch separating these two basins are predominantly stratigraphically trapped. Other fields are being developed outside of these major producing areas. Most of the fields are producing primarily from the Cretaceous age sediments. A number of other younger Tertiary formation and older Mesozoic and Paleozoic age formations produce to varying degrees throughout the Planning Area.

Hydrocarbon accumulations on the Moxa Arch are formed by both structural and stratigraphic traps. Most of the pre-Tertiary production comes from buried structural traps and combination stratigraphic-structural traps that formed during Late Cretaceous deformation. The Arch persisted as a topographic feature during the early Tertiary. At this time, stratigraphic traps were formed in sands that were deposited across the platform.

Hydrocarbon-bearing structures occur as a series of closed anticlines aligned along the main axis of the Rock Springs Uplift. Faults cross many of the anticlines and commonly contribute to the formation of traps in the reservoir sands. Some of the fields on the flanks of the uplift are formed by stratigraphic traps. All the fields on the uplift are gas fields. Production is primarily from the Frontier Formation and, to a lesser extent, from the Dakota and other Cretaceous and Jurassic formations.

Most fields in the Washakie and Great Divide Basins produce from stratigraphic traps, although a few local structural traps are present. Production comes predominantly from Cretaceous age sediments, with a handful of fields producing from older sediments.

**Production History**

Hydrocarbons have been produced within the Planning Area since the 1920s. Easily mapped surface structures on the Rock Springs Uplift were located and drilled through the 1940s. These structures were gas prone, and gas resources were of minor interest in the country, so few wells were drilled. The industry was concentrating its resources in areas of the United States that were oil prone.

During the late 1950s, activity began to increase, mainly owing to improvements in exploration technology. These methods are useful for locating buried structures. Some of these structures were oil prone to the east of the Rock Springs Uplift, and their discovery set off a drilling boom through the 1960s. The 1970s and 1980s saw a drop and leveling off in the number of oil wells drilled. Much of the oil at relatively shallow depths has been discovered. Some oil discoveries

are being made, but the majority of oil wells drilled are infill development wells in previously discovered oil fields.

Over the past 40 years, the number of gas wells drilled has increased over each 10-year period. These drilling increases are due to improvements in technology, the recognition of the importance of stratigraphic traps that contain much of the Planning Area's gas, deeper drilling targets that favor gas over oil, and the increase in prices paid for gas. During the 1980s, more than four times as many gas wells were drilled as oil wells, indicating the increased importance of this resource. Drilling activity declined about 15 percent during the 1980s as a result of the rapid decline in oil prices beginning in 1983. This drilling decline was not as great as in most parts of the United States. Finding costs in the region have been low enough to continue to encourage drilling.

The number of plugged and abandoned wells declined 50 percent during the 1980s from the 1970s. This has been because the industry has been concentrating on development drilling and drilling the lower risk exploratory projects.

Gas wells usually produce from the Frontier (38.47 percent) and Dakota (21.97 percent) Formations or the Mesaverde Group (18.60 percent). The youngest gas producing formation is of Tertiary age, and the oldest formation is the Big Horn Dolomite. Oil wells are most often completed in a formation of the Mesaverde Group (64.88 percent) or the Tertiary (13.32 percent).

Oil wells produce from the same formations as do gas wells, with the exception of the Mowry Shale and the Big Horn Dolomite. Oil wells produce from formations that are predominately buried to shallower depths than formations that produce gas. About 86 percent of oil wells produce from the Mesaverde Group and younger rocks, while about 67 percent of all gas wells produce from rocks that are older and generally more deeply buried. Most of the oil wells tend to produce from shallower depths. About 82 percent of all oil wells produce from depths of less than 7,000 feet, while about 68 percent of all gas wells produce from greater depths.

About 111 fields have produced oil and/or gas within or partially within the Planning Area. Cumulative production has been more than 3 trillion cubic feet of gas and almost 170 million barrels of oil.

**Coal**

The Green River Coal Region covers all of Sweetwater County and most of the Planning Area. Coal was first described in 1852, and the growth of the coal mines came about in 1868, with the completed Union Pacific Railroad. The minable coal-bearing deposits are centered around the Rock Springs Uplift.

The coal-bearing Cretaceous and Tertiary rocks in the Planning Area were deposited adjacent to a shallow sea, in swamps and bogs, accumulating peat, which was later transformed into coal. From the late Cretaceous to late Tertiary, this area underwent periodic deformation and uplifting. Coal-bearing beds are currently tilted against the Rock Springs Uplift. Refer to Section 2.2.1.2 for additional information on coal.

**Sodium/Trona**

Discovery of sodium in the raw material trona came in 1938 from a wildcat oil well. Union Pacific later drilled four test holes, which led to an agreement with Westvaco Chlorine Products Company to develop a pilot plant and mine to produce soda ash. Processing problems were soon

solved and by 1954, plant capacity was 500,000 tons. Refer to Section 2.2.1.2 Solid Leasable Minerals for additional information on coal.

After Wasatch Formation sediments partially filled the basin, Lake Gosiute formed on the low, flat surface, existing for approximately 4 million years. The persistence of the basin during the lake's existence led to the deposition of a thick section of lake sediments, collectively termed the Green River Formation. Trona is found in abundance within the Wilkins Peak Member of the Green River Formation.

At one point during the deposition of the Wilkins Peak member, Lake Gosiute shrank greatly in size and had no outlet, causing the alkalinity of the lake to increase. The resultant sediments were saline and characterized by thick beds of trona or trona-halite and numerous other rare minerals interspersed with thin beds of oil shale, marlstone, claystone, trona or trona-halite, limestone, and tuff. The Wilkins Peak Member has a maximum thickness of about 1,300 feet in the southeastern part of the basin, thinning toward the margins. More than 40 trona and trona-halite beds have been recognized, with 25 of these beds exceeding 4 feet in thickness and most covering more than 100 square miles in aerial extent.

**Oil Shale**

Oil shale areas of interest in southwestern Wyoming lie within the Green River and Washakie Basins. These areas are presently withdrawn from locatable mineral entry to protect the oil shale resource. Although the oil shales within the basins are of lesser quality than Colorado oil shales, they are nevertheless as important; some of these oil shale beds contain several million barrels of oil per square mile.

Oil shales occur in the three members of the Green River Formation and are attributed to the existence of Lake Gosiute. Three major depositional cycles are recorded during its existence. The first stage lasted about 1 million years and represented a fresh water environment in which the Tipton Shale Member was deposited. This shale represents the largest and richest deposit of oil shale in southwest Wyoming and is located in the deepest portion of the basin, west and southwest of Rock Springs, Wyoming.

The second stage represented a closed-lake condition owing to a more arid climate. The Wilkins Peak Member represents a saline environment in which many beds of trona and halite were deposited with thin lenses of oil shale. These thin lenses represent higher rainfall periods. During the final state of Lake Gosiute, the lake expanded and again became a fresh water lake, depositing the Laney Shale Member. The oil shale deposits of the Laney Shale are the richest in the Washakie Basin and are the result of lake deposition shifting from the Green River Basin into the Washakie Basin.

**Locatable Minerals**

Mining claims have been located throughout the Planning Area for a variety of minerals locatable under the 1872 mining law, but no major commercial operations have been initiated. All lands with mineral entry rights are open to mining claim location unless the lands have been withdrawn from locatable mineral entry.

Known types of mining claims include claims for gold, jade, building stone, pumice, uranium, beryllium, barium, strontium, and diamonds; however, a mining claimant is not required to identify the mineral(s) being prospected for at the time of their location. Minerals identified in

the Planning Area that are not presently being produced in commercial quantities are zeolite, uranium, jade, building stone, pumice, barium/strontium, and titanium. The potential for the occurrence of diamonds exists within the Planning Area.

Figure 2.13 shows the major metal districts within the Planning Area. The Zeolite zones that have the potential to contain rare earth elements (REEs) that include the Mesozoic black sands that are found on the southern part of the Rock Springs Uplift. Areas for Moderate Potassium and High Sulfur are shown.

Large deposits of zeolite occur in the Bridger Formation within the Washakie Basin. These deposits are located within an oil shale withdrawal and are not subject to location under the mining law while the withdrawal is in effect.

Uranium, gold, and jade are the only locatable minerals known to have been mined commercially in the Planning Area, and that activity was short lived. A large number of uranium claims have been staked, and prospecting has occurred within the Ericson and Blair Formation on the Rock Springs Uplift. Commercial operations were never started, and the claimants abandoned the claims. Uranium was commercially mined in the northeastern part of the Planning Area for a short period of time.

Gold claims are located in Precambrian rocks along the Wind River Front and in deposits in Tertiary rocks near South Pass. Exploration has occurred in these formations, and small-scale commercial production has occurred.

Jade has been found in the Precambrian rocks near the northern boundary of the Planning Area, but no claims are currently under development.

A small number of barium/strontium claims have been located on Aspen Mountain, but no development has occurred and their potential is unknown. This area also has the potential for disseminated gold deposits.

Small deposits of titanium-bearing sands exist in the general area of Red Creek, Salt Wells Creek, and Black Butte. These deposits are not economical because the titanium is not extractable with present technology.

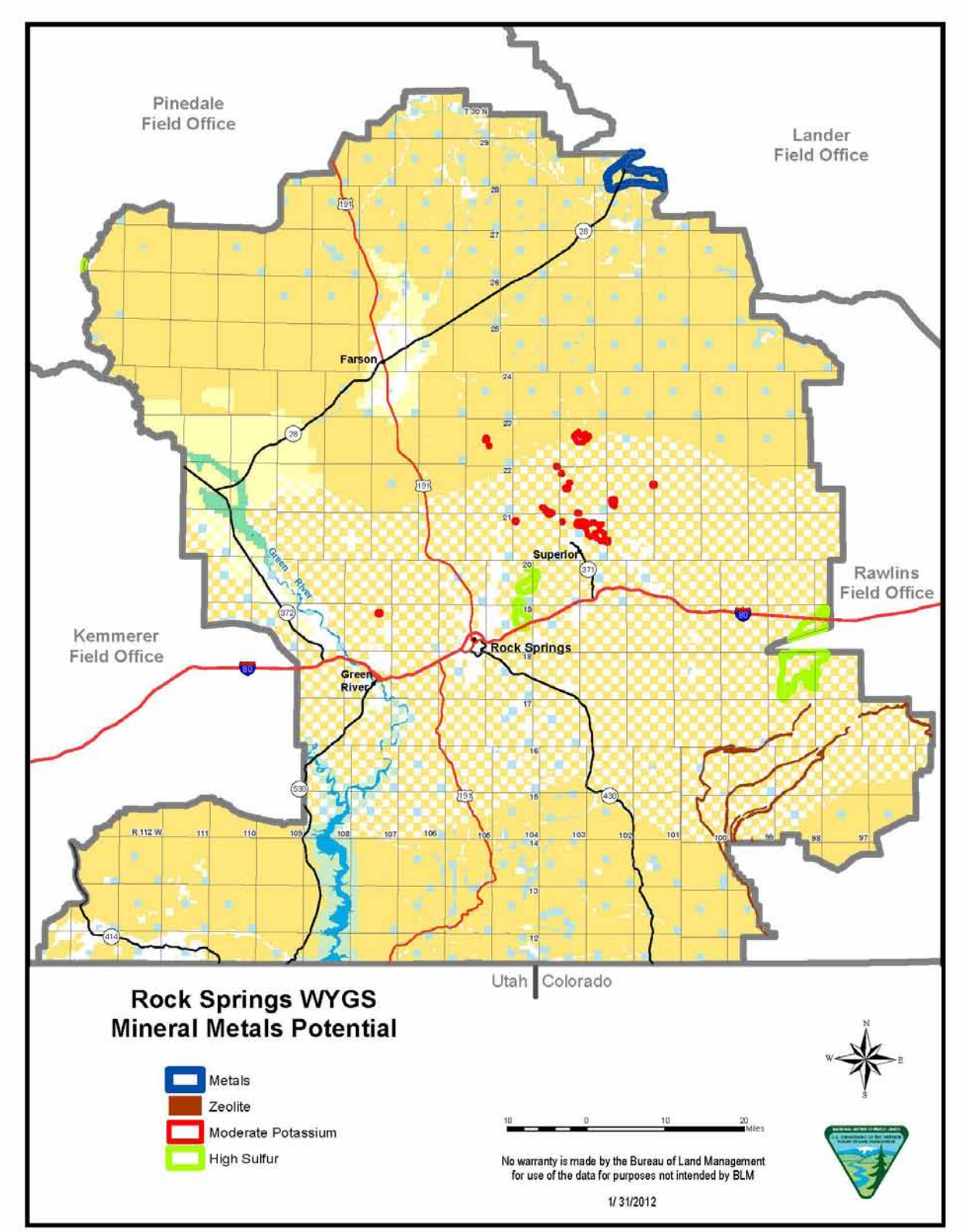



**Figure 2.11. Locatable Minerals**

According to Wayne Sutherland of the Wyoming State Geological Survey (WSGS), economic concentrations of REEs have not been reported within the Rock Springs Planning Area. However, sampling has been cursory, and elevated REE values in some areas may warrant further detailed investigations. Some locations found in the WSGS Industrial Mineral Report 91-3 are listed in the report because of their thorium values, which are sometimes associated with REE values, although no element analyses for REE were conducted. Elevated values have been found in volcanic and sub-volcanic rocks from within the Leucite Hills. The Cedar Mountain breccias pipe on the Uinta-Sweetwater county line has had reported elevated REEs levels. Mesozoic black sands in the Rock Springs Formation exposed in the Rock Springs uplift, include eightlocalities, which are described in the WSGS Industrial Mineral Report 91-3. This report included thorium and titanium valves for most occurrences and ppm values for lanthanium for five occurrences and four for yttium. No analyses are known for the other REE elements at these sites. REE-bearing carbonate minerals have been reported in the WSGS Industrial Mineral Report 91-3 from 10 locations within the Eocene-aged Wilkins Peak Formation (King 1992).

**Salable Minerals**

Salable minerals include sand, gravel, topsoil, boulders, riprap, mossrock, flagstone, volcanic rock, granite, sandstone, shale, limestone, and borrow material. Sand, gravel, and fill material is used by the Wyoming Department of Transportation (WYDOT); by other federal, state, and local agencies; and by private contractors and homeowners on roads, highway, and construction projects. Mineral materials are disposed of to public agencies under a Free Use Permit, with disposals to the Federal Highway Administration for federally aided highways done under a Title 23 appropriation. Other types of disposals are sales of sand, gravel, mossrock, and flagstone. In general, it is the BLM's policy to facilitate mineral material disposals in cases where it would promote better public road systems, oil and gas roads, other public projects, and private uses. See Figure 2.14 *Mineral Material (Salable) Potential*.

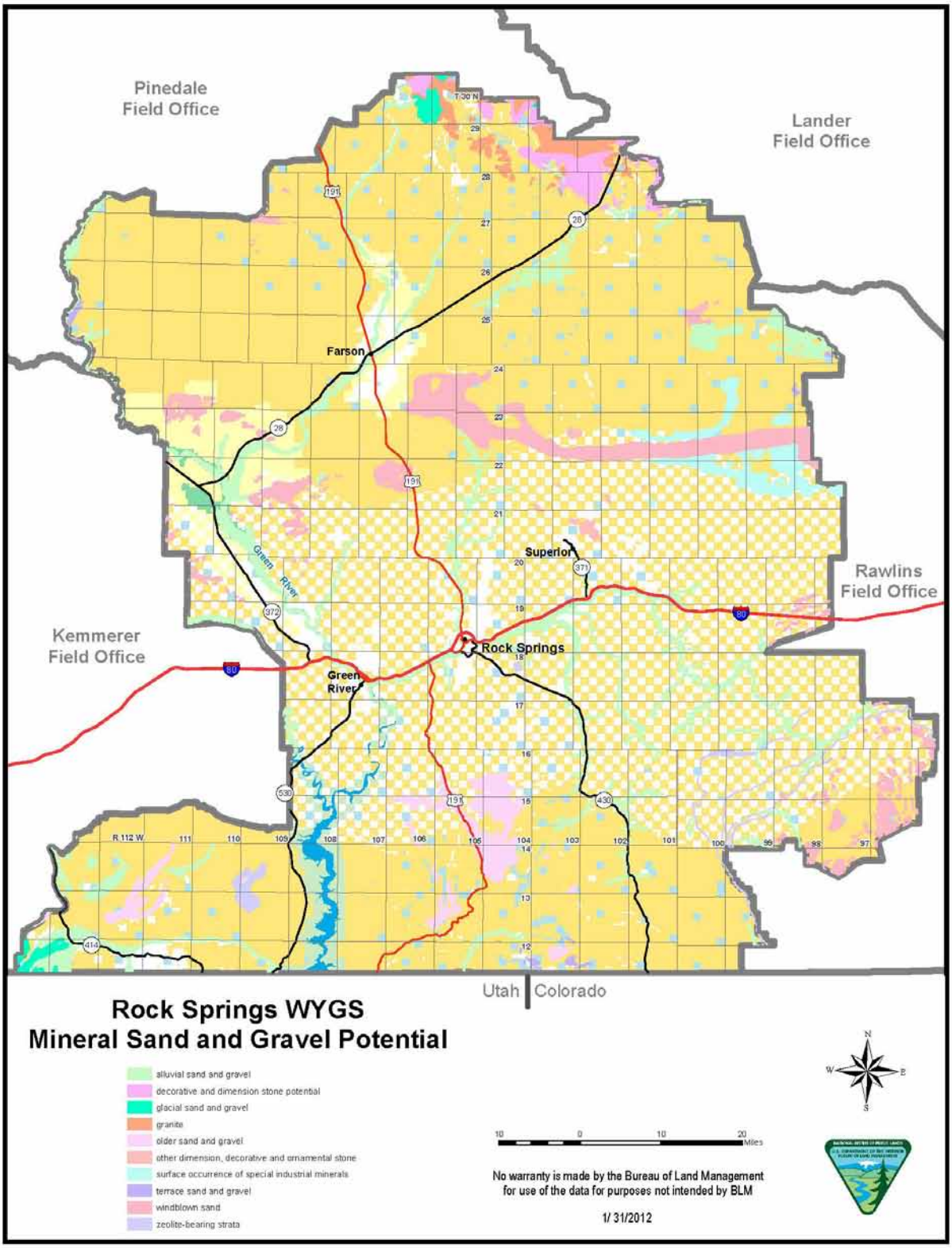



**Figure 2.12. Mineral Material (Salable) Potential**

Geologic resource indicators are those deposits or occurrences of mineral resources found in formations within the Planning Area that include the presence of locatable and leasable minerals, and saleable mineral materials. Trends and forecasts provided below are a function of the status of these types of minerals and mineral materials in the Planning Area. The locatable, leasable and salable mineral sections of the Summary of the AMS provide additional information.

### *b. Current Conditions*

**Oil and Gas Occurrences**

Most of the Field Office is considered to have a High Potential for Conventional Oil and Gas occurrence (Figure 2.11). The figure also shows that the only area considered to have a Low Potential for Conventional Oil and Gas is the Front Range of the Wind River Mountains. For more information regarding the current condition of the geology see the energy and minerals section of this document.

### *c. Trends*

Trends for geologic resources are discussed under the minerals section of this document.

### *d. Forecasts*

Forecast for geologic resources are discussed under the minerals section of this document.

### *e. Key Features*

Key features for geologic resources are discussed under the paleontology section of this document.

## 2.1.3. Soil Resources

Soils in the Planning Area are diverse and highly variable. Soil characteristics can differ over relatively short distances, reflecting differences in parent material; position on the landscape; elevation; aspect; biota such as bacteria, fungi, biological crusts, vegetation, soil, animals and humans; and climatic variables, such as precipitation and temperature.

Many soils are susceptible to water and wind erosion, and surface disturbing activities. The potential for runoff and erosion is high on soils with slopes greater than 25 percent, especially if plant communities are disturbed. Wind erosion is the limiting factor to determine highly erodible lands in the Planning Area.

### 1. Resource-Specific Information

### *a. Indicators*

Interpreting Indicators of Rangeland Health provides 11 of 17 indicators of rangeland health for specifically related to soil and site stability. The following is a brief discussion of each indicator:

- Rills-Small erosional rivulets generally flowing linearly, not necessarily following micro-topography. Rills tend to increase with surface disturbance and slope.

- Water Flow Patterns-Path that water takes as it moves across the soil surface following runoff events.
- Pedestals and (or) Terracettes-Indicators of soil movement by water or wind.
- Bare Ground-Bare ground is exposed mineral soil that is susceptible to rain drop splash and erosion.
- Gullies-Channels that have been cut into the ground by moving water.
- Wind-Scoured, Blowout, Depositional Areas-These features are indicators of wind erosion.
- Litter Movement-Movement of plant litter by either water or wind is an indicator of the degree or potential for water and wind erosion.
- Soil Surface Resistance to Erosion – Soil surface resistance to erosion is the result of multiple factors, including soil organic matter that is incorporated into the soil aggregates, adhesion of decomposing organic matter to the soil surface, and biological crusts. Biological crusts, often referred to as cryptogrammic crusts, consist of algae, lichens, and mosses. They are sensitive to surface disturbance and are slow to recover following surface disturbing activities. Biological crusts may exist in the Planning Area.
- Soil Surface Loss or Degradation-Loss of the soil surface is an indicator of loss of site potential. Such loss or degradation can be loss of the A Horizon, loss of fine soil particles, loss of structure, or even the addition of windblown sands.
- Plant Community Composition and Distribution Relative to infiltration and runoff-Distribution and the amount and type of vegetation is important for controlling spatial and temporal infiltration and interrill erosion rates.
- Compaction Layer-A near-surface layer of dense soil resulting from repeated impacts or disturbances on the soil surface.

## *b. Current Conditions*

A comprehensive analysis of the current condition of soils and soil health in the Planning Area has not been conducted. Of the 17 indicators of rangeland health, 11 are used to assess soil and soil site stability.

The soils in the Planning Area are currently affected by fires, timber harvest, solid mineral exploration, oil and gas exploration, recreation, livestock grazing, and wildlife. Position on the landscape, slope length and gradient, chemical and physical properties, surface texture and structure, plant cover, and erosion control practices influence soil susceptibility to wind and water erosion. Wind erosion is widespread in the Planning Area. Current soils data are not adequate to make a realistic determination of acres susceptible to wind erosion or to produce a meaningful map of their location. Susceptibility to water erosion is a function of slope and soil surface texture. Slopes greater than 25 percent are considered to be highly susceptible to water erosion, particularly after surface disturbance.

Factors that would define soils in the Planning Area as sensitive soils include, but are not limited to, soils with biological crusts, highly erodible lands, sand dunes, soils with slopes greater than 25

percent, frozen soil, 2:1 shrink-swell clays, saline soils, sodic soils, saline-sodic soils, badlands and soils with potential archeological or paleontological concerns.

### *c. Trends*

Improvement as a result of reclaiming surface disturbances, range, riparian, and stream conditions combine to indicate a reduction in soil loss to hydrologic and wind elements over the Planning Area.

### *d. Forecasts*

The soil resource should be capable of sustaining increased demands without long-term impacts. Surface disturbing activities are likely to be the greatest demand placed on the soil resource. Site specific mitigation measures, including timely reclamation are needed to minimize soil erosion and protect long-term soil productivity.

### *e. Key Features*

Some soil types may be better able to support certain land uses than others. The soil metadata base for this area is currently being completed and is not unavailable.

## 2.1.4. Water Resources

This section addresses both surface and groundwater quality and quantity within the Planning Area. Water resources are particularly important in the semi-arid environment that characterizes the Planning Area. The BLM manages for water resource values (watershed health, wildlife, riparian, etc.) and resource uses (recreation, water supply, etc.) within the framework of applicable laws, regulations, and agency policies.

Water is a resource that affects and is affected by all other resources. Any action that can potentially affect the timing, type, location, and/or extent of surface disturbance; the distribution, content, and/or health of the vegetative community; and/or the diversion from and/or introduction to, of water from both surface and groundwater sources has the potential to affect the surface water resource. This includes actions that directly influence the above factors as well as those that indirectly influence them through prohibitions and protections related to other resources. Groundwater is less directly influenced than surface water but may be affected by alterations to infiltration areas, introduction of foreign materials, either on the surface or via well contamination, and artificial fluctuations of water tables.

### 1. Regional Context

The water use, permitting, and adjudication activities are regulated by the Wyoming State Engineer's Office (WSEO) by surface water, groundwater, and interstate waters divisions. The State of Wyoming has jurisdiction over the water resources within the state.

The quantity of water used or diverted within the boundaries of the Planning Area is primarily the responsibility of the WSEO. The WDEQ, is the primary agency responsible for water quality. The BLM is responsible for the management of federal lands and minerals in a manner that maintains or enhances water quality and quantity for other uses. The BLM may use water quantity

and quality to monitor impacts or investigate concerns related to grazing, energy development, recreation, or other activities over which the BLM has jurisdiction if it is the most efficient method to address concerns. However, the BLM would defer to the State of Wyoming with regard to issues of water quality and quantity. Other agencies involved in managing and regulating aspects of water resources within the Planning Area include the U.S. Army Corps of Engineers (ACOE), the EPA, U.S. Fish and Wildlife Service (USFWS), Wyoming Game and Fish Department (WGFD), and the Wyoming Oil and Gas Commission (WOGC).

The majority of the Planning Area is drained by the Colorado River US Geological Survey (USGS Water Resource Region 14) that includes the Upper Green and the White/Yampa rivers. A small portion of the Field Office in the northeast is drained by the Sweetwater/Missouri River (USGS Region 10). The portion of the Field Office on the western edge within the Great Divide Closed Basin does not directly contribute to surface runoff but may provide recharge for regional groundwater. Because it is an isolated basin that does not drain to a navigable water of the United States, ACOE regulations are different but the BLM mandates remain unchanged (Figure 2.15). The portion of the Planning Area that is drained by the Green/Colorado River is subject to the Colorado River Compact. Figure 2.16 displays the Green River basin. At the time this document was written, Wyoming had not used its full allocation under the Compact.

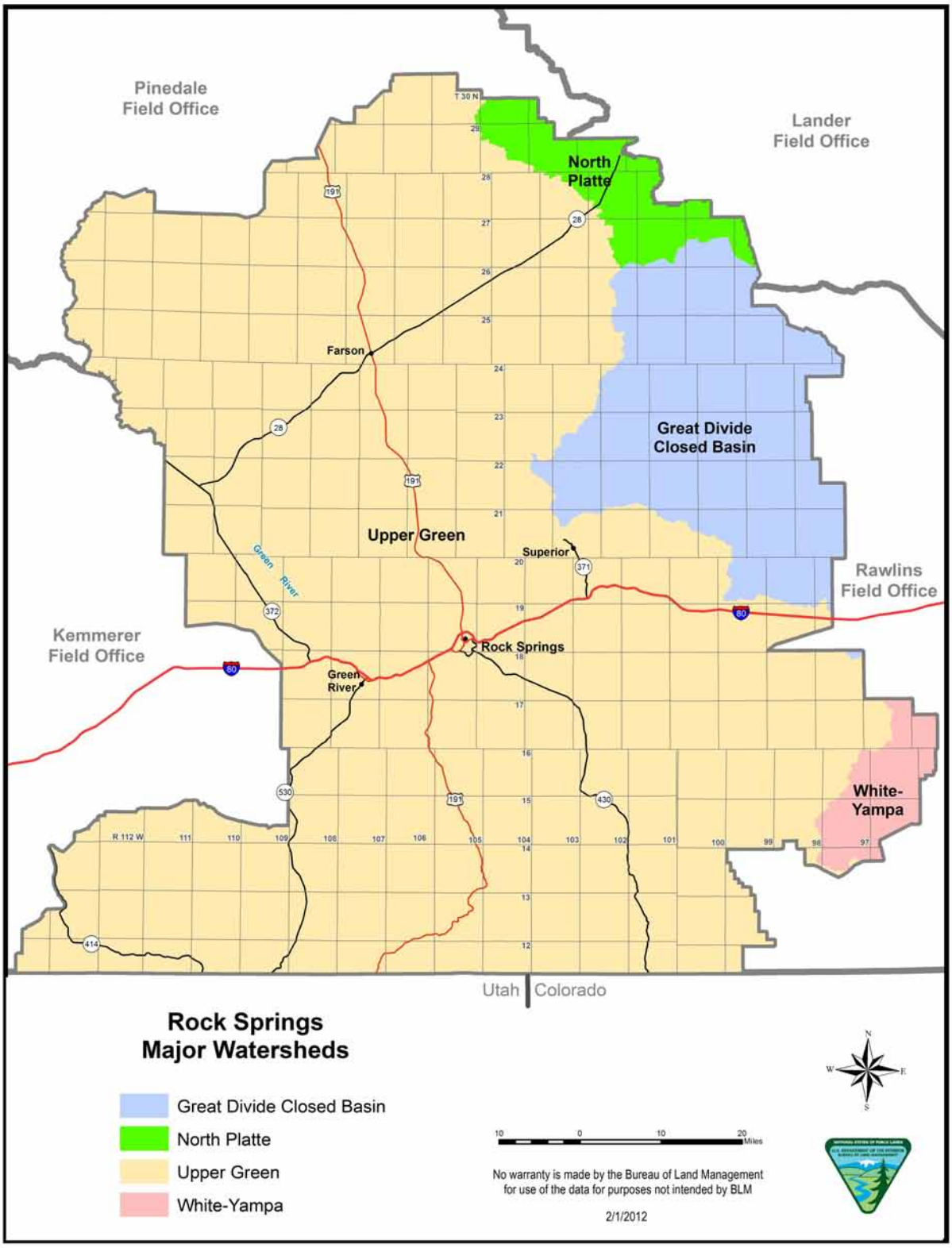



**Figure 2.13. Rock Springs Field Office Major Watersheds**

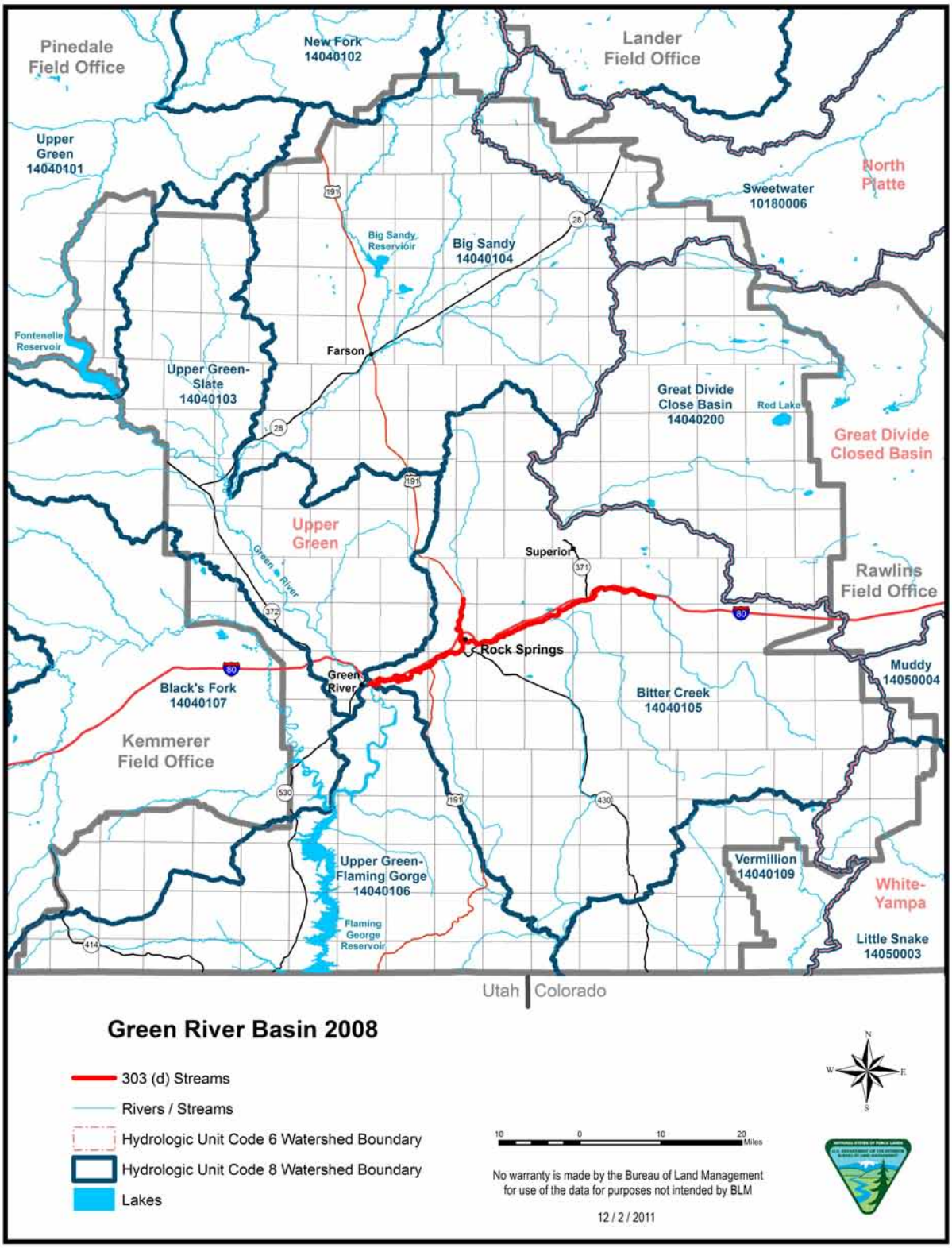



**Figure 2.14. Green River Basin 2008**

## 2. Resource-Specific Information

### *a. Indicators*

Natural processes and human actions influence the chemical, physical, and biological characteristics of water. Natural water quality varies from place to place, seasonally, and according to the kind of substrate through which water moves. Human influences are generally related to surface disturbances, changes in vegetative communities, and introduced chemicals. Indicators of water quality include, but are not limited to:

- Chemical characteristics (e.g., pH, conductivity, and dissolved oxygen)
- Physical characteristics (e.g., sediment, temperature, color)
- Biological characteristics (e.g., macro-and micro-invertebrates, fecal coliform, and plant and animal species)
- Channel morphology characteristics (e.g., aggradation, degradation, and bank failure)
- Watershed conditions (e.g., soil erosion, and vegetation condition).

The term water quality relates to a combination of the chemical and physical properties of the water and is the purview of the State of Wyoming. The associated stream channels, riparian areas, and wetlands, and the biological communities that inhabit them have multiple interactions that may allow these aspects to be used as indicators of water quality. The selection of one or more indicators for direct or indirect inventory or monitoring depends on the question being asked, the cost of the monitoring, and the conclusions that can be drawn from the data. Because water column parameters such as water temperature, turbidity, suspended sediment, dissolved oxygen, human-introduced pollutants, and other parameters can vary significantly over time, quantitative, conclusive monitoring of these parameters, and linking them to land use practices, is often costly and time consuming. For land management concerns, measurements of vegetation, channel morphology, and disturbance often provide the most easily obtained and useful data. (For example, Proper Functioning Condition [PFC] is a qualitative methodology that quickly provides an initial estimate of riparian and water quality condition based on riparian vegetation and stream morphology. It is not designed to provide long-term water quality trend information, but it does look at characteristics most likely to be affected by land use practices, and it identifies where more quantitative data collection may be needed.) Beginning in 2004, a survey of the Planning Area using the PFC method was conducted.

Although water column monitoring is usually not the most practical indicator of BLM management success, some activities are best monitored using analysis of water column parameters, such as determining the suitability of new water wells for their intended use. There are also a limited number of temperature recorders in operation within the Planning Area to address long-term fish habitat and channel recovery. At present, there is not enough temperature data to determine a trend.

### *b. Current Conditions*

The Planning Area is located in a semi-arid precipitation zone that receives from 6 to 10 inches annual precipitation in the lower elevations and 18 to 20 inches of annual precipitation in the

higher elevations. The majority of the Field Office is in the drier end of the range. The wettest month is May. The driest month is December.

Stream channel morphology in the Planning Area follows the common pattern of steeper slopes that produce A and B type channels (Rosgen 1996) more frequently in the higher elevations where cobble and bedrock are the dominate features that provide channel stability, and type C and E channels in the lower less steep areas where sedimentary geology and vegetation control predominate. Many areas have experienced or are experiencing active channel adjustments resulting in G and F channels in those areas as the channels readjust to new base elevations. A common event in the flatter, vegetation-controlled, fine-sediment portion of the Field Office is to have a C to an E channel reestablished and aggrading in the bottoms of incised F channels. At the same time, contributing lower flow and/or ephemeral side channels may be experiencing continued down-cutting as their base levels adjust to that of the main channel. The speed at which channels degrade and recover depends on many factors, including the availability of water, the frequency and energy of the flows, vegetation, and ongoing disturbance of the channel banks.

There are approximately 1,700 miles of stream and 46,000 acres of lakes, ponds, and reservoirs in the Planning Area. The major reservoirs in the area are Eden Valley Reservoir, Big Sandy Reservoir, Fontenelle Reservoir, and Flaming Gorge Reservoir. The major watersheds in the area are the Green River, which is part of the Colorado River Basin; the Sweetwater River, which is part of the Missouri River Basin; and the Great Divide Basin, which is a self contained basin with no surface outlet.

There are many ephemeral channels within the Planning Area. Because of the high-magnitude, short-duration rainfall events as well as soils that develop a hydrophobic layer when wetted, stream flow regimes in these channels can be characterized as high magnitude-low frequency. Other characteristics that may influence high-magnitude streams flow include the sparse vegetation characteristic of saline uplands and extensive areas of rock outcrops that allow for 100 percent yield.

Many channels with perennial flow are located on private property. Exceptions to this generality are perennial waters located in the checkerboard area, waters that were considered inconsequential during the period of homesteading, and the Big Sandy River below the Big Sandy Reservoir. The State of Wyoming has a four level classification system (Table 2.5).

**Table 2.5. Surface Water Classes in Wyoming**

| | |
|---|---|
| Class 1, Outstanding Waters. | No further water quality degradation by point source discharges other than from dams will be allowed. Non-point sources of pollution shall be controlled through implementation of appropriate best management practices. |
| Class 2, Fisheries and Drinking Water. | Support fish or drinking water supplies or where those uses are attainable. Class 2 waters may be perennial, intermittent, or ephemeral. |
| Class 3, Aquatic Life Other than Fish | Intermittent, ephemeral or isolated waters; and because of natural habitat conditions, do not support nor have the potential to support fish populations or spawning, or certain perennial waters that lack the natural water quality to support fish (e.g., geothermal areas). |
| Class 4, Agriculture, Industry, Recreation, and Wildlife | Aquatic life uses are not attainable. Uses include recreation, wildlife, industry, agriculture, and scenic value. |

There are no Class 1 waters within the Planning Area and 44 miles of Class 2 water on the Big Sandy River between the confluence with the Green River and the confluence of the Little Sandy River near Farson.

21.6 miles of Bitter Creek and 6.9 miles of Killpecker Creek are listed as being impaired by fecal coliform. The same 21.6 miles of Bitter Creek are also impaired by chloride concentrations. Killpecker Creek is a source of chlorides into the Bitter Creek system but is not listed as impaired by high chloride concentrations because of its status as a Class 3B water, which does not have a numeric chloride criterion (DEQ 2010, DEQ 2012).

Analysis of the impaired streams within the Planning Area indicates the main cause of impairment is associated with human habitation. Continued improvements of riparian conditions on both private and public lands would help to attain water quality standards.

The majority of the Planning Area is located in the upper reaches of the Colorado River Basin and are subject to Colorado River Basin Salinity Control requirements. Any action which degrades water quality or quantity can adversely affect downstream use of the water. Any management actions which might increase the amount of salinity, sediment, phosphate, oil and grease, and/or various the physical and chemical constituents are of a concern. Much of the soil within the Planning Area was derived from sediment that collected on the bottom of a shallow sea. The generally low rainfall in the area has resulted in a limited amount of leaching, resulting in high salinity soils that dominate the area. It can be assumed that increases in salinity in water bodies above natural background levels not associated with direct discharge are frequently the result of salt being introduced through leaching and erosion. Efforts on BLM managed lands are designed to reduce the levels of contribution from these sources

**Groundwater**

The BLM's major influences on ground water in the Planning Area are related to protection of infiltration zones and a limited number of stock wells. There are some coal based aquifers that have Coal Bed Natural Gas potential but they tend to be of too great a depth for easy access and of pour enough water quality that direct surface discharge.

The recharge area for the town of Superior is located partially on BLM managed public lands. This and other groundwater recharge areas are protected from development and other activities that could potentially affect groundwater resources.

The Planning Area is underlain by quaternary, tertiary, and cretaceous geological systems which provide for groundwater in the area. The aquifer systems are not well defined because of the sporadic nature of occurrence in each geologic layer. Some of the geologic units which are known to contain groundwater are: Bishop Formation, Bridger Formation, Laney Shale of the Green River Formation, Wilkins Peak, Tipton Shale, main body of the Wasatch Formation and the Almond and Ericson Formations of the Mesaverde group (Table 2.6).

**Table 2.6. Groundwater Occurrence from Green River**

| Geologic Subdivision | Groundwater Occurrence |
|---|---|
| Bishop | Groundwater possibilities fair; TDS 150-300 mg/l |
| Bridger | Groundwater possibilities poor; yields less than 50 gpm, TDS 563-914 mg/l |
| Laney Shale | Groundwater possibilities fair; up to 75 gpm; TDS 650-4,200 mg/l |
| Wilkins Peak | Groundwater possibilities poor; less than 30 gpm; TDS ;1,690-8,000 mg/l |

| Geologic Subdivision | Groundwater Occurrence |
|---|---|
| Tipton Shale | Groundwater possibilities good; yields from 10-170 gpm; TDS 1,330 mg/l and up |
| Wasatch Formation | Groundwater possibilities good; yield from 1-688 gpm; TDS 200-3,700 mg/l |

Water yields vary widely from good (greater than 20 gpm) to poor (less than 5 gpm) between and within these formations.

One chemical constituent which has restricted much of the use of water for livestock use is fluoride. Locally, concentrations of fluoride have been measured as high as 8 mg/l which is far above the recommended level of 1 mg/l.

Although little has been documented on groundwater recharge in the area, published information suggests that the following areas can be classified as recharge areas: Rock Springs Uplift, Wind River Front, Wasatch Front; two localized areas recharging the Bishop Conglomerate: Pine Mountain, Little Mountain; and Cedar Mountain. In addition, riparian areas are frequently connected to shallow and potentially deeper groundwater, both as a source and as a sink.

## *c. Trends*

Long-term data indicate a decreasing trend in the average precipitation levels in the general area. Human activity, including construction, recreation, and grazing, has had a profound effect on channel condition and related water quality. Channel geometry has frequently been manipulated throughout recorded the history of the area. Channel manipulation has resulted in incisement of many of the channels in the area and has reduced the capacitance of the watersheds so they have a reduced ability to capture, retain, and slowly release water from storm events. Recent management has resulted in the rebuilding of many of the stream channels and their associated functions; however, the process is gradual.

A review of the present conditions along Bitter Creek and its contributing channels show that there is a slow trend toward greater stability but that the channel has not fully recovered from the period of degradation. Upper reaches of several of the contributing channels are actively aggrading and some have developed stable populations of beavers. Other portions of the channel have yet to show significant progress. Other channels and their associated riparian areas within the Planning Area show a range of conditions from raw channels to fully functioning and improving systems.

Energy and mineral development has been a major activity within the Planning Area. Historical development tended to be much more disruptive to the watersheds and their functions in the vicinity of the disturbances than modern energy and mineral development. However, modern energy and mineral development is more extensive.

There are two major active coal mines in the Planning Area. Their major effects on the water resource relate to disturbance of the local groundwater. Local surface water is affected only slightly by the mining operations because the active mines are hydrologically isolated from the surface water features.

Water diverted from the Green River to the Jim Bridger Power Plant is returned to the Colorado River via surface features. This has created an expansion of the wetlands in the area of the power plant.

### *d. Forecasts*

At present, there appears to be a trend toward decreasing supplies of water combined with increasing demands from growing populations. Other factors that may contribute to water quality and supplies include:

- Water diversions to developing areas
- Water storages (i.e., reservoirs)
- In-channel flows or designed discharges
- Changes to wetland hydrologic systems
- Recreational activities
- Grazing
- Energy and mineral development
- Surface disturbance
- Potential water use and surface disturbance for oil shale development.

## 2.1.5. Vegetative Communities

This section describes the vegetative resources found within the Planning Area. Vegetative resources in the Planning Area are divided into Rangelands/Uplands, Riparian, and Forestry and Woodlands. Because of the complexity of biological resources and the vast size of the Planning Area, this section does not attempt to provide an encyclopedic description of all these areas that are found in the Planning Area. Common names for species are used throughout this section.

Table 2.7 summarizes the acreages for each of the vegetation cover types found in the Planning Area. These plant communities and cover types are broad in scope. Each vegetation type consists of several ecological sites.

**Table 2.7. Rock Springs Field Office Plant Communities within the Planning Area**

| Vegetation Type | Acres |
|---|---|
| Agriculture | 5,130 |
| Annual Forb | 95,900 |
| Aspen | 10,380 |
| Aspen/Conifer | 19,480 |
| Bare ground | 1,031,280 |
| Basin Big Sagebrush | 119,580 |
| Black Sagebrush | 620 |
| Cottonwood/Riparian | 4,280 |
| Cushion Plant Community | 6,150 |
| Grassland | 154,940 |
| Greasewood | 451,490 |
| Juniper | 72,730 |
| Mixed Conifer | 11,390 |
| Mixed Shrub | 769,000 |

| Vegetation Type | Acres |
|---|---|
| Mountain Big sagebrush | 360 |
| Open Sand | 105,110 |
| Rabbitbrush | 12,800 |
| Riparian/Grass | 146,540 |
| Sagebrush/Grassland | 551,040 |
| Saltbush | 212,930 |
| Urban | 14,160 |
| Water | 29,240 |
| Willow | 11,880 |
| Willow/Other Shrub | 150 |
| Wyoming Big Sagebrush | 1,511,430 |

Vegetation management is guided by a number of directives, manuals, and handbooks. In addition, coordination between state and local agencies and non-governmental organizations occur. The BLM handbook for Rangeland Health Standards (H-4180-1) describes how the Taylor Grazing Act of 1934, as amended and supplemented, the Federal Land Policy and Management Act of 1976 (FLPMA), and the Public Rangelands Improvement Act of 1978 are implemented. The Planning Area is required to coordinate with state and local agencies under several acts, including the Clean Air Act, the Sikes Act, FLPMA, and Section 106 of the National Historic Preservation Act (NHPA). Local and state agencies also work closely with the BLM to manage weeds on local, state, and federal lands, and are often responsible for weed treatments on public lands.

The BLM coordinates at the national and local levels with several resource advisory groups and nongovernmental organizations, including BLM Resource Advisory Councils, the Western Governors' Association, the National Association of Counties, the Western Area Power Administration, the National Cattlemen's Association, the National Wool Growers Association, the Society of American Foresters, and the American Forest and Paper Association. The BLM also solicits input from national and local conservation and environmental groups with an interest in land management activities on public lands, such as The Nature Conservancy.

Many of the services and products supported/produced by the vegetation resource administered by the Planning Area are exported and used by people from outside the local area. Some of the products are produced partly or wholly on public land managed by the Planning Area, such as red meat, livestock, timber, and firewood. Many of these demands focus on the products and services that are produced by the vegetation resource, i.e., water, wildlife, fish, scenery, clean air, etc., and not so much on the vegetation itself. Some non-consumptive demands still relate strongly to vegetation. Others, such as livestock grazing and timber or other wood products, are directly linked.

Some local citizens rely on public lands administered by the Rock Springs Field Office (RSFO) for a significant part of their livelihood, i.e., ranchers, farmers, and outfitters. Recreation and agriculture are the number two and three economic sectors, respectively, in Wyoming. (The energy industry is number one.) Other local residents use the public land and the vegetation found on it to enhance the quality of their lives through recreation (e.g., hunting, fishing, hiking, birding, sightseeing), water, and irrigation.

Local people, including those that do not depend on or use public land for their livelihood or quality of life, benefit indirectly from the ecological processes and functions that healthy vegetation provides such as its role in energy flow; water, energy, nutrient cycling, and other ecological processes; $CO_2$ sequestration; flood-flow moderation; and aquifer recharge.

Some human activities that can have a negative influence on vegetation resources are those that disturb the soil and vegetation. The most common of these activities include mineral exploration, development, and production; utility, rights-of-way (ROW), facility construction; livestock grazing; and recreation. Negative influences can be direct, e.g., constructing a gas well pad that eliminates vegetation; or indirect, e.g., constructing a road that intercepts and diverts water from the vegetation on the slope below.

## 2.1.5.1. Riparian

## 1. Regional Context

Wetlands and riparian areas occur throughout the Planning Area and are most frequently located on the lands adjacent to surface waters but may also be located in lands with a high water table that is not expressed on the surface. They are dominated by vegetation that is adapted to a consistent water supply and can withstand soil saturation and periodic flooding. Wetlands are a subset of riparian areas that have specific requirements for soil, vegetation, and topography. All wetlands are riparian areas but not all riparian areas are wetlands. Many plant and wildlife species are found only in riparian areas or use them as a preferred habitat. These small, but important, ecosystems serve as a biological oasis and represent vegetation structure, soil, and hydrology that is unique relative to the vast expanses of sagebrush and prairie grass that dominate the landscape of the region. They comprise less than two percent of the land mass in the State of Wyoming, yet are prized for their fish and wildlife habitat, water supply, cultural, and historic and recreational values as well as for their economic values, which stem from use in livestock production, forest management, and mineral extraction. For management purposes, the BLM separates riparian-wetland areas into those associated with flowing water (lotic) or those associated with non-flowing water (lentic).

Both lotic and lentic riparian areas are influenced by the stability of the water table. Rapidly changing levels of groundwater can make it difficult for riparian vegetation to establish and/or persist. If a change in the water table is of a pace that allows vegetation to adapt, soil loss and the associated negative aspects of soil erosion are reduced. Changes in water tables more rapid than can be adapted to by vegetation can result in a degradation of the environment and reduced carrying capacity

As is does for riparian ecosystems, hydrology determines the structure and functions of wetlands. Wetlands are, like riparian ecosystems, transitions between terrestrial and aquatic ecosystems and contain elements and life forms of both ecosystems. Several important features including soil and water conditions and vegetation type, distinguish wetlands from all other ecosystems. Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-solid saturated with water or covered by shallow water at some time during the growing season of each year. Healthy riparian-wetland areas support stable banks, floodplain maintenance, clean and stable water supplies, aquifer recharge, flood energy dissipation and moderation, fish and wildlife habitat, livestock and wildlife forage, opportunities for recreation, carbon sequestration, and scenery.

## 2. Resource-Specific Information

### *a. Indicators*

Beginning in 1994, the BLM undertook a survey of the riparian areas within the Planning Area using the PFC method. These methods use an interdisciplinary team of journeyman-level specialists to make a qualitative analysis of the riparian condition. For a flowing water (lotic) system, a riparian-wetland area is considered to be in PFC when adequate vegetation, landform, or large woody debris is present to:

- Dissipate stream energy associated with high water flow, thereby reducing erosion and improving water quality
- Filter sediment, capture bedload, and aid floodplain development
- Improve flood-water retention and groundwater recharge
- Develop root masses that stabilize stream banks against cutting action.

A riparian area associated with ponded water (lentic) has a similar definition. Lentic riparian-wetland areas are functioning properly when adequate vegetation, landform, or debris is present to:

- Dissipate energies associated with wind action, wave action, and overland flow from adjacent sites, thereby reducing erosion and improving water quality
- Filter sediment and aid floodplain development
- Improve flood-water retention and groundwater recharge
- Develop root masses that stabilize islands and shoreline features against cutting action and restrict water percolation;
- Develop diverse ponding characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterbird breeding, and other uses;
- Support greater biodiversity.

Conditions where a portion of these attributes is present but not fully functioning are referred to as Functional At Risk (FAR). When a condition of FAR is determined, an estimation of trend (Up, Down, Not Apparent) is made. If the attributes of a properly functioning stream are not present, the riparian area is listed as Non Functional (NF).

### *b. Current Conditions*

The PFC method is the most widely used method of riparian assessment in the Planning Area. It is most accurately used as in indicator for the surveyed sections. Because it is qualitative and the survey data are widely and unevenly distributed over time and space, PFC data are not the ideal tool for determining an actual trend. Given the variety of conditions throughout the Planning Area, a summary of PFC data gathered over multiple years is only partially reflective of the conditions. A more accurate picture is developed by focusing on individual survey documents.

As of the summer of 2010, 604.43 miles of stream had been surveyed using the PFC method. Some sections were surveyed multiple times between 1994 and 2010. Others were surveyed only once.

A comparison of totals from these surveys taken 10 years apart shows little change in condition (Table 2.8). Some of this lack of change is because only about 20 percent of the total mileage for the 2010 totals was surveyed between 2000 and 2010. Of this, much of the mileage consisted of resurveying of previously surveyed areas with sections of previously unsurveyed riparian area added.

**Table 2.8. PFC 10–Year Comparison**

| Condition | 2000 | | 2010 | |
|---|---|---|---|---|
| | Miles | Percentage | Miles | Percentage |
| Proper Functioning Condition | 230.3 | 39% | 242.5 | 40% |
| Functional At Risk<br>Apparent Upward Trend | 97 | 16% | 101.2 | 17% |
| Functional At Risk<br>No Apparent Trend | 164 | 28% | 165.47 | 27% |
| Functional At Risk<br>Apparent Downward Trend | 85.18 | 14% | 84.53 | 14% |
| Non Functional | 15.5 | 3% | 10.7 | 2% |
| Total | 591.98 | 100% | 604.4 | 100% |

In the past, riparian areas have been viewed as areas that could be sacrificed to achieve other goals. There have also been government-sanctioned programs to reduce the amounts of native riparian vegetation to increase runoff and downstream water supplies. These approaches have proven detrimental to riparian function in the past. The results of these past practices remain in evidence today.

## *c. Trends*

With the information available from PFC surveys throughout the Field Office, the long-term overall trend for riparian areas appear to be static. However, given the general change in attitude towards riparian areas from sacrifice areas to a keystone of the ecology, the outlook for improving riparian areas is positive.

## *d. Forecasts*

Riparian condition will continue to be closely tied to grazing management and surface disturbing activities, such as roads, well/wind turban pads, and pipelines. In areas where there is improper grazing and/or inadequate reclamation, riparian conditions will remain static or deteriorate. Existing channel incisements will continue to work upstream, creating continued disturbance to the affected riparian systems. The key to recovery will be reducing the distance that sediment from disturbances travels from a given disturbance through the creation, improvement, and maintenance of riparian vegetative communities. It is important to understand that a properly functioning riparian area could have areas of active disturbance but it will be the amount of disturbance, the rate of upstream migration of disturbances, the composition and density of the

vegetation community, and the capture and retention of sediment, in relation to the potential, that will determine whether a stream is within an acceptable condition.

### *e. Key Features*

The key feature of the riparian areas within the Planning Area is that they are rare but extremely valuable. Most of the animals, both native and domestic, in the Planning Area, have important interactions with water and associated riparian areas. This vital position of riparian areas in the ecology has not always been understood. The lack of data regarding a long-term trend is reflective of this change in attitude. With the continued monitoring of riparian areas using statistically valid monitoring methods, the past mistreatment is being addressed but is still evident within the landscape.

## 2.1.5.2. Forestry and Woodlands

## 1. Regional Context

Forest and vegetative products include sawtimber, pulpwood, fuelwood, decorative wood, corral poles, fence posts, tepee poles, Christmas trees, cones, transplants, boughs, berries, moss, and mushrooms. Under the BLM forest management program, the removal of forest products is managed either by sales contracts or free use permits. Recreational collecting of some forest product material is also allowed, but the removal of volumes exceeding a specified threshold requires a forest/vegetative products sale. The BLM does not dispose of forest products at less than fair market value.

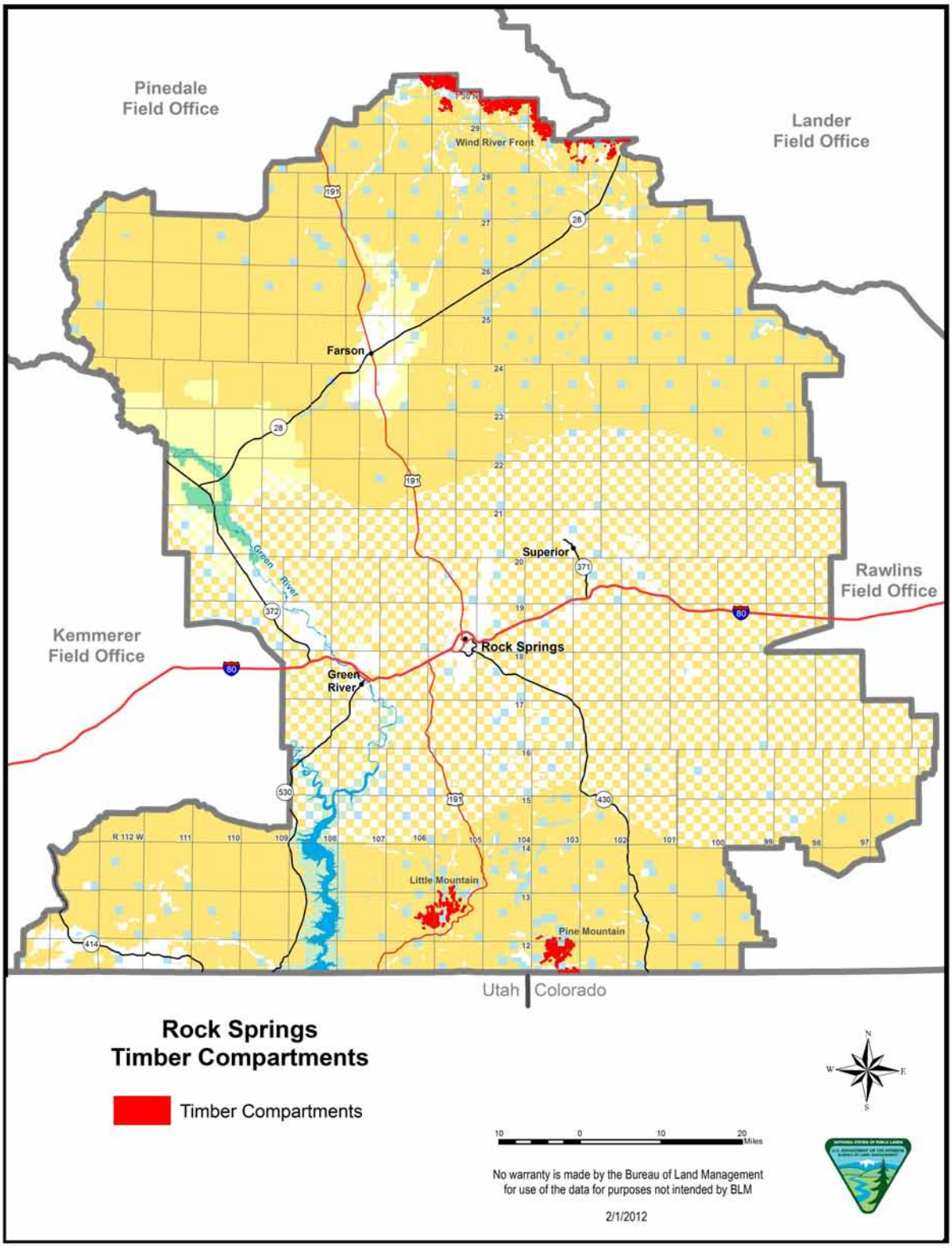



**Figure 2.15. Timber Compartments**

## 2. Resource-Specific Information

### *a. Indicators*

The forest products that are the most common in the Planning Area (Figure 2.17) include fuelwood, Christmas trees, and to a lesser extent, sawtimber, posts, and poles. Most of the forest products are used locally for home heating and decorative uses.

### *b. Current Conditions*

Management of forest products in the Planning Area must comply with regulations in 43 CFR 5000, and all other relevant state and federal laws. Forest products permits are processed on a case-by-case basis, with stipulations added to protect other resources. The current management practice is to issue exclusive use (competitive timber sales) contracts or non-exclusive permits to allow for the access and removal of forest products.

The Planning Area is divided into four timber compartments for timber management: Wind River Front, Pine Mountain, Little Mountain, and Hickey Mountain-Table Mountain. These areas also are the main areas for non-commercial forest products. In addition, pockets of woodlands are scattered throughout the Planning Area.

### *c. Trends*

Nationwide, the demand for forest products declined recently, driven by an overall decrease in housing starts and a surplus of timber available as a result of mountain pine beetle infestations. Locally, demand for fuelwood has slightly risen based on demand for low cost heating sources and an increase in beetle-killed trees available for cutting. It is anticipated that the demand for forest products from the public lands in the Planning Area will remain at current levels, or show a slight increase in activity, into the foreseeable future. The demand for this resource will mostly depend on new uses for wood chips and increasing interest in biofuels.

### *d. Forecasts*

BLM-administered lands in the Planning Area are the source of a number of recreational opportunities. Many of these areas have been reported by various BLM specialists to have incurred extensive mortality as a result of mountain pine beetle infestations. No inventories of BLM forested lands have been conducted to determine the actual extent of pine beetle infestations. The salvage of these dead trees may be essential to reduce hazardous fuel loading and continued access for recreationists. It is anticipated that the demand for these materials will continue to remain at the current, or perhaps slightly higher, level into the future, but this will depend in large part on the viability of the biofuels industry and local demand. The BLM will continue to work with the forest products industry and the public to ensure that these resources are available for use while protecting other resources on the ground and preventing unnecessary and undue degradation.

### *e. Key Features*

Forest and woodland areas occur in a limited geographical distribution within the Planning Area, primarily based on soils and precipitation zones.

## 2.1.5.3. Rangelands (Uplands)

## 1. Regional Context

For the regional context of Rangeland (uplands), see the Vegetative Communities section of this Summary of the AMS.

## 2. Resource-Specific Information

### *a. Indicators*

Common indicators of rangeland vegetation health include cover, composition, bare ground and litter, diversity, and the presence and density of noxious weed species. These indicators are associated with Standards 1, 3, and 4 of the *Standards for Healthy Rangelands and Guideline for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Wyoming*. These standards are used to allow sustainable livestock grazing management to continue while protecting watersheds, riparian and upland ecosystems, and wildlife habitat. Standards address the health, productivity, and sustainability of the BLM-administered public rangelands and represent the minimum acceptable conditions for the public rangelands. The standards apply to all resource uses on public lands.

### *b. Current Conditions*

Many grasslands and shrublands in the Planning Area have been influenced by livestock grazing, fire, fire suppression, and to a lesser extent surface disturbing activities. Invasive species have encroached into many plant communities. See the Livestock Grazing, Fire Management, and Invasive Species sections of this document for additional information.

Forage is allocated among uses based on the carrying capacity of the land. Carrying capacity reflects the maximum level of grazing and other uses of forage that the public lands can sustain on a long-term basis. It may vary from year to year on the same area due to fluctuating forage production. In addition, available forage for livestock grazing varies with changes in climatic conditions, forage production, and the availability of water.

### *c. Trends*

The Planning Area has experienced drought conditions. This has resulted in less forage available for livestock use and the need for permittees/lessees to take voluntary non-use. Overall rangeland trend as related to livestock grazing, is static to upward. Many allotments are managed under grazing rotations and seasons of use designed to meet soil cover and desired plant species growth requirements. Where grazing has been identified as a cause of rangeland health standards not being met, grazing use has been changed. However, disturbance related to other ongoing resource uses may affect this, including oil and gas development, mining, etc.

A predicted increase in development of renewable energy and mineral resources in the Planning Area will increase the presence of energy development, mining, and related infrastructure and machinery. Forage may be reduced or change states, and may increase upon reclamation.

An unknown amount of vegetation has been removed or reduced as a result of past surface-disturbing activities. Reclamation success has been variable and is usually difficult to achieve in lower elevation areas that receive nine or less inches of annual precipitation. Likewise, acceptable reclamation is less difficult to achieve in higher areas that receive more than nine inches of precipitation.

The presence and accelerating rate of spread of undesirable plants is a threat that could reduce the ability of vegetation to continue providing desired levels of products and services.

## *d. Forecasts*

Invasive plant species can have dramatic impacts on native plant communities and disrupt the functions of native ecosystems. Cheatgrass in the Great Basin, for example, has altered fire frequency and harmed the ability of native species to successfully reproduce. Based on current trends, the BLM estimates the spread of weeds in the West to be 2,300 acres per day on BLM-administered lands. See the Invasive Species section for more information on the effects of these species on ecosystem characteristics and composition.

The loss of soil through wind and water erosion can remove valuable nutrients and organic matter from the ecosystem. When the rate of loss exceeds the rate of soil formation there is a net loss of soil. There is a threshold at which the amount of soil loss starts to affect plant communities. This threshold varies with soil type. Once a threshold has been crossed, the potential plant community that could be supported on a site could change.

Maintenance of and increases in the products and services supported or produced by vegetation will be related to the continued implementation of proactive management, successful management of invasive, nonnative species and noxious weeds, successful livestock grazing management, successful reclamation, and application of best management practices (BMPs) that have been and will continue to be implemented in the future.

Decreases could be linked to surface disturbing activities and other activities that have an adverse influence on vegetation. Some of these activities include off-highway-vehicle (OHV) use, invasive species and noxious weed expansion, mineral development/extraction, wildlife concentrations, ROWs, utility/facility construction, unsuccessful reclamation, and other surface disturbing activities that result in the reduction, removal, or modification of plant communities (e.g., conversion of a later seral state site to earlier seral state or conversion of a desirable plant community/state to an undesirable plant community/ecological state).

Invasive plant species and noxious weeds have the potential to negate any improvement in the vegetation resource that has occurred or will occur if they are allowed to proliferate. If future circumstances result in a net loss of productive vegetation, the present supply and kinds of goods and services provided to society by vegetation will not be sustainable.

## *e. Key Features*

Key features to consider for managing rangeland/upland vegetation include vegetation types that are uncommon, important (usually for sensitive plant and wildlife species), stable, or are at risk because of instability, development, or habitat fragmentation. Uncommon and important habitats include mountain shrub habitat, including mountain mahogany vegetation types, aspen

woodlands, sagebrush/steppe, and saltbush/steppe. Some of these habitats, while not uncommon, are important for sensitive species.

Forage availability is also an important feature. Forage production affects the carrying capacity of the range for all uses and, more specifically, how many and how long livestock can remain on the range. Forage quantity and quality is affected by the condition of the range. For example, a range dominated by appropriate cool season bunchgrasses generally provides a better forage base than one dominated by invasive species.

# 2.1.6. Invasive Species and Pest Management

## 1. Regional Context

Invasive plant species are plants that disrupt or have the potential to disrupt or alter the natural ecosystem function, composition, or diversity of the site they occupy. Noxious weeds are native or nonnative plants that are unwanted in a particular area at a particular time, as designated by the State of Wyoming Noxious Weed List (Table 2.9) or declared by County Weed Control Districts (Table 2.10). Although noxious weeds are almost always nonnative, a distinction is made in this document because they can and do include undesirable native plants. A pest can be any biological life form that poses a threat to human or ecological health and welfare.

**Table 2.9. Wyoming Weed and Pest Control Act Designated List**

| Common Name | Scientific Name |
|---|---|
| Canada thistle | *Cirsium arvense L.* |
| Common burdock | *Arctium minus (Hill) Bernh.* |
| Common St. Johnswort | *Hypericum perforatum L.* |
| Common Tansy | *Tanacetum vulgare L.* |
| Dalmatian toadflax | *Linaria dalmatica (L.) Mill.* |
| Diffuse knapweed | *Centaurea diffusa Lam.* |
| Dyers woad | *Isatis tinctoria L.* |
| Field bindweed | *Convolvulus arvensis L.* |
| Hoary cress (whitetop) | *Cardaria draba* and *Cardaria pubescens (L.) Desv.* |
| Houndstongue | Cynoglossum officinale L. |
| Leafy spurge | *Euphorbia esula L.* |
| Musk thistle | *Carduus nutans L.* |
| Ox-eye daisy | *Chrysanthemum leucanthemum L.* |
| Perennial pepperweed (Giant whitetop) | *Lepidium latifolium L.* |
| Perennial sowthistle | *Sonchus arvensis L.* |
| Plumeless thistle | *Carduus acanthoides L.* |
| Purple loosestrife | *Lythrum salicaria L.* |
| Quackgrass | *Agropyron repens (L.) Beauv.* |
| Russian knapweed | *Centaurea repens L.* |
| Russian olive | *Elaeagnus angustifolia L.* |
| Saltcedar (Tamarisk) | *Tamarix spp.* |
| Scotch thistle | *Onopordum acanthium L.* |
| Skeletonleaf bursage | *Franseria discolor Nutt.* |
| Spotted knapweed | *Centaurea maculosa Lam.* |
| Yellow toadflax | *Linaria vulgaris L.* |

Designated Noxious Weeds.S. 11–5–102(a)(xi) and Prohibited Noxious Weeds W.S. 11–12–104.
Source: Wyoming Weed and Pest Council 2010.

**Table 2.10. Wyoming Weed and Pest Declared List by County**

| Common Name | Scientific Name |
|---|---|
| *Fremont County* | |
| Swainsonpea | *Sphaerophysa salsula (Pellas) DC.* |
| *Lincoln County* | |
| Black henbane | *Hyoscyamus niger L.* |
| Wild oat | *Avena fatua L.* |
| Bull thistle | *Cirsium vulgare (Savi) Ten.* |
| *Sublette County* | |
| Austrian fieldcress | *Rorippa austriaca (Crantz) Bess.* |
| Black henbane | *Hyoscyamus niger L.* |
| Scentless chamomile | *Matricaria perforata Merat* |
| Field scabious | *Knautia arvensis (L.) Coult.* |
| Western water hemlock | *Cicuta douglasii (DC) J.M. Coult. & Rose* |
| *Sweetwater County* | |
| Black henbane | *Hyoscyamus niger L.* |
| Foxtail barley | *Hordeum jubatum L.* |
| Lady's bedstraw | *Galium verum L.* |
| Mountain thermopsis | *Thermopsis montana Nutt.* |
| Wild licorice | *Glycyrrhiza lepidota Pursh* |
| *Uinta County* | |
| Black henbane | *Hyoscyamus niger L.* |
| Yellow starthistle | *Centaurea solstitialis L.* |
| Viper's bugloss | *Echium vulgare L.* |

Wyoming Weed and Pest Control Act of 1973 W.S. 11-5-102(a)(vii) and W.S. 11-5-102(a)(viii).
Source: Wyoming Weed and Pest Council 2010.

## 2. Resource-Specific Information

### *a. Indicators*

The presence of noxious weeds and other invasive species may indicate a disturbance to the native plant community. Higher occurrence of invasive species are generally associated with areas that have been disturbed by earth-moving activities, changes in water regime, overgrazing, fire, timber harvesting, or other major events.

### *b. Current Conditions*

The Planning Area controls invasive species on the public lands through cooperative agreements with the Sweetwater County Weed and Pest Control District. In addition to the County Weed and Pest District, the Field Office works in cooperation with the WGFD, State Lands Division, local National Resource Conservations Service (NRCS) offices, and private landowners. Invasive species are an increasing problem in the Planning Area and are affecting water and other resources. The Field Office is targeting plants that are designated on the State of Wyoming noxious weed list or declared on the county noxious weed lists as well as species of local concern to private landholders. The primary species targeted on the public lands include Russian knapweed, spotted knapweed, Canada thistle, musk thistle, bull thistle, houndstongue, hoary cress (whitetop), perennial pepperweed (tall whitetop), Russian olive, and tamarisk as well as halogeton and cheatgrass. These plants are typically found in sagebrush/grassland, desert shrub

and riparian/wetland community types. The present goal is to contain and reduce densities of invasive species populations.

Two invasive species of special concern are Russian olive and tamarisk. Russian olive and Tamarisk deplete water and are also replacing cottonwood and willow. Cheatgrass and halogeton are increasing in some portions of the Planning Area. Cheatgrass is prevalent primarily in the southern portion and halogeton throughout the Planning Area. These species commonly invade disturbed areas, especially disturbances from pipelines, roads, well pads, fire, and other similar disturbances.

**Pest Management**

In February 2003, the US Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) and the BLM signed a memorandum of understanding (MOU) detailing cooperative efforts between the two entities on suppression of grasshoppers and Mormon crickets on BLM-administered lands (Document #03-8100-0870-MU, February 27, 2003). This MOU clarifies that APHIS will prepare and issue to the public site-specific environmental documents that evaluate potential impacts associated with proposed measures to suppress economically damaging grasshopper and Mormon cricket populations. The MOU also states that these documents will be prepared under the APHIS National Environmental Policy Act (NEPA) implementing procedures with cooperation and input from the BLM. The MOU further states that the responsible BLM official will request in writing the inclusion of appropriate lands in the APHIS suppression project when treatment on BLM land is necessary. The BLM must also approve a Pesticide Use Proposal (Form FS-2100-2) for APHIS to treat infestations. According to the provisions of the MOU, APHIS can begin treatments after appropriate decision document is issued and BLM approves the Pesticide Use Proposal.

Wyoming designated pests under W.S. 11-5-102(a)(xii) include grasshoppers, Mormon crickets, prairie dogs, ground squirrels, mountain pine beetle, and beet leafhopper. The preferred method for treating grasshoppers and Mormon crickets is by Reduced Agent Area Treatments (RAATs). RAATs are a grasshopper suppression method in which the rate of insecticide is reduced from conventional levels, and treated swaths are alternated with swaths that are not directly treated. The RAAT strategy relies on the effects of an insecticide to suppress grasshoppers within treated swaths while conserving grasshopper predators and parasites in swaths not directly treated.

There has not been a problem with these pests but the paperwork for control of these species is in place if the need arises in the future to control them in the Planning Area.

## *c. Trends*

The Planning Area treats approximately 1,000 acres of invasive species infested areas annually. Strides have been made to acquire additional inventory and monitoring data, but data are not available to determine the actual trends in invasive species establishment. Based on observations and reports given by the Weed Control Districts treatment, efforts appear to be keeping invasive plant species populations from continued rapid spread but are not necessarily reducing existing populations.

There has been an increase in weed occurrences in developed oil and gas fields, along roads and pipelines, and on public lands with increasing recreational use. The shrub component of the plant community often takes decades or more to establish, and even longer to reestablish after disturbance. Many reclamation efforts that were conducted twenty or more years ago still do not

have shrubs established and have not achieved reestablishment of wildlife habitat comparable to what existed prior to disturbances.

### *d. Forecasts*

The BLM maintains a current nationwide list of known invasive species. Most have not invaded BLM-administered lands within the Planning Area; however, invasive species that have are expanding their range. While impossible to predict future introductions of other listed invasive species, new introductions may be discovered, and those invasive species may become established if not eradicated immediately.

When undertaking an integrated weed management effort, the ultimate goal is to restore and maintain a healthy native plant community. It may not be realistic to expect that the land will be totally weed-free, even after years of weed management. Instead, the objective is to get existing weeds under control, prevent spreading, and prevent invasive species from out-competing native vegetation.

### *e. Key Features*

The introduction of invasive invertebrates, vertebrates, microorganisms, and pathogens can threaten the stability of ecosystems, create serious human health consequences, and cause substantial economic burdens. Large majorities of native and nonnative species do not pose a threat to natural or human systems. However, if any of these species becomes a concern, the Planning Area would cooperate and coordinate with appropriate government agencies, private industry, and other interested parties involved in public education efforts and control, management, and research of invasive species. Two species of local concern are the zebra and Quagga mussels which are nonnative invasive aquatic organisms that are threatening native aquatic invertebrate communities in cold water systems and could potentially pose a threat to local trout populations. They have been identified in many nearby waters.

## 2.1.7. Wildlife and Fisheries Habitat

### 2.1.7.1. Wildlife

More than 350 species of wildlife are found on a variety of habitats in the Planning Area. Resource activities, such as oil and gas, mining, recreation, and grazing, can affect wildlife habitat beneficially or adversely. The BLM manages wildlife habitat on public lands, while WGFD manages the wildlife populations. The USFWS has authority over migratory birds, and species that are listed as endangered, threatened, or proposed. The BLM and WGFD have officially coordinated their management activities since 1976. An “umbrella” MOU adopted in March 1990 (replacing an MOU dated August 1976) is the basis for all cooperative efforts between the BLM and WGFD. The MOU directs each agency to conduct a coordinated program of wildlife resource administration, participate in each other’s planning efforts, advocate a wildlife management strategy that focuses on total ecosystem management, maintain a cooperative-based wildlife information gathering and exchange system, consider management or mitigation of wildlife resources in other BLM programs, and promote improved public understanding of wildlife management on public lands (BLM and WGFD 1990). In addition, the BLM is mandated

by the Endangered Species Act (ESA) and BLM policies to ensure that Special Status Species (SSS) are protected.

## 1. Regional Context

The distribution and abundance of wildlife in the Planning Area are primarily functions of habitat conditions. Wildlife habitat is best characterized by the various vegetation types found in the Planning Area (Table 2.11, "Potential Priority Habitats and Associated Wildlife in the Planning Area" (p. 76)). The predominant habitat in the Planning Area is sagebrush steppe. The Planning Area also contains mountain shrub; willow and cottonwood communities along rivers; badlands; saltbush and cushion plant communities; grasslands; and pine, aspen or spruce/fir forests in the higher altitudes. The most common vegetation community is sage-steppe shrub lands.

**Table 2.11. Potential Priority Habitats and Associated Wildlife in the Planning Area**

| Habitat | Key Associated Wildlife | Total Acres |
|---|---|---|
| Sagebrush steppe | Greater Sage-Grouse, elk, mule deer, pronghorn, loggerhead shrike, Brewer's sparrow, sage thrasher, sage sparrow, coyote, sagebrush lizard, Great Basin gopher snake, Great Basin spadefoot toad | 2,073,460 |
| Grasslands/ low shrub | White-tailed prairie dog, mountain plover, ferruginous hawk, northern harrier, burrowing owl, and swift fox | 155,558 |
| Riparian and wetland | Bald eagle, waterfowl, fish, numerous passerines, bats, amphibians, white-faced ibis, long-billed curlew | 192,081 |
| Old growth juniper | Northern tree lizard, midget faded rattlesnake, black-throated gray warbler, western scrub-jay, juniper titmouse, ash-throated flycatcher, gray flycatcher, Bewick's wren, blue-gray gnatcatcher, cliff chipmunk, pinyon mouse, canyon mouse, tree roosting bat | 22,201 |
| Big game crucial winter ranges | Mule deer, pronghorn, Rocky Mountain elk, moose | 2,061,348 |
| Parturition areas/conifer/aspen/tall sagebrush | Elk, mule deer | 219,836 |
| Cliff nesting | Raptors | 213,511 |

The diversity and populations of fish and wildlife throughout the Planning Area provide considerable recreational opportunity and economic benefit. The species listed in Table 2.12 characterize the fish and wildlife resources of the Planning Area. These include game species, species vulnerable to impacts, and species with high economic or recreational value.

## Table 2.12. Existing Conditions and Habitat for Priority Wildlife Species in the Planning Area

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| Mule deer | Second most abundant big game species. | Use a wide variety of habitats, but generally prefer sagebrush, upland shrubs, and conifer areas. | Mule deer exhibit some population fluctuation depending on severity of winter and summer drought, but overall, most populations are below objective and some are declining.<br><br>WGFD Population Estimate 2009<br><br>Steamboat = no trend counts on this herd.<br><br>South Wind River = 9,713 (75% objective)<br><br>Sublette = 20,785 (65% objective)<br><br>Uinta- no model South Rock Springs =7,200 (61% objective)<br><br>Baggs =14,500<br><br>Wyoming Range =28,940 (58% objective) |
| Pronghorn | Most abundant big game species. | Use sagebrush and other shrub-grasslands, and agricultural fields. | Specific population information is not available for all herds; they exhibit some population fluctuations depending on severity of winter and summer drought; however, populations have generally increased since 1998.<br><br>WGFD Population Estimate 2011<br><br>Red Desert = 12,948 (86% of objective)<br><br>Sublette = 27,000 (56% objective)<br><br>Bitter Creek = 6,000 (24 % objective)<br><br>South Rock Springs = 6,200 (95% objective)<br><br>Uinta/Cedar Mtn = below objective |

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| Rocky Mountain elk | Common in the Wind River, Little Mountain, Pine Mountain, Jack Morrow Hills, and Red Desert areas. Becoming more common in suitable habitat across the Planning Area. | Use shrub-grasslands, woodlands, and riparian/wetlands. Winter range habitats are primarily grass-shrub communities containing big sagebrush (*Artemisia tridentata*), antelope bitterbrush (*Purshia tridentata*), silver sagebrush (*Artemesia cana*), three-tip sagebrush (*Artemesia tripartita*), and mixed stands include skunkbush sumac (*Rhus aromatica*), chokecherry (*Prunus virginiana*), snowberry (*Symphoricarpos albus*). Other habitat types include aspen (*Populus tremuloides*), logdepole pine (*Pinus contorta*), limber pine (*Pinus flexilis*), and juniper (*Juniperus spp.*). | Most herds are well above objective and appear to be increasing or stable.<br><br>WGFD Population Estimate 2009<br><br>South Rock Springs = 1,100 110% objective<br><br>South Wind River = Not available<br><br>Uinta/Cedar Mtn = Not available<br><br>West Green River = 3,878 (125% objective)<br><br>Pinedale = 2,168 (114% objective)<br><br>Petition = Not available |
| Moose | Common along the Green River, Little Mountain and Red Creek area as well as the Wind River Front. | Forest and riparian/wetland areas and well into the sagebrush. | All herds are below objective and some are declining.<br><br>WGFD Population Estimate 2009<br><br>Lander = 327 (73% objective)<br><br>Uinta = no model but sharp decline believed<br><br>Sublette = 4,701 (85% objective)<br><br>Lincoln = 580 |
| White-tailed deer | Limited occurrence along the Green River and the Blue Rim road. | Prefer riparian drainage bottoms and conifer forests. | Data not available. |
| White-tailed prairie dog, Wyoming pocket gopher, Idaho pocket gopher, and pygmy rabbit | White-tailed prairie dogs continue to experience declines because of the habitat conversion, plague, poisoning, and recreational shooting. Wyoming pocket gopher is extremely rare and only occurs in Wyoming. Currently this species is under severe threat from oil and gas development. Little is known about the distribution of Idaho pocket gophers in Wyoming, except | They have been located in most areas containing tall sagebrush and loose soils found in the Field Office. Although the white-tailed prairie dog is found through much of the Field Office, colonies are frequently lost to outbreaks of plague, and recreational shooting and poisoning campaigns on private lands. | Data not available. |

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| | that it is expected to occur in Lincoln and Sweetwater counties. Pygmy rabbits appear to be more numerous in Wyoming than previous believed. | | |
| Greater Sage-Grouse | Generally well distributed throughout suitable habitat. | Greater Sage-Grouse use sagebrush steppe. | Greater Sage-Grouse are declining throughout their range and are a candidate for listing under the ESA. |
| Ferruginous hawk and golden eagle | | Canyons, cliffs and mesas, and sagebrush habitat. | Ferruginous hawk populations appear stable. However, the state lists the ferruginous hawk as Level 1, significant decline, needing conservation action.<br><br>Golden eagles are declining throughout most of their range, but are locally abundant. |
| Bald eagle | | Forest and riparian/wetland areas. | The state lists the bald eagle as Level 1, significant decline, needing conservation action. Bald eagles are increasing in other portions of their range but are locally rare and vulnerable. |
| Burrowing owl | | Prairie dog towns and sagebrush habitats with previously existing dens. | Burrowing owls are rare and facing multiple threats on their winter range. |
| Upland game birds:<br><br>Blue grouse, ruffed grouse, chukar partridge | Blue and ruffed grouse are forest inhabitants while chukar partridge inhabit the dry shrubland. | Chukar partridge are found in the broken terrain from Wilkins Peak south of I-80 and a small limited population around the Firehole region and on White Mountain. | Population data not available for these birds. However, they are negatively affected by hard winters. However, they can quickly build up their populations with multiple broods per year when conditions are favorable. |
| Bats:<br><br>Spotted bat, Townsend's Big-eared bat, fringed myotis, long-eared myotis, pallid bat, California myotis, small-footed myotis, Yuma myotis, California myotis, long-legged myotis, big brown bat, little brown myotis, hoary bat, and silver-haired bats, and canyon bat | Known to inhabit caves and abandoned mines for hibernation where temperature and airflow requirements are met.<br><br>However many of these bats roost in trees, canyons, rock crevices, and under loose bark on dead or dying trees. | Primarily caves, mines, forested or near open water where insects are available.<br><br>Small streams, backwaters, and other wetlands are extremely important for feeding because all of Wyoming bats are insectivorous. | Data not available.<br><br>However, little brown myotis are in severe declines in the eastern states owing to White-nosed disease, with up to 100% death rates in some hibernacula in the eastern states.<br><br>The disease affects all colonial roosting bats and has been verified as close as western Oklahoma. |

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| Waterfowl:<br><br>Duck trends and<br><br>Canada geese breeding population | Well distributed throughout the area where suitable habitat exists. | Use reservoirs, wetlands, and rivers. | [a] Average for 1955–1980.<br><br>Percentage of population objective<br><br>● American wigeon -5%<br><br>● Northern pintail -20% lesser and greater scaup combined -18%<br><br>● Mallard 13%<br><br>● Gadwall 73%<br><br>● Green-winged teal 79%<br><br>● Blue-winged teal 60%, Northern shoveler 93%<br><br>● Northern pintail -20%, redhead 62%<br><br>● Redhead 62%<br><br>● Canvasback 16%.<br><br>Canada goose estimated population of adult geese in the Rocky Mountain management area 380 (objective is 256). |
| Shorebirds: Killdeer, spotted sandpiper, greater and lesser yellowlegs, willet, long-billed dowitcher, wilson's phalarope, and common snipe | These birds are generally found in, or near wetlands. | Shorebirds are most often found foraging for food along water margins. Shorebirds use the Planning Area during migration and also for nesting. Shorebirds frequent open water areas, and riverine and wetland habitats in the Planning Area. | Unknown |
| Raptors | | | There are no current surveys covering the Field Office that would give trends in resident populations. The state lists the northern goshawk, Swainson's hawk, peregrine falcon, and short-eared owl as Level 1, significant decline, needing conservation action.<br><br>Level 2 species needing monitoring with population declines, but not significant at this time include: merlin, and western screech-owl.<br><br>Trends from the nearby Commissary Ridge Hawk Watch sight do provide trends |

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| | | | of migrating raptors in the area. Red-tailed hawks, American kestrels, and prairie falcons have declined significantly in the west. Bald eagles and rough-legged hawks showed no significant trends. For many species, trends were related to regional variation in precipitation and drought since the late 1980s. |
| Long-billed curlew | | | The long-billed curlew is listed as a "species of conservation concern." Its numbers are very limited throughout the Planning Area. The wetland/wet meadows the bird's require for breeding is very limited in this high desert environment. Population is declining. Level 1 Conservation Action for the state. |
| Mountain plover | | | The mountain plover has twice been proposed for listing under the ESA. Wyoming has the second largest breeding population, surpassed only be Colorado. The greatest threat to mountain plover appears to be loss of winter habitat in California and the southwest. However, reductions in prairie dogs, energy development, and conversion of grasslands into agriculture in the breeding grounds in Wyoming are also believed to be responsible for declines in the population. Current population levels in the Planning Area are unknown, but population is declining. Level 1 Conservation Action for the State. |
| White-faced ibis | Data is lacking for white-faced ibis, although they are found in relative abundance on the private lands in the Farson-Eden Valley area. They are virtually unknown throughout the rest of the Planning Area. | | Data is lacking for white-faced ibis, although they are found in relative abundance on the private lands in the Farson-Eden Valley area. They are virtually unknown throughout the rest of the Planning Area. |

| Species | Occurrence in the Planning Area | General Habitat Associations | Trends in Abundance in Area |
|---|---|---|---|
| Amphibians:<br><br>Great Basin spadefoot, boreal toad, northern leopard frog, spotted frog, boreal chorus frogs | Not well known. | Use riparian and wetland areas. The Great Basin spadefoot toad ues ephemeral wetlands and is known to hibernate deep in the soil for years until sufficient rainfall occurs and they emerge and reproduce. | Amphibian populations are generally declining worldwide. This trend is expected in the Planning Area as well. |
| Reptiles:<br><br>Midget faded rattlesnake, Great Basin gopher snake, northern tree lizard, short-horned lizard, sagebrush lizard, western wandering garter snake, plateau fence lizard, striped whip snake, and prairie rattlesnake | Midget-faded rattlesnake distribution is limited by key habitat features (i.e., den sites and prey), specifically, large rock outcrops associated with the Green River and Flaming Gorge Reservoir. The remaining reptiles inhabit shrub-steppe areas. | The midget-faded rattlesnake is limited to rocky outcrops with a southern to easterly aspect below 7,500 feet and associated feeding areas. Great Basin gopher snake, northern tree lizard, sagebrush lizard and common tree lizard (blue-bellies) are generally found in the sagebrush and juniper habitats, except for the garter snake, which requires moist habitats. | Population and distribution data are not available. |

[a]Source: USFWS. Trends in duck breeding populations, 1955–2009. Central and Pacific Flyway Migratory Game Birds

## 2. Resource-Specific Information

### *a. Indicators*

The following indicators may be used in the analysis of the resources. Not all indicators are used for all species. Not all information is available for all species.

The following are indicators of the overall health of wildlife species or their habitat:

- Population numbers
- Species occurrence and distribution
- Water quantity and distribution
- Habitat quality
- Available forage
- Habitat fragmentation
- Disturbance
- Density
- Disruptive activities
- Gain or loss of important habitats
- Listing of species under the ESA as federally threatened or endangered or as a BLM Wyoming sensitive species
- Species listed on WGFD's "Species of Greatest Conservation Need" (Wyoming State Wildlife Action Plan, 2010)
- Rangeland Health Standards
- Riparian PFC ratings
- Disease
- Presence of invasive species, including cheat grass, halogeton.

## *b. Current Conditions*

### Existing Conditions for Priority Wildlife Species

This section describes the existing conditions for priority wildlife species, which include game animals and non-game species of special interest. The latter includes those that are considered to have a unique role in the ecosystem, are of public interest, have a low abundance or declining population, are associated with rare habitats, or may be sensitive to management activities. However, availability and quality of data vary for individual species.

### Big Game and Large Mammals

The WGFD manages big game populations in herd units. Herd unit boundaries generally do not match BLM field office boundaries, making analysis and correlation of resource data and big game population data difficult. The WGFD revises its population objectives for each big game species based on new habitat information, population trends, recreation demand, and public input.

Table 2.13 details the big game species within the Planning Area, habitat use by big game, acreage of crucial habitat and birthing areas within the Planning Area, WGFD herd units and size, and population levels set by WGFD for each herd unit.

**Table 2.13. Big Game Habitat Use and Size**

| Common and Scientific Name | Habitat Use in Planning Area (acres) | WGFD Herd Unit in Planning Area (acres) | WGFD Population Objective | WGFD Population Estimate 2011 |
|---|---|---|---|---|
| Pronghorn (*Antilocapra americana*) | *Crucial winter range*<br>BLM = 648,629<br>FS = 43,263<br>Private = 262,960<br>State = 33,829<br>Reclamation = 5,697<br>F&W = 12,374<br>Total = 1,133,746 | Red Desert = 535,484<br>Sublette = 2,590,185<br>Bitter Creek = 905,031<br>South Rock Springs = 774,935<br>Uinta/Cedar Mtn = 552,832 | Red Desert = 15,000<br>Sublette = 48,000<br>Bitter Creek = 25,000<br>South Rock Springs = 6,500<br>Uinta/Cedar Mtn = 10,000 | Red Desert = 12,948<br>Sublette = 27,000<br>Bitter Creek = 6,000<br>South Rock Springs = 6,200<br>Uinta/Cedar Mtn = below objective |
| Mule Deer (*Odocoileus hemionus*) | *Crucial winter range*<br>BLM = 517,545<br>FS = 23,315<br>Private = 142,592<br>State = 39,047<br>Reclamation = 3,083<br>F&W = 6,189<br>Total = 731.772 | Steamboat = 2,046,661<br>South Wind River = 115,032<br>Sublette = 865,530<br>Uinta = 553,235<br>South Rock Springs = 1,376,008<br>Sweetwater = NA<br>Baggs = 303,689 | Steamboat = 4,000<br>South Wind River = 13,000<br>Sublette = 32,000<br>Uinta= N/A<br>South Rock Springs= 11,750<br>Baggs = slightly less | Steamboat = no trend counts on this herd<br>South Wind River = 9,713<br>Sublette = 20,785<br>Uinta = no model<br>South Rock Springs = 7,200<br>Baggs = 14,500 |

| Common and Scientific Name | Habitat Use in Planning Area (acres) | WGFD Herd Unit in Planning Area (acres) | WGFD Population Objective | WGFD Population Estimate 2011 |
|---|---|---|---|---|
| | *Parturition*<br>BLM = 63,066<br>FS = 188<br>Private = 9,167<br>State = 3,980<br>Total = 76,402 | Wyoming Range = 98,154 | Wyoming Range= 50,000 | Wyoming Range = 28,940 |
| Rocky Mountain Elk (*Cervus elaphus*) | *Crucial winter range*<br>BLM = 357,628<br>FS = 1,866<br>Private = 70,307<br>State = 25,043<br>Total = 454,844<br>*Parturition*<br>BLM = 140,152<br>FS = 87<br>Private = 16,103<br>State = 16,131<br>Total = 172,473 | Steamboat = 1,850,020<br>South Rock Springs = 774,572<br>South Wind River = 432,758<br>Uinta/Cedar Mtn = 553,157<br>West Green River = 145,673<br>Pinedale = 696,805<br>Petition = 905,175 | Steamboat = 1,200<br>South Rock Springs = 1,000<br>South Wind River = 3,300<br>Uinta/Cedar Mtn = 600<br>West Green River = 3,100<br>Pinedale = 1,900<br>Petition = 300 | Steamboat = believed to be over objective<br>South Rock Springs = 1,100<br>South Wind River = N/A<br>Uinta/Cedar Mtn = N/A<br>West Green River = 3,878<br>Pinedale = 2,168<br>Petition=N/A |
| Moose (*Alces alces*) | *Crucial winter range*<br>BLM = 20,322<br>FS = 6<br>Private = 15,836<br>State = 4,771<br>Reclamation = 5,697<br>Total = 46,632 | Lander = 488,243<br>Uinta = 1,927,316<br>Sublette = 144,750<br>Lincoln= 266,618 | Lander = 450<br>Uinta = 900 (includes Utah portion)<br>Sublette = 5,500<br>Lincoln = 1,620 (recently raised from 1,500) | Lander = 327<br>Uinta = 232<br>Sublette = 4,701<br>Lincoln = 580 |

## Pronghorn

Suitable summer pronghorn habitat is found in most vegetative communities and includes about 4,662,000 acres within the Planning Area. Six designated pronghorn herd units are either completely or partly within the Planning Area.

Preferred pronghorn habitat is usually characterized by the presence of summer water and sagebrush in combination with rabbitbrush and antelope bitterbrush. The Planning Area provides an estimated 3,880,000 acres of this habitat. Big sagebrush is the most common species. Severe winters with deep, crusted snow and below-zero temperatures cause high pronghorn mortalities. In addition, fences affect pronghorn movement with direct and indirect effects to mortality. More than 1,600 miles of fences affect pronghorn movement in the Planning Area. Of these fences, about half are on public land for the purpose of controlling livestock. Fence modifications such as pronghorn passes and lay-down panels, have helped pronghorn cope with some fences. In 1975, the Wyoming Highway Department began a fencing program on southwest Wyoming highways that continues today. Dimensions, design, and placement of these and other new fences are causing some migration problems and resulting in some direct and indirect mortality on big game animals, especially the young.

Migration patterns vary considerably from year to year and relate to specific winter ranges, winter severity, snow depth, and migration barriers. The Little Colorado area supports a large resident herd as well as a large number of winter migrant pronghorn. The migrant herd summers from Farson to the Wind River Mountain foothills to Jackson. Season changes in late September and October move the animals southward to the Farson area, and they may travel as far south as Rock Springs where they are blocked by I-80.

**Mule Deer**

The Wyoming mule deer population was estimated at approximately 480,000 individuals in 2008 (WGFD, 2009). The population has declined significantly since the 1950s. In the early 1990s, mule deer populations declined significantly. While a definite cause for this decline was unknown, the decline was generally attributed to a combination of drought and severe winters. Mule deer are distributed over most of the Planning Area in seven herd units which occur fully or partially within the Planning Area. Winter range is a limiting factor for deer populations over much of their habitat because shrubs, that make up approximately 75 percent of the winter diet, are covered by snow in many areas. Drought conditions and competition with elk for preferred birthing areas may also be affecting the overall population and mule deer fawning success. The presence of migration routes connecting the seasonal and transitional ranges is equally as important to mule deer as the inherent values of the ranges. Mule deer in Wyoming can travel more than 80 kilometers between summer and winter ranges during their migration (WGFD, 2002). These migratory routes are extremely fragile and once severed are difficult, if not impossible, to replicate.

Additional factors limiting mule deer herds in Wyoming include disease; fire suppression; invasive species, including cheatgrass; livestock grazing, the presence of water sources and natural mineral licks; drought and severe winters exacerbated by the influence of global climate change; competition with other ungulates, particularly elk; precipitation levels; and the presence of predators. Some of the greatest habitat threats to mule deer populations in Wyoming include: energy development that reduces both the availability and quality of habitat, loss of winter range, habitat fragmentation, the disruption of migration routes connecting seasonal ranges, rural residential development, and the effects of highway construction.

**White-tailed Deer**

White-tailed deer are present in low numbers north of the city of Green River between the Green River, and Blue Rim Road. The WGFD does not report on this herd.

### Rocky Mountain Elk

Six elk herd units are designated in the Planning Area. The South Rock Springs Herd and Steamboat units are completely within the Planning Area, while only portions of the Pinedale, Petition, West Green River, Uinta-Cedar Mountain, and South Wind River units are within the Planning Area. The Steamboat and Little Mountain elk herds were established after several transplants from the Jackson, Wyoming, area. Historically, elk migrated from as far north as Yellowstone National Park and possible as far south as the Colorado border prior to the construction on Interstate 80. Some of the Steamboat elk migrate south to North and South Table Mountain and winter from Hatcher Mesa to Long Canyon and Pine Canyon. Resident elk herds are now found along Alkali Creek, Natural Corrals, Ten Mile Draw, and other areas. The Steamboat elk herd has been steadily increasing; and has been documented expanding its range as far as the Antelope Hills north of Rawlins. The South Rock Springs herd has been steadily increasing. Disease and predation effects on local elk are not known but appear to be minimal. Some of the elk use occurs during severe winters in areas adjacent to the Green River near Bird and Chapel canyons. These animals come from the Bridger National Forest near Big Piney. A few elk summer here, where they water on the Green River as herd populations increase, and more are now found on Seedskadee National Wildlife Refuge.

Elk populations west of Flaming Gorge were relatively stable from 1966 through 1978. Since then, the herd has gradually increased and now has problems with depredation of hay stacks and hay fields. These animals do not seem to be as seriously affected by weather conditions as other elk herds in the Planning Area. Elk forage on a wide variety of trees and shrubs, grasses, and herbaceous plants. Fecal studies conducted from the area show that 74 percent of the diet was grass, 35 percent of the diet was forbs, and 22.5 percent consisted of shrubs. More than half of the browse was antelope bitterbrush.

### Moose

In 2005, the WGFD listed the Shiras moose as a species of greatest conservation need (Native Species Stats 3 [NSS3]) based on declines in habitat and population. The 2008 post-season statewide population estimate is 7,697 moose, with a population objective of 13,820 moose (WGFD, 2009). The Sublette herd is the largest herd in the state, accounting for 56 percent of all moose counted during 2007 trend counts.

Some calving occurs on tributaries of the Sweetwater River, the upper Big Sandy River, and along the Green River. Moose calving also occurs in aspen stands and along drainages in the upper Henry's Fork River, both on and off National Forest lands.

During early winter, moose migrate from the forests into Blucher Creek, Lander Creek, the lower Sweetwater River, and the Henry's Fork. They are yearlong residents along the entire Green River system to below the County Recreation area. Yearlong residence is common in the Sweetwater and both Big and Little Sandy River watersheds. Good yearlong riparian habitat exists from Fontenelle to Big Island, with preferred habitat on Seedskadee Refuge. A few moose also inhabit small riparian areas on Pine and Little mountains.

Several of Wyoming's moose herd units have experienced poor calf recruitment and population declines (Thomas, 2008). The specific reasons for moose population declines are not fully understood, but habitat conditions remain a common theme and are believed to be an important component of population decline. The desired outcome of management actions is a sustainable habitat containing healthy plants of high vigor and quality.

Achieving a balance between the number of browsing ungulates and the quantity of available what habitat is the primary management goal.

**Bighorn Sheep**

Bighorn sheep historically ranged across the Planning Area as indicated in early accounts by mountain men and settlers. Petroglyph panels at the Sugarloaf, White Mountain, and Cedar Canyon rock art sites and elsewhere depict bighorn sheep as important to prehistoric inhabitants of the region, and they were probably common here at that time.

Habitat requirements of bighorn sheep are similar to other wildlife species occupying the Planning Area. They prefer broken terrain with few human intrusions and little human activity. Bighorns graze on a wide variety of grasses, sedges, and forbs. Browse species are important foods during fall and winter. In desert or arid regions, where lack of moisture limits grass growth, shrubs and trees are major food items. Bighorns are attracted to and seek out natural mineral and salt licks during spring and early summer. The species is not well adapted to deep and crusted snow and are forced to winter on the confines of southern exposures or wind-blown slopes near escape terrain. Distribution depends upon available water supplies, predators, and human disturbance. Suitable bighorn sheep habitat occurs on Little Mountain, Richards Mountain, Pine Mountain, and the Haystacks. There currently are no bighorn sheep herd management areas (HMA) in the Planning Area because of conflicts (primarily disease transmission from domestic to wild sheep) with domestic sheep grazing allotments.

**Mountain Lion**

The wide distribution of mountain lion observations indicates that this species is presently found throughout much of the Planning Area within suitable habitat. Indications are that distribution is widespread and the population is limited. The state is divided into Mountain Lion Management Units. The entire Planning Area is found within the West Management Unit. Management units are divided into hunt areas with mortality quotas set by the WGFD for each hunt area. The mountain lion season in a hunt area closes when the mortality quota is reached.

Mountain lions still reside in the broken juniper and rim rock areas wherever suitable habitat exists. One limiting factor for mountain lions is conflicts with people when the cats try to live in close proximity with humans. The lion population may also be limited by the low mule deer (their primary food source) numbers. Most of the Planning Area is easily accessible; human presence and activities throughout the lion's habitat will probably continue to limit mountain lion populations.

**Black Bear**

Suitable bear habitat exists over about 189 square miles of land in the Planning Area. Black bear occupy timbered habitats along the Wind River Mountains with some use of habitat near the Colorado and Utah border, and on Little Mountain and Pine Mountains. Occasionally, black bears occur along the Sweetwater River and its tributaries and upper reaches of Little Sandy and Big Sandy rivers. Most of the harvested bear are taken in the Bridger National Forest. The primary limiting factor for the bears is limited food supply. Human encroachment, off-road vehicle use, and animal damage control activities also have an effect on the population. The state is divided into Black Bear Management Units. Two Black Bear Management Units occur within the Planning Area. The Wind River Black Bear Management Unit is found in the northern portions of the Planning Area between Farson and the Wind River Mountains. A small portion of the

Planning Area is within the Uinta Black Bear Management Area near Lonetree and McKinnon, and the Utah state line. Management units are divided into hunt areas with mortality quotas set by the WGFD for each hunt area. The black bear hunting season closes in each bear hunt area or group of hunt areas when the female mortality quota specified for the respective hunt area or group of hunt areas has been reached.

### Gray Wolf

The gray wolf has been present in portions of the Planning Area over the past decade likely from an expansion of their range as a result of a growing population. Wolves are no longer listed as a "Nonessential Experimental Population" in Wyoming. They have denned along the Wind River Range Front, and wolves have occurred near the communities of Granger and Wamsutter, Wyoming, as well. The WGFD now has management authority over gray wolves. They are managed as a predator throughout the Planning Area and may by shot on sight.

### Other Mammals

Other mammals present in the Planning Area include coyote, white-tailed jackrabbit, Nuttall's cottontail rabbit, desert cottontail, pygmy rabbit, porcupine, raccoon, red fox, swift fox, beaver, striped skunk, white-tailed prairie dog, and various rodents, bats, weasel, ermine, long-tailed weasel, mink, badger, and the river otter.

### Birds

Non-consumptive uses of birds in the Planning Area include scientific wildlife study, photography, and viewing by public land visitors. People from all over the country frequently come to Wyoming for birding.

### Waterfowl

The Planning Area lies between the Pacific and Central Flyways. The period of occupancy by waterfowl is comparatively short, and most of the waterfowl found here are migratory, short-term occupants. Most waterfowl nesting in the flyways occur below 8,500 feet. Throughout the Planning Area, the availability of forage, food, and cover are the most significant factors affecting resident waterfowl populations. Nesting habitat is dependent on cover in riparian areas. These areas are often dependent on beaver pond-building activities.

Open water in the Planning Area, from flowing wells and stock ponds to playa lakes and potholes, are used by waterfowl. Common ducks include the mallard, green-winged teal, cinnamon teal, northern pintail, canvasback, redhead, and common goldeneye. The Canada goose is an abundant year-round resident. Trumpeter swans and tundra swans may be found on Seedskadee National Wildlife Refuge and nearby along the Green River.

Some species only migrate through the area on their way to breeding or nesting grounds farther north, or to winter areas farther south. Other species such as the Barrow's goldeneye, are resident for only parts of the year, wintering in western Wyoming. All waterfowl are dependent on ponds, marshes, streams, lakes, and rivers.

Geese follow the same migration pattern as ducks with the exception of spring migration and breeding periods. They migrate into the area by early March and begin establishing nesting territories. Mating occurs by mid to late April. At this time of year, geese are common along the Green, Blacks Fork, and Big Sandy rivers and are not usually found staging on Flaming Gorge

or Fontenelle reservoirs. As fall arrives, geese congregate on Eden and Fontenelle reservoirs, and the Green River. They remain there, feeding on submergent vegetation or Eden Valley grain fields until ice covers open waters. They then move southward into Colorado and Utah to spend the remainder of the winter.

Waterfowl nesting in the freshwater ponds in the sand dunes has become nearly nonexistent within the past 10 years. The Red Desert region has historically had fair to good duck production as a product of human-made reservoirs and flowing wells. However, available water and adjacent cover necessary for nesting and escape have been reduced.

Great blue heron rookeries can be found in the tops of mature cottonwood trees along the Green River. Sandhill cranes are often seen courting and nesting along the Sweetwater River, Seedskadee Refuge, and the Big Sandy River and adjacent farm lands in the spring.

Avian and terrestrial predators take some waterfowl and their young, but their impact on the population is insignificant. The greatest limiting factor facing resident and migrant waterfowl is the loss of nesting riparian vegetation along streams and wetlands and the direct loss of birds in open industrial wastewater ponds. The Migratory Bird Treaty Act (1916), the Migratory Bird Conservation Act (1929), and later Acts and amendments provide for migratory bird protection. Local operations are required to comply with the provisions of the treaties by either removing and reclaiming open waste pits and ponds, or netting the open wastewaters with protective propylene nets.

**Wading birds** are water birds that usually do not swim or dive for their prey, but wade in shallow edges of lakes, ponds, creeks, and other waters for food not available on shore. The great blue heron, white-faced ibis, and sandhill crane are wading birds common to Planning Area. The heron and ibis use the broad range of habitats, foraging in wetlands and shallow riverine areas and nesting over water in cottonwood trees or tall shrubs. Sandhill cranes use wetland/marshy areas and grass/forb habitats for foraging and nesting.

**Shorebirds** are most often found foraging for food along water margins. Shorebirds use the Planning Area during migration and also for nesting. Shorebirds frequent open-water areas, riverine, and wetland habitats on the Planning Area. Common shorebird species using area include killdeer, spotted sandpiper, greater and lesser yellowlegs, willet, long-billed dowitcher, Wilson's phalarope, and common snipe.

**Divers and swimmers** are water birds that swim or dive for their prey. The common merganser, pied-billed grebe, and American coot use open-water areas, and tall emergent marshes, and nest in the Planning Area. The double-crested cormorant and American white pelican subsist on a diet of fish and frequent riverine and open-water habitats. Exposed river rocks, cottonwood trees, and graveled shorelines provide roosting habitat.

**Neotropical migrants** are birds that breed in North America, but winter in Central and South America or the West Indies. The following species are those that are more commonly found in the Planning Area during migration, but many nest on the Planning Area as well. These species include: tree swallow, rufous hummingbird, western and eastern kingbird, yellow warbler, Lincoln sparrow, common nighthawk, and the yellow-rumped warbler.

**Woodpeckers** that inhabit the Planning Area include the northern flicker, which is the most common. Other less common woodpeckers include downy, and hairy woodpeckers, and the red-naped sapsucker.

**Upland bird** species rely primarily on upland habitats. Several of the more common upland bird species include Greater Sage-Grouse, horned lark, western meadow lark, mourning dove, sage sparrow, and sage thrasher.

### Game Birds

Greater Sage-Grouse are found throughout the Planning Area wherever suitable habitat exists and are further discussed in the Special Status Wildlife Species section. Chukar partridge, blue grouse, and ruffed grouse are also present in the Planning Area. Detailed habitat descriptions are on file in the Field Office.

### Juniper Obligate Species

The south central portion of the Planning Area contains the northernmost extent of the pinyon/juniper biome. Many of the juniper trees in this area are several hundred years old and the large interior blocks support species not found anywhere else in Wyoming. These species include the black-throated gray warbler, western scrub-jay, juniper titmouse, ash-throated flycatcher, gray flycatcher, Bewick's wren, blue-gray gnatcatcher, cliff chipmunk, pinyon mouse, and canyon mouse.

### Raptors

There are 27 species of hawks, eagles, and owls either nesting, thought to nest, or have the potential of nesting in the Planning Area. Other species may be found wintering or stopping over on their migration. The BLM has identified the bald eagle, peregrine falcon, ferruginous hawk, prairie falcon, osprey, and golden eagle, as raptors of high priority for conservation and habitat criteria for management. The burrowing owl is state listed as a species in the "rare" abundance category with a biological status designation of "I," indicating declining populations and/or habitat conditions or indicators of such throughout all or a part of their range.

Raptor inventories have not been completed on all potential habitats in the Planning Area and existing information is out of date. Raptor species commonly seen in the Planning Area and their respective habitats are shown in Table 2.14, "Common Raptor Species in the Planning Area" (p. 91).

Many of the more than 1,600 known raptor nests occur on hilltops, low cliffs, and rock escarpments found within the sagebrush steppe community. Maintenance and management of this habitat component is of primary importance.

**Table 2.14. Common Raptor Species in the Planning Area**

| Common Name | Scientific Name | Habitat |
|---|---|---|
| Prairie falcon | *Falco mexicanus* | Low rock outcroppings to tall vertical cliffs (Rock Springs Uplift, Steamboat Mountain). |
| American kestrel | *Falco sparverius* | Dead snags, clay stream banks, rim rock. |
| Ferruginous hawk | *Buteo regalis* | Low cliffs, buttes, tresses, on the ground, artificial nesting platforms, sheepherder monuments. |
| Red-tailed hawk | *Buteo jamaicensis* | Riparian zones and timbered areas. |
| Swainson's hawk | *Buteo swainsoni* | Dry plains, open foothills, open forest, sparse trees, river bottoms. |
| Northern harrier | *Circus cyaneus* | Wetlands and open fields. |
| Burrowing owl | *Athene cunicularia* | Grasslands and mountain parks near prairie dog towns and steppes, deserts, and prairies. |

| Common Name | Scientific Name | Habitat |
|---|---|---|
| Golden eagle | *Aquila chrysaetos* | Cliffs, ledges, pinnacles. |
| Great-horned owl | *Bubo virginianus* | Cliff holes, rock crevices, trees. |

**Herpetiles**

Tiger salamander, Great Basin spadefoot, boreal toad, northern leopard frog, and Columbia spotted frog, all use riparian and wetland areas. The Great Basin spadefoot toad uses ephemeral wetlands and is known to hibernate deep into the soil for years until sufficient rainfall occurs and they emerge and reproduce. Adult toads may also be found in the shrub lands near water. Amphibian populations are generally declining worldwide. This trend is expected in the Planning Area as well.

**Reptiles**

The midget-faded rattlesnake, prairie rattlesnake, Great Basin gopher snake, northern tree lizard, greater short-horned lizard, northern sagebrush lizard, striped whipsnake, plateau fence lizard, and wandering garter snake are some of the reptiles found in the Planning Area.

The striped whipsnake was recently documented in the south-central part of the Planning Area. It is found in grasslands, sagebrush deserts, rocky canyons, pinyon-juniper woodlands, and ponderosa pine forests. It prefers perennial or intermittent streams, where it forages and seeks shelter in rocky outcrops, rodent burrows, and in shrubs and trees. These snakes occur from sea level up to 9,400 feet.

The midget-faded rattlesnake is limited to rocky outcrops with a southern to easterly aspect below 7,500 feet and associated feeding areas. The distribution of the midget-faded rattlesnake is limited by key habitat features, specifically, large rock outcrops associated with the Green River and Flaming Gorge Reservoir and nearby feeding area.

The remaining reptiles inhabit shrub-steppe areas. Great Basin gopher snake, northern tree lizard, sagebrush lizard, and common tree lizard are generally found in the sagebrush and juniper habitats, except for the garter snake, which requires moist habitats.

## *c. Trends*

The following species assessments were provided by the WGFD and can be found in the Wyoming Game and Fish Department Annual Big Game Herd Unit Reports 2011 (WGFD 2011).

**Big Game**

- Elk and pronghorn: Faring well and generally at or above objectives with upward trends.
- Moose: Populations are declining. Habitat is vulnerable but no ongoing significant loss.
- Mule deer: Populations are declining.
- Mountain lions: Information not available.
- Black bear: Information not available.

### Other Large Mammals

River Otter–Population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss.

### Small Mammals

Bat populations are unknown because there is no baseline information. The BLM is unable to determine trends. During 2010, White-Nose Syndrome, an illness affecting all species of bats was documented in western Oklahoma. The illness originated in the eastern states and has been spreading very quickly, wiping out entire populations of bats. If the illness continues to spread west, Wyoming bat populations could be severely affected. The BLM also expects new impacts on bats from wind energy development.

- Canyon mouse populations are restricted in distribution. Habitat is vulnerable but no ongoing significant loss.
- Cliff chipmunk populations are restricted in distribution. Habitat is vulnerable but no ongoing significant loss.
- Dwarf shrew populations are restricted in numbers. Habitat is vulnerable but no ongoing significant loss.
- Water shrew population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss.
- Pinyon mouse populations are restricted in distribution. Habitat is vulnerable but no ongoing significant loss.
- Water vole populations are restricted in distribution. Habitat is vulnerable but no ongoing significant loss.
- Sagebrush vole population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss.
- Big brown bat species is widely distributed; population status and trends are unknown but are suspected to be stable. Ongoing significant loss of habitat.
- Little brown myotis species is widely distributed; population status and trends are unknown but are suspected to be stable. Ongoing significant loss of habitat.
- Western small-footed myotis species is widely distributed; population status and trends are unknown but are suspected to be stable. Ongoing significant loss of habitat human disturbance.
- Hoary bat species is widely distributed; population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss; species is sensitive to human disturbance. Highly susceptible to wind energy development.
- Silver-haired bat population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss; species may be sensitive to human disturbance.

**Birds**

- Barrow's goldeneye populations are restricted in distribution. Habitat is restricted and vulnerable but no ongoing significant loss.
- Canvasback populations are restricted in distribution. Habitat is restricted and vulnerable but no ongoing significant loss.
- American bittern populations are restricted in numbers and distribution. Habitat is restricted and vulnerable but no ongoing significant loss; species is sensitive to human disturbance.
- American white pelican populations are restricted in numbers and distribution. Habitat is restricted and vulnerable but no ongoing significant loss; species is sensitive to human disturbance.
- Franklin's gull populations are restricted in numbers and distribution. Habitat is restricted and vulnerable but no ongoing significant loss; species is sensitive to human disturbance.
- Greater sandhill crane Rocky Mountain population is restricted in number and distribution. Habitat is restricted and vulnerable but no recent or ongoing significant loss; species is sensitive to human disturbance.
- Juniper titmouse populations are restricted in distribution. Habitat is restricted but no ongoing significant loss.
- Lesser scaup populations are declining. Habitat is restricted and vulnerable but no ongoing significant loss.
- Merlin populations are restricted in numbers. Habitat is restricted but no ongoing significant loss; species is sensitive to human disturbance.
- Northern pintail populations are declining. Habitat is restricted and vulnerable but no ongoing significant loss.
- Redhead populations are restricted in numbers. Habitat is restricted and vulnerable but no ongoing significant loss.
- Willow flycatcher populations are declining. Habitat is restricted and vulnerable but no ongoing significant loss.
- Lark bunting populations are restricted in distribution. Habitat is vulnerable but no loss; species is not sensitive to human disturbance.
- Short-eared owl populations are restricted in distribution. Habitat is vulnerable but no loss; species is not sensitive to human disturbance.
- Boreal owl population status and trends are unknown but are suspected to be stable. Habitat is restricted and vulnerable but no ongoing significant loss.
- Swainson's hawk population status and trends are unknown but are suspected to be stable. Habitat is restricted and vulnerable but no ongoing significant loss.
- Great blue heron species is widely distributed. Habitat is restricted and vulnerable but no ongoing significant loss; species is sensitive to human disturbance.

- Western grebe population status and trends are unknown but are suspected to be stable. Habitat is restricted and vulnerable but no ongoing significant loss; species is sensitive to human disturbance.

## *d. Forecasts*

Because of the great number of wildlife species and the unpredictability of industry development and weather in the Planning Area, it is not possible to know the population levels and trends for every species. However, it is assumed that industry demand for energy development, recreation, and grazing and other developments will remain static and the drought pattern continues, general predictions can be made based on assumption that trends will continue as they are now for many species.

Elk numbers will likely remain at or above current population levels while mule deer will continue to struggle. Pronghorn populations will continue to have wide fluctuations based primarily on weather. Many migratory big game herds could face severe reductions in populations if migration routes are functionally cut off by energy development, large-scale mining, fences, and other developments.

Golden eagles populations are closely tied to lagamorph population cycles; but golden eagles are declining throughout North America, although they are locally abundant at this time.

Many of our neotropical migrant birds continue to experience significant declines owing to conversion of their nesting habitats in North America and conversion of habitats, exposure to pesticides and other toxins now banned in the United States and Canada, but still readily used in South America, Central America, and the Caribbean.

Gray wolves will continue to expand their ranges, and populations are expected to increase as much as human tolerance and management agencies will allow.

## *e. Key Features*

These are the most important characteristics of the resource exhibited in the Planning Area:

Key planning area features that are important to wildlife include large undisturbed tracts of healthy sagebrush for Greater Sage-Grouse, big game, and sagebrush obligate species.

Long cliff faces and pinnacles are used by raptors for nesting, hunting, and roosting. Many other species, such as amphibians, birds, and bats depend heavily on permanent and ephemeral wetlands for many crucial life stages.

Most species require some level of security during parturition and nesting. Likewise, stopover sights for migratory birds, and bats, and migration corridors for big game are all crucial for the long-term survival of the species.

Wintering habitat with adequate food and cover, that is relatively undisturbed during winter is critical for non-migratory, non-hibernating wildlife. Hibernacula and den sites are critical for our hibernating animals.

## 2.1.7.2. Fisheries and Fish Habitat

Fish habitats are managed according to laws, regulations, BLM policies, and principles of fisheries management within the BLM's multiple-use mandate. Aquatic species, to the extent that they are directly managed, are overseen by state and federal game management agencies. The WGFD is responsible for regulating the sport and commercial take of all fish within the Planning Area. The USFWS has oversight of federally threatened or endangered species. There are no federally-listed fish species in the Rock Springs Planning Area. The BLM, however, directly manages the habitat that supports both game and non-game fish species where they are found on BLM-administered lands, and indirectly affects all aquatic species both upstream and downstream of BLM-administered lands.

## 1. Regional Context

The Planning Area primarily lies within the upper Green River Basin of the Colorado River freshwater ecoregion, with a very small portion in the upper Sweetwater River drainage of the Middle Missouri freshwater ecoregion. In the Planning Area, the streams of this ecoregion include high gradient headwater streams to low gradient cold desert streams, all flowing into the Green River. The Middle Missouri ecoregion is part of the Mississippi Basin, the largest watershed on the North American continent. In the Planning Area, the Sweetwater River watershed portion flows into the North Platte river near Casper, Wyoming, and is represented by primarily headwater streams.

Because of its long isolation from neighboring river systems, the Colorado River ecoregion is not rich in freshwater species. However, many of its endemic fish species are so distinct in form that they are instantly recognizable.

The assemblage of large river fish species historically found in the Colorado River and its main tributaries includes the humpback chub, bonytail, and razorback sucker which display morphological adaptations for life in turbid, fast-flowing habitats. The Colorado pikeminnow is a near-endemic of particular interest as a top carnivore and the largest cyprinid in North America. Other large-river near-endemic fishes include the flannelmouth sucker, Little Colorado River sucker, Sonora sucker, and desert sucker, as well as endemic subspecies of cutthroat trout and bluehead sucker (Page and Burr 1991, Sigler and Sigler 1994).

In contrast to the relatively large-bodied minnows and suckers, this ecoregion's streams and creeks support a suite of fishes and other taxa adapted to small freshwater habitats. The Apache trout was historically found in the clear, cool mountain headwaters and lakes in the upper Salt River and Little Colorado River systems (Page and Burr, 1991). The Las Vegas dace, now extinct, was historically found in springs along Las Vegas Creek, a small tributary to the Colorado River in Nevada. Like the ecoregion's large river habitats, these springs and associated small freshwater habitats support a number of endemic subspecies, such as the Kendall Warm Springs dace, found only in a small tributary to the Green River (Williams et al., 1985).

The condition of fisheries in the Planning Area is similar to that of the rest of the ecoregion. Not all of the fish species described for the Colorado River ecoregion or the Middle Missouri ecoregion exist in the Planning Area. The construction of Flaming Gorge dam in the early 1960s and treatment of the Green River has eliminated some species previously to exist in Wyoming. The Planning Area is located within the headwaters of this ecoregion. It is one of the most

ecologically important portions of the ecoregion. Sustaining the condition of the streams and river within the Planning Area is vital for maintaining the ecosystem function of the entire watershed.

## 2. Resource-Specific Information

### *a. Indicators*

Fishery habitat conditions are closely tied to riparian conditions and water quality. Riparian vegetation moderates water temperatures, increases bank stability, supports insects used by fish as important food source, filters sediment, provides in stream habitat for fish, and provides organic material for aquatic insects.

The following are indicators of the overall health of fish species or their habitat:

- Population numbers
- Species occurrence and distribution
- Water quality
- Water quantity
- Bank cover and stability
- Aquatic insect/macroinvertebrate distribution and species composition
- Habitat quality
- Habitat fragmentation (e.g., fish passage problems)
- Gain or loss of important habitats
- Listing of species as federally threatened or endangered or as a Wyoming BLM sensitive Species
- Species listed on WGFD's "Species of Greatest Conservation Need" (WGFD, 2005)
- Rangeland Health Standards
- Riparian PFC ratings
- Disease (e.g., whirling disease)
- Presence of aquatic invasive species, including zebra mussels, New Zealand mud snails, and Quagga mussels.

### *b. Current Conditions*

Inventories and studies indicate that fish inhabit most streams in the Planning Area. The mountain sucker is the most common and widespread species, and white sucker, speckled dace, mottled sculpin, and fathead minnow are also common. Most sampling has concentrated on areas where cool-water species, especially trout, may be found.

Mottled sculpin and speckled and longnose dace are indicator fish species of good water quality and a more stable stream habitat. In many cases, these fish and trout species are more common near the headwaters of streams and creeks, where sedimentation and/or siltation are not as significant as further downstream.

There are 28 species, or subspecies, of fish known to occur in the waters of the Planning Area (Table 2.15, "Fish Species in the Planning Area" (p. 98)). Some are native to the Planning Area, some are native to Wyoming but introduced to the Planning Area and the rest are non-native to Wyoming. Some of the fish that are non-native to Wyoming or the Planning Area were introduced intentionally to increase sport fishing opportunities for anglers. Others have been introduced over time either accidentally, illegally, or by other vectors.

**Table 2.15. Fish Species in the Planning Area**

| Species | Status |
|---|---|
| Bluehead sucker | native |
| Brook trout | introduced for sport fishing |
| Brown trout | introduced for sport fishing |
| Burbot | illegal introduction |
| Carp | introduced to this area |
| Channel catfish | introduced for sport fishing |
| Cutthroat trout | - |
| • Colorado River trout | native |
| • Snake River trout | introduced for sport fishing |
| • Yellowstone trout | introduced for sport fishing |
| • Bonneville trout | introduced to this area |
| Fathead minnow | non-native |
| Flannelmouth sucker | native |
| Kokanee salmon | introduced for sport fishing |
| Lake chub | non-native |
| Lake trout | introduced for sport fishing |
| Longnose dace | introduced to this area |
| Longnose sucker | introduced to this area |
| Mottled sculpin | native |
| Mountain sucker | native |
| Mountain whitefish | native |
| Rainbow trout | introduced for sport fishing |
| Redside shiner | non-native |
| Roundtail chub | native |
| Smallmouth bass | introduced for sport fishing |
| Speckled dace | native |
| Splake | introduced for sport fishing |
| Utah chub | non-native |
| White sucker | non-native |

Seven species are considered sensitive by the BLM–the Colorado River cutthroat trout (CRCT), Bonneville cutthroat trout, Yellowstone cutthroat trout, Snake River cutthroat trout, the roundtail chub, the flannelmouth sucker, and the bluehead sucker. Yellowstone, Bonneville, and Snake River cutthroat trout are introduced outside of their historic ranges. The other species are native to the Green River drainage, but because of river and stream impoundments and other habitat

losses, the populations of these species are low. Colorado River cutthroat trout inhabit Upper Red Creek, Little Red Creek, Lizzie Springs Creek, Trout Creek, Currant Creek, Gooseberry Creek, parts of Sage Creek, and Henry's Fork near the border with Utah. Flannelmouth suckers inhabit the Green River, Big and Little Sandy rivers, Bitter Creek, Blacks Fork River, and Henry's Fork River within the Planning Area. Similarly, the bluehead suckers inhabit the Green River, Big and Little Sandy Rivers, Blacks Fork River, Henry's Fork Rive,r and Ringdahl Reservoir. Roundtail chub occupy habitat in the Blacks Fork River.

For the State of Wyoming, four species have been identified as "species of special conservation need" in the 2010 State Wildlife Action Plan. These species are CRCT, flannelmouth sucker, bluehead sucker, and the roundtail chub. These species are native to the Green River drainage, but their populations have declined because of hybridization with and predation by non-native species. Habitat loss as a result of impoundments and other anthropogenic activities has also affected these species.

Based on electro-fishing samples conducted by the WGFD, typical trout populations on the upper reaches of most streams range from 300 to 2,500 fish per mile. Typical trout populations in the lower reaches of these streams range from 50 to 500 per mile. Brook trout is the most prevalent of the species occurring in most streams near the mountains. Rainbow and brown trout species are most common in lower reaches of many streams.

**Fisheries Habitat Requirements**

General recommendations on water quality for the maintenance of life functions of a mixed fish fauna include dissolved oxygen (not less than 5 mg/l), pH (6.7 to 8.6), carbon dioxide (not more than 3 mg/l), conductivity (at 25$^{o}$C., 150–500 mhos, with a maximum of 1,000–2,000 mhos permissible in western alkaline areas), ammonia (not more than 1.5 mg/l), temperature (varies by species), and stream flow.

Two constituents shown to cause widespread fishery impairments are total suspended solids and heavy metals. Any activity that increases total suspended solids, ammonia, heavy metals, or phosphates or reduces dissolved oxygen in the streams of the Planning Area will adversely affect water quality and fish habitat.

**Stream Habitat**

A major limiting factor to game fisheries habitat is the low availability of spawning habitat. This is primarily caused by stream sedimentation, which in turn relates to channel stability. From BLM inventory information in the mid to late 1970s, only 16.7 percent of the stream miles surveyed had good to fair spawning habitat. The remaining 83.3 percent fell into a poor, virtually none, or not significant category. No recent BLM information on spawning habitat exists aside from extrapolation from riparian inventories. Protection and improvement of spawning habitat throughout the area should be one of the main aquatic program emphases.

About 600 miles of perennial or intermittent stream on public lands are within the Planning Area. Inventories and studies indicate that fish inhabit many of the perennial streams. However, even those perennial streams that have very low flow, or flow intermittently, and may not contain fish populations, do contribute to the condition of those streams that are populated.

**Colorado River Cutthroat Trout**

BLM Wyoming has entered into an agreement with other federal and state agencies to manage the CRCT. The agreements are titled "Conservation Strategy for Colorado River Cutthroat Trout (*Oncorhynchus clarkii pleuriticus*) in the States of Colorado, Utah, and Wyoming, June 2006" and "Conservation Agreement for Colorado River Cutthroat Trout (*Oncorhynchus clarkii pleuriticus*) in the States of Colorado, Utah, and Wyoming, June 2006."

The Conservation Agreement and Strategy have been developed to expedite implementation of conservation measures for CRCT in Colorado, Utah, and Wyoming as a collaborative and cooperative effort among resource agencies. Threats that warrant CRCT listing as a special status species by state and federal agencies and might lead to listing under the ESA, as amended, will be eliminated or reduced through implementation of this Agreement and the associated Conservation Strategy.

As described in these documents, the Upper Green River basin has been segmented into Geographic Management Units (GMU), which are defined by second-level hydrologic units (HUC), and conservation populations are further grouped by fourth-level HUCs to assist with information tracking. The following discussion is copied from those documents. Refer to the documents for further information.

"Colorado River cutthroat trout historically occupied portions of the Colorado River drainage in Wyoming, Colorado, Utah, Arizona, and New Mexico (Behnke, 1992; Behnke, 2002), probably including portions of larger streams, such as the Green (Simon, 1935), Yampa, White, Colorado, and San Juan rivers. Widespread introductions of non-native salmonids over the last century however, have served to limit current distributions of CRCT primarily to isolated headwater streams and lakes. Declines in CRCT distribution have been documented in a number of reports (Behnke and Zarn, 1976; Binns, 1977; Martinez, 1988; Young, 1995). Young (1995) determined most lotic populations reside in streams with average daily flows less than 0.85 m3/s (30 cfs). Stream gradients usually exceeded 4 percent, and all populations were found above 2,290 m (7,500 ft.). Behnke (1979) stated that CRCT occupy less than 1 percent of its historical range, though a more rigorous assessment indicates that the true number lies closer to 14 percent (Hirsch et al., 2006).

Early reviews were based on summaries of information contained in various agency reports. Their authors, however, did not conduct range-wide population or field surveys to generate the reports. The information contained in them, therefore only gives a general overview of the decline of the subspecies but not specific information on the subspecies status throughout its range. To quantify the current distribution in a more rigorous fashion, the CRCT Conservation Team worked with agency experts to develop a spatially referenced Geographic Information System (CRCT GIS) that contains all available information on the abundance, genetic integrity, and distribution of the subspecies relative to its historic range (Hirsch et al., 2006). The status assessment (Hirsch et al., 2006) used the best scientific information available, along with a strict decision making protocol to develop the most rigorous estimate of current and historic range available. This recent assessment identified 3,022 miles of occupied stream habitat (14 percent of historically occupied habitat).

Colorado River cutthroat trout have hybridized with non-native salmonids in many areas, reducing the genetic integrity of this subspecies. As such, hybridization is clearly recognized as having a major influence upon CRCT status. Although there is still some disagreement about the role that hybridized populations should play in status determinations and conservation strategies, the CRCT Conservation Team has adopted a position paper on genetic considerations associated with

cutthroat trout management (UDWR, 2000) to guide establishing genetic purity definitions for CRCT. It suggests that populations with less than 10 percent introgression provide a practical and meaningful framework for assessing the status of the species. Populations meeting this genetic criterion are defined as conservation populations for this Agreement and in the CRCT GIS. Two hundred eighty five conservation populations are identified in the CRCT GIS, including 153 "core" conservation populations based on genetic testing and information indicating no record of non-native stocking and no contaminating species being present (Hirsch et al., 2006).

The CRCT is designated as a species of special concern by Colorado and Wyoming, and a Tier I species in Utah (those species that are either federally listed or for which a conservation agreement has been implemented). Prior to 1995, this fish was a Federal Category 2 candidate species, but does not occur in the candidate list proposed by the USFWS in 1996 (50 CFR 17, 61 FR 7600), as use of categories 1, 2, etc. was eliminated in that proposed rule. Regions 2 and 4 of the USFS and the BLM in Colorado, Wyoming, and Utah all classify the CRCT as a sensitive species. This Agreement is a collaborative effort among state and federal resource agencies designed to provide a framework for the long-term conservation of CRCT." A GIS data layer resides on the Planning Area computer system that shows streams with conservation populations, all populations, historic population streams, and barriers.

**Three Species**

The BLM has also entered into a multi-state/agency agreement and strategy for the management of flannelmouth sucker, bluehead sucker, and roundtail chub (the three species), all of which are BLM Wyoming and state sensitive species. Habitat degradation, loss, fragmentation, and genetic hybridization are present threats to these species. This document contains the current status of these species in this area along with some life history and habitat information, and some action items among the various agencies and states. The following is excerpted from that document:

"This conservation strategy (Strategy) has been developed to provide a framework for the long-term conservation of roundtail chub (*Cyprinidae: Gila robusta*), bluehead sucker (*Catostomidae: Catostomus discobolus*), and flannelmouth sucker (*Catostomidae: Catostomus latipinnis*), hereinafter referred to as the three species. Implementation of the Strategy is intended to be a collaborative and cooperative effort among resource agencies to support conservation of the three species throughout their respective ranges. This document provides goals, objectives, and conservation actions to serve as consistent guidelines and direction for the development and implementation of individual state wildlife management plans for the three species. These state conservation and management plans are being developed through an interagency and interested party involvement process. Specific tasks that affect the status of the three species are not reiterated in this document. Rather, BLM outline the general strategy summarizing the conservation actions to be taken to eliminate or significantly reduce threats and present an overall strategy for the long-term conservation of the three species."

"Guidance for specific tasks in state conservation and management plans is summarized in this document. Specific tasks to be completed under the conservation actions set forth in this document will be detailed within respective state conservation and management plans. Likewise, specific tasks that have been completed toward achieving the objectives set forth in this document will also be detailed within the state conservation and management plans. Implementation of these tasks will identify and minimize threats to roundtail chub, bluehead sucker, and flannelmouth sucker that: 1) may warrant or maintain their listing as a sensitive species by state and federal

agencies, and 2) may warrant their listing as a threatened or endangered species under the Endangered Species Act of 1973, as amended (ESA)."

GIS data layers do not exist for the three species on BLM computer systems but do with the WGFD. The WGFD also has internal reports that describe the latest population distributions within the Green River Basin (Progress Reports, Green River Watershed Native Non-Game Fish Species Research: Phase II; Agreement Number 02-FC-40-6870; February 2006).

**Colorado River Endangered Fish Species**

There are four species of fish in the upper Colorado River system that are federally listed as endangered. They are the bonytail chub, the Colorado pikeminnow, the humpback chub, and the razorback sucker. Although they currently exist only downstream from the southern border of Wyoming, water from the Upper Green River basin affects the downstream habitat for these fish. Under the Recovery and Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP), any water depletions from tributary waters within the Colorado River drainage are considered to jeopardize the continued existence of these fish. Tributary water is defined as water that contributes to instream flow habitat.

The RIP was developed as part of a cooperative effort among the states of Colorado, Utah, and Wyoming; the Bureau of Reclamation (Reclamation); USFWS; private water development interests; and various environmental groups. In addition, a cooperative agreement was signed by the governors of the states of Colorado, Utah, and Wyoming; the Secretary of the Interior; the Administrator of the Western Area Power Administration; and the Department of Energy to further implement the RIP.

The Planning Area will conduct Section 7 consultation with USFWS any time there is the potential to deplete water from the Green River Basin. A description of these species and their habitats follows.

**Platte River Endangered Species**

A small portion of the Planning Area lies within the Platte River Basin. There are four endangered species in this system, downstream of the Planning Area, which is affected by water depletions of any kind. The four species are whooping crane, interior least tern, northern Great Plains population of the piping plover, and the pallid sturgeon, collectively referred to as the "target species." The continued existence and recovery of these species depends on protecting and restoring the central and lower Platte River ecosystem. The degraded habitat in the Platte River ecosystem has resulted primarily from extensive development of Platte River Basin water resources. The existing trends and conditions of Platte River habitat and ecosystem processes, and the status of the populations of the four target species lead the USFWS to conclude that the survival and future recovery of these species cannot be ensured without significant changes to improve current environmental conditions.

Subsequent negotiations among the parties resulted in the Platte River Recovery Implementation Program (Program), the principal component of the federal action addressed by this biological opinion. The intent of the Program is to protect, conserve, and assist in the recovery of the four target species associated with the central and lower reaches of the Platte River by implementing certain aspects of the UWFWS recovery plans that relate to their Platte River associated habitats. The Program is also intended to protect designated critical habitat for the whooping crane and help prevent the need to list additional Platte River Basin associated species pursuant to the ESA.

As a result, this Planning Area conducts Section 7 consultation with USFWS any time there is a potential for water depletions in the Sweetwater River drainage. For information on the individual species, consult the Platte River Final Biological Opinion.

## *c. Trends*

Riparian data indicate that the Planning Area, overall, is in a static condition. Some key fishery streams show upward condition trend, but this is limited. Other important stream habitats show that they are in good riparian condition (PFC) but could still improve for fisheries needs. That is, for functionality and resiliency, these streams are physically able to handle flood events, but for fish needs, habitats may need more development.

A recent inventory of culverts on fish bearing streams in the Planning Area indicates that upstream fish passage is being inhibited, particularly for early-life stages.

Sensitive fish species populations and habitat are declining. WGFD reports indicate that perhaps the greatest threat to the native populations of flannelmouth and bluehead sucker is the occurrence and subsequent hybridization with white sucker, a non-native. White sucker are widespread throughout the drainage and were documented in more than 50 percent of the streams sampled by WGFD (WGFD 2006). The only known population of bluehead sucker not threatened by white sucker is in Ringdahl Reservoir. However, this reservoir is threatened by dewatering owing to private water rights and draining for irrigation. For flannelmouth, the only population not currently threatened by white sucker is in Bitter Creek, upstream of Pirotto Ditch diversion and associated hydrologic "head-cut," which acts as a fish barrier. This population is also threatened by extended drought and low water flows. CRCT populations are declining in many portions of their range. In the Planning Area, they are decreasing in competition with brook trout in important conservation populations. They are also threatened by hybridization with rainbow trout, though in Currant Creek a permanent, manmade barrier has been installed on Forest Service managed lands near its confluence with Flaming Gorge Reservoir to prevent hybridization with rainbow trout.

## *d. Forecasts*

Current management provides protection from permitted surface disturbing activities within 500 feet of riparian/aquatic areas. If riparian/aquatic resources degradation occurs in the future, there would likely be additional declines in fisheries in the Planning Area. Current management practices encourage the development of additional water sources in an effort to distribute livestock grazing away from streams. Such practices would reduce adverse impacts on streams from trampling of stream banks and sedimentation of spawning gravels. The Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing require management changes where such standards are not being met. Management changes to meet the standards are needed in some of the Planning Area. The degree and timeliness of such implementation will determine whether fish populations and habitats will continue to decline or improve. Water depletions through consumptive uses and evaporative loss are expected to continue to increase and could affect water quality and availability for fish, resulting in decreased population densities. Decreased population densities could result in a reduction in recreational fishing opportunities and potentially lead to federal protections by listing of game or non-game fish. Habitat improvements and enhancements and changes in livestock grazing patterns and management could offset some of the decline in fisheries habitat. Barriers to fish passage continue to exist, and it will be an extended time period

to attempt to mitigate their impact. Habitat fragmentation will continue as will disconnection from meta-populations as long as barriers are in place.

Climate trends and short-term variation in weather patterns may contribute to changes in stream systems such as flow, temperature, and turbidity. Aquatic systems are never static, but are constantly changing in response to environmental variations such as summer heat and winter ice, droughts and floods, and longer term climatic changes. Lotic systems depend on annual high water events to create fish habitat such as scour pools for winter or low water habitat, large woody debris and undercut banks to create overhead cover, and the cleaning of sediment out of spawning gravels. Living in a dynamic environment, fish tolerate and even need such periodic events to occur in their stream habitats. But such disruptions, if they are too extreme or occur too frequently, can adversely affect fish habitat and can permanently reduce or eliminate fish populations from some stream reaches or even entire stream systems.

### *e. Key Features*

Key features include all perennial lotic and lentic waters and their associated riparian habitats and watersheds that presently support or have the potential to support a fishery, and sensitive aquatic species habitat, including those that have the potential to support CRCT, flannelmouth sucker, bluehead sucker, and roundtail chub. In this Planning Area the Greater Red Creek Area of Critical Concern (ACEC) encompasses all of the streams that currently contain CRCT. The Wind River Front Special Management Area, contains many of the Planning Area's cold water fishery streams. The rest of the Planning Area contains cool or warm water streams.

Aquatic invasive species have the potential to greatly affects fisheries within the Planning Area. If these species become established and expand unchecked, they could cause the complete collapse of the aquatic habitats required by fish and other aquatic life forms.

# 2.1.8. Special Status Species

## 2.1.8.1. Special Status Species–Wildlife

## 1. Regional Context

BLM Manual 6840, Special Status Species Management defines Special Status Species as those species officially listed as threatened or endangered under the ESA and those proposed for listing or that are candidates for listing under the provisions of the ESA; species listed by the BLM Wyoming State Director as Sensitive; and species listed by the State of Wyoming in a category implying potential endangerment or extinction. The BLM Wyoming Sensitive Species List is intended to be dynamic and reevaluated as new information becomes available. The BLM is responsible for managing habitat for Special Status Species. Special Status Species considered in this analysis are those listed as threatened or endangered, those proposed for listing or that are candidates for listing under the provisions of the ESA, or those designated by the BLM State Director as sensitive.

**Table 2.16. Threatened, Endangered, Proposed, and Candidate Wildlife Species That May Occur in the Planning Area**

| Common Name | Scientific Name | Federal Status | Occurrence in Planning Area |
|---|---|---|---|
| Black-footed ferret | *Mustela nigripes* | Endangered | Historical sightings and potential habitat exists within prairie dog towns |
| Canada lynx | *Lynx candensis* | Threatened | Montane Forests Lynx Analysis Units |
| Grizzly bear | *Ursus arctos horribilis* | Threatened | Foothills of the Wind River Range and historically occurrence |
| Greater Sage-Grouse | *Centrocercus urophasianus* | Candidate | Sagebrush communities |
| Western population yellow-billed cuckoo | *Coccyzus americanus* | Candidate | Potential habitat within riparian areas west of the Continental Divide |
| **Colorado River Fish** | | | |
| Bonytail | *Gila elegans* | Endangered | Downstream riverine habitat in the Yampa, Green, and Colorado River systems |
| Colorado pikeminnow | *Ptychocheilus lucius* | Endangered | |
| Humpback chub | *Gila cypha* | Endangered | |
| Razorback sucker | *Xyrauchen texanus* | Endangered | |
| **Platte River Species** | | | |
| Interior least tern | *Sternula antillarum* | Endangered | Downstream riverine habitat of the Platte River System |
| Pallid sturgeon | *Scaphirhynchus albus* | Endangered | |
| Piping plover | *Charadrius melodus* | Threatened | |
| Whooping crane | *Grus americana* | Endangered | |
| Western prairie fringed orchid | *Platanthera praeclara* | Threatened | |
| Source: USFWS, Threatened and Endangered Species, Designated Critical Habitat and Candidate Species List for the Bureau of Land Management, Rock Springs Field Office, May 2012 | | | |

## 2. Resource-Specific Information

### *a. Indicators*

For a list of indicators for Special Status Wildlife see the wildlife section of this Summary of the AMS.

## *b. Current Conditions*

### Threatened and Endangered Animals

### Grizzly Bear

The grizzly bear historically inhabited the most of the Planning Area and was documented around the Sweetwater River and Pacific Creek in historical journals (Dorn 1986).Grizzly bears are listed as threatened under the ESA throughout Wyoming. Under current federal (USFWS) and state (WGFD) management, grizzly bears found in the Planning Area may be removed if they cause conflicts with human health and safety or repeatedly kill livestock.

### Canada Lynx

A Lynx Analysis Unit (LAU) has been established covering 28,959 acres within the Planning Area that extends from the Wind River Mountains into the foothills. This area contains 12,277 acres of mapped habitat. No Canada lynx Critical Habitat exists in the Planning Area. In all regions within the range of the lynx in the contiguous United States, timber harvest, recreation, and their related activities are the predominant land uses affecting lynx habitat.

### Black-Footed Ferret

Since the period 1968 to 1992, there have been 12 "probable" sightings, one questionable and one confirmed (dead ferret caught in a trap) black-footed ferret sightings in the Planning Area. Recent reported observations (2007) in the Hiawatha area may be attributed to an escape from a nearby breeding/conditioning facility across the state line in Colorado. Populations of black-footed ferrets (if any) are undetermined in the Planning Area but highly unlikely. The USFWS has recently declared the state "free of wild black-footed ferrets."

### Colorado and Platte River Threatened and Endangered Species

Some species listed as threatened or endangered that do not occur within the Planning Area but may be affected by depletions of water from the Colorado or Platte River systems. Water depletions are defined simply as diversions less return flows. Depletions include water diverted from a river, as well as evaporation from reservoirs and other impoundments such as stock ponds and wells connected to the aquifer. Depletions represent an annual reduction in the volume of stream flow that would have reached the critical habitat of endangered fish, wildlife, or plant species residing in the North Platte River or Colorado River Basin. Amounts of water depletions from projects or activities are reported to the USFWS and tracked, leading to mitigation planning, consultation with the USFWS, and/or monetary payment made to the National Fish and Wildlife Foundation and legal protection of instream flows depending on the amount of water depleted.

### Wyoming BLM Sensitive Wildlife Species

The BLM Manual 6840 establishes Special Status Species policy for plant and animal species and the habitat on which they depend. This Special Status Species policy refers not only to species protected under the ESA, but also to those designated by the BLM State Director as "Sensitive." Similar to its discussion of BLM sensitive plant species, the BLM Sensitive Species Policy also lists BLM Wyoming sensitive wildlife species and management policy. The policy emphasizes preventing the need to list species under the ESA, avoiding or minimizing adverse impacts, and addressing these species through planning and management activities. Table 2.17 lists the BLM Wyoming Sensitive wildlife species that may inhabit the Planning Area.

## Table 2.17. BLM Wyoming Sensitive Wildlife Species

| Common Name | Scientific Name | Habitat |
|---|---|---|
| **Mammals** | | |
| Swift fox | *Vulpes velox* | Grasslands and sagebrush/grass in the eastern portion of the Planning Area. |
| Long-eared myotis | *Myotis evotis* | Coniferous forests; roosts in caves, buildings, or mines near a body of water. |
| Fringed myotis | *Myotis thysanodes* | Elevations less than 7,500 feet in forests and shrublands. |
| Spotted bat | *Euderma maculatum* | Desert and coniferous habitats. |
| Townsend's big-eared bat | *Corynorhinus townsendii* | Coniferous forest; desert shrubland. |
| Pygmy rabbit | *Brachylagus idahoensis* | Sagebrush in deep loose soils. |
| White-tailed prairie dog | *Cynomys leucurus* | Shrub-steppe and saltbush communities. |
| Wyoming pocket gopher | *Thomomys clusius* | Dry ridgetops; gravelly, loose soil; greasewood. |
| Idaho pocket gopher | *Thomomys idahoensis* | Stony, shallow soil. |
| **Avian** | | |
| Northern goshawk | *Accipiter gentilis* | Old-growth timber and cottonwood stands during the migration. |
| Ferruginous hawk | *Buteo regalis* | Basin-prairie shrub, grassland, rock outcrops. |
| Peregrine falcon | *Falco peregrinus* | Tall cliffs. |
| Trumpeter swan | *Cygnus buccinators* | Ponds, lakes, and marshes. |
| Greater Sage-Grouse | *Centrocercus urophasianus* | Basin-prairie, shrub and mountain-foothill shrub with sagebrush. |
| Bald eagle | *Haliaeetus leucocephalus* | Along major rivers, except during late winter when found in the Eden Valley. |
| Western population yellow-billed cuckoo | *Coccyzus americanus* | Closed-canopy, deciduous, riparian forests with a dense understory. |
| Long-billed curlew | *Numenius americanus* | Grasslands and wet meadows. |
| Burrowing owl | *Athene cunicularia* | Grasslands, basin-prairie shrub, often with prairie dogs. |
| Sage thrasher | *Oreoscoptes montanus* | Sagebrush shrub, mountain-foothill shrub. |
| Loggerhead shrike | *Lanius ludovicianus* | Sagebrush shrub, mountain-foothill shrub. |
| Mountain plover | *Chadrius montanus* | Areas of low vegetation. |
| White-faced Ibis | *Plegadis chihi* | Marshes and wet meadows |
| Brewer's sparrow | *Spizella breweri* | Sagebrush shrub, mountain-foothill shrub. |
| Sage sparrow | *Amphispiza billineata* | Sagebrush shrub, mountain-foothill shrub. |
| **Fish** | | |
| Roundtail chub | *Gila robusta* | Colorado River drainage; mostly large rivers, streams, and lakes. |
| Bluehead sucker | *Catostomus discobolus* | Colorado River drainage; large rivers, streams, and lakes. |
| Flannelmouth sucker | *Catostomus latipinnis* | Colorado River drainage; large rivers, streams, and lakes. |
| Colorado River cutthroat trout | *Oncorhynchus clarkii pleuriticus* | Green River, Black's Fork, and Little Snake River enclaves. Cool, clear water and well-vegetated stream banks for cover and bank stability (NatureServe 2009). |
| **Amphibians** | | |
| Great Basin spadefoot toad | *Spea intermontana* | Springs; seeps; permanent and, temporary waters during the breeding season and loose sandy soils in arid habitats the rest of the year (WYNDD 2005). |

| Common Name | Scientific Name | Habitat |
|---|---|---|
| Columbia spotted frog | *Rana luteiventris* | Variety of vegetation communities, including subalpine forest grasslands and sagebrush habitats, at elevations from 1,700 feet to 6,400 feet (WGFD 2005). Requires both aquatic and terrestrial habitats. |
| Northern leopard frog | *Rana pipiens* | Small fishless ponds for reproduction and upland habitats for summertime foraging. |
| Boreal toad (northern Rocky Mountain population) | *Bufo boreas boreas* | Wet habitats in foothills, montane, and subalpine areas. |
| **Reptiles** | | |
| Midget-faded rattlesnake | *Crotalus viridis concolor* | Rock outcrops and exposed canyon walls–Lower Green River valley from north of the cities of Green River and Rock Springs to the Utah-Wyoming border (WGFD 2005). |
| Source: BLM Wyoming Sensitive Species Policy and List, March 31, 2010. | | |

### BLM Rock Springs Field Office Sensitive Species

Threats that may be significant to conserving white-tailed prairie dog populations include disease and control programs (poisoning) and recreational shooting. Although the white-tailed prairie dog occurs over much of its historic range, colonies are more widely dispersed and population sizes have declined (Keinath 2004).

### Pygmy Rabbit

This small member of the rabbit family occurs in portions of many western states, including southwestern Wyoming. Pygmy rabbits are a sagebrush obligate species that is primarily found in areas with deep soils that support sagebrush that is denser and taller relative to surrounding stands.

### Greater Sage-Grouse

Greater Sage-Grouse are found throughout the Planning Area wherever suitable habitat exists. Data collected in 2003 by the WGFD compared with data collected by Patterson (1952) from sage-grouse leks surveys in northeast portion of the Planning Area have shown a 70 percent decline in the numbers of males attending leks since 1952. If information from the adjacent private lands are included, the decline reaches 90 percent. Although no single or combination of causes have been proven, the decline in Greater Sage-Grouse populations is thought to be attributed to a multitude of factors that include, but are not limited to drought; oil and gas wells and their associated infrastructure; powerlines; mammalian and avian predators; and a decline in the quantity and quality of sagebrush habitat resulting from livestock grazing, range management treatments, and development activities (Connelly et al. 2000).

In general, sage-grouse move to the foothills, riparian areas, or irrigated hay fields during the spring and summer and to dryer upland sites during the fall and winter. These seasonal movements have developed primarily as a result of the wide variation in the nature, amount, and distribution of water, and the availability of sagebrush for nutritional and shelter requirements. The physical characteristics of sagebrush vary, providing the essential elements of sage-grouse habitat. Sagebrush ranges from a low, prostrate shrub a few inches in height found on dry, rocky sites to a bushy tree-like plant found on moist, sandy soils along watercourses. Habitat characteristics needed for Greater Sage-Grouse are listed on Table 2.18 whereas Greater Sage-Grouse habitat and lek sites by land ownership in the Planning Area are displayed in Table 2.19.

**Table 2.18. Characteristics of Sagebrush Rangeland Needed for Productive High-Quality Greater Sage-Grouse Habitat in Wyoming**

| Greater Sage-Grouse Habitat (Period of Use) | Sagebrush[a] | | Perennial Grass/Forb | | Residual Grass Cover | | Area[b] |
|---|---|---|---|---|---|---|---|
| | Height (in.) | Canopy Cover (%)[c] | Height (in.) | Canopy Cover (%) | Height (in.) | Canopy Cover (%) | |
| Leks/Breeding (March–May) | Typically an open area surrounded by potential nesting habitat. A common feature is less shrub and herbaceous cover than surround habitats. | | | | | | |
| Nesting/Early Brood-Rearing Habitat (March–July) | 12–32 | 15–25 | >7[d] | >13[e] | 4–5 | >3[f] | >80% |
| Late Brood-Rearing Habitat (July–October) | 12–32 | 10–25 | Variable (4" min.) | >13 | N/A | N/A | >40% |
| Winter Habitat (November–March) | 10–14 | 10–30 | N/A | N/A | N/A | N/A | >80% |
| Sources: Connelly et al. 2000, Holloran 1999; Lyon 2000, Heath et al. 1997. | | | | | | | |

[a]Live plants

[b]Percentage of seasonal habitat for Greater Sage-Grouse population needed with indicated conditions

[c]Canopy coverage for sagebrush is defined as the percentage of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage of the plant. Small openings in the canopy are included.

[d]Measured as "droop height" of leaves; the highest naturally growing portion of the plant.

[e]Cover should be composed of approximately 60% for perennial grasses and 40% for forbs; percentage of canopy cover should be substantially higher if most sagebrush has growth that provides little lateral cover (Schroeder 1995). Mesic sagebrush site herbaceous cover should exceed 15% for perennial grasses and 10% for forbs.

[f]Residual perennial grass canopy cover should equal or exceed 3% of the total vegetative cover.

The reproductive characteristics and habits of Greater Sage-Grouse significantly limit their adaptability to human disturbance and habitat alteration. Birds can return to historic "strutting grounds" or breeding complexes as early as February. Strutting grounds, referred to as "leks," may be located at a point intermediate between the winter range and summer range or, in some cases, the summer and winter range may be the same area. Leks are usually small open areas from 0.1 acre to 10 acres in size, but they may be as large as 100 acres or more. Snow conditions play a part in the suitability of an area for strutting, as does the amount of vegetation. The lek is generally in an area supported by low, sparse vegetation or in open areas surrounded by sagebrush, which provides escape, feeding, and cover (Connelly et al. 2000). Peak breeding season is early to mid-April. Birds are active in courtship displays during early morning darkness until sunrise. Strutting can take place all night during full moon periods and last into the morning on foggy or overcast skies.

**Table 2.19. Greater Sage-Grouse Habitat and Lek Sites by Land Ownership in the Planning Area**

| Habitat/Distribution* | BLM (acreage) | State (acreage) | Private (acreage) | Forest Service (acreage) | Reclamation (acreage) | Fish & Wildlife Service (acreage) | Total (acreage) |
|---|---|---|---|---|---|---|---|
| Key habitat areas | 1,673,106 | 92,661 | 399,875 | 23,642 | 115,841 | | 2,307,235 |
| Nesting | | | | | | | undetermined |
| Winter use areas | | | | | | | undetermined |
| Lek NSO area | 92,838 | 3,340 | 18,496 | 1,075 | 3,355 | | 119,105 |
| Lek CSU area | 1,882,353 | 99,671 | 460,935 | 23,674 | 119,288 | 2,111 | 2,588,032 |
| Total occupied habitat: | | | | | | | undetermined |

| Habitat/Distribution* | BLM (acreage) | State (acreage) | Private (acreage) | Forest Service (acreage) | Reclama-tion (acreage) | Fish & Wildlife Service (acreage) | Total (acreage) |
|---|---|---|---|---|---|---|---|
| Number of known active leks sites | | | | | | | 171 |
| *Occupied Habitat —(Acreage and Lek Data derived from WGFD GIS data) | | | | | | | |

While Greater Sage-Grouse generally return to traditional wintering areas before heavy snowfall, suitable winter habitats require sagebrush 10 ti 14 inches above snow level with canopy covers that range from 10 to 30 percent. Winter foraging areas tend to be gentle southwest facing slopes and windswept ridges, and roosting takes place in open, low sagebrush sites on clear, calm nights and in taller shrubs with greater canopy cover during windy periods or during snowstorms. Greater Sage-Grouse will fly considerable distances (>5 miles) and elevations (>1,000 feet) between winter feeding sites and suitable snow roosting sites and burrow in deep powdery snow to conserve energy. During winters with unusually deep snow, sage-grouse forage can be limited to the very tall sagebrush available.

Greater Sage-Grouse are BLM Sensitive Species, and are recognized by the State of Wyoming as a Species of Concern. The USFWS has concluded that the Greater Sage-Grouse warrants protection under the ESA. However, the USFWS has determined that proposing the species for protection is precluded by the need to take action on other species facing more immediate and severe extinction threats. Because of the sensitivity of this species the office of the Governor of Wyoming has worked in conjunction with the WGFD and other agencies and industry to define Greater Sage-Grouse "Core Areas." BLM Wyoming issued guidance in IM WY-2010-012 that outlined protective measures for sage-grouse habitat within core areas. BLM Wyoming sage-grouse Key Habitat Areas correspond to the State of Wyoming's Core Population Areas (Core Areas).

**Mountain Plover**

Mountain plover breeding habitat in the Planning Area includes shrub-steppe, cushion plant communities, windswept ridges, and prairie dog towns. Mountain plovers usually nest on sites where vegetation is sparse or absent. Vegetation at these sites is typically less than six inches tall or less. Nest sites within the shrub-steppe landscape are also confined to areas of little to no vegetation, although surrounded by areas visually dominated by shrubs. Positive indicators for mountain plovers include level terrain, prairie dogs, bare ground, cactus pads, widely spaced plants, and horned larks. It would be unusual to find mountain plover on sites characterized by irregular or rolling terrain; dense, matted vegetation; grass taller than four inches; wet soils; or the presence of killdeer. Current habitat models developed by the Wyoming Natural Diversity Database (WYNDD) show a wide distribution of potential habitat across the Planning Area.

Habitat loss, and fragmentation, and alteration of historic grazing (bison) and disturbance regimes (fire) have resulted in a significant, long-term decline of this species. Conservation of this species in Wyoming must focus on protection of suitable habitat, improved species inventory and monitoring, and vigilant ongoing assessment of impacts from landscape changes associated with natural resource development (Smith and Keinath November 2004).

## *c. Trends*

### Large Mammals

- Grizzly bear populations are restricted in distribution. Habitat is restricted but no ongoing significant loss.
- Wolverine populations are restricted in numbers. Habitat is vulnerable but no ongoing significant loss; species is sensitive to human disturbance.
- Canada lynx populations are greatly restricted in numbers and distribution; extirpation appears possible. There is ongoing significant loss of habitat.

### Small Mammals

- Bats trends are unknown; baseline information is not available.
- Pygmy rabbit populations are restricted in distribution. Habitat is vulnerable.
- Idaho pocket gopher populations are restricted in distribution. Habitat is vulnerable ongoing significant loss.
- Wyoming pocket gophers are restricted in distribution. Habitat is vulnerable with potential for significant loss.
- White-tailed prairie dog population status, and trends are unknown but are suspected to be declining. Habitat is vulnerable.
- Swift fox population status and trends are unknown but are suspected to be stable. Habitat is vulnerable but no ongoing significant loss.
- Black-footed ferret populations are greatly restricted in numbers and distribution; extirpation appears to have occurred in the Planning Area, and ongoing significant loss of habitat for experimental populations in other areas.

### Birds

BLM anticipates new impacts on birds from wind energy testing and development and continued loss of habitat to oil and gas development.

- Grouse–BLM Wyoming issued guidance in IM WY-2010-012 that outlines protective measures for sage-grouse habitat within core areas. An RMP amendment is underway on the GRRMP and others within the state to incorporate additional protection measures for sage-grouse into coordinated RMP guidance. Greater Sage-Grouse populations are declining. Ongoing significant loss of habitat. Species is sensitive to human disturbances.
- Bald Eagle populations are restricted in numbers and distribution in the Planning Area, but populations are increasing in many parts of its range. Species is sensitive to human disturbance.
- Trumpeter swan populations are restricted in numbers and distribution, but appear to be increasing in the Planning Area. Ongoing significant loss of habitat in other parts of its range; species is sensitive to human disturbance.

- Yellow-billed cuckoo populations are restricted in numbers and distribution. Ongoing significant loss of habitat. Species appears to have been extirpated from this area.
- Mountain plover population status and trends are unknown. Habitat is vulnerable. Significant loss of winter range outside of Wyoming; species is sensitive to human disturbance.
- Long-billed curlew populations are restricted in distribution. Habitat is vulnerable but no ongoing significant loss.
- Peregrine falcon populations are restricted in distribution. Habitat is restricted but no ongoing significant loss; some birds are highly sensitive to human disturbance.
- Ferruginous hawk species is widely distributed; population status and trends are unknown but are suspected to be stable. Significant loss of habitat is unknown; species is sensitive to human disturbance.
- Brewer's sparrow, sage sparrow, and sage thrasher populations are declining. Habitat is vulnerable with possible ongoing significant loss of habitat.
- Sage thrasher populations are declining. Habitat is vulnerable but no loss; species is sensitive to disturbance.
- Burrowing owl population status and trends are unknown. Habitat is vulnerable; reduction of white-tailed prairie dogs could cause significant loss; species is sensitive to human disturbance.
- White-faced ibis populations are restricted in numbers and distribution. Habitat is restricted and vulnerable; species is sensitive to human disturbance.
- Northern goshawk species is widely distributed but limited to old growth forests; population status and trends are unknown. Habitat is highly vulnerable as a result of pine bark beetle infestations an associated wildfire. Ongoing significant loss; species is highly sensitive to human disturbance.

### *d. Forecasts*

White-tailed prairie dogs appear to be in a slow but continuous decline. Possible causative factors include development/conversion of habitat, sylvatic plague, and recreational shooting. Likewise, many of the small rodents and bats are expected to continue to decline owing to habitat conversion and other factors yet unknown.

The mountain plover has ample nesting habitat in the Planning Area at this time; however, it is predicted to continue its population decline owing to destruction of its wintering habitat outside of Wyoming.

Bald eagles are increasing in numbers overall since the cessation of the use of DDT and lead shot, and an increase in prosecutions for illegal "take" on eagles. However, locally their population is still very limited and vulnerable.

Greater Sage-Grouse have been in decline for many decades now and are expected to continue their decline unless newly proposed conservation measures are effective.

Canada lynx are expected to continue to decline as forests are invaded with pine bark beetles as temperatures in the West continue to rise and drought continues. Much of their habitat is lost every year to wildfires.

Northern goshawk are expected to continue to decline as forests are invaded with pine bark beetles as temperatures in the West continue to rise and drought continues. Much of their habitat is lost every year to wildfires.

Grizzly bears will continue to expand their ranges and populations are expected to increase as much as human tolerance and management will allow.

### *e. Key Features*

These are the most important characteristics of the resource exhibited in the Planning Area:

Key planning area features that are important to wildlife include large undisturbed tracks of healthy sagebrush for Greater Sage-Grouse, big game, and sagebrush obligate species.

Long cliff faces and pinnacles are used by raptors for nesting, hunting, and roosting. Many other species, such as amphibians, birds, and bats depend heavily on permanent and ephemeral wetlands for many crucial life stages.

Most species require some level of security during parturition and nesting. Likewise, stopover sights for migratory birds and bats, and migration corridors for big game are all crucial for the long-term survival of the species.

Wintering habitat with adequate food and cover that is relatively undisturbed during winter is critical for non-migratory, non-hibernating wildlife. Hibernacula and den sites are critical for hibernating animals.

**Considerations for Other Wildlife Species**

The USFWS, WGFD, and the WNDD maintain lists of wildlife species considered sensitive or of special concern. Many of the species have documented occurrences within the Planning Area; the extent of the populations on BLM-administered lands is unknown.

## 2.1.8.2. Special Status Species–Plants

## 1. Regional Context

BLM Manual 6840, Special Status Species Management, defines Special Status Species as those species officially listed as threatened or endangered under the ESA and those proposed for listing or that are candidates for listing under the provisions of the ESA; species listed by the BLM Wyoming State Director as Sensitive; and species listed by the State of Wyoming in a category implying potential endangerment or extinction. The BLM Wyoming Sensitive Species List is intended to be dynamic and re-evaluated as new information becomes available. The BLM is responsible for managing habitat for special status plant species. Special status species considered in this analysis are those listed as threatened or endangered, those proposed for listing or are candidates for listing under the provisions of the ESA, or those designated by the BLM State Director as sensitive. The State of Wyoming currently has no list of plants designated as sensitive.

# 2. Resource-Specific Information

## *a. Indicators*

For a discussion of indicators related to special status plant species, see the Vegetation-Rangeland section of this Summary of the AMS.

## *b. Current Conditions*

Special status plant species are found within a variety of habitats in the Planning Area. The landscape in the area exhibits diverse climates, topography, and soils. Table 2.14 presents habitat associations for special status plants that are known to or may be found on land managed by the BLM. Due in large part to their rarity, precise information regarding the location and number of populations of special status plant species in the Planning Area, the percentage of populations occurring on public lands, the number of individual plants in each population, and the condition of each population (habitat quality) on public land in the Planning Area is not available.

Two federally listed plant species, the threatened Ute ladies'-tresses and the endangered blowout penstemon, may occur within the Planning Area. Also, 16 BLM Wyoming Sensitive Plant Species are found within the Planning Area. These 16 species are also WYNDD plant species of concern and are listed with their Natural Heritage Status in Table 2.20.

**Table 2.20. Special Status Plant Species in the Planning Area**

| Common Name | Scientific Name | Habitat | Heritage Status | ESA / BLM Status |
|---|---|---|---|---|
| Ute ladies'-tresses | *Spiranthes diluvialis* | Mesic to wet riparian meadows, marshes, stream banks between 4,300 and 5,900 feet. | G2/S1 | ESA Threatened |
| Blowout penstemon | *Penstemon haydenii* | Sparsely vegetated pioneer communities in shifting sand with blowout depressions created by wind erosion between 5800 feet and 7500 feet. | G1/S1 | ESA Endangered |
| Meadow pussytoes | *Antennaria arcuata* | Moist, hummocky meadows, seeps or springs surrounded by sage/grasslands at 4,950 to 7,900 feet. | G2/S2 | BLM Sensitive Plant Species |
| Small rock cress | *Arabis pusilla(Boechera pusilla)* | Cracks/crevices in sparsely vegetated granite/pegmatite outcrops in sage/grasslands at 8,000 to 8,100 feet. | G1/S1 | BLM Sensitive Plant Species |
| Precocious milkvetch | *Astragalus proimanthus* | Cushion plant communities on rocky, clay soils mixed with shale on summits and slopes of white shale hills 6,800 to 7,200 feet. | G1/S1 | BLM Sensitive Plant Species |

| Common Name | Scientific Name | Habitat | Heritage Status | ESA / BLM Status |
|---|---|---|---|---|
| Trelease's racemose milkvetch | *Astragalus racemosus var. treleasei* | Sparsely vegetated sagebrush communities on shale or limestone outcrops and barren clay slopes at 6500 to 8200 feet. | G5T2/S2 | BLM Sensitive Plant Species |
| Cedar Rim thistle | *Cirsium aridum* | Barren, chalky hills, gravelly slopes, and fine textured, sandy-shaley draws 6,700 to 7,200 feet. | G2Q/S2 | BLM Sensitive Plant Species |
| Ownbey's thistle | *Cirsium ownbeyi* | Sparsely vegetated shaley slopes in sage and juniper communities 6,440 to 8,400 feet. | G3/S2 | BLM Sensitive Plant Species |
| Wyoming tansymustard | *Descurainia torulosa* | Sparsely vegetated sandy slopes at base of cliffs of volcanic breccia or sandstone 8,300 to 10,000 feet. | G1/S2 | BLM Sensitive Plant Species |
| Dune wildrye | *Elymus simplexvar. luxuriens* | Drifting sand dunes at 7,130 feet. | G4 QTNR/S1 | BLM Sensitive Plant Species |
| Large-fruited bladderpod | *Lesquerella macrocarpa* | Gypsum-clay hills & benches, clay flats, and barren hills 7,200 to 7,700 feet. | G2/S2 | BLM Sensitive Plant Species |
| Stemless beardtongue | *Penstemon acaulisvar. acaulis* | Cushion plant or Black sage grassland communities on semi-barren rocky ridges, knolls, and slopes at 5,900 to 8,200 feet. | G2T2/S1 | BLM Sensitive Plant Species |
| Beaver Rim phlox | *Phlox pungens* | Sparsely vegetated slopes on sandstone, siltstone, or limestone substrates 6,000 to 7,400 feet. | G2/S2 | BLM Sensitive Plant Species |
| Tufted twinpod | *Physaria condensata* | Sparsely vegetated shale slopes and ridges 6,500 to 7,000 feet. | G2/S2 | BLM Sensitive Plant Species |
| Limber pine | *Pinus flexilis* | Timberline and at lower elevation with sagebrush. Associated species are Rocky Mountain lodgepole pine, Engelmann spruce, whitebark pine, Rocky Mountain Douglas-fir, subalpine fir, Rocky Mountain juniper, mountain mahogany, and common juniper. | | BLM Sensitive Plant Species |
| Green River greenthread | *Thelesperma caespitosum* | White shale slopes and ridges of Green River Formation at 6,300 feet. | G1/S1 | BLM Sensitive Plant Species |

| Common Name | Scientific Name | Habitat | Heritage Status | ESA / BLM Status |
|---|---|---|---|---|
| Uinta greenthread | Thelesperma pubescens | Sparsely vegetated benches and ridges on coarse, cobbly soils of Bishop Conglomerate 8,200 to 8,900 feet. | G1/S1 | BLM Sensitive Plant Species |
| Cedar Mtn. Easter daisy | *Townsendia microcephala* | Rocky slopes of Bishop Conglomerate at 8,500 feet. | G1/S1 | BLM Sensitive Plant Species |

## *c. Trends*

Most of the trends that affect other plant species in the Planning Area also affect Special Status Species. These include habitat degradation and fragmentation, grazing practices and management, invasive species, motor vehicles, and climate.

Management of special status plant species within the Planning Area presents a number of challenges, including preventing declining population trends for selected species, drought and other natural events, spread and control of invasive species, maintaining PFC for riparian and wetland habitats, vegetation treatment with prescribed fire or herbicides, lack of periodic disturbance events (e.g., fire, flood, and grazing), physical trampling (e.g., OHV use), loss of habitat resulting from altered hydrology; and challenges presented by special status plant populations occurring over multiple land ownerships. While threats to some species may remain low due to the remoteness of habitat, threats to other species may increase despite distance or restricted access. For example, special status plant species dependent on groundwater levels may be affected by upstream depletions of groundwater far removed from impact populations. Moreover, early successional special status plant species protected from habitat alteration may still be adversely affected by natural succession and the lack of fire, flooding, or other disturbance factors necessary to retain early successional habitat.

## *d. Forecasts*

The forecast for special status plant species under current management is not expected to decline. These plants are on the BLM sensitive plant list to ensure actions on BLM-administered lands consider the welfare of these species and do not contribute to the need to list any Special Status Species under the provisions of the ESA.

## *e. Key Features*

Key features include habitat for species listed under the ESA and on the BLM Sensitive Species List. The following four areas contain key features for special status plant species.

**Greater Red Creek/Little Mountain:** The area contains the entire population of the Ownbey's thistle as well as habitat for the threatened Ute ladies'-tresses and the BLM-sensitive stemless beardtongue. This site also contains examples of cushion plant, and aspen and juniper communities that provide important habitat for wildlife and unique plants.

**Wind River Front:** This area is composed of lodgepole pine and limber pine communities with sagebrush steppe and rock outcrops. It is the only location for the small rockcress and also supports meadow pussytoes.

**Cedar Mountain/Hickey Mountain/Sage Creek Mountain:** This area has populations of Uinta greenthread, Cedar Mountain Easter daisy, stemless beardtongue, and precocious milkvetch. It also has Utah juniper stands that support many obligate bird species.

**Bush Rim/Steamboat Mountain Area:** This area contains the rare plant assemblage of tall sagebrush/lemon scurfpea and the sensitive large-fruited bladderpod. It also has habitat for the endangered blowout penstemon.

# 2.1.9. Wild Horse and Burro

## 1. Regional Context

The Planning Area protects, manages, and controls wild horses and burros under the authority of the 1971 Wild Free-Roaming Horses and Burros Act (as amended by Congress in 1976, 1978, and 2004) to ensure that healthy herds thrive on healthy rangelands. One of the BLMs key responsibilities under the 1971 law is to manage for a "thriving natural ecological balance" (TNEB). Wild horses depend upon adequate habitat for free-roaming nature through management consistent with principles of multiple use and environmental protection. This includes identifying the Appropriate Management Levels (AMLs) in five Herd Management Areas (HMAs).

## 2. Resource-Specific Information

### *a. Indicators*

The area used by the wild horses encompasses large unfenced acreages of private, state, Reclamation, and BLM-administered lands. Also within the area used by wild horses, are entire areas or portions of Wilderness Study Areas (WSAs) and ACECs. This complex situation requires special management consideration to resolve resource conflicts, be consistent with other agencies' policies or plans, and conform to regulations and laws set forth in the Interim Management Policy and Guidelines for Lands under Wilderness Review.

### *b. Current Conditions*

The current RMP identifies a 1979 agreement with the Rock Springs Grazing Association, the International Society for the Protection of Mustangs and Burros. The RMP also identifies a March 13, 1981, Order from the District Court of Wyoming that required the BLM to "remove all wild horses from the checkerboard grazing lands in the Rock Springs District except that number which the Rock Springs Grazing Association (RSGA) voluntarily agrees to leave in said area." The RSGA is a major private land owner in four of the HMAs. The BLM reviewed the numbers recommended by the RSGA and, through the planning process, established the following AMLs: Great Divide Basin HMA 415-600, White Mountain HMA 205-300, Salt Wells Creek HMA 251-365, Adobe Town HMA 165-235 (Rock Springs portion of HMA only). The AMLs reflect the results of an agreement with RSGA, which provided for the management of specific numbers of wild horses on the privately controlled lands and the unfenced contiguous public lands within the HMAs. The Little Colorado HMA was established in August 1997, with the approval of the GRRMP. The AML for the Little Colorado HMA is set at a range of 69 to 100 wild horses, consistent with principles of multiple use and environmental protection.

The August 2003 Consent Decree confirmed by the United States District Court of Wyoming is an out-of-court settlement agreement between the State of Wyoming and the BLM. This agreement specifies that when information is gathered that indicates that, an HMA within the State of Wyoming is determined to be greater than the established AML, the BLM has 1 year from discovery to remove wild horses to achieve the low range of AML.

The HMAs are accessible to the public for opportunities for education and enjoyment along county roads and established, two–track roads. Wild horses compete for habitat with other multiple uses established such as livestock grazing, wildlife, recreation, wind energy, and oil and gas development within the Planning Area.

### *c. Key Features*

The AML, as well as developing prescriptions for habitat limitations and stabilization of ecological conditions, is addressed through a combination of range evaluations, the March 13, 1981, Order from the District Court of Wyoming, and the 2003 Consent Decree. Because of the complexity of managing wild horses in a mixed land ownership pattern, the maximum number of wild horses (AMLs) established in the RMP. Within the side boards of the AMLs established in the RMP, all resource actions implemented to enhance ecological conditions to halt range deterioration are addressed at the activity-level plan (implementation-level) and not through the RMP process. Addressing lower AMLs and other implementation-level actions allow management flexibility to address changing range conditions and natural ecological processes, including drought conditions and fire. Public interest in the management of the HMAs continues to draw regional and national attention.

## 2.1.10. Wildland Fire Ecology and Management

### 2. Resource-Specific Information

### *a. Current Conditions*

Vegetation provides the fuel for wildfires on public land. The types of vegetation (fuel types) in the Planning Area range from barren rock outcrops, badlands, and low-elevation sparsely vegetated saltbush sites to subalpine timber, shrub, and grassland types. Aspen, mountain shrubs, sagebrush, conifer, and juniper types are the more important fuel types in the Planning Area. From a wildfire management standpoint, the most important fuels, in order of relative probability of ignition, are the juniper woodland, sagebrush, aspen and conifer types. The Little Mountain Fire Management Unit alone contains 17 different biophysical settings (vegetation types). Historic exclusion of fire by humans through aggressive suppression activities have resulted in fuels and vegetation becoming misaligned with natural fire regimes. Plants whose distribution and habitat were controlled naturally through fire have been allowed to increase in size and extent. This is particularly true of juniper, sagebrush, and sub-alpine fir. In the absence of fire, these species have not only increased, but dead vegetation has been allowed to accumulate, increasing the probability of a catastrophic fire that could have the potential to change site potential. The Planning Area has been divided into four Fire Management Units (FMUs). These management units were developed to group fire management activities into areas with similar fuel types and fire occurrence and also considering geography. Map 2.1 displays the FMU designations for the Planning Area.

## Fuels Management

Fuels management is the decisions, planning, and implementation of projects that reduce the probability of ignition, size, and severity of unplanned ignitions. Fuels availability and condition are the only factors of the fire triangle (heat, oxygen, and fuel) that can be managed by humans. Fire as a natural process has been recognized by the BLM and the Planning Area. Naturally occurring fires have been categorized into five fire regimes (Table 2.21).

**Table 2.21. Fire Regimes**

| Group | Fire Frequency | Severity |
|---|---|---|
| I | 0–35 years | Low |
| II | 0–35 years | Replacement |
| III | 35–100+ years | Mixed |
| IV | 35–100+ years | Replacement |
| V | 200+ years | Replacement |

For each Fire Regime or fuel type, there is a corresponding Condition Class (FRCC). FRCC is a measure of the existing state of fuels relative to their natural range of variability or departure from the normal state. Descriptions of the three FRCC are displayed in Table 2.22.

**Table 2.22. Fire Regime Conditions Class**

| Fire Regime Condition Class | Description | Potential Risks |
|---|---|---|
| Condition Class 1 | Within the natural (historical) range of variability of vegetation composition; fire frequency, severity, and pattern; and other characteristic fuel associated disturbances. | Fire behavior, effects, and other associated disturbances are similar to those that occurred prior to fire exclusion (suppression) and other types of management that do not mimic the natural fire regime and associated vegetation and fuel characteristics.<br><br>Composition and structure of vegetation and fuels are similar to the natural (historical) regime.<br><br>Risk of loss of key ecosystem components (e.g., native species, large trees, and soil) is low. |
| Condition Class 2 | Moderate departure from natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity, and pattern; and other associated disturbances. | Fire behavior, effects, and other associated disturbances are moderate departures (more or less severe).<br><br>Composition and structure of vegetation and fuel are moderately altered.<br><br>Uncharacteristic conditions range from low to moderate.<br><br>Risk of loss of key ecosystem components is moderate. |
| Condition Class 3 | High departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire | Fire behavior, effects, and other associated disturbances are significant departures (more or less severe). |

| Fire Regime Condition Class | Description | Potential Risks |
|---|---|---|
| | frequency, severity, and pattern; and other associated disturbances. | Composition and structure of vegetation and fuel are highly altered.<br><br>Uncharacteristic conditions range from moderate to high.<br><br>Risk of loss of key ecosystem components is high. |

FRCC estimates by FMU are included in Table 2.23.

**Table 2.23. Fuels Condition Class (CC) by FMU**

| FMU | Acres | CC1 | CC2 | CC3 |
|---|---|---|---|---|
| Big Sandy/Steamboat | 1,643,514 | 58% | 36% | 6% |
| Sweetwater | 88,303 | 63% | 23% | 14% |
| Red Desert | 643,984 | 70% | 30% | <1% |
| Little Mountain | 2,144,458 | 72% | 22% | 6% |

## Fuels Projects

### Prescribed Fire

The Little Mountain Habitat Management Plan was signed by the WGFD, the BLM and various landowners in 1991. The purpose of the plan was to address wildlife and fisheries habitat issues in the Little Mountain area, including the Greater Red Creek ACEC. A major feature of the plan was the use of prescribed burning (planned ignitions) to improve habitat and watershed conditions. Plan implementation began in 1992. Reduction in hazardous fuels was, at best, a secondary objective until the establishment of BLM fuels management in 2003.

Approximately 48,000 acres have actually been burned through fiscal year 2010. A list of prescribed burn projects completed since 1992 is presented in Table 2.24. Prescribed burn projects approved or planned for the near term are listed in Table 2.25.

### Mechanical

Fuels reduction by mechanical means (mowing, mastication, cutting, etc.) is becoming a more important technique for treating hazardous fuels in the Wildland Urban Interface (WUI). Table 2.26 lists recent (2005 to present) mechanical fuels reduction projects completed and proposed in the Planning Area.

### Chemical

No chemical fuels treatments have been completed in the Planning Area to date. A large (7,000 acre) cheatgrass management project using herbicide is currently proposed for fiscal year 2012. The project will use aerial application of a pre-emergent herbicide to reduce cheatgrass composition in existing native perennial grass stands burned in the 2000 Sheep Mountain Wildfire.

### Biological Control

A plan to use biological control of the tamarix (salt cedar) infestation of Bitter Creek and tributaries was approved in 2009 (42 miles of Bitter Creek and tributaries on 11,345 acres). Use of the Diorabda beetle was proposed to control tamarix infestation where no other means is feasible because of numerous biological, physical and legal constraints. Beetles have not yet been released pending USFWS decision required by a successful lawsuit in the 10th Judicial District. Treatment will occur as soon as possible.

**Table 2.24. Prescribed Burn Projects 1992 to 2010 in the Little Mountain FMU**

| Project Name | Fiscal Year | Actual Burned Acres |
|---|---|---|
| Middle Fork Currant Creek | 1992 | 7,109 |
| Elk Site | 1992 | 572 |

| Project Name | Fiscal Year | Actual Burned Acres |
|---|---|---|
| Camp Creek | 1992 | 915 |
| Gooseberry Creek | 1993 | 2,341 |
| Teepee Mountain | 1994 | 2,500 |
| Red Creek Scatter Burns | 1995 | 3,172 |
| Lizzy Springs | 1996 | 3,615 |
| Dipping Springs | 1996 | 675 |
| Castello Creek | 1998 | 325 |
| Daniels Creek | 1998 | 1,762 |
| East Richards Mountain | 2003 | 6,241 |
| Meadow Draw | 2004 | 425 |
| Telephone Canyon | 2004 | 150 |
| Firehole Basin | 2005 | 7,003 |
| Willow Tree Springs | 2006 | 912 |
| Headwaters | 2006 | 713 |
| Salt Wells Basin | 2007 | 9,027 |
| Pigeon Basin | 2009 | 1,087 |
| Little Red Creek | 2010 | 92* |
| Total | | 48,636 |

*Not Yet Complete

**Table 2.25. Approved/Planned Prescribed Burn Projects**

| Project Name | Fiscal Year | Treatment Acres |
|---|---|---|
| Little Red Creek | 2012 | 400 |
| Vermillion Special Use Pasture | NA | 350 |
| Big Firehole Canyon | 2011 | 1800 |
| Brown's Spring | 2011 | 400 |
| Total | | 2950 |

**Table 2.26. Mechanical Fuels Reduction Treatments (WUI) Completed**

| Project Name | Fiscal Year | Treatment Type | Treat Acres |
|---|---|---|---|
| Flaming Gorge to Rock Springs Powerline | 2005 | Mowing | 18 |
| Logan School | 2009 | Hand cutting | 1 |
| Simplot Pumping Station | 2009 | Mowing | 7 |
| Highway 191 Compressor | 2009 | Mowing | 35 |
| Simplot PowerLine Phase II | 2011 | Hand Cutting | 2 |
| | | Total | 83 |
| **Planned/Approved** | | | |
| Simplot Powerline Phase I | 2011 | Hand Cutting | 15 |
| Sweetwater Campgrounds | 2011 | Hand Cutting | 65 |
| Buckskin Basin Powerline | 2011 | Hand Cutting | 5 |
| Total | | | 85 |

## *c. Trends*

Table 2.27 and Map 2.2, contain data on wildfire occurrence for the 10–year period of 1998 through 2007 by FMU. During this period, the Planning Area reported a total of 496 wildfires. Of these, 432 or 87 percent were reported in the Little Mountain FMU. Ninety-nine percent of the 10–year acres were burned in the Little Mountain FMU. The Little Mountain FMU is where fire occurrence and therefore suppression efforts and fuels reduction projects have been concentrated.

The 10–year average acres burned per year is biased by the two large (73,000 acres total) wildfires in the summer of 2000. When these fires are included in the analysis, the average number of acres burned per year in the Planning Area was 9,583. If these two unusual large fires are left out of the analysis, average acres burned per year is 2,352 acres. This is a more realistic figure for the Planning Area.

Fire occurrence for the entire Planning Area for the period of 1984 through 2010 is displayed in Table 2.28. An analysis of these data indicates that in any year the Planning Area will experience approximately 34 to 50 unplanned ignitions burning from 1,800 to 2,200 acres. An examination of the available historical record and experience indicate that the typical wildfire in the Planning Area is a naturally caused single tree (juniper) fire of less than one acre located in the Little Mountain FMU. Occasional larger unplanned events skew the average acreage per fire displayed in Table 2.28 (55 acres).

Only three wildfires larger than 3,000 acres have occurred in the Planning Area since 1984; these are the Wildhorse Basin in July, 2000 (36,700 acres), Sheep Mountain in August, 2000 (36,360 acres) and Pepper I in July 2002 (13,200 acres).

**Table 2.27. Ten-Year (1998–2007) Fire Occurrence by Fire Management Unit**

| FMU | No. of Fires | No. of Acres | 10–Year Average No. of Fires | 10–Year Average Acres |
|---|---|---|---|---|
| Big Sandy/Steamboat | 43 | 456 | 4 | 46 |
| Sweetwater | 11 | 7 | <1 | <1 |
| Red Desert | 10 | 234 | 1 | 23 |
| Little Mountain | 432 | 9,5827 | 43 | 9,583* |
| Total | 496 | 9,6524 | 48 | 9,652* |

*Note: In the summer of 2000, two large wildfires in the Little Mountain FMU (Wildhorse Basin, and Sheep Mountain) totaling more than 73,000 acres occurred. When these two incidents are removed from the database, a more realistic average of acreage burned per year results. The 10–year average, acres of wildfire per year for the Little Mountain FMU, is reduced to 2,282 and for the entire Field Office to 2,352.

**Table 2.28. Fire Occurrence 1984 to 2010 Planning Area**

| Number of Fires | Acres Burned | Average Fires per year | Ave. Acres Per Fire | Ave. Acres Per Year |
|---|---|---|---|---|
| 945 | 124,360 | 34 | 132 | 4441 |
| *943 | 51,015 | 34 | 55 | 1822 |

*Without Wildhorse Basin and Sheep Mountain Wildfires from 2000 (73,000 acres)

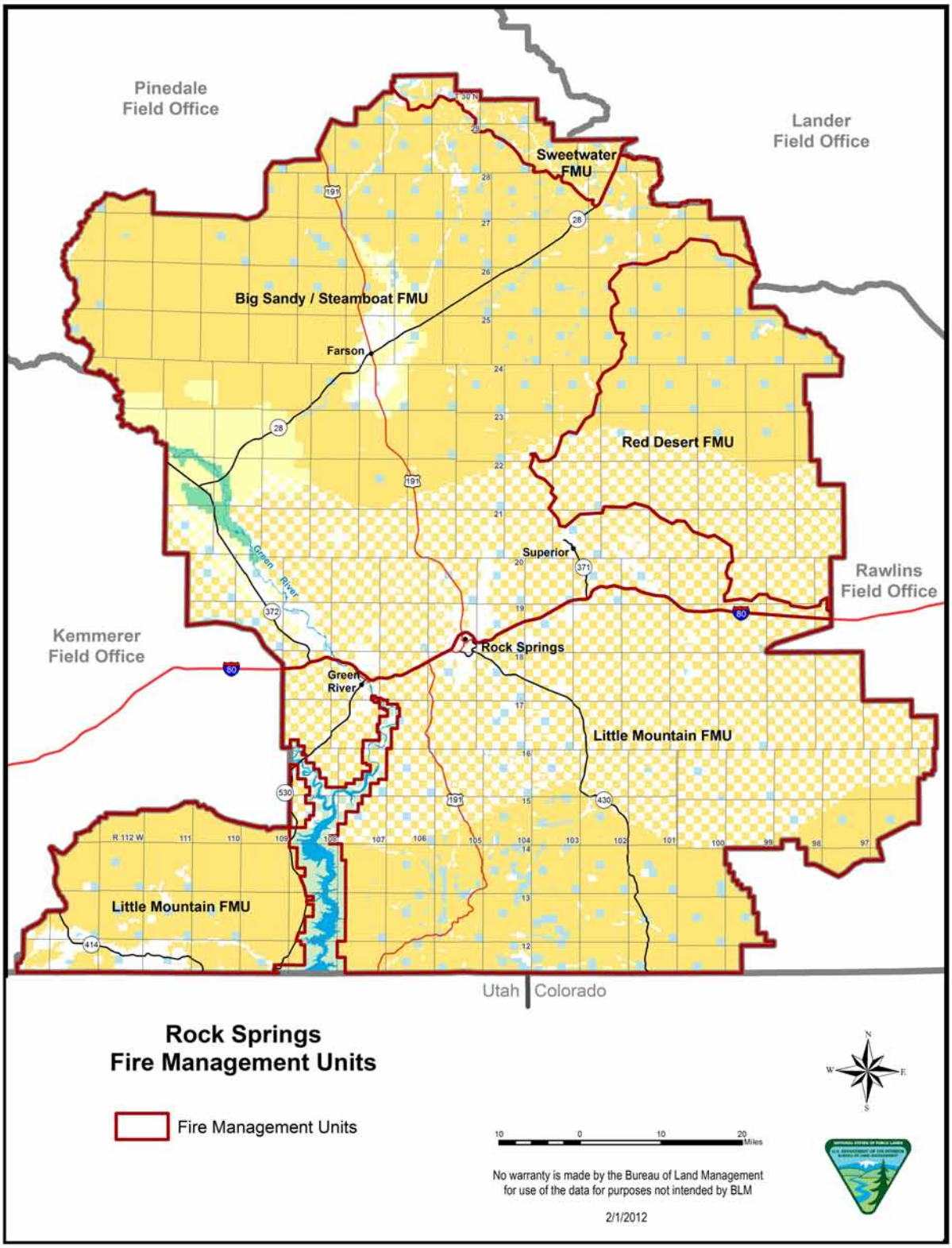



**Figure 2.16. Planning Area Fire Management Units**

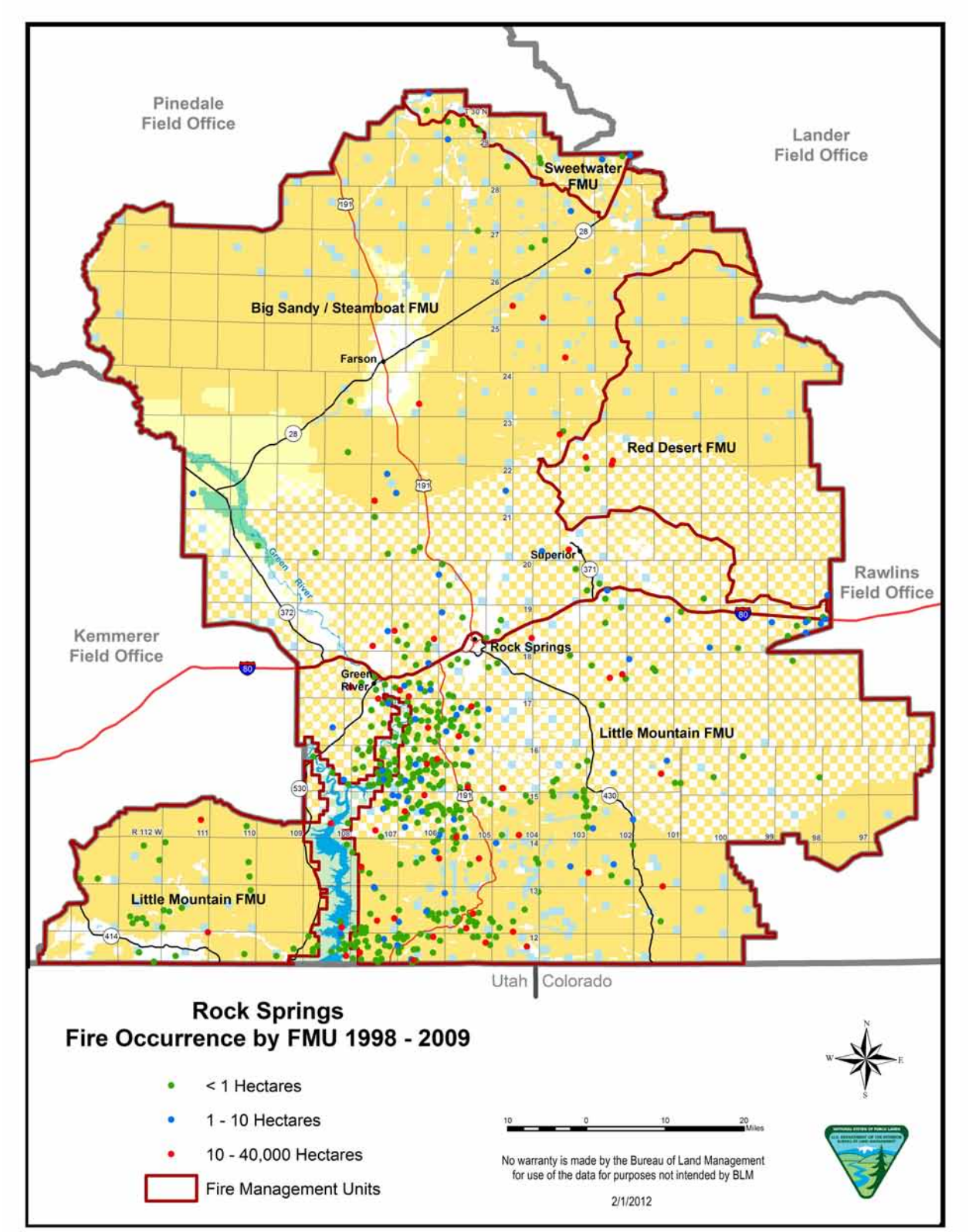



**Figure 2.17. Planning Area FIRE Occurrence by FMU 1998–2009**

# 2.1.11. Cultural and Heritage Resources

The Planning Area straddles a section of Wyoming with possibly the highest densities of archaeological sites and districts in the state. Known cultural resources number in the tens of thousands despite the low percentage of lands that have been inventoried to a Class III level. Historic sites, prehistoric sites, and traditional cultural properties are widespread throughout the Planning Area. The area managed by the Field Office also contains more linear miles of intact National Historic Trails, National Historic Trail candidates, and historical wagon roads than any other office in Wyoming. Tribes have identified a host of important cultural sites and landscapes important to their cultures and life ways. One of these sites, the White Mountain Petroglyphs, has become a major tourist attraction, attracting more people annually than the BLM Trail Interpretive Center in Casper, Wyoming. Other important cultural resources, such as the South Pass National Historic Landmark, also draw thousands of visitors each year.

All cultural properties and landscapes in the Planning Area, whether already recorded or projected to occur on the basis of existing-data synthesis, will be allocated to the following uses according to their nature and relative preservation value. These use allocations pertain to cultural resources, not to areas of land and include scientific use, conservation for future use, traditional use, public use, experimental use, and discharge from management.

## 1. Regional Context

Cultural resources include prehistoric and historic archaeological and architectural structures, features, and objects, as well as Native American traditional cultural and religious properties. Prehistoric properties include lithic scatters, temporary camp sites, occupation sites, hunting/kill/butchering sites, processing areas, rock shelters, rock art, cairns, trails, and corrals. Historic properties include historic trails, stage stations, homesteads/farmsteads, roads, irrigation ditches, reservoirs, mining sites, corrals, cairns, campsites, rock art/inscriptions, and trash scatters. Together, these properties represent human use of the area by Native American and Euro-American cultures, covering a timeframe from the Paleo-Indian period (12,000 BP) through the present.

## 2. Resource-Specific Information

### *a. Indicators*

The primary indicator for the condition of cultural resources is whether there is a loss of those characteristics that may qualify the property for listing on the National Register of Historic Places (NRHP) or would diminish the cultural value of areas important to Native American or other culturally distinct communities.

### *b. Current Conditions*

Most of the known cultural resources in the Planning Area have been identified as a result of compliance associated with proposed project activities. All proposed activities must comply with a host of laws and other guidance relating to cultural resources. These include but are not limited to, NEPA, Section 106 of the NHPA, and the Protocol Agreement between the Wyoming BLM and the Wyoming State Historic Preservation Officer (SHPO).

The condition of most identified cultural resources in the Planning Area remains stable through the BLM policy of avoiding or minimizing impacts on historic properties, primarily through project redesign. In certain situations, adverse effects to historic properties are unavoidable. In these cases, the adverse effects are appropriately mitigated through compliance with the NHPA.

The Planning Area contains a high number of historic properties for which setting is a very important attribute to National Historic Trails (NHT), NHT candidates, sites associated with NHTs, wagon and stage roads, as well as Traditional Cultural Properties (TCP) and properties of importance to tribes. Highly visible, large-scale, energy-related projects, such as coal and gas field developments, renewable energy projects, and transmission corridors, have resulted in a decline in the number historic properties with uncompromised setting.

Activities not subject to Section 106 compliance, such as dispersed recreation and visitor use, are currently affecting cultural resources. Unauthorized artifact collection and/or site vandalism has been documented at some sites. This is likely occurring at other sites, but regular monitoring some significant sites in the Planning Area has not been possible.

The Planning Area primarily consults with Native American tribes regarding impacts on sacred sites, TCPs, or other sites known to be of importance to tribes, although tribal concerns can go beyond site-specific impacts. The Planning Area primarily initiates consultation to identify archeological sites that may be of importance to the tribes. Tribes have stated that sacred sites are not necessarily archeological in nature and may be more properly associated with specific geographic features, plant communities, or locations associated with significant people or events in tribal history. Tribal concerns are documented and incorporated into decisions.

The Native American Graves Protection and Repatriation Act mandates that all Native American human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony found/discovered on public lands are to be protected. If these items are removed, they are to be culturally affiliated and then repatriated to the affiliated tribe.

## *c. Trends*

The biggest impact on cultural resources in the Planning Area is related to large-scale energy projects such as coal and gas field development, and large renewable energy projects. The number of these large-scale ground disturbing projects proposed in the resource area has increased greatly since the current RMP was completed. These large projects are often visible for a long distance and frequently result in adverse impacts on sites for which setting is important. While the adverse impacts are being properly mitigated, the overall trend is a rapid decrease in the number of historic properties (mainly NHTs and roads) with undisturbed settings. The Planning Area has a number of visitors each year who are trail enthusiasts and history buffs who wish to visit the historic trails for a glimpse of what it was like to travel down the trails in the past. The area managed by the Field Office contains more linear miles of intact NHTs, NHT candidates, and historical wagon roads than any other office in Wyoming The impact on the visible setting of these sites will result in reduced visitor enjoyment of the historic cultural values within the Planning Areas as well as degradation of the qualities that make these resources eligible for nomination to the NRHP. Because many of these projects are visible for a long distance, they will also affect the setting from sites and landscapes important to Native American tribes. The overall impact on cultural resources has resulted in a net loss of the numbers of intact significant resources for future generations, making the surviving resources more valuable.

For cultural resources that are not associated with formal surface disturbing proposals, a downward trend in condition for both recorded and unrecorded resources is indicated. Because cultural resources are manifested by discovery of exposed artifacts, features, and/or structures, they are easily disturbed by natural elements such as wind and water erosion, natural deterioration and decay, and animal and human intrusion. Illegal removal of artifacts, ground disturbance associated with increased access to remote areas, recreational activity, and limited law enforcement all contribute to the downward trend.

## *d. Forecasts*

Adherence to Section 106 of the NHPA, the BLM/SHPO protocol agreement, and the BLM policy of avoiding adverse impacts on cultural resources provides for the continued identification, stabilization, and preservation of cultural resource sites. It is expected that many previously unknown sites will be recorded as a result of project-related activities, mainly energy-related projects (gas wells, renewable energy, transmission lines, and mining). While most of the sites will be protected through avoidance, it is expected that large-scale energy-related projects will continue to affect the viewshed over a very large area. The potential for affecting sites for which the viewshed is an important factor is expected to increase as the demand for energy increases.

Assuming that the emphasis on energy permitting in the Field Office will continue for years, it is likely that thousands of new sites will be discovered over the next 10 to 20 years, and the resources may not be available to perform follow-up monitoring to assess site condition after the permitting process is completed.

As the demand for production of federally owned minerals increases, there will be an increased demand to identify cultural resources. Recreation (hiking, OHV use, hunting, and fishing) may indirectly result in damage to cultural resources through increased access to remote areas, unauthorized collection, or vandalism. It is anticipated that visitor use of the NHTs and petroglyph sites noted above will probably increase. This will result in the need for increased monitoring of the effects the visitors are having on these resources. Grazing or any activity that removes vegetation or leads to soil erosion can cause impacts on cultural resources. Livestock concentration areas (such as those that form near water sources, supplemental feeding areas, fence corners, and truck unloading/loading areas) as well as livestock trail formation may also result in impacts on cultural resources.

Because all of these predicted impacts are increasing, it is important to examine broader, more cumulative impacts in the future.

## *e. Key Features*

Numerous cultural resources that can be considered key features have been identified throughout the Planning Area. Site types range from historic structures, locations of significant historic events, prehistoric sites that are significant for their scientific value and sacred sites that are significant to Native American tribes. This is not an exhaustive list, and there are undoubtedly additional significant cultural resources throughout the Planning Area that have yet to be discovered.

**Prehistoric Sites**

Prehistoric sites found within the Planning Area include Finley, Krmpotich, Eden-Farson, Morgan, Pine Spring, and Steatite Quarry.

### Rock Art

The many rock art sites within the Planning Area create special management challenges. Some, such as White Mountain Petroglyphs, are currently being interpreted and are open to public visitation. Other major rock art sites in the Planning Area include Cedar Canyon, LaBarge Bluffs, Sugarloaf, and Tolar. There are also numerous other smaller rock art sites throughout the Planning Area.

The Planning Area also contains historic inscriptions made by emigrants as they travelled through the area. These inscriptions are known as registries.

### Historic Sites

1. Congressionally designated NHTs. Among the most significant cultural resources in the Planning Area are the hundreds of miles of NHTs (Oregon, Mormon-Pioneer, California, and Pony Express) and the two designated candidates (Overland and Cherokee) for inclusion within the National Trails System.

2. Historic roads and trails that are not congressionally designated but are eligible for nomination to the NRHP. The Planning Area contains many linear features such as railroads, expansion era roads, stage roads, Lincoln Highway variants, and freight roads that are of historical importance on a more local or regional level and are eligible for nomination to the NRHP.

   The Overland and Cherokee Trails are not congressionally designated but are considered candidates for inclusion within the National Trails System.

3. Many of the trails and sites noted above have associated resources, such as stage stations, that should also be considered when managing the resources. Some of these include Crookston Ranch, Dug Springs Stage Station, Boyer Ranch, Parting of the Ways, Dry Sandy Swales, Dry Sandy Stage Station, Big Sandy Stage Station, Big Timber Station, Freighter Springs Station, Camp Carmichael, Lander's Camp, and the site of Simpson's Gulch wagon train burning.

4. Other sites. Tri Territory marker

### Traditional Cultural Properties

- Stone circle sites
- Cairn sites
- Medicine wheel
- Vision Quest locations
- Cultural Landscapes–Boars Tusk, Cedar Canyon, White Mountain, Little Mountain, Steamboat Mountain, North Table Mountain, South Table Mountain, and potentially others.

### Areas With a High Potential for Buried Cultural Resources

Alluvial deposits, and to a lesser extent colluvial deposits, typically have a high potential to contain intact buried cultural resources. Areas containing high to moderate potential for buried

cultural resources are important potential resources that must be considered during the planning process. Buried archeological sites are nearly impossible to locate during a standard Class III inventory. When a federal undertaking is permitted in an area with a high potential for buried cultural material, archeological monitoring is often included as a condition of approval. Construction monitoring is performed by a qualified archeologist working in unison with construction crews. If buried cultural resources are located by the archeologist, construction is halted and the BLM consults with the SHPO regarding eligibility determinations and mitigation or avoidance. Tribes will also be consulted if appropriate. Buried archeological sites are sometimes located during construction in areas that do not have a high potential for buried cultural material and thus do not have a monitor present. In these cases, the company notifies The BLM of the find, which is also then evaluated for eligibility determination and mitigation or avoidance..

**Tribal Interests**

Tribal roles and responsibilities are not well defined within the current GRRMP (1997). The BLM's guiding framework should include Executive Order 13007 (Indian Sacred Sites, May 1996), and Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments, November 2000). The above mentioned Executive Orders provide for tribal involvement in the planning process. Additional guidance is provided under BLM Manual 8120 (Tribal Consultation) and the 8120 Handbook.

# 2.1.12. Paleontological Resources

## 1. Regional Context

Fossils are defined as the remains, imprints, and traces of once living organism, that have been preserved in the Earth's crust. Fossils can be remains of plants or animals (the body or imprints of remains), or their reflected actions (trace fossils). Fossils are typically preserved in sedimentary rocks or in a few unique situations in volcanic igneous and some meta-sedimentary rocks. They can range from microscopic in size, (radiolarians, foraminifera, bacteria and algae, vertebrates, and pollen) to macroscopic (such as fossil flowers, leaves, petrified wood, shells or invertebrates animals, and the bones, teeth tracks, feeding traces, coprolites and burrows of vertebrates).

The management of paleontological resources on public lands is aimed at the protection of vertebrate and scientifically significant plant and invertebrate fossils for the benefit of the public as a whole. Significant fossils are defined by BLM policy as including all vertebrate fossil remains and those plant and invertebrate fossils as determined on case-by-case basis. The abundance of these resources varies with the different geologic formation, with some containing few or no significant fossils and other formations being known to produce significant fossils throughout its sequence.

## 2. Resource-Specific Information

### *a. Indicators*

The primary resource indicator is whether there is a loss of those characteristics that make the fossil locality or feature important for scientific use. Natural or accelerated erosion, decay, improper collection, and vandalism can remove, alter, or damage those characteristics that make the paleontological resource scientifically important or enjoyable for the public..

## *b. Current Conditions*

Geologic units in the Planning Area are classified according to the Potential Fossil Yield Classification (PFYC), usually at the formation or member level, according to the probability of yielding resources of concern to land managers, primarily all vertebrate fossils and significant plant and invertebrate fossils.

The BLM uses the PFYC system to classify the potential to discover or impact significant paleontological resources. Within the Planning Area, PFYC Class 5 geologic formations account for about 50 percent of the total acreage, including all ownerships. Figure 2.19 shows the Rock Springs PFYC. Because public land often has more bedrock exposures, there may actually be more potential for vertebrate or scientifically significant paleontological resources on public land.

The Planning Area contains a great diversity of fossil remains. It has one of the greatest overall potentials for a variety of paleontological research and collection. This is a function of there being vast exposures of bedrock, outcrop accessibility, formations that represent long continuous expanses of time in relatively local areas, and the occurrence of these formations in large areas.

Because much of the BLM-administered lands are often rough, sparsely vegetated, and less disturbed than private lands, they offer some of the best opportunities for discovering fossil sites. Paleontological resources found within the Planning Area include:

**Cretaceous Era:** In the Planning Area, rocks and fossils of the Cretaceous Era are found on the Rock Springs Uplift and surrounding area. The majority of the fossils found are invertebrates such as clams, ammonites, and snails. During this time, much of the Planning Area was covered by a shallow sea, and the shoreline area transgressed and regressed several times, which deposited the sediments of the various rock formations. The coalbeds of the Rocks Springs Formation (and their associated plant fossils) were deposited at this time, as was the Lance Formation, which contains several different types of dinosaurs and microvertebrate forms of several varieties of mammals.

**Paleocene Epoch:** The Fort Union Formation of the Planning Area was deposited during the Paleocene Epoch. At this time, the land was much closer to sea level than it is now, and the Uinta and Wind River ranges were only recently in existence. This was a period of wet lowland areas, with many ponds and streams. The coal being mined by the Bridger Coal Company was deposited during this time. The fossils from the Fort Union Formation include the following: (1) plant fossils (e.g., flower impressions, leaf impressions, and petrified wood); (2) invertebrate fossils (e.g., freshwater clams and snails) that are indicative of streams and ponds; and (3) vertebrate fossils (e.g., fish, turtles, crocodiles, and mammals.)

**Eocene Epoch:** The Eocene Age formations that are found in the Planning Area are stratigraphically found from the bottom to the top, (with many of the various tongues of the different formations being intertongued with each other), the Wasatch Formation, the Green River Formation, the Bridger Formation, and the Washakie Formation. For more than 100 years, investigators have studied these formation for their vast diversity of vertebrate fossils and, to some extent, their paleobotanical fossils.

The Wasatch Formation is similar to the Fort Union Formation in terms of depostional environments. It was deposited largely by stream sediments meandering across a wet, lowland area. This formation covers a large part of the Great Divide Basin, and is found around the outer margins of the Green River Basin and the Washakie Basin. Fossils include snails, ostracodes, fish, turtle, crocodile, and mammals.

The Green River Formation was deposited by a broad and relatively shallow fresh-water lake, which has been referred to as Lake Gosiute. The shorelines of this lake fluctuated widely, and at times, it covered much of Sweetwater County and parts of adjacent counties. The Green River Formation is exposed in parts of the Great Divide Basin, and in a board band around the margins of the Green River Basin and the Washakie Basin. Fresh water snails and clams are common within certain layers of the Green River Formation, which is known for the large number of beds of excellently preserved fish fossils. The Farson Fish Beds (and many other fish localities) lie within the Laney Member and the Tipton Member of the Green River Formation. Fossils of wood, leaf imprints, stromatolites, insects, crocodiles, frogs, turtles, mammals, and birds from the Green River Formation in Wyoming have been described and published (including three flaming nesting colonies within the Planning Area area.

The Bridger Formation generally occupies the center of the Green River Basin, from a few miles southeast of Fontenelle Dam to south of Lonetree and McKinnon. This formation forms the badland areas of the central Green River Basin. The formation was deposited during and after the time that Lake Gosiute was infilled with sediments, when the area between the Wind Rivers and the Uintas was again a wet lowland area. This formation is rich in mammal fossils; the bibliography of "Mammalian Faunal Zones of the Bridger Middle Eocene" (Gazin 1976) lists more than 200 published references discussing mammal fossils that can be found in the Bridger Formation and "Fossil vertebrate localities of southwestern Wyoming: a literature search, locality record and formation evaluation" (Robinson, P., Daitich, D. J., and Haessig, J. E., 2002). Fossils of turtles, freshwater mollusks, ostoracodes, leaves, fish, crocodiles, and birds have been found within the formation.

The Washakie Formation is of the same age as the Bridger formation, and was deposited in similar fashion is the Washakie Basin. The badland areas east of Kinney Rim to Adobe Town is composed of the Washakie Formaltion and is also known to contain fossil mammals.

## *c. Trends*

Geologic units in the Planning Area are classified according to the PFYC, usually at the formation or member level, according to the probability of yielding resources of concern to land managers, primarily all vertebrate fossils and significant plant and invertebrate fossils.

The PFYC system originally developed by the U.S. Forest Service's Paleontology Center of Excellence and the Region 2 (USFS) Paleontology Initiative in 1996, and modified by the BLM, aids in assessing the potential to discover or affect significant paleontological resources. It is intended to assist in determining proper mitigation approaches for surface disturbing activities, disposal or acquisition actions, recreation possibilities or limitations, and other the BLM-approved activities. It will provide consistent information for input and analysis during planning efforts. The PFYC system also highlights areas most likely to be a focus of paleontological research efforts or illegal collecting. It is hoped that this system will allow BLM to direct management efforts toward potentially significant areas and reduce efforts in areas of lower potential.

The Potential Fossil Yield Classification is defined as follows:

There are five Classes, with Class 1 being Very Low Potential, and Class 5 being Very High Potential for vertebrate or scientifically significant paleontological resources. Although granite, lava beds, and other igneous or metamorphic rock types are usually considered to be void of any fossils, outcrops of these rocks may have fissure fillings, cave-like structures, sinkholes, and

other features that may preserve significant paleontological resources or information, so the potential is not zero; therefore Class 1 is applied to these rock types usually considered not to contain fossil resources.

Within the Planning Area, PFYC Class 5 geologic formations account for about 50 percent of the total acreage, including all ownerships (Figure 2.18). Because public land often has more bedrock exposures, there may actually be more potential for vertebrate or scientifically significant paleontological resources on public land.

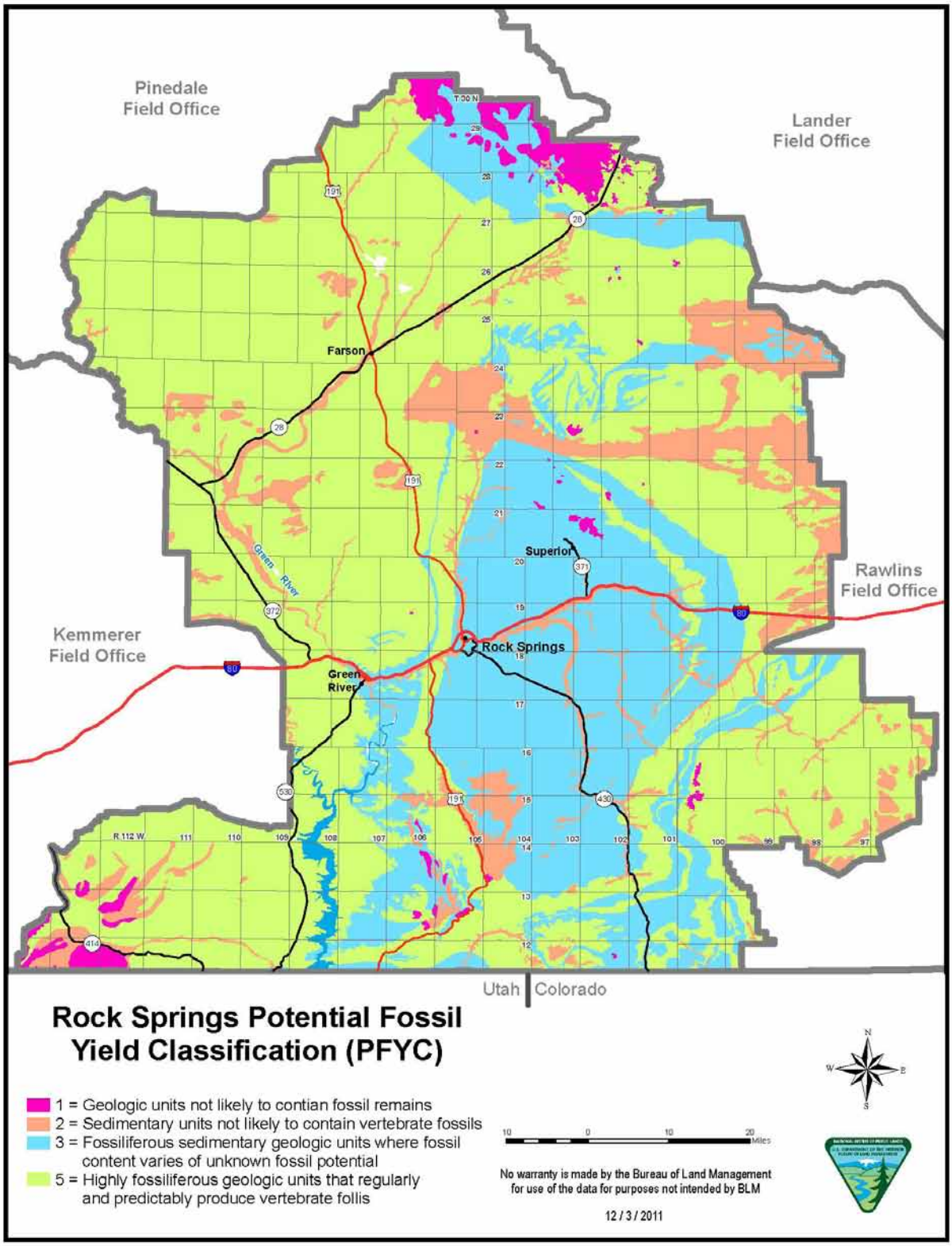



**Figure 2.18. Potential Fossil Yield Classification**

### *d. Forecasts*

On-the-ground mitigation efforts designed to protect paleontological resources can be broadly categorized as avoidance, full collection, sample collection (occurring before surface disturbing activities), and salvage (occurring during or after surface disturbance). These issues usually involve the following areas:

- Oil and gas exploration and development
- Coal-bed methane development
- Other mineral development (leasable, locatable, and salable)
- Rights of ways
- Land tenure adjustments
- Fossil theft
- Recreation, including hobby collecting, public display, and interpretation of fossil resources
- Research potential.

## 2.1.13. Lands With Wilderness Characteristics

Section 201 of the FLPMA requires the BLM to maintain, on a continuing basis, an inventory of all public lands and their resources and other values. This inventory requirement includes maintaining information regarding wilderness characteristics. Section 201 also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of the lands.

Section 202 of FLPMA requires the BLM to rely on resource inventories in the development and revision of land use plans, including inventory information regarding wilderness characteristics. Consistent with FLPMA and other applicable authorities, the BLM will continue to consider the wilderness characteristics on public lands as part of its multiple-use mandate in developing and revising land use plans and when making subsequent project level decisions. In accordance with NEPA, BLM offices must analyze the potential effects of proposed actions and alternatives for land use plan decisions on lands with wilderness characteristics when they are present.

## 1. Regional Context

Wilderness characteristics include naturalness, outstanding opportunities for solitude, and outstanding opportunities for primitive and unconfined recreation.

## 2. Resource-Specific Information

### *a. Indicators*

Wilderness characteristics are considered in undeveloped areas of sufficient size to be practical to manage. The existing plans for the Planning Area did not address wilderness characteristics. Wilderness characteristics are managed according to BLM policy.

### *b. Current Conditions*

In conformance with FLPMA and the Wilderness Act, the Planning Area undertook a complete Field Office wide inventory of potential lands with wilderness characteristics pursuant to this RMP effort. Seventeen areas previously identified by the public were also included in the evaluation. In addition, the Planning Area reevaluated all areas that met the initial FLPMA requirement of 5,000 acres roadless were also evaluated in advance of this planning effort. Data gathered from the evaluations will be processed into a report. Information from the report will be used to develop land use decisions in the revised RMP.

### *c. Trends*

Interest in wilderness resources throughout the Planning Area has local as well as regional and national significance. Public interest in these areas has increased dramatically in the past 15 years and is expected to increase in the future.

### *d. Forecasts*

As areas that meet the FLPMA definition as lands with wilderness characteristics become more limited, increased pressure on those lands is expected to increase. Conflict between development interests and preservation interests is expected to increase as well.

### *e. Key Features*

- The quality of recreation experiences on BLM-administered lands within the proposed Lands with Wilderness Characteristics (LWC).
- Protecting landscapes along the LWCs
- Potentially precluding of current land uses, or prohibiting of efficient land uses, and limiting of existing land rights
- Increase in governmental restrictive management
- Access to these areas

- Recreational limitations within LWCs
- The cost of effectively implementing the programs
- Increasing public visitation levels.

## 2.1.14. Visual Resources Management

The existing Visual Resource Management (VRM) classes were established with the GRRMP established in 1997. Class determinations were completed by assessing scenic quality, sensitivity levels, and distance zones of the landscape in objective terms. The VRM classes determine the appropriate levels of management. VRM is a tool to identify and map essential landscape settings to meet public preferences and recreational experiences today and into the future. The BLM categorizes visual resources into the following five distinctive classes, which are based on scenic quality evaluations, sensitive levels, and delineation.

Class I: The objective of this class is to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II: The objective to this class is to retain the existing character of the landscape. Management activities may be seen, but should not attract the attention of the casual observer.

Class III: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

Class IV: The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

Class V: The GRRMP discusses VRM Class V as a rehabilitation class. This VRM class was dismissed in 2002 and is no longer considered an acceptable management class. All areas within management class V were reclassified as VRM IV.

### 1. Regional Context

The planning area is within the Wyoming Basin physical province, which includes the Wyoming Basin and Great Divide Basin sections. The planning area contains landscapes such as mountains, foothills, scrubland, sand dunes, and erratic landscape features representative of badlands.

### 2. Resource-Specific Information

#### *a. Indicators*

Visual quality is an important factor in land use decisions. Proper VRM helps to prevent environmental degradation and maintain sociologically important resource values. Public perception of and concern for visual resources is critical in land use planning. The objective of VRM is to manage public lands in a manner that will preserve its scenic values. This objective is documented in sections 102, 103, 201 and 505 of FLPMA. The BLM Manual Handbook 8410-1, Visual Resource Inventory, sets the management structure by which these scenic (visual)

resources are to be protected, and includes guidelines for conducting visual resource inventories and determining the relative values of differing landscapes. The BLM categorizes visual resources into four distinctive classes that are based on scenic quality evaluations, sensitivity level analysis, and the delineation of distance zones. VRM Classes are established through the RMP process and adjusted as necessary to reflect resource allocation decisions made in the RMP.

## *b. Current Conditions*

VRM Class I is reserved for SMAs and includes all of the WSAs throughout the Planning Area. Class II areas include the Wind River Front, portions of the Little Mountain area, the Pine Mountain area, land along the Green River, land visible from the historic trail traces in the South Pass Historic Landscape and those areas adjacent to the WSAs. Class I and II areas ranked higher in the scenic quality evaluations, are more sensitive to visual intrusion and are therefore granted higher standards of protection.

Classes III and IV comprise the majority of the Planning Area, with a combined total of approximately 2,900,000 acres. In general, areas located on or near transportation routes (except in the Wind River Front, the Pine Mountain and Little Mountain areas, and along the Green River) were placed in the Class III category.

Visual intrusions occur throughout the Planning Area and are associated with all surface disturbing activities, including range improvement projects, agricultural practices, oil and gas activities, and dispersed recreation. The degree to which these intrusions affect visual resources varies greatly with each individual project. To adequately describe the current capability and conditions of visual resources in a concise manner, projects having the potential to affect VRM have been divided into general categories: (1) concentrated use areas; (2) small projects; and (3) areas of special concern.

High-profile visual intrusions are generally limited to areas of concentrated use. These areas generally include renewable energy facilities, oil and gas fields, production facilities, mineral quarries and ROWs. Surface disturbing activities associated with these areas are easily noticed due to the amount of contrast against the surrounding landscapes.

Visual intrusions normally associated with smaller projects are considered to have minimal impact on visual resources. Contrasts of basic elements are generally moderate, and the majority of these projects often remain subordinate to the representative landscape. These projects include a wide variety of range improvements, fences, and two–track roads, which are all found throughout the entire Planning Area. On an individual basis, the visual disturbances are fairly benign; however, over time, the accumulation of small projects and their related disturbances can disrupt the overall character of the landscape and negatively affect visitor experience.

Areas of special concern include the SRMAs, WSAs, historic and scenic trails, ACECs, and suitable wild and scenic rivers (WSR), all of which are popular destination areas and are experiencing an increase in recreational use.

The Wind River Front has always been a popular recreation area, especially for hunting, and is experiencing an increase in OHV use. Impacts of concentrated dispersed recreation and increased OHV use can create contrasting elements of line, texture, and color against the natural elements. When OHVs are driven off–roads and trails, or even on roads and trails during inclement weather, they damage vegetation, compact soils, and increase erosion, thereby negatively affecting visual resources of the area.

The lands surrounding WSAs are managed as "vehicles limited to designated roads and trails." Vehicles are allowed on boundary roads, a cherry stem road, and on some of the ways that were in existence when the area became a WSA. For the most part, most visitors stay on the authorized routes in the WSA. However, there are some pioneered routes, especially along the rims of canyons where hunters can gain a view of potential hunt animals. Signing and increased patrols should help with this situation. The pioneered routes will be evaluated to determine whether any rehabilitation is needed and if so, what needs to be done. Completion of rehabilitation efforts should help discourage continued use of these routes.

Landscapes that would suffer the greatest impacts as a result of development and high amount of dispersed recreation include the Wind River Front, the Little Mountain and Pine Mountain areas, and the NHTs.

New energy-related activities that are emerging may compromise current VRM objectives in the Planning Area. Such activities could include areas with high wind or solar power potential. Reevaluating these areas to develop baseline data to determine the appropriate VRM class is needed. This will aid in managing these lands and determining whether certain land uses are appropriate in certain areas.

### *c. Trends*

The current VRM classes prescribed in the Planning Area are insufficient because they are outdated and are not adequately prescribed for the WSAs and other sensitive resource areas.

The landscape inventoried for visual resources has undergone many changes on both public and private lands because of increased urbanization pressures, increased recreational trends such as OHV use, and energy-related actions.

Visual resource inventories were completed in 2009 by Planning Area ID Teams and again in 2011 by an independent contractor. These updated inventories will be used to determine suitable management classes in the revised Rock Springs RMP.

VRM assessment and reevaluation for the Planning Area need to be conducted for key transportation corridors, SRMAs, WSAs, proposed WSRs, ACECs, and other sensitive viewsheds in coordination with adjacent communities and other local, state, and federal agencies. This assessment will look at viewsheds that have been deemed important throughout the Planning Area to ensure that the plan looks at what communities and other local, state, and federal agencies deem visually and aesthetically important through a data-gathering exercise. In addition, current VRM classes from the 1997 GRRMP will be updated within those sensitive viewsheds to ensure that VRM class boundaries reflect real-world conditions.

The planning process will reevaluate and assign VRM classes for all lands within the RMP Planning Area. While visual values will be considered, they do not establish management direction; final VRM objectives and boundaries will result from and reflect all resource allocation decisions made in the Planning Area. In accordance with the BLM Manual H-1601-1, VRM classes will need to correlate with recreation management objectives and prescriptions that have been set in every SRMA.

The revised RMP will need to address BLM guidance, which requires that all historic trails and adjacent lands be managed as SMAs. Often, existing visual intrusions preclude managing these long linear features as VRM I areas but should include management protection as VRM Class II.

### *d. Forecasts*

Management concerns for VRM management that will be addressed include, but are not limited to:

- Environmental consequences of concentrated recreational use
- Degradation caused by widespread use of OHVs on public lands
- Effective visual management for the WSAs
- Effective mitigation along travel routes
- Maintaining current VRM objectives in areas growing in development activities, or in areas with the potential of new energy-related activities, such as wind or solar power
- Maintaining VRM objectives in areas with mixed surface ownership patterns
- Monitoring the long-term effect of management standards and practices
- Degree of contrasts from land uses are not subordinate to the surrounding natural elements
- Authorized projects that introduce contrasting elements, compromising areas VRM objectives
- Maintaining areas VRM objectives that no longer manageable
- VRM objectives precluding appropriate land uses and internal authorized projects
- Cumulative impacts from land uses that become dominant elements in the surrounding environment
- Wilderness characteristics that are compromised by surrounding land uses or allowance of motorized use within WSAs.

### *e. Key Features*

Key features in the Planning Area include the Wind River Front in the northeast of the Planning Area, Adobe Town in the southeast, Little Mountain and Flaming Gorge in the south center, Cedar Mountain and Black Mountain in the southwest, the Green River in the northwest, and WSAs and Historic and Scenic trails throughout.

## 2.2. Resource Uses

## 2.2.1. Energy and Minerals

This section is divided into categories to describe leasable fluid minerals, leasable solid minerals, saleable minerals, and locatable minerals. The fluid minerals section includes oil, gas, and geothermal resources. Leasable solid minerals include coal, sodium and sulphur. Saleable minerals include bentonite, gypsum, sand, gravel, limestone aggregate, clay/dirt fill, and decorative rock. Locatable minerals include minerals such as uranium, gold, and jade.

Leasable minerals are those minerals on public lands where the land is leased to individuals for their exploration and development. Leasable minerals are subdivided into two classes, fluid and solid.

## 2.2.1.1. Leasable Fluid Minerals

## 2.2.1.1.1. Geothermal

Geothermal resources typically occur as underground reservoirs of hot water or steam created by heat from deep within the Earth. Geothermal steam and hot water may naturally discharge at the Earth's surface or may also include subsurface areas of hot, dry rock at depth.

### 1. Current Level

There are no outstanding applications or active federal geothermal leases within the Planning Area at this time. A lack of leasing activity is often indicative of a low to non-existent demand for federal geothermal resources and of a lack of economically important geothermal resources in this area. There is no current local or regional dependence on the public lands for geothermal resources within the Planning Area. Exploration and development of geothermal resources within the Planning Area are subject to the application of mitigation requirements for surface disturbing activities and other activities in the same manner as they are applied to oil and gas exploration and development activities. Geothermal resources are open for leasing consideration in areas that are also open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing.

### 2. Forecasts

There are no active federal geothermal leases issued by the BLM in the Planning Area. No entities have currently expressed interest in leasing or developing geothermal resources. There are no known or identified geothermal resources suitable for commercial development within the Planning Area.

### 3. Key Features

The Planning Area has existing geothermal resources characterized by low to moderate geothermal development potential. Limited higher potential geothermal resources exist as well, but tend to be thermal fluids produced from depth during other mineral extraction activities.

## 2.2.1.1.2. Oil and Gas

Oil and gas production within the Planning Area mainly comes from conventional oil and gas reservoirs.

### 1. Current Level

**Conventional Oil and Gas–**The Planning Area contains 14 lithostratigraphic units, with the Almond, Lance, and Frontier being the main economic formations. Wells in the Planning Area are drilled as conventional wells; however, infill field development is typically directional drilled

from multi-well pads. Typically, these wells range in depth from 7,000 to 13,000 feet in true vertical depth. There is a high success rate–93 percent in the Planning Area for spud (beginning of drilling) to completed wells. It must be noted that the majority of the wells spudded in the last 10 years were drilled within existing oil and gas fields.

**Coalbed Natural Gas (CBNG)–**The Planning Area does contain CBNG. There have been no successful projects within the Planning Area that have produced CBNG in economic quantities. From 2002 to 2007, seven CBNG projects attempted to produce CBNG from many wells located in the Planning Area; however, five projects failed to be economical in nature or remain in completed projects.

**Exploration**

Oil and gas reservoirs can be discovered by either direct or indirect exploration methods. Direct methods include mapping of surface geology, seep observations, and gathering information on hydrocarbon observed in drilling wells. Indirect methods, such as gravity, magnetic, and seismic surveys, are used to delineate subsurface features that may contain oil and gas that are not directly observable. The petroleum industry uses 2D and 3D seismic technology to gain subsurface stratigraphic information concerning oil and gas reserves. 2D seismic technology uses controlled explosives placed in fairly shallow shot holes for source points along linear survey lines where the information is gathered. 3D seismic ventures generally use vibroseis or shaker trucks/buggies for source points in a grid pattern over a large area that can cover hundreds of square miles. Controlled explosives may also be used in 3D seismic operations, but tend to be used only where slope or topography restrict vibroseis or other related equipment access.

Limited exploratory drilling for natural gas has commenced over the last 2 years. Three specific areas include North Baster Basin, Point of Rocks, and Little Mountain.

**Leasing**

Oil and gas operators depend on the ability to produce federal minerals under the BLM's leasing program as enacted by the Mineral Leasing Act of 1920 (as amended). These leases are sold by parcel to interested parties through a public auction held four times a year in Cheyenne, Wyoming. The general policy of the BLM oil and gas program is to foster a fair return to the public for its resources, to ensure activities are environmentally acceptable, and to provide for conservation of the fluid mineral resources without compromising the long-term health and diversity of the land. The Planning Area fluid leasable management objective in the 1997 GRRMP is to provide for leasing, exploration, and development of oil and gas while protecting other values.

Under current management, BLM-administered lands in the Planning Area are open to oil and gas leasing and exploration except for the 13 WSAs, Wind River Front Range (Eastern Portion), the Red Creek Portion of the Greater Red Creek ACEC, the Mechanically Mineable Trona Area (MMTA), and Area 3 as defined by the Jack Morrow Hills Coordinated Activity Plan Environmental Impact Statement (JMH CAP EIS). The sum of these areas establishes 721,919 acres that are closed to oil and gas leasing in the Planning Area. The aforementioned total comprises 20 percent of the 3,607,334 acres of federal mineral estate in the Planning Area. This does not include the 81,307 acres of "large contiguous blocks" declared as no leasing by the Wyoming State Director to Governor Freudenthal in December 2009. With this additional acreage, the percentage increases to 22 percent.

Some portions of the Planning Area and most lands surrounding the Wildlife Refuge have some form of limitation on surface use or other restrictions such as: no surface occupancy, controlled surface use, timing limitation stipulations, and seasonal restrictions. There are currently 85 operators producing oil and gas resources in the Planning Area. As of October 2010, federal oil and gas leases encompass 1,722,313 acres or 48 percent of the entire (including No Leasing Areas) Planning Area. The number of leases and total number of acres under lease in each county are presented in Table 2.29.

**Table 2.29. Acreage and Number of Oil and Gas Leases by County**

| Portions of County in Planning Area | Acres in County (acres) | Acres Available to Lease (acres) | Number of Leases | Acres Leased (acres) | percent Leased ( percent) |
|---|---|---|---|---|---|
| Sweetwater | 2,866,275 | 2,270,487 | 1,780 | 1,411,791 | 62% |
| Sublette | 451,255 | 399,772 | 296 | 200,555 | 50% |
| Fremont | 172,236 | 103,846 | 4 | 5,120 | 5% |
| Uinta | 74,983 | 68,725 | 128 | 62,759 | 91% |
| Lincoln | 42,585 | 42,585 | 101 | 42,088 | 99% |
| TOTAL | 3,607,334 | 2,885,415 | 2,309 | 1,722,313 | 60% |

Source: BLM 2010 GIS Mapping as of October 25, 2010.

**Development of Leases**

The Planning Area fluid minerals staff is responsible for inspection and enforcement during all phases of the lease, exploration, development, and production operations.

In existing fields, such as Vermillion Basin, Canyon Creek Unit, Whiskey Canyon Unit, Trail Unit, and Alkali Gulch Unit, operators continue to drill and produce gas from directional wells on multi-well pads. The existing fields in Fontenelle and LaBarge areas also have multi-well pads using directional drilling, although a recent decline in proposals has been observed. This decline may be caused by the current resource price and/or economic decline. There is interest in a new project in the Known Sodium Lease Area (KSLA) for an exploration well with the recently designated Bridger Rendezvous Unit. The Planning Area is also jointly involved in the Normally Pressured Lance Area (NPL) EIS with the Pinedale Field Office. Within the Planning Area, there are also older fields that continue to be explored with new technology; these include: Leucite Hills Unit, Table Rock Unit, Luman Rim Area, and Horseshoe Basin Unit.

The Monell Unit Enhanced Oil Recovery Project located within checkerboard land ownership portions of the Planning Area uses injected Carbon Dioxide ($CO_2$) from the Shute Creek gas plant to remove additional oil and gas from the rock pore space. The project has recently completed drilling; Phase III and completion operations are ongoing. The last phase of this proposal, Phase IV, has not yet been submitted for approval.

Table 2.30 provides well statistics for the Planning Area. After the BLM approves an Application for Permit to Drill (APD), the developing company may proceed with drilling in accordance with the conditions of the APD approval.

Table 2.31 lists producing oil and gas fields located wholly or partially within the Planning Area by county, ranked according to their production for 2009 (Wyoming Oil and Gas Conservation Commission 2010).

**Table 2.30. Well Statistics by County for the Planning Area, as of October 2010**

| Sweetwater County (portion within Planning Area) | Federal | Fee or State | Total |
|---|---|---|---|
| Number of Plugged and Abandoned Wells | 1,175 | 658 | 1,833 |
| Number of Producing Wells | 1,166 | 622 | 1,788 |
| Total Permits (issued and pending) | 40 | 5 | 45 |
| **Sublette County portion within Planning Area)** | | | |
| Number of Plugged and Abandoned Wells | 78 | 21 | 99 |
| Number of Producing Wells | 326 | 84 | 410 |
| Total Permits (issued and pending) | 1 | 0 | 1 |
| **Lincoln County (portion within Planning Area)** | | | |
| Number of Plugged and Abandoned Wells | 55 | 4 | 59 |
| Number of Producing Wells | 363 | 1 | 364 |
| Total Permits (issued and pending) | 9 | 0 | 9 |
| **Uinta County (portion within Planning Area)** | | | |
| Number of Plugged and Abandoned Wells | 28 | 7 | 35 |
| Number of Producing Wells | 26 | 5 | 31 |
| Total Permits (issued and pending) | 0 | 0 | 0 |
| **Fremont County (portion within Planning Area)** | | | |
| Number of Plugged and Abandoned Wells | 13 | 5 | 18 |
| Number of Producing Wells | 0 | 0 | 0 |
| Total Permits (issued and pending) | 0 | 0 | 0 |

Source: Table Information is from GIS layer based on Wyoming Oil and Gas Conservation Commission (WOGCC) status of wells and Pending Permits in DOI/BLMs Automated Fluid Minerals Support System (AFMSS) October 25, 2010.

## 2. Forecasts

Demand for oil and gas resources is increasing in the Planning Area, based on projected increases in prices for oil (although gas prices are currently in decline) and the rising national demand for energy. An increasing amount of public land is also being nominated for federal leasing.

Completed Wells–Approximately 764 wells were completed in the Planning Area from January 1, 1999, to December 31, 2009. Each well disturbed approximately four acres for initial drilling operations (accounting for approximately 3,056 acres of new disturbance in the Planning Area). Upon completion of operations, interim reclamation is implemented, reducing disturbance to one acre on average, or 764 acres total for the Planning Area. Figure 2.20 shows the number of wells approved, spudded, completed, and plugged in the Planning Area since 1999. Since 1999, there has been a variable peak and fall in oil and gas well completions on federal oil and gas leases in the Planning Area. In 1999, 39 wells were spudded in the Planning Area, with a peak in 2006 of 102 well spuds. In 2010 the total fell again to only 40 wells.

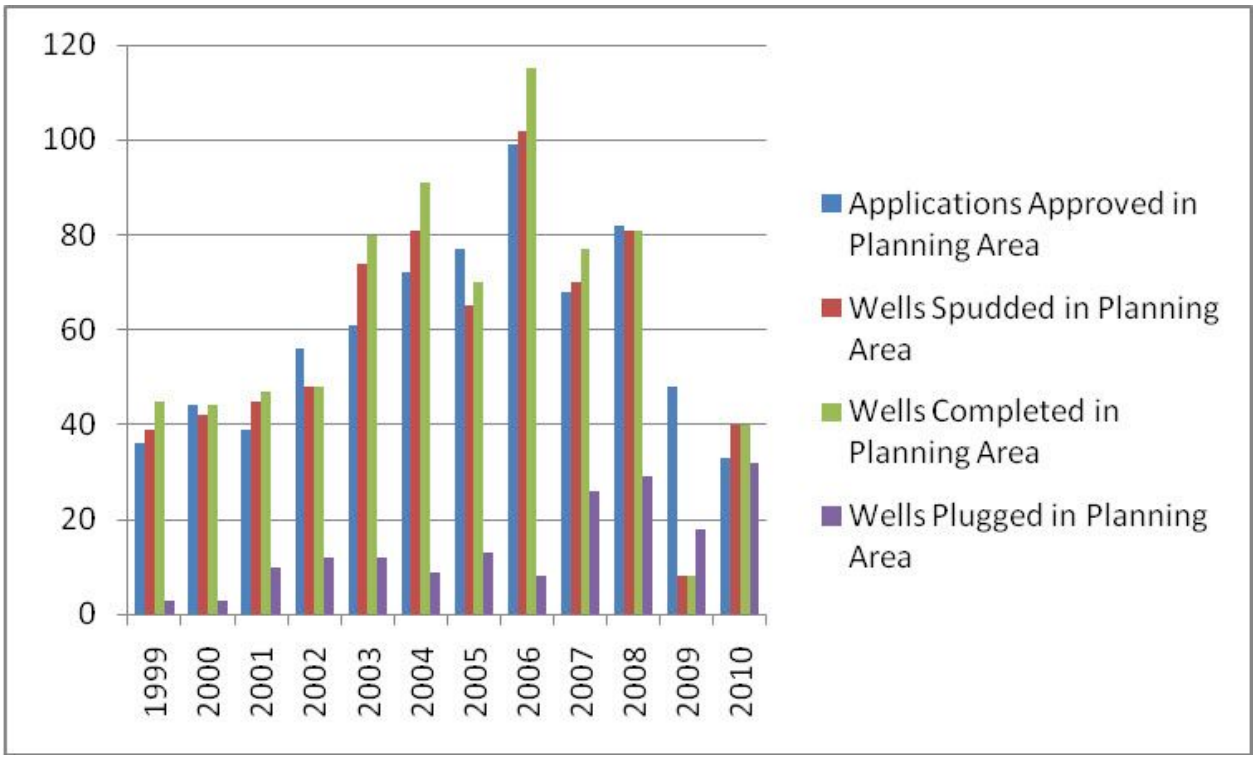



**Figure 2.19. Trends in Oil and Gas Development in the Planning Area**

Applications for Permits to Drill - Based on data from the Automated Fluid Minerals Support System (AFMSS) (BLM 2010)–there was an upward trend in the number of APDs approved on federal oil and gas leases in the Planning Area since 2003, particularly after passage of the National Energy Policy Act of 2001 and the Energy Policy Act of 2005. However, in 2009 to 2010 there was a decrease in APD submissions (Figure 2.20).

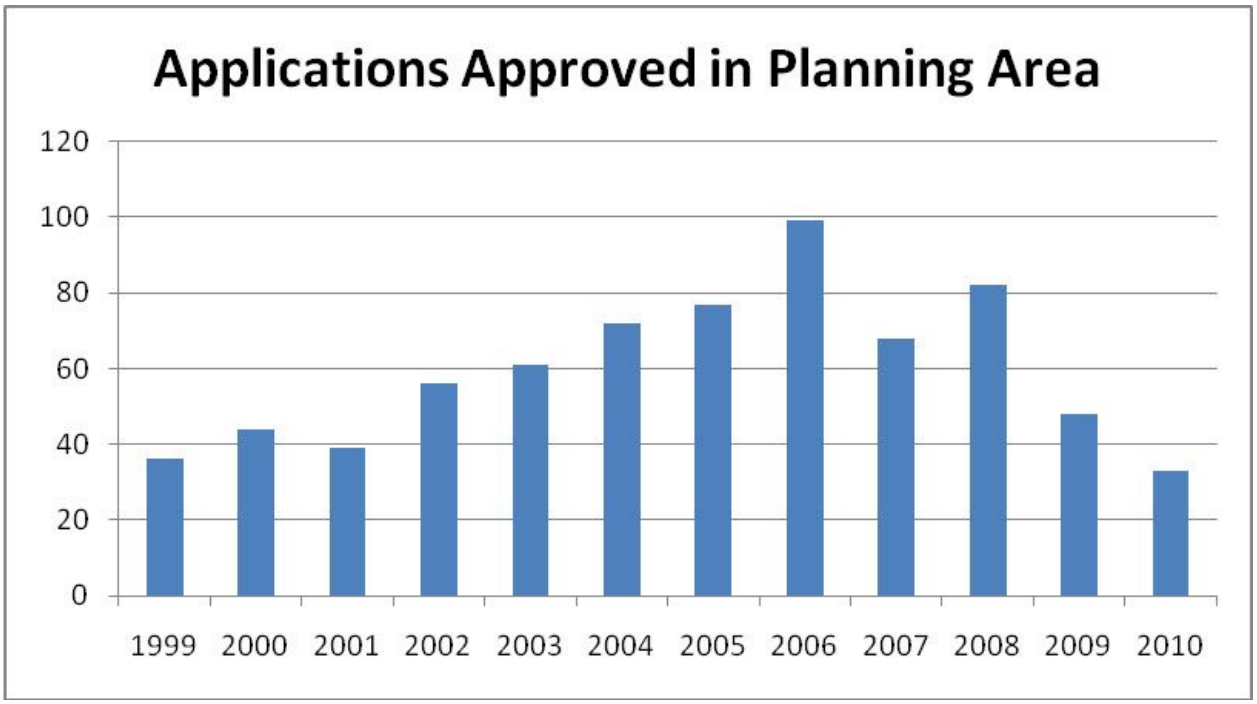



**Figure 2.20. Trends in Applications for Permits to Drill in the Planning Area**

The approved number of Notices of Intent to conduct geophysical exploration operations has been declining since 1999. There has been a decrease in the number of seismic ventures in the Planning Area. This is attributed to the increased activity of infill drilling and lack of interest in exploring outside of existing fields.

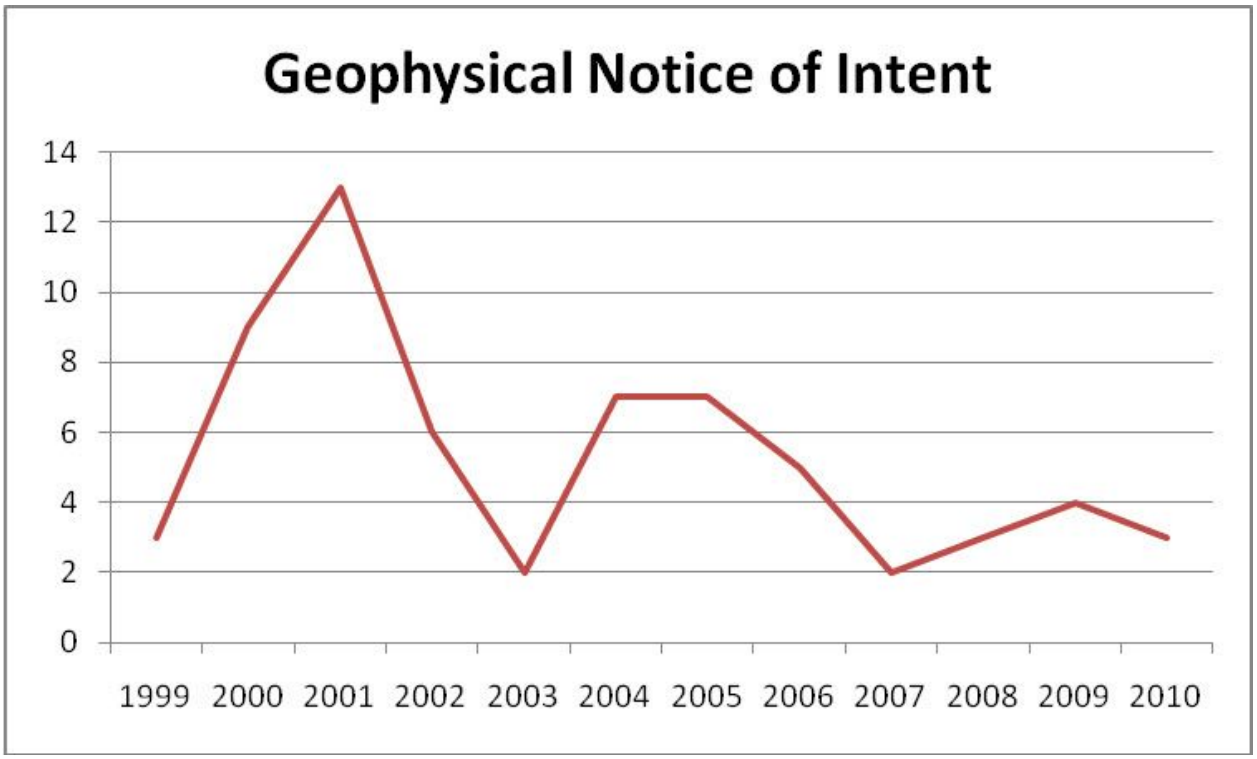



**Figure 2.21. Trends in Geophysical Notices of Intent in the Planning Area**

**NEPA Trends—**The most recent Reasonable Foreseeable Development (RFD) from the Wyoming State Resource Management Group (RMG) completed, projected that between 446 conventional wells and 110 CBNG wells would be drilled from 2007–2011 in the Planning Area. However, The Hiawatha EIS and the Normally Pressured Lance EIS are yet to be completed and have an estimated 4,200 and 3,500 wells proposed, respectively. Because these projects are only partially in the Planning Area, only 45 percent of the total wells proposed would be drilled in the Planning Area, totaling approximately 3500 wells in the next 10 years. There are also several other oil and gas NEPA projects that are not yet completed that analyze newly proposed wells within the Planning Area. An updated RFD is currently being prepared by the RMG for the Rock Springs RMP Revision.

**Federal Oil and Gas Units–**The Planning Area has 59 oil and gas units covering approximately 475,000 acres of state, fee, and federal minerals. Seventy-six percent of oil and gas units are currently Held By Production (HBP). Two units are Enhanced Recovery units, (Monell and Henry), and are not required to be HBP. Units with more recent effective dates are currently drilling and exploring for hydrocarbon reserves to obtain a HBP status. It is estimated that approximately 50 percent of the unproven units will locate sufficient hydrocarbons.

Table 2.31 shows 14 oil and gas units that are entirely within Sage-Grouse Core Areas and four that are partially within them. Five of these units have not been fully developed and will continue to add wells in areas to fulfill their unit obligations.

## Table 2.31. Oil and Gas Units in Planning Area and Production Status

| Number | Oil and Gas Unit | Acres | Effective Date | HBP |
|---|---|---|---|---|
| 1 | SOUTH BAXTER BASIN** | 38,770 | 11/1/1942 | HBP |
| 2 | TABLE ROCK | 12,692 | 9/19/1945 | HBP |
| 3 | SALT WELLS* | 669 | 6/21/1949 | HBP |
| 4 | EAST LABARGE | 5,581 | 4/6/1951 | HBP |
| 5 | DESERT SPRINGS | 14,397 | 1/21/1958 | HBP |
| 6 | TRAIL | 6,755 | 5/14/1958 | HBP |
| 7 | ARCH | 12,565 | 2/26/1959 | HBP |
| 8 | FIGURE FOUR CANYON | 1,280 | 6/9/1959 | HBP |
| 9 | PLAYA | 4,105 | 3/22/1960 | HBP |
| 10 | JACKKNIFE SPRING | 1,490 | 9/2/1960 | HBP |
| 11 | JOYCE CREEK* | 1,284 | 4/24/1962 | HBP |
| 12 | NITCHIE GULCH | 5,960 | 10/1/1962 | HBP |
| 13 | MONELL | 10,120 | 12/1/1964 | NA |
| 14 | BRADY DEEP | 5,976 | 10/18/1970 | HBP |
| 15 | KINNEY | 2,471 | 6/5/1973 | HBP |
| 16 | FONTENELLE II | 13,062 | 7/30/1974 | HBP |
| 17 | DELANEY RIM | 1,661 | 3/17/1975 | HBP |
| 18 | HIGGINS | 4,840 | 8/3/1975 | HBP |
| 19 | LEUCITE HILLS | 1,280 | 3/7/1976 | HBP |
| 20 | MONUMENT BUTTE IV | 7,084 | 3/27/1978 | HBP |
| 21 | STEAMBOAT MOUNTAIN | 635 | 4/18/1978 | HBP |
| 22 | BUTCHER KNIFE SPRING | 2,196 | 9/25/1979 | HBP |
| 23 | HENRY* | 5,954 | 4/30/1980 | HBP |
| 24 | JEFFERSON | 600 | 10/19/1980 | HBP |
| 25 | BUCCANEER* | 680 | 11/13/1980 | HBP |
| 26 | WEST SWAN | 874 | 11/28/1980 | HBP |
| 27 | BLUE FOREST | 9,717 | 12/13/1980 | HBP |
| 28 | BITTER CREEK II* | 360 | 1/24/1983 | HBP |
| 29 | STEAD CANYON | 1,363 | 2/28/1983 | HBP |
| 30 | LITTLE MONUMENT II | 2,680 | 3/15/1984 | HBP |
| 31 | SOUTH HENRY* | 1,161 | 9/4/1984 | HBP |
| 32 | RIM ROCK | 640 | 1/11/1984 | HBP |
| 33 | RAPTOR | 2,416 | 5/31/1985 | HBP |
| 34 | EMIGRANT TRAIL | 600 | 1/1/1986 | HBP |
| 35 | PINE CANYON | 1,400 | 1/1/1989 | HBP |
| 36 | TAYLOR RANCH* | 1,840 | 9/25/1990 | HBP |
| 37 | CANYON CREEK DOME | 14,505 | 2/20/1991 | HBP |
| 38 | HENRY ENHANCED* | 7,830 | 4/1/1992 | |
| 39 | HAVEN* | 3,561 | 5/11/1993 | HBP |
| 40 | BRAVO | 3,720 | 10/20/1993 | HBP |
| 41 | RATTLESNAKE | 2,240 | 7/23/1999 | HBP |
| 42 | STAGECOACH DRAW* | 3,864 | 6/1/2000 | HBP |
| 43 | LANEY RIM | 20,298 | 12/13/2000 | HBP |
| 44 | HACIENDA** | 21,108 | 2/28/2001 | HBP |
| 45 | HORSESHOE* | 1,469 | 3/1/2002 | HBP |
| 46 | LODGEPOLE SHALLOW | 320 | 8/1/2002 | NA |
| 47 | COPPER RIDGE (CBM) | 3,584 | 12/24/2002 | NA |
| 48 | NRTH COPPER RIDGE(CBM) | 3,000 | 1/7/2003 | HBP |
| 49 | SOUTH BRADY(SHALLOW) | 280 | 1/16/2003 | HBP |
| 50 | CHICKEN SPRINGS(CBNG)* | 19,780 | 7/30/2004 | NA |

| Number | Oil and Gas Unit | Acres | Effective Date | HBP |
|---|---|---|---|---|
| 51 | HORSESHOE BASIN** | 24,984 | 4/29/2005 | NA |
| 52 | CRIMSON* | 23,610 | 9/19/2005 | NA |
| 53 | WHISKEY CANYON** | 14,729 | 1/12/2006 | NA |
| 54 | PUMA (DEEP) | 18,196 | 4/20/2006 | NA |
| 55 | EDEN RANCH* | 12,572 | 5/21/2008 | NA |
| 56 | RUBICON | 40,075 | 6/30/2008 | NA |
| 57 | ALKALI GULCH | 24,707 | 10/27/2008 | NA |
| 58 | AIRPORT | 800 | 12/8/2008 | NA |
| 59 | DESOLATION ROAD | 24,962 | 12/22/2008 | NA |
| | **Total** | **475,354** | **acres** | |

**Denotes part of unit is in SG Core Area version 3

*Denotes unit is entirely in Sage-grouse Core Area version 3

Well Plugging – Based on data from AFMSS (BLM 2010), approximately 175 wells were plugged between January 1, 1999, and December 31, 2009, within the Planning Area (Figure 2.22). It is estimated that the yearly average of 15 wells plugged per year will increase over the next 10 years because the Planning Area has 73 idle (defined as non-producing for more than 7 years) wells in the Planning Area.

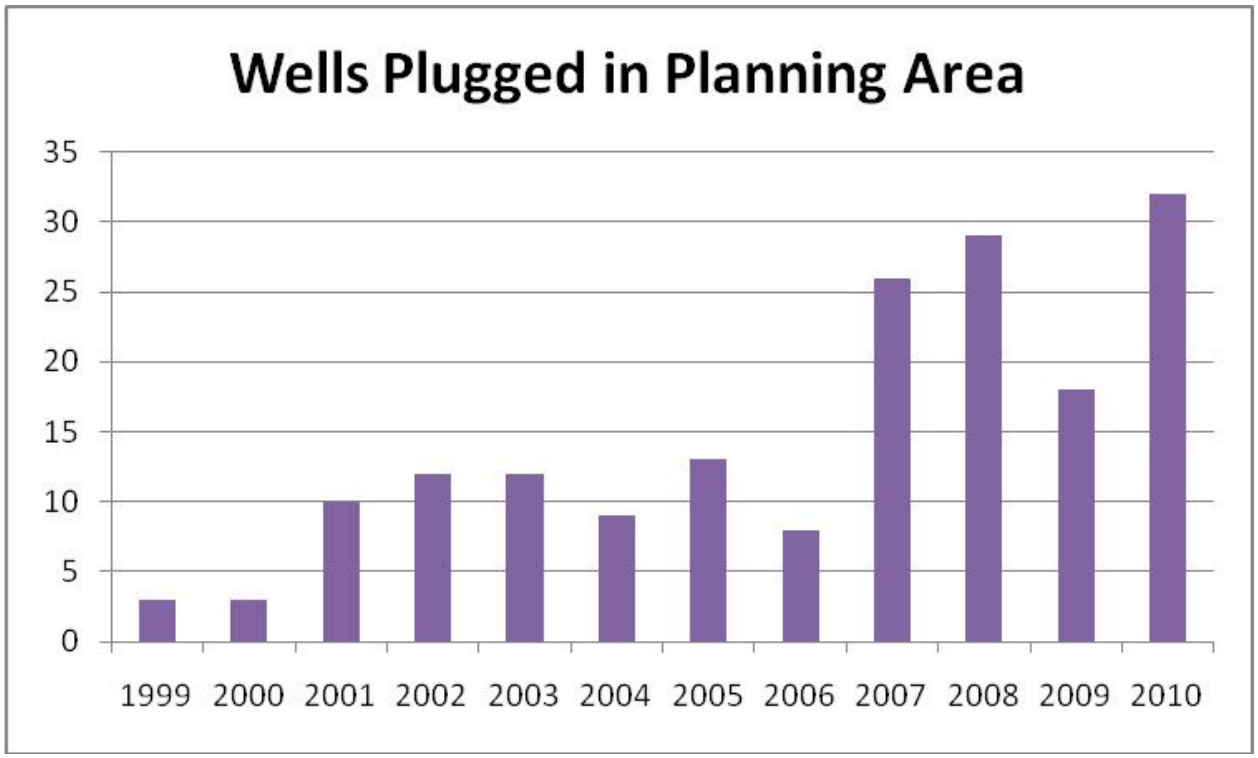



**Figure 2.22. Trends in Wells Plugged in the Planning Area**

An increase in national demand for oil and gas resources will affect the Planning Area. Demand for oil and gas resources will follow oil and gas prices. A 20-year oil and gas trend analysis (RFD Scenario) for the Planning Area is still in development by the BLM RMG in Casper, Wyoming.

**New Wells and Disturbance**–Based on trends from 1990 to 2007, the number of wells drilled each year should remain between 40–60 until NEPA analysis is completed for the Hiawatha and

NPL areas. The Planning Area is experiencing some exploratory wells and drilling techniques in older fields, but if gas prices rise, these interests could become greater. Between 1997 and 2007, a total of 746 wells were completed in the Planning Area, yielding an average of 62 wells per year. New disturbance is anticipated to be minimal in existing oil and gas fields because industry is trending toward multi-well pads and directional drilling. The estimated disturbance for the 40–60 wells per year would initially be 190 acres per year if 25 percent of the wells are proposed on multi-well pads.

**Seismic Exploration Activities–**It is likely that the Planning Area will remain steady in seismic projects over the next planning cycle at a rate of one–to–three seismic projects each year. The majority of these projects will probably be 3D projects and cover relatively large areas, with a smaller number of 2D seismic projects.

**Well Plugging–**Well plugging is expected to increase as fields reach their economic limits. The number of federal stripper wells in the Planning Area is not known. Many of the federal stripper wells, shut-in wells, failed CBNG projects, and temporarily abandoned wells will be plugged and abandoned in the next 20 years, and their well pads and access roads will be reclaimed. This will offset some of the newer surface disturbance caused by new oil and gas drilling over the next 20 years.

**Conventional Oil and Natural Gas–**Exploration and development of gas and oil reserves is dependent on prices and economy, among other influences. Currently Wyoming is experiencing record-breaking lease sales in the eastern portion of the state for federal, fee and state minerals in the Niobrara Shale. Interest remains with established fields by established operators in the Planning Area, and the forecast is basically to tap existing pools with some interest in exploration.

**Coalbed Natural Gas–**The Planning Area has not been an important CBNG producer in the United States. This situation is not expected to change over the next planning cycle, because of a general lack of reservoir quality in the Planning Area. However, some limited exploration and development may be proposed.

## 2.2.1.2. Leasable Solid Minerals

## 2.2.1.2.1. Coal

Coal leasing, exploration, and development on public lands is conducted under the authority of the Mineral Leasing Act of 1920, as amended, the Federal Coal Leasing Amendments Act of 1976 and the Federal Coal Management Program as codified in the 43 CFR 3400 regulations.

### 1. Current Level

Federal coal lands within the Coal Occurrence and Development Potential Area, containing about 422,000 acres within the Planning Area (Figure 2.23), are open to further consideration for coal leasing and development. This consideration includes such actions as new competitive (lease-by-application) leasing, emergency leasing, lease modifications, and exchange proposals with appropriate and necessary conditions and requirements as outlined in the Federal Coal Management Program regulations for the protection of other land uses and resource values. The authority to process coal leases under the prior noncompetitive (preference right) leasing procedures was superseded by the Federal Coal Leasing Amendments Act of 1976.

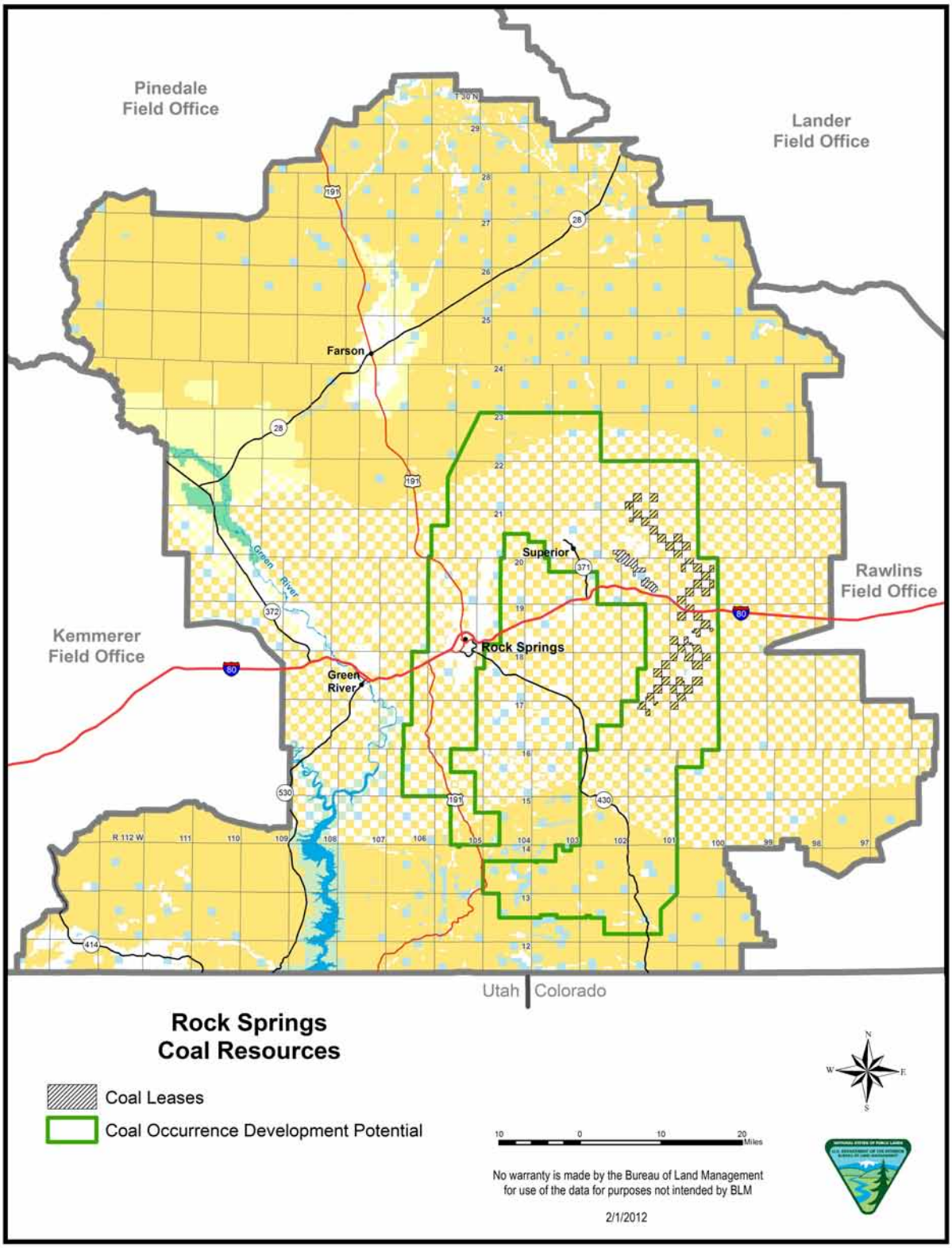



**Figure 2.23. Coal Resources**

Coal was originally extracted from numerous underground mines scattered across the Rock Springs Uplift, mostly concentrated on the high-grade deposits contained within the Rock Springs Formation. Almost all of these mines were eventually closed by the early 1960s largely because of the reduced demand for coal as a result of the conversion of railroad locomotives to diesel fuel. Surface coal mining in the area began in earnest during the early 1970s to fuel the newly completed Jim Bridger Power Plant.

Coal in the Planning Area is recovered exclusively from mines operating in deposits located on the northeastern flank of the Rock Springs Uplift in Sweetwater County, Wyoming. Two operators are recovering coal from the Almond and Fort Union Formations using several different mining techniques. Almost all of the coal produced is shipped to the Jim Bridger Power Plant, while a smaller portion is sent to other customers. The combined coal production from all of the mines in the Planning Area for the year 2009 totaled about 9.2 million tons.

Coal is mined exclusively from the Fort Union Formation at the Jim Bridger Coal Surface Mine, recovering up to five separate seams. Surface mining is typically accomplished by a combination of draglines, hydraulic excavators, and front-end loaders excavating of the overburden and interburden. The individual coal seams are then removed by a hydraulic excavator or front-end loader as they are loaded into haul trucks and readied for delivery to the power plant.

The Jim Bridger Underground Coal Mine is currently operating at the north end of the surface mine. The target coal seam for this operation is the lower-most D4/1 Seam in the Fort Union Formation, which can reach a thickness of up to 16 feet locally. Access to the coal reserves is achieved from a portal opened in the existing pit highwall, and coal is recovered using longwall mining techniques.

The Black Butte Coal Company operates the Black Butte surface mine. This mine recovers coal from multiple seams in Fort Union Formation and from up to five seams in the Almond Formation. Coal is mined from multiple pits scattered across the permit area using surface mining techniques and procedures very similar to those described above.

The Black Butte Coal Company also operates the Leucite Hills surface mine located near the town of Point of Rocks north of Interstate 80. This mine recovered coal from multiple pits developed on seams in the Almond Formation. As of December 31, 2009, the coal recovery operations ceased, and the entire mine site began undergoing final reclamation.

There are currently eight federal coal leases totaling about 28,471 acres within the Planning Area. Six of these leases are actively producing coal, one is currently not producing, and one is mined-out and abandoned. The total combined coal production from the federal leases for the year 2009 was approximately 1.5 million tons.

Table 2.32 details the specifics for each of the current federal coal leases (Source: BLM 2010).

**Table 2.32. Federal Coal Leases in the Planning Area**

| Lessee | Lease Number | Lease Acreage | Lease Effective Date | Last Readjustment Date | Lease Status |
|---|---|---|---|---|---|
| **Black Butte Coal Company** | WYW6266 | 14,982.11 | 04/01/1976 | 04/01/2006 | Producing |
| | WYW23411 | 610.97 | 04/01/1983 | 04/01/2003 | Idle |

| Lessee | Lease Number | Lease Acreage | Lease Effective Date | Last Readjustment Date | Lease Status |
|---|---|---|---|---|---|
| | WYW160394 | 1,399.48 | 08/01/2007 | N/A | Producing |
| **Total Acreage** | | 16,992.56 | | | |
| **Bridger Coal Company** | WYW0313558 | 4,275.68 | 01/01/1968 | 01/01/2008 | Producing |
| | WYW2727 | 3,440.00 | 10/01/1969 | 10/01/2009 | Producing |
| | WYW2728 | 1,440.00 | 10/01/1969 | 10/01/2009 | Producing |
| | WYW154595 | 2,242.18 | 03/01/2005 | N/A | Producing |
| **Total Acreage** | | 11,397.86 | | | |
| **Lion Coal Company** | WYW119606 | 81.05 | 03/01/1991 | N/A | Idle |
| Planning Area Total Acres | | 28,471.47 | | | |

## 2. Forecasts

There are no outstanding or pending applications for federal coal leases on lands within the Planning Area at this time. Should such applications be received at some point in the future, they will be processed in the manner prescribed by the Coal Management Program regulations.

The BLM issues 2-year term Exploration Licenses for the purpose of identifying and quantifying coal resources on public lands that could eventually be leased. Currently, there are three active licenses containing 1,280 acres within the Planning Area. These lands are in the process of being explored by drilling and coring methods using truck-mounted rigs. The final results of these tests will be submitted to the BLM upon completion of the drilling programs. Table 2.33 details the specifics for the Exploration Licenses that have been issued in the Planning Area over the last 5 years.

**Table 2.33. Federal Coal Exploration Licenses in the Planning Area**

| Licensee | Serial Number | Exploration License Acreage | License Effective Date | License Expiration Date | License Status |
|---|---|---|---|---|---|
| **Black Butte Coal Co.** | WYW172923 | 640.00 | 02/07/2007 | 02/07/2009 | Expired |
| | WYW176446 | 319.83 | 07/11/2008 | 07/11/2010 | Expired |
| | WYW179006 | 640.00 | 09/29/2010 | 09/29/2012 | Active |
| **Sub-Total** | | 1,599.83 | | | |
| **Bridger Coal Co.** | WYW163613 | 1,278.74 | 08/16/2005 | 08/16/2007 | Expired |
| | WYW176465 | 7,050.90 | 09/26/2008 | 09/26/2010 | Expired |
| | WYW178270 | 320.00 | 08/31/2009 | 08/31/2011 | Active |
| | WYW179009 | 320.00 | 08/17/2010 | 08/17/2012 | Active |
| **Sub-Total** | | 8/969.64 | | | |
| **Planning Area Total** | | 10,569.47 | | | |

Total coal production in general, andfFederal coal production in particular, have been in a slight decline over the past few years. The Jim Bridger Mine is in the process of shifting its focus from surface coal recovery to underground mining at the recently opened Jim Bridger Underground Coal Mine facility. The Black Butte Coal Company opened a new pit (Pit 14) on the south end of its property in 2009 and is currently in the process of assessing the feasibility of opening another pit (Pit 15) on the north end of the property. These additions will be necessary in order

to maintain the current overall production levels from the mine since coal recovery operations were ceased at Black Butte's Leucite Hills Mine in late 2009.

The BLM anticipates that the coal production levels from the two active mining operations in the Planning Area will remain at or near current levels into the foreseeable future. This includes both the mine-wide (about 9 million tons per year) and the federal lease (about 2 million tons per year) coal production. No new start-up mining operations have been proposed, or are expected to be proposed, during the planning period. It is expected that any new federal coal leasing activity that occurs will be predominantly in the form of lease modifications to existing leases to support the continued expansion of the current mining operations.

### 3. Key Features

Coal deposits that have highly variable depth, thickness, and quality parameters underlie a large portion of the Planning Area. Most of the economically important coal deposits occur on the flanks of the Rock Springs Uplift within what is known as the Coal Occurrence and Development Potential Area. Coal is currently being recovered from the Almond and the Fort Union Formations by operations located on the northeastern flank of the Rock Springs Uplift in Sweetwater County, Wyoming, using surface and underground mining techniques. In the past, coal has also been mined from the Rock Springs and the Lance Formations locally. Coal also occurs in the Wasatch Formation, but it is of very low quality, making it uneconomical to mine.

## 2.2.1.2.2. Oil Shale

Oil shale leasing, exploration, and development on public land is conducted under the authority of the Mineral Leasing Act of 1920, as amended, and the Energy Policy Act of 2005. Oil shale is a fine-grained sedimentary rock that contains various amounts of organic matter. The oil in oil shale is contained within a waxy, bituminous substance called kerogen. To release the oil from the kerogen, the rock must be heated to about 650 $^{o}$F to 700 $^{o}$F in an oxygen-free environment. This process is called retorting. Two different methods have been used in the past to recover oil from the oil shale rock: surface retorting and in situ retorting. On average, about three quarters, or less, of the oil contained within the kerogen may be released using these techniques, depending on the physical properties of the rock itself (porosity, permeability, cementation, etc.). The United States holds more than 50 percent of the world's known oil shale resource, most of which is contained in the deposits found in Colorado, Utah, and Wyoming. These oil shale deposits underlie a total area of approximately 16,000 square miles between the three states, with about 72 percent of this total located on federal land. The total reserve contained within these deposits is estimated to be 2.6 trillion barrels of in-place oil, and 1.5 trillion barrels of recoverable oil. Oil shale potential resources within the Rock Springs Field Office are shown in Figure 2.24.

### 1. Current Level

The oil shale deposits of Wyoming are located predominantly within Sweetwater County, and to a lesser extent within Uinta, Lincoln, Sublette, and Carbon counties. The oil shale beds are found almost exclusively in the Upper Eocene Age rocks of the Green River Formation in the Green River Basin, the Washakie Basin, and the Fossil Basin of southwestern Wyoming. These oil shale beds are highly variable in thickness, with a range from several feet to several hundred feet thick. Bed quality is also highly variable from area to area, with an overall average grade of

approximately 15 gallons of oil per ton of shale. The depths to the oil shale beds range from zero feet at the outcrop to well over 3,000 feet below the surface at the depositional center of the basins.

There are no federal leases or outstanding applications for oil shale within the Planning Area at this time. In accordance with applicable federal and state regulations and BLM policies, an estimated 788,230 acres of land in the most geologically prospective oil shale areas of the Green River Formation within the Green River and Washakie Basins are available for application for leasing and commercial oil shale development (BLM, 2008; refer to below figure Rock Springs Field Office Oil Shale Potential Resource). Of this total acreage, 1.6 million acres (Table 2.34) are contained within the Planning Area. Avoidance of surface disturbance, controlled surface use, SMAs, and other planning decisions still apply. The final rules for oil shale management on federal lands (43 CFR Parts 3900, 3910, 3920, and 3930) became effective as of January 17, 2009. Public Land Order No. 7726, effective February 9, 2009, revoked the oil shale withdrawal (Executive Order No. 5327, as amended) within the State of Wyoming and restored those lands to oil shale leasing. This order also states, in part, that these lands will be open to the operation of the public land laws, excepting the operation of the 1872 Mining Law, until completion of an analysis to determine whether any of these lands need special designation and protection.

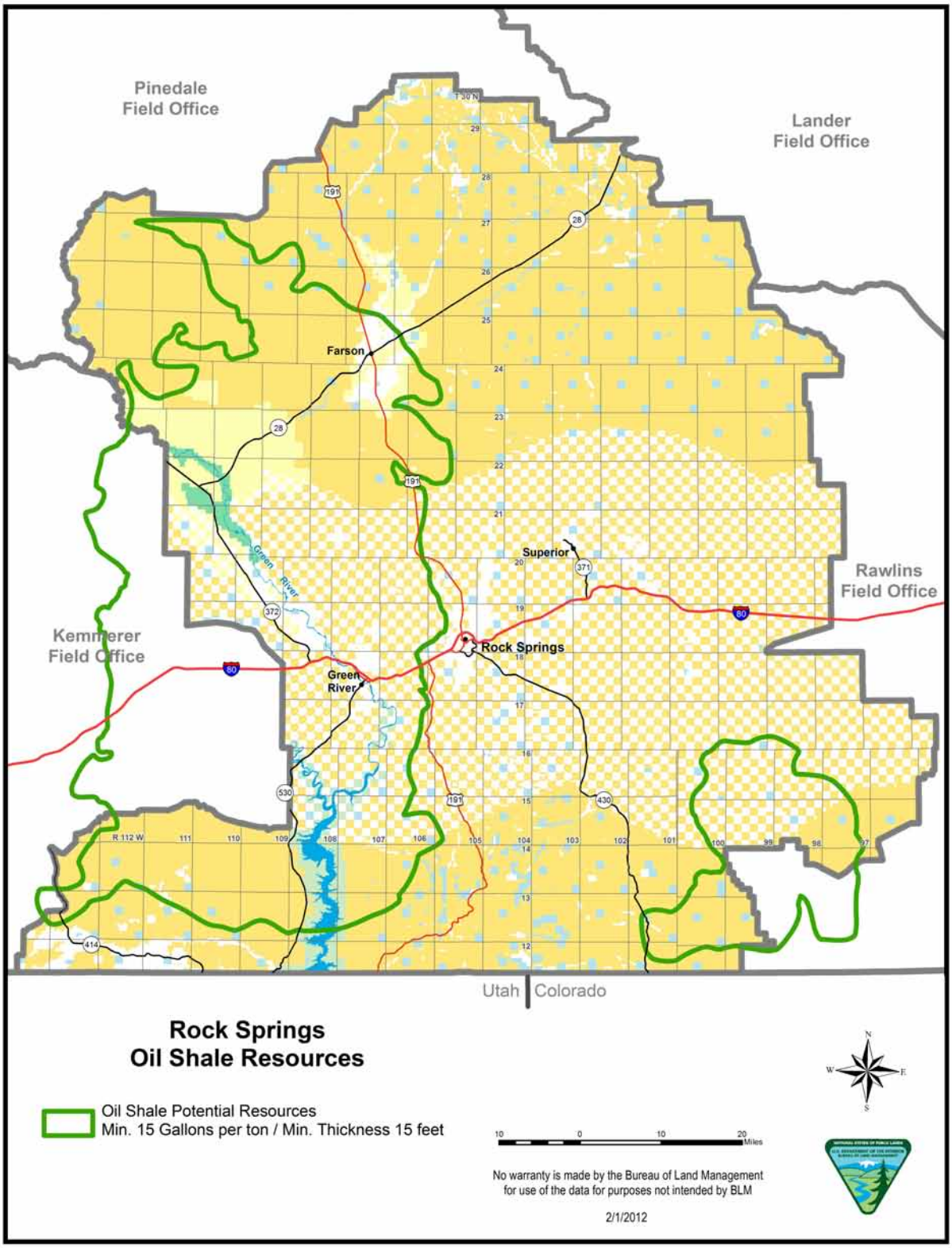



**Figure 2.24. Oil Shale Resources, Surface Ownership Acreage**

**Table 2.34. Oil Shale Resources, Surface Ownership Acreage**

| Surface Manager/Owner | Acreage | percent of Total |
|---|---|---|
| Bureau of Land Management | 959,178 | 59% |
| Bureau of Reclamation | 158,248 | 10% |
| Fish and Wildlife Service | 21,191 | 1% |
| U.S. Forest Service | 42,330 | 3% |
| Sub-Total: Federal | 1,180,947 | 73% |
| State of Wyoming | 31,600 | 2% |
| Private | 402,122 | 25% |
| Total | 1,614,669 | 100% |
| Note: BLM has management responsibility for all federal lands | | |

## 2. Forecasts

The research and development efforts directed towards the potential commercial development of oil shale as an economically viable energy source has been concentrated on the higher-grade deposits found in Colorado and Utah. A small oil shale in-situ retort test was conducted by the Department of Energy during the early 1980s west of the city of Rock Springs at the base of White Mountain. The results of the test were not encouraging enough to warrant a commercial development at that time. Recently, there has been speculative talk from other entities concerning additional oil shale in-situ retort tests in the White Mountain vicinity on private lands. The BLM is not aware of whether or not any such tests have been conducted to date.

The demand for oil shale resources as a potential commercial energy supply may increase over time in parts of Wyoming as traditional petroleum sources are depleted. Most of the oil shale deposits in the Planning Area are considered to have a low to very low development potential owing to the poor quality grade of the material. Several areas containing slightly higher-grade oil shale zones that may have at least a moderate development potential are located along White Mountain west of the city of Rock Springs, southwest of the town of Farson in the northern part of Sweetwater County, and in the Kinney Rim area on the western flank of the Washakie Basin. The BLM does not anticipate any leasing or commercial development of oil shale deposits to occur on public lands within the Planning Area during the planning period. There is a possibility that one or more nominations for 160-acre Oil Shale Research, Development, and Demonstration (RD&D) lease tracts could be received at some future date. As in the past, it is assumed that the bulk of the demand for federal oil shale leases will continue to be in Colorado and Utah.

## 3. Key Features

The oil shale beds in the Planning Area are found almost exclusively within the Upper Eocene Age rocks of the Green River Formation in the Green River and Washakie Basins.

The Green River Basin of southwestern Wyoming is underlain by approximately 1,895,125 acres (2,960 square miles) of the most geologically prospective, or “classifiable,” oil shale deposits. Classifiable oil shale deposits are defined as those containing oil shale beds that are at least 15 feet in thickness that will yield a minimum of 15 gallons of oil per ton of shale (USGS, 1960). Total reserve for the basin is estimated to be 421 billion barrels of in-place oil. The classifiable oil shale deposits within the Washakie Basin of Wyoming are restricted to the western flank of the basin in Sweetwater County, covering about 302,470 acres (473 square miles). The estimated total reserve for this basin is 55 billion barrels of in-place oil. (Figure 2.11).

## 2.2.1.2.3. Sodium (Trona)

Other solid leasable minerals are those minerals, other than coal and oil shale, that are not related to energy production and are leased under the authority of the Mineral Leasing Act of 1920, as amended. Examples of other solid leasable minerals include, but are not limited to, chloride minerals, sulfate minerals, carbonate minerals, silicate minerals, and borate minerals. Access to the federal mineral estate for the exploration, leasing, and development of these minerals is at the BLM's discretion as outlined in the regulations codified at 43 CFR 3500.

The most widespread and economically important mineral in this category within the Planning Area is trona. Trona was discovered in Sweetwater County, Wyoming, in 1938 during oil and gas exploration drilling operations. The first mine shaft was excavated in 1946, and commercial soda ash production began in 1948. Up until that time, all soda ash in the United States was produced synthetically.

The trona-bearing deposits are confined to the southern half of the Green River Basin and cover about 1,100 square miles, mostly in Sweetwater County, Wyoming. There are 25 major trona beds that occur in the Wilkins Peak Member of the Upper Eocene Age Green River Formation. Currently, three of these trona beds are actively being mined by conventional underground mining methods using continuous miners and retreat longwall equipment. Two additional beds are being mined using unconventional secondary recovery in-situ methods, wherein an idled underground trona mine is flooded with water, and this water and the dissolved trona is pumped back to a soda ash plant, where soda ash is produced, marketed, and shipped to national and international customers.

### 1. Current Level

There are currently four major operators mining trona and producing soda ash in the Green River Basin. Total combined production of the Green River Basin operations for the year 2009 was approximately 14.6 million tons of trona that was refined into 9.1 million tons of various grades of soda ash and other products.

The mining of trona occurs at depths ranging from 800 feet to 1,600 feet below the surface in beds that are 8 to 14 feet thick. The trona ore is recovered from underground by using either dry or wet methods. Dry mining methods are much like those used for recovering underground coal. The mine workings are developed methodically using room-and-pillar and longwall panel layouts.

The mining cycle includes cutting the trona from the face with either longwall shearers or continuous miners and then loading it onto conveyor belts. The conveyor belts move the trona to ore skips that carry it to the surface through vertical shafts. The recovered trona ore is stockpiled on the surface to be used as feed stock for the processing plant.

Wet mining (solution mining) consists of injecting a solution from the surface into the Trona deposit using a series of bore holes as injection wells. This is done in either previously unmined ore, or in the mined-out areas of active underground operations. In both cases, the injected solution dissolves the trona ore which saturates and enriches it. Subsequently, the saturated solution is pumped to the surface through recovery wells for further processing into soda ash.

Sodium prospecting permits, preference right leases, exploration licenses, competitive, and noncompetitive leases are issued for federally–owned trona reserves under the authority of the

43 CFR 3500 regulations. The KSLA became effective on April 24, 1978, and defines an area in the Green River Basin where trona deposits are known to occur that are at least four feet in thickness (Figure 2.25). The entire KSLA covers an area containing about 684,180 acres, of which 356,960 acres are in the Planning Area. All unleased public lands within this area are available for leasing consideration. Sodium leasing inside the KSLA boundary is done either competitively through lease-by-application, or noncompetitively by lease modifications or fringe acreage additions. Sodium exploration licenses may also be issued within the KSLA. Outside of the KSLA boundary, sodium prospecting permits may be issued on public lands that are currently open for leasing. Prospecting permits may subsequently be converted into preference right leases upon a favorable showing of a mineral deposit that is chiefly valuable for sodium that can be economically developed.

Currently, there are a total of 61 federal sodium leases within the KSLA covering 74,317.69 acres. Sixteen of these leases, totaling 18,306.92 acres are within the Planning Area (Figure 2.25). Of these 16 leases, two are currently producing, six are active but not producing and eight are inactive. Table 2.35 details the specifics for the current federal sodium leases in the Planning Area. Total combined production from all federal leases in the Green River Basin was approximately 8.8 million tons of trona and 5.5 million tons of soda ash for the year 2009.

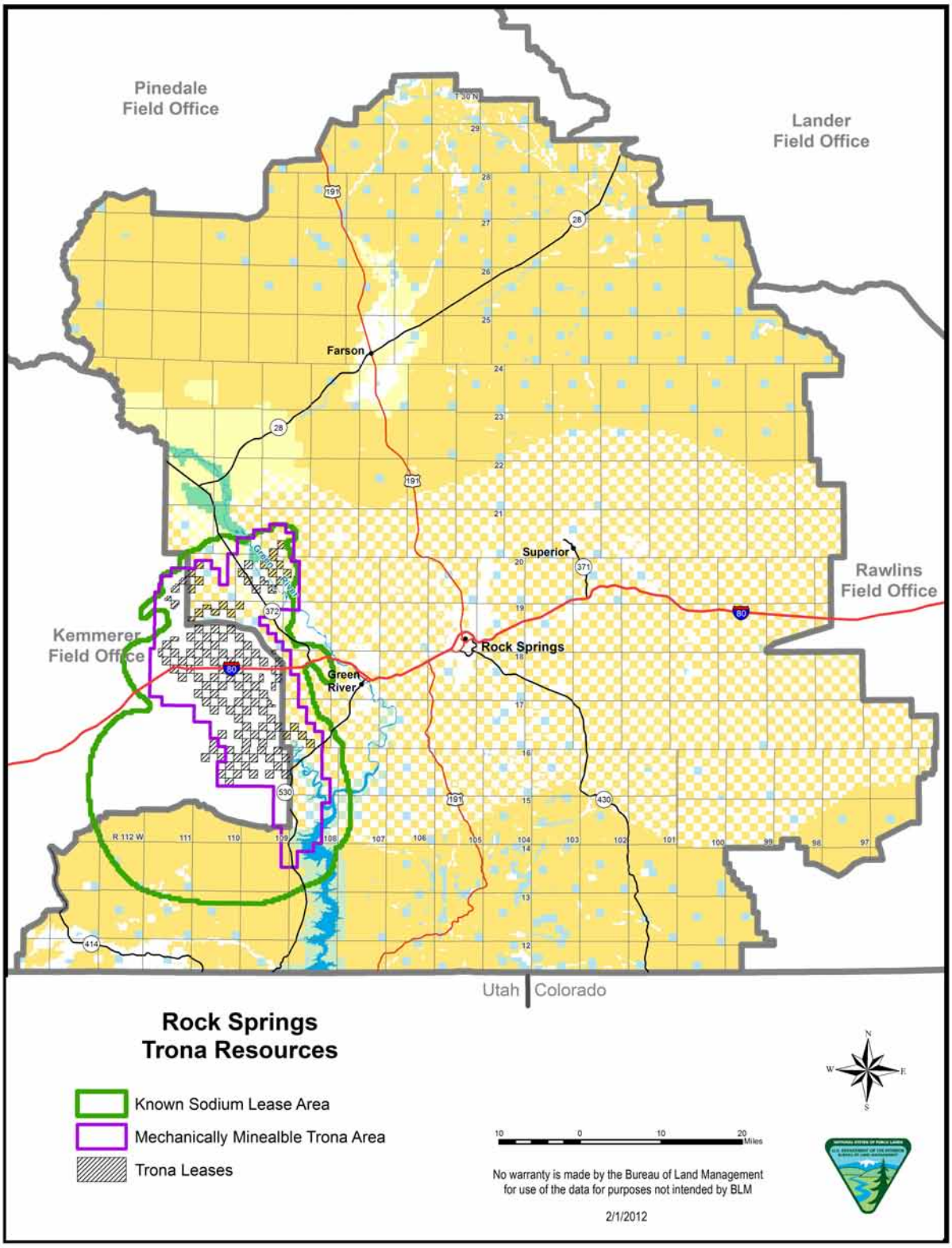



**Figure 2.25. Rock Springs Field Office Trona Resources**

**Table 2.35. Federal Sodium Leases in the Planning Area**

| Lessee | Lease Number | Lease Acreage | Lease Effective Date | Last Renewal Date | Next Renewal Date | Lease Status |
|---|---|---|---|---|---|---|
| FMC Wyoming Corp. | WYW0252726 | 640.00 | 08/01/1964 | 08/01/2006 | 08/01/2016 | Inactive |
| | WYW0252727 | 616.64 | 08/01/1963 | 08/01/2006 | 08/01/2016 | Idle |
| | WYW0323406 | 317.36 | 12/01/1967 | 12/01/2007 | 12/01/2017 | Active |
| | WYW053868 | 2,416.96 | 01/01/1958 | 08/01/2006 | 08/01/2016 | Active |
| | WYW148786 | 320.00 | 08/01/1964 | 08/01/2006 | 08/01/2016 | Inactive |
| | WYW85356 | 1,893.60 | 12/01/1962 | 08/01/2006 | 08/01/2016 | Idle |
| Subtotal | | 6,204.56 | | | | |
| | | | | | | |
| Tata Chemicals | WYW88881 | 163.20 | 11/01/1957 | 08/01/2006 | 08/01/2016 | Inactive |
| | | | | | | |
| OCI Wyoming, L.P. | WYW0111730 | 2,497.46 | 11/01/1961 | 12/01/2007 | 12/01/2017 | Active |
| | WYW0111731 | 2,560.00 | 11/01/1961 | 12/01/2007 | 12/01/2017 | Active |
| | WYW079420 | 2,560.00 | 11/01/1961 | 12/01/2007 | 12/01/2017 | Active |
| | WYW101824 | 316.90 | 06/01/1988 | 06/01/2008 | 06/01/2018 | Active |
| Subtotal | | 7,934.36 | | | | |
| | | | | | | |
| Solvay Chemical | WYW139800 | 638.80 | 12/01/1996 | N/A | 12/01/2016 | Inactive |
| | | | | | | |
| Sesqui Mining, LLC. | WYW77103 | 640.00 | 09/01/1965 | N/A | N/A | Inactive |
| | WYW77104 | 640.00 | 09/01/1960 | N/A | N/A | Inactive |
| Subtotal | | 1280.00 | | | | |
| | | | | | | |
| Church & Dwight, Co. | WYW77105 | 166.00 | 11/01/1957 | 08/01/2006 | 08/01/2016 | Inactive |
| | | | | | | |
| Rock Springs Royalty | WYW139801 | 1,920.00 | 12/01/2006 | N/A | 12/01/2016 | Inactive |
| | | | | | | |
| Planning Area Total | | 18,306.92 | | | | |

The MMTA was established in the Green River Basin during June 2004 to generally define an area underlain by trona deposits of the proper depth, thickness, and quality that will support ore extraction by mining techniques that require an underground workforce. The current MMTA boundary encloses about 317,670 total acres, of which 141,100 acres are within the Planning Area (Figure 2.25). Public lands within the MMTA are administratively unavailable for new fluid mineral leasing by the BLM until the oil and gas resource can be recovered without compromising the safety of underground miners and mine workings. Existing federal oil and gas leases inside the MMTA have also been suspended from development for an indefinite period.

## 2. Forecasts

The recent global economic downturn has had a negative effect on the Green River Basin soda ash producers to varying degrees. The USGS Mineral Commodity Summaries report (January 2010) states "The adverse economic conditions in the domestic automobile and housing markets affected soda ash consumption in the flat glass and fiberglass sectors beginning in 2007 and continuing through 2009. Notwithstanding the continuing economic and energy problems in certain areas of the world, overall global demand for soda ash is expected to grow from 1.5

percent to 2 percent annually for the next several years. If the domestic economy and export sales improve, U.S. consumption may be slightly higher in 2010."

It is anticipated that the total trona production and soda ash sales from the Green River Basin facilities will remain near, or perhaps slightly above, current levels into the foreseeable future. It is also expected that trona production from federal sodium leases will remain near historical averages. Because of rapidly changing economic conditions worldwide, it is not possible to quantify to what degree local production levels will be affected by future fluctuations in the domestic or global soda ash markets.

There are no outstanding or pending applications for new sodium leases on file with the BLM at this time. Any new federal leasing for sodium in the Green River Basin is expected to be fairly limited in scope during the planning period. Leasing activity is anticipated to be restricted predominantly to lease modifications or fringe acreage additions to existing leases in support of ongoing operations.

It is not anticipated that any new trona extraction operations, either by conventional mining or by solution mining, will be developed within the Green River Basin during the planning period. If the soda ash market undergoes a significant rebound during this time, then this situation could potentially change. Any new applications that may be submitted for prospecting permits, exploration licenses, competitive leases, lease modifications, or fringe acreage additions will be processed in the manner outlined by the 43 CFR 3500 regulations.

### 3. Key Features

The trona-bearing deposits cover about 1,100 square miles in the southern half of the Green River Basin occurring in the Wilkins Peak Member of the Upper Eocene Age Green River Formation. Twenty-five major trona beds have been identified in the Wilkins Peak Member, of which three are actively being mined (Beds 25, 24, and 17) by conventional underground and solution mining techniques. Beds 19 and 20 are being mined by solution mining methods. An area containing what has been referred to as "black trona water" occurs in the vicinity of the town of Farson in north-central Sweetwater County. These brines, rich in organic compounds and sodium minerals, have been explored in the past but have never been developed or commercially produced. There is currently no industry interest in producing these brine deposits.

## 2.2.1.3. Locatable Minerals

The Mining Law of 1872 gives the public the right to locate and develop mining claims on public land. The most common locatable mineral deposits in the Planning Area include those containing placer gold, uranium minerals, zeolite-bearing minerals, jadeite, and other semi-precious stones of various types. Mineral types such as silver, platinum, copper, titanium, vanadium, bentonite, and fire clay are not known to occur in significant quantities within the Planning Area. There have been reports of deposits or indications for diamonds and rare-earth elements, within the Planning Area. These varied mineral deposit types can occur in specific locations over a wide geographical area and within diverse geologic settings; ranging from low-lying stream beds to high desert flats and plateaus to volcanic deposits to granitic upland terrains.

## 1. Current Level

Exploration activities and limited mining operations on claims containing locatable mineral deposits have occurred sporadically throughout the past. There are currently three active Plans of Operation and one active Notice on placer gold claims located in the extreme northern portion of the Planning Area. One very small gold mining operation is located on claims in this area. There are no other proposed or outstanding Notices or Plans of Operation that are under consideration at this time according to current BLM records. Most of the activity concerning placer gold in the Planning Area involves casual use gold panning by local residents and tourists, which is considered to be casual use requiring no formal approval. No active exploration or mining activities for any other type of locatable mineral is occurring at this time. There are no patented mining claims or claims undergoing validity examinations in the Planning Area.

Placer gold is the only locatable mineral that has incurred any significant interest within the Planning Area in recent times. There is currently one very small gold recovery operation active on mining claims in the northern portion of the area. No new commercial gold mining operations are known to be proposed or planned for the future. Other locatable minerals that have shown at least some level of interest in the past include diamonds, semi-precious stones, zeolite, uranium, and REE. It should be noted that for the REE that exact locations are not known, but from indications and typical site locations, these sites for the most part lie within existing WSAs, ACECs, and lands within the Oil-Shale Withdrawal and therefore cannot be claimed or developed under existing conditions. ACECs that are not withdrawn from mineral entry may have claims staked. There are currently no known or proposed plans for the development and production of any of these minerals.

## 2. Forecasts

Recently, the prices for both gold and uranium have increased substantially in the commercial marketplace. These price increases, in conjunction with an increase in demand, could potentially spur more interest for the exploration and development of locatable minerals within the Planning Area at some point in the future. To date, the BLM has not seen any significant increase in the activity involving mining claim location, or the filing of Notices and Plans of Operation for these minerals. The BLM anticipates that industry interest in the locatable mineral deposits found within the Planning Area will remain near, or slightly above, current levels into the foreseeable future.

## 3. Key Features

Locatable mineral deposits within the Planning Area can occur in specific locations over a wide geographical area involving highly diverse and variable geologic settings. The most significant locatable mineral at this time is placer gold, with mining claims mostly concentrated on fluvial deposits in the northern portion of the Planning Area. Other minerals that have incurred some level of interest in the past include diamonds found within scattered kimberlite pipes located in the southern portion of the area, semi-precious stones found in the volcanic deposits of Sweetwater County, zeolite minerals found in the Tertiary age rocks of the Washakie Basin, and uranium minerals found mostly in the northern and the eastern parts of the area.

## 2.2.1.4. Saleable Minerals

Saleable minerals, also known as mineral materials, include common varieties of sand, gravel, decorative stone, dimension stone, pumice, clay, rock, and petrified wood. Under the BLM mineral materials program (43 CFR 3600), the exploration, development, and disposal of salable minerals is managed either by sales contracts or free use permits. The removal of volumes exceeding a specified threshold requires a mineral materials sale.

The salable materials that are the most common in the Planning Area include sand and gravel, decorative stone (moss rock), dimension stone (flagstone), and to a lesser extent, topsoil, decorative boulders, and petrified wood. Most of the sand and gravel production that occurs in this area is used locally for road construction and maintenance, while the decorative and dimension stone has been used in the commercial and the residential construction industry throughout the region and beyond.

## 1. Current Level

The Planning Area contains a unique and wide range of geological features and landforms that give rise to a diverse assortment of salable minerals. Sand and gravel deposits are found scattered along various drainage channels throughout the Planning Area, but are mostly concentrated along the Green River and its major tributaries. Pockets of sand and gravel can also be found in the outwash material that originated from the glaciations and erosion of the Wind River and the Uinta Mountains. Smaller gravel deposits occur on buttes and plateaus scattered throughout the area that are capped by the Bishop Conglomerate. Currently, there are two active negotiated sales contracts totaling 165,000 in-place tons of material and seven active free use permits totaling 349,000 in-place tons of material within the Planning Area. The negotiated sales contracts are issued to private entities, and the sand and gravel produced is used primarily in construction projects and in road maintenance. The free use permits are issued to various government entities with Sublette County holding one, the WYDOT holding one, and Sweetwater County holding five at this time. The material removed under these permits is used almost exclusively for road construction and maintenance projects in the local area. Numerous older, inactive gravel pits occur throughout the area, WYDOT originally issued the permits for many of these.

Several other types of salable minerals are common throughout the Planning Area, including decorative stone ("moss rock" and landscape boulders), dimension stone (flagstone), and to a much lesser extent, topsoil and petrified wood. Decorative and dimension stone are commonly found on many of the more resistant ridges that occur in the area, and are typically composed of sandstone, granite, or limestone slabs partially covered with colorful lichens (not moss), or in some instances, not covered at all. Landscape boulders usually consist of large blocks of granitic rocks found in the vicinity of the South Pass area in the Wind River Mountains. Currently, the BLM maintains a common use (non-exclusive sale) area for decorative and dimension stone on Aspen Mountain located south of the city of Rock Springs. There is also a small common use area for topsoil material located near Highway 191 South in the Miller Mountain area. Non-exclusive sales are conducted mostly with local residents seeking landscaping materials and topsoil for their private property. Collection of material from both these sites is restricted to hand tools only; no mechanized earth-moving equipment is allowed.

## 2. Forecasts

Nationwide, the demand for salable minerals is on the rise, particularly in the West, driven by an overall increase in construction needed to sustain the general population growth. Within the Planning Area, it is becoming more difficult to locate new sources of construction aggregate, although new sources will eventually be needed as demand for construction products continues and the older sources are depleted. It is anticipated that the demand for sand and gravel resources from the public lands in the Planning Area will remain at current levels, or show a slight increase in activity, into the foreseeable future. The demand for this resource will mostly depend on new road construction and maintenance projects in the local area, particularly those that support the oil and gas industry. At this time, the oil and gas industry is in a down cycle, consequently, area-wide sand and gravel production is also down. Currently, BLM records indicate that only limited gravel production for use in county road maintenance is occurring from pits operated by Sweetwater County on its free use permits; none of the other active sand and gravel permits are currently producing.

The common use areas established in the Planning Area for decorative and dimension stone and topsoil continue to be used at a steady pace by the local residents as a source for landscaping material. The demand for these materials is expected to remain at current levels into the foreseeable future. BLM does not anticipate a need to establish additional common use areas for these materials because the currently available resource supply should be adequate to meet the demand.

No community pits are currently established in the Planning Area, and none are proposed in the future.

BLM-administered lands in the Planning Area are the source of a number of important salable mineral resources, including sand, gravel, and rock used in construction. The exploration for and the production of commercially–available mineral materials in the area are currently at what could be considered a moderate level of activity. It is anticipated that the demand for these materials will continue to remain at the current, or perhaps slightly higher, level into the future, but this will depend in a large part on the viability of the construction and the oil and gas industries in the area. These entities are the main consumers of salable mineral products and essentially drive the demand. BLM will continue to work with the mineral materials industry and the public to ensure that these resources are available for use while protecting other resources on the ground and preventing unnecessary and undue degradation. If new applications for sand and gravel, or any other type of salable mineral resources are received in the future, they will be processed in a timely manner.

## 3. Key Features

Salable mineral deposits can occur in many varied locations throughout the Planning Area. However, sand and gravel are normally found associated with the various Quaternary-aged unconsolidated alluvial and terrace deposits that occur in the vicinity of streams and rivers, as well as some of the outwash deposits found near mountain ranges. Decorative and dimension stone may occur virtually anywhere, depending on where materials that have the visual and physical properties suitable for a particular use are found. Landscape boulders, topsoil and petrified wood have a very limited geographical distribution within the area.

# 2.2.2. Livestock Grazing Management

The BLM is responsible for administering livestock grazing on public lands across the Planning Area. The kinds of livestock grazing on public lands consist primarily of cattle and sheep, but also include domestic horses. Goats and sheep are sometimes authorized for the purpose of suppressing weeds. The relative numbers of these grazing animals has varied in response to their economic value as a commodity and their use in ranching operations.

Forage is allocated among uses based on the carrying capacity of the land. Carrying capacity reflects the maximum level of grazing and other uses of forage that the public lands can sustain on a long-term basis. A more specific definition of carrying capacity is "livestock carrying capacity" which means the maximum stocking rate possible without inducing damage to vegetation or related resources.

Permitted use is the amount of forage available for livestock grazing under a permit or lease and is expressed in animal unit months (AUM). Permitted use includes active use and suspended use. Active use is the maximum amount of forage generally available in any given year under a permit or lease.

Stocking rates are determined by monitoring the condition and amount of vegetation on a given site to ensure that adequate plant recovery time is provided and that ample residual forage remains after livestock grazing to provide for healthy rangelands and other uses. Monitoring climate and water availability has resulted in forage availability adjustments and, by extension, the adjustments to the numbers of livestock on the range.

## 1. Current Level

### Animal Unit Month Allocations

Presently, the BLM administers 79 grazing allotments covering 3.6 million acres in the Planning Area. Table 2.36 lists the number of grazing allotments by type of livestock in the Planning Area. Livestock grazing uses several resources directly and some resources indirectly. Livestock use rangeland vegetation for forage, but also may use riparian areas and wetlands for sources of water and forage. Livestock grazing on specific allotments is authorized during different seasons. The grazing seasons vary with elevation and geographical change, resource needs, and user preference. The higher elevation allotments are generally grazed during summer and fall. The lower elevation areas may be grazed during any season, but are generally used in the fall, winter, and spring. The majority of the allotments in the Planning Area are operating under grazing strategies incorporating rest, seasonal rotations, deferment, and prescribed use levels that provide for adequate plant recovery time to enhance rangeland health. When rangelands are not meeting resource objectives, changes in grazing management are implemented.

**Table 2.36. Summary of Livestock Authorizations in the Planning Area**

| Kind of Livestock | Allotments [1] | Percentage of Total Allotments [2] | Permits [3] |
|---|---|---|---|
| Cattle Only | 38 | 48 | 89 |
| Cattle and Sheep | 31 | 39 | 10 |
| Cattle and Horses | 5 | 6 | 4 |

| Kind of Livestock | Allotments [1] | Percentage of Total Allotments [2] | Permits [3] |
|---|---|---|---|
| Cattle, Sheep and Horses | 6 | 8 | 2 |
| Sheep Only | 0 | 0 | 13 |
| Horse Only | 0 | 0 | 1 |
| Total | 80 | | 119 |

[1]Total included one allotment outside the Planning Area boundary

[2]Total does not equal 100% because of rounding

[3]Total does not include permits administered out of another field office

In 1983, all allotments were placed in categories established by BLM range management policies. These categories included: "I" (Improve), "M" (Maintenance), and "C" (Custodial). The BLM used this classification to identify areas where management was potentially needed and to prioritize workloads and use of range improvement dollars.

Table 2.37 provides a breakdown of the number allotments found in each category.

**Table 2.37. Summary of Allotment Classifications**

| Allotment Category | [1]Number of Allotments | Acres by Category |
|---|---|---|
| Improve (I) | 34 | 1,796,732 |
| Maintenance (M) | 17 | 1,785,657 |
| Custodial (C) | 29 | 19,745 |

[1]Total included one allotment outside the Planning Area boundary

Some factors used in the categorization process were estimated range condition and trend, resource conflicts or concerns, existing grazing systems, range suitability, production potential, wildlife habitat values, user conflicts, public controversy, land patterns and acreages, and range improvement needs. There is not necessarily a direct tie between Improve and not meeting standards. Categories were established to prioritize BLM work and efforts.

There are two allotments within the Planning Area with grazing administered out of the Little Snake Field Office in Craig, Colorado. One allotment outside of the Planning Area is 13,862 acres of public land; however, grazing is administered by the Planning Area.

### Rangeland Health/Productivity

Starting in 1998, the BLM started assessing grazing allotments for adherence to the approved Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management as mandated in the 1995 revision to the 43 CFR 4100 grazing regulations (BLM 1997). Grazing permits/leases are offered and accepted with the understanding that prior to reissuance, resource conditions will be evaluated to determine whether they conform to the standards for healthy rangelands approved by the Secretary of the Interior on August 12, 1997. Management decisions and actions are made in accordance with the Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management (BLM 1997). These standards are used to allow sustainable livestock grazing management to continue while protecting watersheds, riparian and upland ecosystems, and wildlife habitat.

Standards address the health, productivity, and sustainability of the BLM-administered public rangelands and represent the minimum acceptable conditions for the public rangelands. The standards apply to all resource uses on public lands. Their application will be determined

as use-specific guidelines are developed. Standards may be synonymous with goals and are observed on a landscape scale. They describe healthy rangelands rather than important rangeland byproducts. The achievement of a standard is determined by observing, measuring, and monitoring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles.

The Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management (BLM 1997) lists six resource standards that must be reviewed for each allotment. These standards are:

1. Within the potential of the ecological site, soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.

2. Riparian and wetland vegetation has structural, age and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge.

3. Upland vegetation on each ecological site consists of plant communities appropriate to the site, which are resilient, diverse, and able to recover from natural and human disturbance.

4. Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern or sensitive species will be maintained or enhanced.

5. Water quality meets state standards.

6. Air quality meets state standards.

Final determination of Standards 5 and 6 are determined by the WDEQ; however, the BLM is responsible for ensuring its authorized actions do not result in violations of the Wyoming's Water Quality or Air Standards. In a letter from WDEQ on July 2, 1999, air quality was designated as "attainment" in the Planning Area for all pollutants. As a result, Standard 6 is considered met for all allotments.

From 1998 through the end of the 2010 fiscal year, rangeland health evaluations had been completed on all allotments administered by the Planning Area. Within the Planning Area, 60 allotments were found to meet the rangeland health standards. Allotment–specific guidelines are being implemented to improve rangeland conditions in areas not meeting standards. In most allotments that failed standards, not all of the public lands within these allotments were considered to be failing. In addition most of these standards were not met for reasons other than current livestock management, such as historic livestock grazing use, OHV use, oil field development, and mineral extraction. Where current livestock grazing management has been identified as contributing to an allotment failing rangeland health standards, the nine BLM Wyoming Guidelines for Livestock Grazing Management would be used to direct new grazing management stipulations for the allotment (Table 2.38).

**Table 2.38. BLM Wyoming Guidelines for Livestock Grazing Management**

| | |
|---|---|
| 1. | Timing, duration, and levels of authorized grazing will ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site. |
| 2. | Grazing management practices should restore, maintain, or improve riparian plant communities. Grazing management strategies consider hydrology, physical attributes, and potential for the watershed and the ecological site. Grazing management should maintain adequate residual plant cover to provide for plant recovery, residual forage, sediment capture, energy dissipation, and groundwater recharge. |
| 3. | Range improvement practices (in stream structures, fences, water troughs, etc.) in and adjacent to riparian areas will ensure that stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions appropriate to climate and landform are maintained or enhanced. The development of springs, seeps, or other projects affecting water and associated resources shall be designed to protect the ecological and hydrological functions, wildlife habitat, and significant cultural, historical, and archeological values associated with the water source. Range improvements will be located away from riparian areas if they conflict with achieving or maintaining riparian function. |
| 4. | Grazing practices that consider the biotic communities as more than just a forage base will be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced. |
| 5. | Continuous season-long or other grazing management practices that hinder the completion of plants' life-sustaining reproductive and/or nutrient cycling processes will be modified to ensure adequate periods of rest at the appropriate times. The rest periods will provide for seedling establishment or other necessary processes at levels sufficient to move the ecological site condition toward the resource objective and subsequent achievement of the standard. |
| 6. | Grazing management practices and range improvements will adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives. The effects of new range improvements (water developments, fences, etc.) on the health and function of rangelands will be carefully considered prior to their implementation. |
| 7. | Grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of federal threatened and endangered species or the conservation of federally–listed species of concern and other state–designated Special Status Species. Grazing management practices will maintain existing habitat or facilitate vegetation change toward desired habitats. Grazing management will consider threatened and endangered species and their habitats. |
| 8. | Grazing management practices and range improvements will be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and plant communities. This will involve emphasizing native plant species in the support of ecological function and incorporating the use of nonnative species only in those situations in which native plant species are not available in sufficient quantities or are incapable of maintaining or achieving properly functioning conditions and biological health. |
| 9. | Grazing management practices on uplands will maintain desired plant communities or facilitate change toward desired plant communities |

Most of the range improvement projects developed prior to the 1960's were financed entirely by the grazing permittees. After that the BLM began to contribute more money toward projects and, in some cases, completely financed them. There are many older projects on public lands that appear to have never been authorized by the BLM. These primarily consist of reservoirs and fences. It is possible some of these projects were authorized, but their records are not available. In recent years, the BLM has cost shared with other agencies and private organizations on some projects to reach mutual goals or objectives.

The BLM Rangeland Improvement Project System database listed rangeland improvement projects completed within the Planning Area. Since the completion of the GRRMP, approximately

119 projects and 24,539 acres of vegetation treatments have been approved in the Planning Area (Table 2.39). In addition, several older projects that have been modified or reconstructed may not be included in this total. These projects include vegetative manipulation treatment projects using prescribed fire, mechanical treatments, seeding or chemical treatments to modify plant communities. In addition, fences, water developments, spring enclosures, and cattleguards have been developed. Range improvements are planned and designed to enhance rangeland health and wildlife habitat and to mitigate conflicts with other uses. There are also several projects that resulted in the replacement or modification of existing fences. This has provided an opportunity to change fences from less wildlife friendly designs, such as net wire, to designs that more readily allow wildlife passage.

**Table 2.39. Projects Implemented in the Planning Area**

| Type of Project | Projects Completed |
|---|---|
| Fences (Number) | 37 |
| Reservoirs (Number) | 11 |
| Wells (Number) | 19 |
| Water Trough locations (Number) | 21 |
| Stream Improvements (Number) | 7 |
| Brush Control (Acres) | 24,539 |

### Active Use

The GRRMP authorized a total of 318,647 active use AUMs in 1997 (this number included allotments outside the official Planning Area administrative boundary). The current active use that can be authorized within the Planning Area boundary of the Planning Area is 304,259 AUMs (Table 2.40).

**Table 2.40. Authorized AUMs by Allotment**

| Allot-ment Number | Allotment Name | Man-agement Category | Public Acres | Active AUMs | Sus-pended AUMs | Livestock Type | | |
|---|---|---|---|---|---|---|---|---|
| 04004 | ALKALI CREEK | M | 26,855 | 2,283 | 767 | CATTLE | SHEEP | |
| 04022 | ANTELOPE WASH | I | 7,847 | 461 | 111 | CATTLE | | |
| 04018 | BALD HILLS | I | 5,087 | 925 | 232 | CATTLE | | |
| 13008 | BAR X | M | 4,234 | 468 | 0 | CATTLE | | HORSE |
| 13024 | BIG SANDY | M | 59,140 | 3,374 | 1,520 | CATTLE | SHEEP | |
| 03304 | BIG SANDY RANCH | C | 210 | 20 | 0 | CATTLE | | |
| 13026 | BOUND-ARY | M | 29,995 | 2,996 | 630 | CATTLE | SHEEP | |
| 13020 | BUCKSKIN SANDY | M | 8,508 | 687 | 238 | CATTLE | SHEEP | |
| 13013 | BUSH RIM | M | 93,038 | 3,277 | 2,456 | CATTLE | SHEEP | |
| 03201 | CEDAR MOUNTAIN | I | 190,271 | 16,298 | 5,826 | CATTLE | SHEEP | HORSE |
| 04021 | CEDAR POINT | C | 1,440 | 162 | 38 | CATTLE | SHEEP | |
| 13114 | CHILTON PLACE | C | 144 | 15 | 0 | CATTLE | | |

| Allot-ment Number | Allotment Name | Man-agement Category | Public Acres | Active AUMs | Sus-pended AUMs | Livestock Type | | |
|---|---|---|---|---|---|---|---|---|
| 04023 | CIRCLE BAR | C | 646 | 120 | 0 | CATTLE | | |
| 04001 | CIRCLE SPRINGS | I | 8,875 | 946 | 652 | CATTLE | SHEEP | |
| 13011 | CONTINEN-TAL PEAK | M | 81,872 | 5,769 | 1,001 | CATTLE | SHEEP | |
| 20507 | CORSON SPRINGS | I | 13,862 | 1,189 | 495 | CATTLE | SHEEP | |
| 04025 | COTTON-WOOD CREEK | I | 4,557 | 436 | 106 | CATTLE | | |
| 04005 | CROOKED WASH | I | 10,953 | 01 | 0 | CATTLE | SHEEP | HORSE |
| 03215 | CROOK-STON RANCH | C | 79 | 4 | 0 | CATTLE | | |
| 13110 | DEAD OX | C | 109 | 8 | 0 | CATTLE | | |
| 13106 | DEWEY PLACE | C | 67 | 9 | 0 | CATTLE | | |
| 04016 | DONOHOO | C | 945 | 176 | 44 | CATTLE | | |
| 13103 | EATON PLACE | C | 81 | 10 | 0 | CATTLE | | |
| 03028 | EDEN PROJECT | M | 02 | 2,605 | 0 | CATTLE | | HORSE |
| 13017 | EIGHTEEN MILE | I | 22,8840 | 18,994 | 3,436 | CATTLE | SHEEP | |
| 13105 | ERRA-MOUSPE | C | 1,295 | 86 | 0 | CATTLE | | |
| 13023 | FIGURE FOUR | I | 114,425 | 6,644 | 4,464 | CATTLE | SHEEP | |
| 13009 | FISH CREEK | I | 6,416 | 361 | 745 | CATTLE | | |
| 03016 | FOURTH OF JULY | I | 9,791 | 836 | 532 | CATTLE | | |
| 03000 | GOLD CREEK | I | 20,411 | 2,501 | 1,076 | CATTLE | | |
| 03204 | GRASS CREEK | C | 1,773 | 220 | 0 | CATTLE | | |
| 04019 | HANKS | I | 3,393 | 593 | 148 | CATTLE | | |
| 03307 | HAY MEADOW | C | 80 | 91 | 0 | CATTLE | | |
| 04013 | HICKEY MOUNTAIN | I | 6,566 | 678 | 170 | CATTLE | | |
| 13025 | HIGHWAY-GASSON | I | 82,201 | 5,208 | 1,132 | CATTLE | SHEEP | |
| 04020 | HISEY HOLLOW | C | 865 | 71 | 89 | CATTLE | | |
| 04006 | HORSE-SHOE WASH | I | 7,086 | 01 | 0 | CATTLE | SHEEP | |
| 13115 | HOUGHT-ON | C | 263 | 11 | 0 | CATTLE | | |
| 13100 | JACK RANCH | C | 100 | 8 | 0 | CATTLE | | |

| Allot-ment Number | Allotment Name | Man-agement Category | Public Acres | Active AUMs | Sus-pended AUMs | Livestock Type | | |
|---|---|---|---|---|---|---|---|---|
| 03303 | JENSEN MEADOWS | C | 959 | 97 | 0 | CATTLE | | |
| 03214 | JOHNSON PLACE | C | 54 | 10 | 0 | CATTLE | | |
| 03202 | JUEL PLACE | C | 2,281 | 297 | 0 | CATTLE | SHEEP | |
| 04014 | LARSEN | M | 1,036 | 112 | 0 | CATTLE | SHEEP | |
| 13002 | LITTLE PROSPECT | I | 77,078 | 6,009 | 424 | CATTLE | SHEEP | |
| 13003 | LITTLE SANDY | I | 99,981 | 7,725 | 1,859 | CATTLE | SHEEP | |
| 13022 | LOMBARD | I | 21,112 | 6,643 | 1163 | CATTLE | SHEEP | |
| 13104 | LONG DRAW | C | 2,076 | 208 | 0 | CATTLE | | |
| 13021 | MACK FLAT | C | 1,108 | 77 | 0 | CATTLE | SHEEP | |
| 13102 | MC CANN PLACE | C | 16 | 2 | 0 | CATTLE | SHEEP | |
| 04027 | MELLOR MOUNTAIN | I | 62,046 | 6,101 | 1,093 | CATTLE | SHEEP | |
| 13107 | MIDDLE HAY PLACE | C | 298 | 16 | 0 | CATTLE | | |
| 13007 | PACIFIC CREEK | M | 195,387 | 8,949 | 4,526 | CATTLE | | |
| 04026 | PEOPLES CANAL | C | 1,235 | 50 | 12 | CATTLE | | |
| 13010 | PINE CREEK | I | 16,592 | 1,323 | 637 | CATTLE | | |
| 04007 | PINE MOUNTAIN | I | 60,961 | 7,763 | 2,665 | CATTLE | SHEEP | |
| 04017 | POISON CREEK | C | 699 | 134 | 34 | CATTLE | | |
| 13005 | POSTON | I | 45,996 | 3,418 | 291 | CATTLE | SHEEP | HORSE |
| 13004 | PROSPECT MTN | I | 43,959 | 4,255 | 7 | CATTLE | SHEEP | |
| 03206 | PULLEY PLACE | C | 113 | 2 | 0 | CATTLE | | |
| 04008 | RED CREEK | I | 53,380 | 3,932 | 694 | CATTLE | | HORSE |
| 13012 | RED DESERT | M | 243,676 | 9,758 | 7490 | CATTLE | SHEEP | |
| 13006 | RESERVOIR | M | 18,239 | 1,857 | 0 | CATTLE | SHEEP | HORSE |
| 03404 | RICHIE PASTURE | C | 17 | 6 | 0 | CATTLE | | |
| 04002 | RIFE | M | 21,783 | 508 | 408 | CATTLE | SHEEP | |
| 13018 | ROCK SPRINGS | M | 956,682 | 107,932 | 40,533 | CATTLE | SHEEP | HORSE |
| 04024 | SAGE | C | 2,410 | 105 | 155 | CATTLE | SHEEP | |
| 03200 | SAGE CREEK MOUNTAIN | I | 103,784 | 10,133 | 2302 | CATTLE | SHEEP | HORSE |
| 04009 | SALT WELLS | I | 43,075 | 2,618 | 462 | CATTLE | | HORSE |
| 13015 | SANDS | I | 105,082 | 4,239 | 1,636 | CATTLE | SHEEP | |

| Allot-ment Number | Allotment Name | Man-agement Category | Public Acres | Active AUMs | Sus-pended AUMs | Livestock Type | | |
|---|---|---|---|---|---|---|---|---|
| 13019 | SANDY PASTURE | M | 1,601 | 180 | 0 | CATTLE | | |
| 03203 | SPICER GROUP | C | 345 | 29 | 0 | CATTLE | | |
| 04011 | SPRING CREEK | I | 36,917 | 4,070 | 717 | CATTLE | | HORSE |
| 04015 | STAG HOLLOW | M | 1,889 | 473 | 96 | CATTLE | | |
| 13014 | STEAM-BOAT MOUNTAIN | I | 24,498 | 928 | 1,210 | CATTLE | SHEEP | |
| 13027 | SUBLETTE | I | 66,029 | 6,072 | 1,084 | CATTLE | SHEEP | |
| 04010 | SUGAR-LOAF | I | 75,940 | 4,177 | 1,862 | CATTLE | | |
| 13109 | SWEETWA-TER | I | 170 | 11 | 0 | CATTLE | | |
| 13101 | UPPER WHITE ACORN | C | 37 | 5 | 0 | CATTLE | | |
| 04003 | VERMIL-LION CREEK | I | 139,551 | 12,140 | 5,298 | CATTLE | SHEEP | |
| 13001 | WHITE ACORN | M | 41,722 | 3,355 | 902 | CATTLE | SHEEP | |
| **Total** | | | 3,602,134 | 304,259 | 103,468 | | | |

## Authorized Use

The Planning Area has experienced drought conditions. This has resulted in less forage available for livestock use and the need for permittees/lessees to take voluntary non-use. During drought years, the livestock operators and the BLM have worked closely to tailor the adjustments in livestock use to meet the needs of the land and the ranch operation. In addition, annual fluctuations in the authorized AUMs may develop from user demands, climatic conditions, and/or from the collection of monitoring information.

### Table 2.41. Authorized AUMs

| Year | Planning Area |
|---|---|
| 1997 | 122,165 |
| 1998 | 134,989 |
| 1999 | 133,166 |
| 2000 | 162,244 |
| 2001 | 149,174 |
| 2002 | 136,933 |
| 2003 | 127,854 |
| 2004 | 122,909 |
| 2005 | 136,956 |
| 2006 | 119,664 |
| 2007 | 134,819 |
| 2008 | 144,342 |
| 2009 | 142,582 |
| 2010 | 154,633 |

The authorized AUMs for the Planning Area listed in Table 2.41 include all grazing authorizations issued by the Planning Area for lands it administers.

**Rangeland Health/Productivity**

Overall rangeland trend related to livestock grazing is static to upward. Many allotments are managed under grazing rotations and seasons of use designed to meet soil cover and desired plant species growth requirements. Observations of old headcuts, roads, and other disturbances show that perennial species have increased in these areas once non-livestock disturbances end. Generally, these observations have been confirmed in completed rangeland health determinations. Where grazing has been identified as a cause of rangeland health standards not being met, grazing use has been changed. However, disturbance related to other ongoing resource uses may affect this, including oil and gas development, and mining.

## 2. Forecasts

Livestock grazing will continue in the Planning Area in response to public demand for multiple use. Most livestock operators in the Planning Area depend on public lands for at least part of the year.

A predicted increase in development of renewable energy and mineral resources in the Planning Area will increase the presence of energy development, mining, and related infrastructure, and machinery may reduce forage or change states, and may increase upon reclamation. Other likely impacts on livestock grazing will come from evaluations of grazing management, management for wildlife, threatened and endangered species, the presence of cultural resources, recreation activities, fire management, WSAs, wild horses, soil and watershed protection, invasive species, land sales and exchanges, ROWs, air and atmospheric values (air quality) protection, and hazardous materials control.

## 3. Key Features

The primary features that affect livestock grazing are water supply and distribution, forage production, forage quality, and topography.

# 2.2.3. Recreation and Visitor Services

Federal lands within the Planning Area provide a broad spectrum of outdoor opportunities that afford visitors the freedom of recreational choice with minimal regulatory constraints. The BLM provides opportunities for outdoor recreation and nature-based tourism under the concept of multiple-use management. Recreational activities occurring on public lands are multi-faceted and generally considered by the public as non-consumptive.

Recreation is a key BLM program and is looked upon very positively by most of the public. People value natural landscapes, the freedom to choose a particular activity to participate in, the opportunity to test skills in a sport, time spent with family and friends, and the opportunity for discovery. Recreation on public lands also provides economic benefits. Recreation service providers (hotels, outfitters, equipment manufacturers and dealers, restaurants) depend on public lands, in part, for their livelihood. A recent study shows the following:

- Total annual expenditures from hunting and fishing in Wyoming exceed $335 million

- Anglers account for $212 million total annual expenditures (34 percent equipment, 45 percent trip related, 21 percent other)
- Hunters account for $123 million total annual expenditures (29 percent equipment, 58 percent trip related, 14 percent other)
- Hunters in Wyoming spend 74 percent of their hunting days (960,000 days) on public lands.

## 1. Current Level

Recreation is a very popular and important use within the Rock Springs Field Office. Dispersed recreation occurs throughout the Planning Area over a wide range of ecosystem types. Occurring in combination with other resource activities, dispersed recreation includes, but is not limited to, sight-seeing, touring, backpacking, horseback riding, geocaching, hiking, OHV use, photography, wildlife viewing, fishing, other water–related activities, hunting, and camping. These recreational opportunities are offered to the public on all BLM-administered lands within the Planning Area as long as legal access is available.

The Planning Area has a very active special recreation permit (SRP) program and administers about 20 SRPs per year for activities and events such as outfitting and guiding for hunting activities, fishing, floating, horseback rides, wild horse viewing tours, interpretive tours, livestock drives, horseback fund raising events, horse endurance rides, yoga trips, and llama treks. SRP permits are issued to manage visitor use, protect natural and cultural resources, and to achieve the goals and objectives of the Field Office recreation program as outlined in land use plans. The five general categories of SRPs are commercial, competitive, vending, individual or group use in special areas, and organized group activity and event use. Lengths of permits are dependent upon activities proposed, area in question, and past record of the potential permittee and may be issued for periods from 1 to 10 years. In the Planning Area, the maximum length of time used has been 5 years.

The majority of SRP administered by the BLM are for professional outfitting and guide services for hunting. The regional importance of these permits is demonstrated by the number of big game outfitters licensed in the State of Wyoming. The total number of SRPs issued by the Planning Area remains relatively stable from year to year at around 20 permits. Guided hunting permits continue to be the biggest percentage of SRPs processed annually.

The Planning Area manages developed and undeveloped recreational areas consisting of campgrounds, interpretive sites, and historic tourism. Some of the developed sites are day use only while others allow camping. The recreation sites provide excellent opportunities for activities such as camping, hiking, backpacking, horseback riding, wildlife viewing, sightseeing, OHV touring, fishing, and hunting. Recreational and OHV legal mandates were enacted for purposes of public safety and resource protection. Restricted activities include disposing of trash, sewage, petroleum products or other contaminates onto public lands, carelessly endangering members of the public; causing public disturbances; and willfully defacing, disturbing, or removing personal property, or any scientific, cultural, archaeological or historical resource or natural object. Management prescriptions emphasize monitoring, education, and enforcement to reduce user conflicts and to provide resource protection.

Over the past 20 years, a major shift has occurred in the way management agencies view outdoor recreation. Public lands have always provided recreation opportunities. However, outdoor recreation is now recognized as an important land use providing social and economic benefits on

national, regional, and local levels. Outdoor recreation is more frequently being considered the dominant use on many public lands (Driver, 2000).

The Wyoming Travel Industry Impact Report of 2006 concluded 7.3 million overnights resulting in $2.5 billion in direct travel-generated expenditures and that 98 percent of visitors came to Wyoming for pleasure compared with only 2 percent for business purposes. Travel and tourism resulted in $103 million in state and local tax revenues and $624 million in earnings for Wyoming residents (Wyoming Travel and Tourism Industry, 2006). A large portion of outdoor recreation occurring on public lands is related to hunting and fishing activities. These numbers remain fairly constant over time because they are dependent on wildlife population numbers and available licenses and therefore do not depict known increasing recreation trends. However, the numbers do reflect the magnitude of recreation demand on public lands.

The RMP planning process identifies areas where recreation is the management focus. These SRMAs were traditionally areas that had higher recreation use or required extra recreation investment or where more intensive recreation management was needed. The 2005 revision of the BLM Handbook amended the characteristics for identifying an SRMA. SRMAs are now areas identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific "structured" recreation opportunities (i.e., activity, experience, and benefit opportunities).

As of 2005, SRMAs now must identify a distinct, primary recreation tourism market (destination, community, or undeveloped), as well as a corresponding and distinguishing recreation management strategy. Recreation settings or natural resource recreation settings are prescribed as part of the land-use allocation decision. Subsequent implementing actions, as identified in the activity planning framework, are proactive and address management, marketing and visitor information, and monitoring and administration. Anything not delineated as an SRMA is an extensive recreation management area (ERMA), public lands where recreation is unstructured and does not require intensive management or significant investments in trails or facilities. This type of undirected or "dispersed" recreation management affords visitors the opportunity to create their own adventure. Visitors receive little in the way of services or developed recreational facilities. The 2005 revision of the BLM Land Use Planning Handbook clarified that management within all ERMAs focuses on custodial implementation actions that address visitor health and safety, user conflict, resource protection issues, and maintenance of appropriate activity participation. Implementation actions are not directed at maintaining or creating particular physical, social, or administrative natural resource setting prescriptions. However, the ERMA does contain several interpretive sites.

## 2. Forecasts

Literature reviews show that recreation visitation trends in America are fluctuating owing to a number of dynamic elements, including drought, current social status, international conditions, current economic trends, electronic media, and an increase in costs for amenities such as gas and fuel.

Increased activities seen at the local level include driving for pleasure, OHV use, fishing, hunting, camping, wildlife and wild horse viewing, and mountain biking. The rising public demand for recreational opportunities will increase the complexity of managing dispersed recreation.

Effects of dispersed recreation include minor disturbances to soil and vegetation, these are negligible and the environment tends to recovery quickly. However, long–term cumulative impacts do occur in association with dispersed recreational activities. They are normally, but not exclusively linked to heavily used areas and can include soil compaction and/or erosion, noxious weed dispersal, the creation of unauthorized two-tracks and trails as well as the purposeful vandalism of natural and cultural resources. Dispersed OHV use, both authorized and unauthorized, has affected areas on Little Mountain and in the Wind River Front. Dispersed hunting activities are affecting popular big game hunting areas across the Field Office area. Such impacts are due to increased and repeated use in destination areas, increased OHV use for hunting, and use during inclement weather.

The total number of permits administered each year by the Planning Area has remained relatively constant at about 20. In addition, there are permits issued by other BLM Field Offices in Wyoming where the permittee may take customers to hunt within the Planning Area. There has been increased interest in activities and events in the Little Mountain area over the last several years. Demand for and the diversity of commercial and competitive SRPs is expected to increase over time as the population in the county increases and as new recreational activities become popular. The Planning Area collects about $3000–$4000 per year in SRP fees, the revenue from which is spent on visitor services, maintenance, monitoring, and law enforcement.

Generally, the administration of SRPs has very little impact on the environment. Most activities associated with SRPs involve small dispersed groups or single events in which the permittees are required to abide by stipulations designed to protect the public and reduce impacts on the environment. In addition to hunting related SRPs, the Planning Area administers many other types of SRPs. Many of them rely on tourists as their customers.

Impacts of the current management of the recreational sites vary from site to site. Impacts such as unauthorized pioneered routes (both motorized and non-motorized), soil compaction, vegetation degradation, and vandalism and litter from visitor use is expected, in some sites more so than others. Patrols by the Ranger help to reduce incidents of driving cross-country, vandalism, and litter from underage drinking parties.

Indirect effects from other entities' actions outside BLM jurisdiction are having an impact on BLM's recreational goals and objectives. Urban sprawl, subdivision development, and house (ranchettes) construction on private lands intermingled with BLM-administrated lands is creating a variety of issues that affect recreation management. Such issues include newly restricted access, increased and unregulated public access, alteration of current recreational opportunity spectrum and natural resource recreation settings, impaired natural settings and scenic quality, and impacts on visitor's goals by altered recreational opportunities, experiences, and benefits.

The Wind River Front camping areas were constructed 30 years ago (circa 1981). Existing facilities area adequate to use but the structures are starting to fail. Fire rings and picnic tables are replaced as funding becomes available but additional funding sources will become necessary to replace vault toilets at Sweetwater Guard Station and Sweetwater Bridge campgrounds as well as to replace the bridge at Sweetwater Bridge campground in the future.

Open Play Areas have required installation of vault toilets to manage human waste. As visitor numbers increase, additional services will be needed to manage visitor use in the Blucher Creek, Little Mountain, and Pine Mountain areas. Other areas will be evaluated for increased visitor services on a case-by-case basis.

Continuation of the current management situation would result in impacts similar to those seen since the enactment of the current RMP. Impact levels are expected to increase paralleling recreation use trends. Updating the RMP to reflect the current recreational trends would increase management's ability to appropriately mitigate recreation impacts. Allowing dispersed recreation with minimal constraints would continue to be appropriate for newly written management plans. However, management prescriptions need to be more proactive and adaptive, allowing for innovative strategies as they relate to more heavily affected areas and increasing use such as along the Wind River Front, Adobe Town, Jack Morrow Hills Planning Area, and the Little Mountain areas.

The annual number of SRPs administered for hunting related activities in the Planning Area should remain relatively consistent over the next 20 years.

## 3. Key Features

### Natural Resource Recreational Settings

The Recreation Opportunity Spectrum (ROS) process identifies recreation opportunities based on the area's setting and activities. The Planning Area contains five ROS classes: (1) semiprimitive non-motorized (SPNM), (2) semi-primitive motorized (SPM); (3) roaded-natural (RN), (4) rural (R); and (5) modern urban (MU).

1. SPNM opportunities include solitude in natural environments and non-motorized activities including camping, hiking, sightseeing, photography, nature study, hunting, and horseback riding. The 13 WSAs are all designated as SPNM.

2. SPM opportunities include an explicit opportunity to use motorized equipment while in a natural environment and activities, which include OHV use, sightseeing, hunting, and nature study.

   Approximately one quarter of the Field Office is characterized by the SPM opportunity setting. Areas where this activity occurs include the Wind River Front, the Red Desert Watershed Management Area, and a significant portion of the lands south of Rock Springs, west of State Highway 430, north of the Colorado border, and east of the Rock Springs/Kemmerer Field Office boundary.

3. RN opportunities include an affiliation with others in an isolated environment. Activities include picnicking, rock collecting, hunting, and driving for pleasure. Approximately half of the Field Office is falls under this category. These activities occur mainly along gravel and dirt roads but also along some paved roads.

4. Rural opportunities include affiliation with other recreationists, and activities include competitive activities, spectator sports, and bicycling. Rural recreational opportunities occur mainly along main roads and near towns.

5. MU uses occur in major population centers and many small towns scattered across the Planning Area. While not managed by the BLM, these areas serve as access portals and information centers for the varied recreation opportunities adjacent to the population centers. Recreation users are a significant percentage of the economic base for these areas.

# 2.2.4. Comprehensive Trails and Travel Management

Travel management involves the infrastructure and legal rights to provide people the opportunity to access and use specific public lands within the Planning Area. The transportation network in the Planning Area consists of federal and state highways, county roads, as well as roads built to facilitate industrial development. There is also an extensive network of official BLM roads that range from ditched and crowned gravel roads that are regularly maintained to an extensive array of unofficial roads and vehicle routes that were never formally constructed and that rarely receive maintenance. Many are "primitive two–track" vehicle trails that were created and are maintained simply by the passage of motor vehicles.

## 1. Current Level

The transportation network in the Rock Springs Field Office consists of federal and state highways, county roads, as well as roads built to facilitate industrial development.

Diverse travel management settings exist on BLM–administered lands as a result of public access needs and recreation interests, landscape types and characteristics of the existing network of planned and unplanned transportation routes. Travel and transportation management must account for legal and administrative access needs, recreation activities, and a wide range or resource concerns and existing management designations. The travel and transportation process seeks to identify and understand the use of existing transportation features (roads, primitive roads and trails), and incorporate the existing and future needs for transportation, access, and recreational opportunities.

## 2. Forecasts

Trails and travel management were not thoroughly considered in the existing RMP. Travel Management is now a stand-alone section in the planning document. Existing travel management trends will become part of the RMP Revision effort.

As the demand for access increases, the goal of the travel and transportation process it to create travel networks that are logical and sustainable as well as meet the increasingly diverse transportation, access, and recreational needs of the public.

## 3. Key Features

Within the Planning Area, all areas are comprehensively managed for all types of transportation, including trails to be used for non-motorized opportunities such as mountain biking, horseback riding, cross-country skiing, and hiking. These trails include all WSAs, the Sweetwater River, the Current Creek and Wilkins Peak mountain bike trails, and the Wind River Front. These areas are managed to preserve the current and desirable recreational settings, visual resources, wildlife, and other important resources.

### 2.2.4.1. Off–Highway Vehicles

The BLM is required to establish OHV management areas for all public lands. Areas must be classified as Open, Limited, or Closed to motorized travel activities. For legislative purposes, 42 CFR 8340.0-5 defines an OHV as "any motorized vehicle capable of or designated for, travel on

or immediately over land, water, or other terrain." Certain authorized vehicles were excluded from this definition, including non-amphibious registered motor boats; any military, fire, emergency, or law enforcement vehicles while being used for emergency purposes; vehicles whose use is expressly authorized by the authorized officer, or otherwise officially approved; vehicles in official use; and any combat or combat support vehicle when used in times of national defense emergencies. The national objectives for OHV management are to provide for OHV use while protecting natural resources, promoting public safety, and minimizing conflicts among the various users of public lands.

Not only are OHVs used in the Planning Area for recreation and leisure activities, but they have also become indispensable tools for resource-related industries such as ranching, mineral exploration, and oil and gas production. OHV clubs and organizations are present in the communities within the Planning Area. These groups hold OHV endurance, race, and challenge course events. OHV enthusiasts come from outside of the Planning Area from places such as Gillette and Casper, Wyoming and Colorado's Front Range area. OHV opportunities exist for both off-road use and designated route use.

## 1. Current Level

### Travel Management Areas

With the signing of the JMH Record of Decision (ROD), the Planning Area was divided into two travel management areas; those lands included in the JMH Coordinated Activity Plan (CAP) and the remainder of the Field Office.

### OHV Management Areas

The existing GRRMP manages OHV use subject to the following designations.

**Open for OHV Use** –About 10,000 acres of the Planning Area are designated as open to OHV use. The locations include the Killpecker Sand Dunes Open Play Area. Riding in this designated area is allowed on the shifting sand portions only.

**Limited to Existing Roads and Trails** –This designation was created to allow OHV use without increasing the number of acres disturbed. Recreational users are not to travel off of roads and trails except during the performance of necessary tasks such as the retrieval of game or for maintenance of range improvements and livestock management. Since the implementation of this prescription, OHV use in the Bighorn Basin, Absaroka foothills, and the west slope of the Big Horn Mountains has increased dramatically. Each year, new unauthorized pioneered routes and trails are being created, especially during the hunting season. Once a new trail is established, the public considers it an existing route.

**Closed to OHV Use** –Approximately 17,000 acres of the Planning Area are closed to OHV use; primarily within WSAs. The Crookston Ranch is considered closed to OHV use on a long–term temporary basis. Management practices in these areas have remained relatively unobtrusive. Landscape and recreational design techniques are used wherever feasible to interpret historical while discouraging off-road travel. In addition, where possible, boundaries are marked to inform users that the locations are closed.

**Limited to Designated Roads and Trails** –Environmentally sensitive areas have a more restrictive designation which limits OHV use to designated roads and trails. ACECs and SMAs fall into this category.

The GRRMP contains language that allows additional acreage to be included under the designation of "vehicles limited to designated roads and trails." These areas include essential and recovery habitat for threatened or endangered species; areas with fragile soils or with Class I or II VRM ratings, areas containing important cultural and paleontological resources, and areas over important caves or cave passages. As more travel management plans are prepared, additional acreage could be added to this designation.

The OHV designations for specific areas are identified in Table 2.42.

**Table 2.42. OHV Designations**

| Area | Designation | APX Acres | Season/Dates of Restriction and Purpose |
|---|---|---|---|
| Adobe Town-Haystacks | Limited to designated roads & trails | 54,000 | To protect fragile and highly erodible soils. |
| Big Game Winter Ranges | Limited through seasonal closures (November 15 to April 30 as needed) | 1,500,000 | To reduce stress to wintering animals. Closure to over-the-snow vehicles would be evaluated on a case-by-case basis in conjunction with the WGFD. |
| Cedar Canyon ACEC | Limited to designated roads and trails | 2,550 | Limited to protect wildlife and cultural values (including over-the-snow vehicles). |
| Crookston Ranch | Closed | 40 | To protect historic site. |
| Deer Parturition Areas | Limited through seasonal closures (May 1 to June 30 as needed) | 40,880 | To reduce stress to deer. |
| Dry Sandy Swales | Closed | 20 | Area closed to protect integrity of setting and soils. |
| Dug Springs Stage Station | Limited to designated roads and trails | 10 | Limited to protect historic values. |
| Elk Calving Areas | Limited through seasonal closures (to be decided by biologist, May 1 to June 30 as needed) | 85,830 | To reduce stress to elk. |
| General Planning Area | Limited to existing roads and trails | 2,436,595 | To reduce resource damage. |
| Greater Red Creek ACEC | Closed | 8,020 | Area closed to protect watershed values. |
| | Limited to designated roads and trails (includes Currant Creek, Sage Creek, and remainder of Red Creek) | 123,870 | To protect watershed values. Transportation planning would be done to protect resource values. |
| Greater Sand Dunes ACEC (Eastern Portion) | Open | 10,500 | Area designated open on active sand dunes to allow the recreating public a place to play in the sand dunes. |
| | Limited to existing roads and trails | 5,810 | Limited to protect resource values. |
| | Closed | 90 | Closed around Boars Tusk to protect geologic values. |
| Green River City Limits | Limited to designated roads and trails within a 2-mile radius around the city limits | 4,500 | To reduce impacts from ORV freeplay. |

| Area | Designation | APX Acres | Season/Dates of Restriction and Purpose |
|---|---|---|---|
| LaBarge Bluffs Petroglyphs | Closed | 20 | Area closed to protect cultural values. |
| | Limited to designated roads and trails | 100 | Limited to protect cultural values. |
| LaClede Stage Station | Limited to designated roads and trails | 10 | Limited to protect historic values. |
| Monument Valley | Limited to designated roads and trails | 69,940 | To protect paleontological and watershed values. A transportation road plan would be prepared. |
| Moose Calving Areas | Limited through seasonal closures (to be decided by biologist, May 1 to June 30 as needed) | 410 | To reduce stress to moose. |
| Natural Corrals ACEC | Closed | 20 | NRHP site and the trail 1/2 mile to the spring are closed to protect wildlife and cultural values. |
| | Limited to designated road and trails | 1,300 | Limited to protect resource values. |
| North and South Table Mountains | Limited to designated roads and trails | 1,280 | Limited to protect cultural and wildlife values. |
| Oregon Buttes ACEC | Closed | 3,450 | All of the ACEC is closed to vehicle traffic to protect adjacent WSA values. |
| Parting of the Ways | Limited to designated roads and trails | 40 | Limited to protect historical values. |
| Pine Mountain | Limited to designated roads and trails | 64,200 | To protect watershed values. Transportation planning would be done to protect resource values. |
| Pine Springs ACEC | Closed | 90 | Closed yearlong within fences including over-the-snow vehicles to protect cultural values. |
| | Closed | 5,300 | Closed yearlong–including over-the-snow vehicles to protect cultural and prehistoric values. |
| | Limited to existing roads and trails | 730 | Limited to protect resource values. |
| Prehistoric Quarry Site | Closed | 160 | Area closed to protect cultural values. |
| Raptor Nesting Areas | Limited through seasonal closures (February 1 to July 31) | 835 | To protect nesting raptors. |
| Red Desert | Limited to designated roads and trails | 245,480 | Limited to protect scenic resource values. |
| Riparian Areas | Limited to existing roads and trails | 8,730 | To protect riparian and watershed values. During muddy conditions, vehicle travel will be limited to existing roads and trails to protect soil and watershed values. |
| Sage Creek Mountain | Limited to existing roads and trails | 1,300 | Limited to protect cultural values and threatened and endangered plants. |
| South Pass | Limited to designated roads and trails | 33,700 | Limited to protect cultural resource values. |
| Special Status Plant Species | Closed | 3,610 | Closed yearlong to protect plant populations. (Does not apply to over-the-snow vehicles.) |
| Steamboat Mountain ACEC | Limited to designated roads and trails. Seasonal closures to be determined. | 43,270 | To protect wildlife values. |

| Area | Designation | APX Acres | Season/Dates of Restriction and Purpose |
|---|---|---|---|
| Steep Slopes of White Mountain | Limited to designated roads and trails | 68,640 | To protect watershed and visual values. |
| Sugarloaf Basin | Limited to designated roads and trails | 85,880 | To protect watershed values. Transportation planning would be done to protect resource values. |
| Sugarloaf Petroglyphs | Closed | 20 | Area closed to protect cultural values. |
| | Limited to designated roads and trails | 350 | Limited to protect cultural values. |
| Tolar Petroglyphs | Closed | 20 | Area closed to protect cultural values. |
| | Limited to designated roads and trails | 310 | Limited within 1/2 mile radius to protect cultural values. |
| White Mountain Petroglyphs ACEC | Closed | 20 | Closed to maintain integrity of setting and protect cultural values. Vehicle travel limited to parking area. All other acreage is closed to vehicle travel. |
| | Limited to designated roads and trails | 480 | Limited within 1/2 mile radius. |
| Wilderness Study Areas | Closed | 172,160 | To protect naturalness, solitude, and opportunities for unconfined recreation. |
| Wind River Front Special Recreation Management Area | Limited to designated roads and trails | 260,580 | To protect the Class I airshed, scenic, watershed, and wildlife values, recreation use, and riparian and vegetation resources. |

Environmentally sensitive areas have a more restrictive designation, which limits OHV use to designated roads and trails. The remainder of the Planning Area is managed under this designation. WSAs in the Planning Area are closed to non-motorized mechanical transport, as well as motorized transport

## 2. Forecasts

OHV use has local as well as regional and national significance. Recreation enthusiasts are buying OHVs at a rate of 1,500 units per day nationwide (BLM 2001). The use of these vehicles is linked to a variety of recreation activities, including dispersed camping, hunting, and fishing. In addition to recreational uses, OHVs have become indispensable tools for resource related industries, including ranching, mineral exploration, and oil and gas production.

The indiscriminate use of OHVs continues to increase, creating newly developed unauthorized pioneered trails. These trails can scar landscapes, damage vital wildlife habitats, increase the degradation of cultural and paleontological resources, and cause increased erosion to fragile soils. An increasing trend in using OHVs for recreational activities, as well as common transportation, has been observed as a result of the increase of the price of gas. Dispersed motorized use for activities such as driving for pleasure, sightseeing, and OHV tours has shifted from using vehicles such as cars and sports utility vehicles, to OHVs because of the better gas mileage.

The use of OHVs should continue to grow well into the future, increasing the demand for specialized trails and open OHV areas. Areas between Rock Springs and Green River are experiencing a dramatic increase in off-road OHV use, even though this activity contradicts current OHV management prescriptions. In response to this increasing demand, a need for open OHV areas has been expressed.

The monitoring and documentation of management practices is vital not only to the planning process but also to the public trust. Public endorsement of decisions is essential for the success of

any management prescriptions. The BLM should continue to support and solicit the cooperation of volunteer groups and professional organizations when determining the best ways to manage OHV use on public lands. This will allow the BLM to balance the national objectives of resource protection and public recreational opportunities.

Upward trends in OHV use are expected to continue into the future. Environmental impacts over the next 20 years should parallel impacts accrued since the enactment of the RMP. While sustainable levels of OHV use have not been determined by the Planning Area, it is reasonable to expect impacts to accumulate over time as new roads and trails develop. Adverse impacts would include increased soil erosion, stream sedimentation, physical damage to vegetation, and damage to vegetative communities from the spread of noxious weeds. Environments that are more susceptible to OHV damage include critical winter ranges, wildlife breeding areas, riparian habitats, and areas with steep slopes and/or sensitive soils.

Projected increases in OHV use elevate the need to prioritize OHV management throughout the management area to provide and assure future resource protection and continued OHV recreation opportunities. Future OHV management will include designating and managing areas open to OHV use, areas limiting motorized use to designated roads and trails, and areas closed to motorized use.

In light of the current economic conditions and the volatile market, it is difficult to accurately forecast the future of OHV activity and the nature and condition of the future transportation system in the Planning Area. No appreciable decline in interest in four-wheel-drive and all-terrain vehicle activity is expected. The general upward trend in recreation and road building will continue. The trails management effort will have to be sustained or increased in order to maintain a quality transportation system, protect and maintain wildlife habitat and other resource values, provide for quality recreation experiences, and meet the needs of economic interest.

### 3. Key Features

Areas rich in cultural resources and areas popular in dispersed motorized and nonmotorized recreational opportunities have elevated OHV and travel management focus to a high priority in designated roads and trails so as to maintain or protect the resources. Such areas include the White Mountain Petroglyphs, Boar's Tusk and Pinnacles Geologic Features, Little Mountain, Jack Morrow Hills planning area, South Pass Historic Landscape, and lands adjacent to the Green River and Flaming Gorge.

## 2.2.5. Lands and Realty

The lands and realty program is designed to manage the underlying land base that hosts and supports all resources and management programs. The primary activities of the lands and realty program include: (1) land use authorizations (e.g., ROW, leases, and permits); (2) land tenure adjustments (e.g., sales, exchanges, purchases); and (3) withdrawals, classifications, and other segregations. The BLM works cooperatively to execute the lands and realty program with federal agencies, the State of Wyoming, counties and cities, and other public and private landholders. All BLM authorizations issued through the lands and realty program will comply with local county, state, and other federal agency regulations.

## 2.2.5.1. Land Use Authorizations

Land use authorizations include various authorizations to use public surface for ROW, leases, permits, and easements under Section 302(b) of the FLPMA; and Recreation and Public Purposes (R&PP) leases under the R&PP Act of June 14, 1926 (43 USC 869 et seq.). Past and current conditions associated with these components of land use authorizations are described below.

## 1. Current Level

**Rights-of-Way, Lease, Permits, and Easements**

Sections 302(b) and 501 of the FLPMA authorizes the BLM to issue ROW, leases, permits, and easements for the use, occupancy, and development of public lands. Short-term permits are issued annually for commercial filming projects. The Planning Area typically receives 75 to 150 applications for ROWs per year, typically for roads, power lines, pipelines, compressor stations, and telecommunications facilities. Authorizations for access roads, pipelines, and compressor stations are typically directly related to the level of mineral development.

## 2. Forecasts

Applications for ROW that are associated with mineral development will follow the mineral development forecast. ROW for other actions will correspond with community growth and expansion.

Historically, the Field Office has not received applications for easements or leases, as these types of needs cannot be met with a ROW grant. Forty additional permits are likely over the next 2 decades. Most will likely be for commercial filming and other minor actions, and would therefore have little impact.

## 3. Key Features

Public lands in the Planning Area that have been identified as available for land use authorizations represent key features to accommodate demands for anticipated public land uses in this area.

## 2.2.5.2. Utility Corridors and Communication Sites

## 1. Current Level

Applications for telecommunication facilities are on the rise with the increased use of digital communication and the need to provide communication capability to rural areas. In January 2009, the ROD for the Designation of Energy Corridors was approved, which amended the currently land use plan.

## 2. Forecasts

It is anticipated that additional major transmission power lines may be proposed to transport produced electricity associated with the development of renewable energy. Future development of

carbon sequestration projects may involve a ROW action. An increase of land use authorizations is anticipated.

## 3. Key Features

Areas for future developed land uses include public lands identified for designated corridors, or existing utility alignments and ROWs, existing communication sites, and the existing energy related facilities.

## 2.2.5.3. Withdrawals and Classifications

## 1. Current Level

Withdrawals and classifications for the Planning Area are limited. Multiple new withdrawals have been proposed. There is also a need to review existing withdrawals to determine whether the need to continue with the withdrawal still exists. Withdrawals and classifications will be completed on a case-by-case basis.

**Withdrawals**

If it is determined by a withdrawal review that a withdrawal should be revoked or terminated, or a withdrawal expires, the land does not automatically open to operation of the law(s) to which the land was closed. An opening order will be published to notify the public when and to what extent the land will be opened, consistent with planning decisions. An opening order may be incorporated in a public land order or termination order that revokes or terminates a withdrawal or may be published in the *Federal Register* as a separate document. Any land becoming unencumbered by withdrawals will be managed in a manner consistent with adjacent or comparable public land within the Planning Area.

Table 2.43 lists existing withdrawals. Included in the table are existing withdrawals established by the BLM to close specific sites and protect the existing resource values, as well as withdrawals by other federal agencies to accomplish their mission goals.

**Table 2.43. Existing Withdrawals**

| Existing BLM Withdrawal | Acres |
|---|---|
| BLM Rock Springs Administrative Site (WYW017259) | 14.43 |
| 14-Mile Recreation Site (WYW0312819) | 70.00 |
| Natural Corrals Archeological Site (WYW101899) | 357.34 |
| Oregon Trails/Parting of the Ways | 520.00 |
| Pine Spring Archeological Site (WYW87233) | 90.00 |
| Public Water Reserves | 4,240.00 |
| Special Status Plants (See list below) | |
| —Small Rockcress (*Arabis pusilla*) (WYW134662) | 1,020.00 |
| — Uinta Greenthread (*Telesperma pubescens*) (WYW136096) | 3,645.51 |
| Sugarloaf Petroglyphs (WYW87233) | 20 |
| Sweetwater River Segment (WYW132601) | 4,943.13 |
| White Mountain Petroglyphs (WYW87111) | NA |
| Classification Withdrawal | NA |
| Coal Withdrawal | NA |
| Phosphate Withdrawal | NA |

| | |
|---|---|
| Public Water Reserves | NA |
| Stock Driveways | 8,195.55 |
| Existing Bureau Of Reclamation Withdrawals | Acres |
| Eden Project (WYW71672) | 16,820.00 |
| Eden Project (WYW71673) | 620.00 |
| Eden Project (WYW71674) | 160.00 |
| Eden Project (WYW71675) | 36,292.24 |
| Eden Project (WYW71676) | 1,560.00 |
| Eden Project (WYW71677) | 12,367.16 |
| Green River Project–Seedskadee Project (WYW71832) | 148,110.96 |
| Colorado River Project (WYW80965) | 480.00 |
| Colorado River Project–Flaming Gorge (WYW80966) | 47,169.71 |
| Eden Project (WYW87575) | 20.00 |
| Fontenelle Reservoir–Seedskadee Project (WYW056654) | 19,536.82 |
| Big Sandy Reservoir–Eden Project (WYW074156 | 40.00 |
| Fontenelle Reservoir–Seedskadee Project (WYW0210680) | 656.76 |

## New Withdrawals

New withdrawals may be completed when existing law or regulation cannot adequately protect or preserve the integrity of resources of rarity, significance, fragility, or irreplaceability, or when valuable capital improvements are involved. They must be shown to be at risk by current land management practices. New withdrawals may also be completed when land is needed by another federal agency. Proposed withdrawals will be the minimum acreage consistent with the demonstrated need. A notice of proposed withdrawal must be published in the *Federal Register* and a newspaper in the vicinity of the land involved notifying the public of the proposed withdrawal and the limitations on potential uses of the land. Table 2.44 identifies the withdrawals that were proposed in the Planning Area.

### Table 2.44. Proposed Withdrawals

| Proposed Withdrawals | Acres |
|---|---|
| 4-J Basin | * |
| Cedar Canyon Petroglyph Site & ACEC (WYW139932) | 515 |
| Crookston Ranch | 40 |
| Dug Springs Stage Station (WYW139933) | 10 |
| Flaming Gorge Reservoir (Reclamation)<br><br>**An additional 63 acres inundated by water under Flaming Gorge Reservoir may be withdrawn for the Bureau of Reclamation.** | 63 |
| Greater Red Creek ACEC (Red Creek/Currant Creek Drainage) | 79,620 |
| Greater Sand Dunes ACEC | 25,250 |
| LaBarge Bluffs Petroglyph Site (WYW140949) | 20 |
| LeClede Stage Station (WYW140948) | 10 |
| Monument Valley Area | * |
| Pine Springs Expansion Area | 2,000 |
| Prehistoric Quarry Site | 160 |
| Public Water Reserve | 9,386 |
| South Pass Historic Landscape (Withdrawal from mineral location will be pursued for the northern elk calving areas in part of the South Pass Historic Landscape ACEC) | 5,260 |
| Steamboat Mountain Area | 43,270** |
| Sweetwater Recreation Site (Sweetwater Campground-Bridge Station / Sweetwater Campground–Guard Station) | 80 |
| Tolar Petroglyph Site (WYW140947) | 20 |

| Proposed Withdrawals | Acres |
|---|---|
| Tri-Territory Marker (WYW139934) | 10 |
| Wind River Front (east) | 88,510** |
| Special Status Plants (13 total-See list below)) | 3,610 |
| –Meadow Pussytoes (*Antennaria arcuata*) | NA |
| –Williams' Rockcress (*Arabis williamsii*) | NA |
| –Mystery Wormwood (*Artemisia biennis var. diffusa*) | NA |
| –Precocious Milkvetch (*Astragalus proimanthus*) (WYW138578) | NA |
| –Ownbey's Thistle (*Cirsium ownbeyi*) | NA |
| –Wyoming Tansy Mustard (*Descurainia torulosa*) (WYW136098) | NA |
| –Large-Fruited Bladderpod (*Lesquerella macrocarpa*) | NA |
| –Contracted Indian Ricegrass (*Oryzopsis contracta*) | NA |
| –Swallen's Mountain Ricegrass (*Oryzopsis swallenii*) | NA |
| –Stemless Beardtongue (*Penstemon acaulis*) | NA |
| –Tufted Twinpod (*Physaris condensata*) | NA |
| –Green River Greenthread (*Thelesperma caespitosum*) | NA |
| –Cedar Rim Easter Daisy (*Townsendia microcephala*) | NA |
| *Actual withdrawal acreage to be determined.<br><br>**Actual withdrawal acreage for these areas to be determined upon completion of site–specific management plans. | NA |

## Classifications and Segregations

Review of existing classifications and segregations on a case-by-case basis to determine whether the classification or segregation is appropriate and should be continued, modified, or terminated. A notice of termination and opening order will be published to notify the public when and to what extent the land will be opened, consistent with planning decisions. Land on which a classification or segregation has been terminated will be managed in a manner consistent with adjacent or comparable public land within the Planning Area.

Lands proposed to be leased or conveyed under the R&PP Act must first be classified as suitable for such use. R&PP classifications segregate the land from operation of the public land laws except for the R&PP Act, which precludes disposal by sale, exchange, or other means, but specifically allows for R&PP lease or conveyance. R&PP classifications also segregate from operation of the mining laws, closing the area to mining of locatable minerals. R&PP classifications do not segregate from mineral leasing. R&PP leases and conveyances reserve all minerals in the land to the United States.

Several existing classifications were established under the 1964 Classification and Multiple Use Act. The lands were classified for retention and multiple use management, and against sale, agricultural entry, and mining location, but they remain open to mineral leasing.

Segregations result from a variety of actions, such as exchanges and land sales in which the federal mineral rights are reserved to the United States in the land patent.

Locatable federal minerals reserved to the United States in a land exchange or land sale completed under authority of the FLPMA are segregated from operation of the mining laws. This segregation is the result of language in the FLPMA to the effect that such reserved federal mineral rights are not available for entry until regulations are promulgated providing for such entry. This is the same segregation affecting reserved federal minerals in R&PP conveyances discussed above. The implementing regulations were enacted on November 21, 2000 (65 *Federal Register* 70112) at 43 CFR 3809.2(a). In accordance with these regulations, this land use plan will make decisions

about continuation or termination of the segregation on the reserved locatable minerals in land that was conveyed by exchange or sale.

## 2. Forecasts

Other than the specific areas previously discussed, multiple new land withdrawals for resource purposes are anticipated. Although there has been little or no interest in the past from other federal agencies for new withdrawals, there could be future needs. Withdrawal review and subsequent withdrawal revocations could free up some land areas, returning them to public land status, and opening them to the mining law. This would make more lands available for a wider variety of potential land uses.

## 3. Key Features

Public lands in the Planning Area where existing law or regulation cannot adequately protect or preserve the integrity of resources of rarity, significance, fragility, or irreplaceability, or when valuable capital improvements are involved and are at risk by current land management practices will be considered for withdrawal.

## 2.2.5.4. Land Tenure Adjustments

## 1. Current Level

### Land Ownership Adjustments

The land-ownership pattern in the Planning Area is mostly large blocks of public land surrounding scattered parcels of private and state lands, with the checkerboard land ownership pattern through the middle. In addition to these large blocks, there are areas of scattered public lands within state and private lands. These scattered parcels can be difficult to manage as part of the public land system. The small size of the scattered parcels and their isolation from other parcels of public land make them of marginal utility to the public. Lack of legal public access also diminishes their public utility.

Land ownership (or land tenure) adjustment refers to those actions that result in the retention of public land, disposal of public land, or the acquisition by the BLM of non-federal lands or interests in land. The FLPMA requires that public land be retained in public ownership unless, as a result of land use planning, disposal of certain parcels is warranted. Tracts of land that are designated in BLM land use plans as potentially available for disposal are more likely to be conveyed out of federal ownership through an exchange rather than a sale. This preference for exchange over sale is established in BLM policy. Acquisition of and interests in lands are important components of the BLM's land tenure adjustment strategy. Acquisition of and interests in land can be accomplished through several means, including exchange, purchase, donation, and condemnation, as described below. Lands and interests in lands are acquired for the following actions:

- Improve management of natural resources through consolidation of federal, state, and private lands.
- Secure key property necessary to protect endangered species, promote biological diversity, increase recreational opportunities, and preserve archeological and historical resources.

- Implement specific acquisitions authorized or directed by acts of Congress.

**Recreation and Public Purposes Act Leases and Conveyances**

The R&PP Act authorizes the BLM to lease or convey public surface to state and local governments and qualified nonprofit organizations for recreation or public uses. Lands are leased or conveyed for less than fair market value or at no cost for qualified uses. Examples of typical uses under the R&PP Act include historic monument sites, campgrounds, schools, parks, public works facilities, and hospitals. Lands usually are leased first until development of the area is completed and then, if appropriate, a title may be conveyed. The BLM administers 11 patents covering 572.12 acres and 16 leases covering 1,804.28 acres with one pending application. Table 2.45 identifies current and pending R&PP leases within the Planning Area.

**Table 2.45. Current and Pending Recreation and Public Purpose Act Leases in the Planning Area**

| Project Name | BLM Serial Number | Lessee | Acres |
|---|---|---|---|
| *Leases* | | | |
| Green River Landfill | WYW22722 | City of Green River | 55.00 |
| Stratton Myers Park-Sewage Lagoon | WYW45075 | City of Green River | 109.98 |
| County Landfill | WYW53879 | Sweetwater County | 295.00 |
| Pistol Range | WYW59476 | Sweetwater County | 36.59 |
| Sewage Treatment Plant | WYW65828 | Town of Superior | 13.03 |
| Century West Park | WYW71811 | City of Rock Springs | 42.00 |
| Archery Complex | WYW81100 | Sweetwater County | 160.00 |
| Model Aeronautic Facility | WYW81099 | Sweetwater County | 36.08 |
| Crossroads Park and Trap Club | WYW87200 | Sweetwater County | 248.40 |
| Equestrian Center | WYW86246 | Sweetwater County | 86.61 |
| Youth Crisis Home | WYW122441 | Sweetwater County | 2.50 |
| Sewer District | WYW134092 | Ten Mile Water Dist. | 1.84 |
| Shooting Complex | WYW128014 | Sweetwater County | 480.00 |
| County Facility | WYW138016 | Sweetwater County | 105.00 |
| Young at Heart Recreation Center | WYW156111 | City of Rock Springs | 7.80 |
| School Complex | WYW167264 | School District #1 | 124.45 |
| **TOTAL LEASED ACRES** | | | 1804.28 |
| *Patents* | | | |
| White Mountain Junior High School | WYW40999 | School District #1 | 41.50 |
| County Fairgrounds | WYW42362 | Sweetwater County | 264.96 |
| National Guard Armory | WYW42362 | WY Military Department | 15.04 |
| Northpark Elementary School | WYW62571 | School District #1 | 20.62 |
| Pioneer Trail Picnic Grounds | WYW65458 | Sweetwater County | 29.37 |
| Green River High School | WYW66890 | School District #2 | 19.94 |
| Point of Rocks Transfer Station | WYW74694 | Sweetwater County Solid Waste District | 10.00 |
| Family Recreation Center | WYW81092 | City of Rock Springs | 62.27 |
| Humane Society | WYW121474 | Rock Springs Humane Society | 5.00 |
| Landfill Expansion | WYW146223 | City of Green River | 20.04 |
| Sewage Treatment Plant | WYW089346 | City of Green River | 83.38 |
| **TOTAL PATENTED ACRES** | | | 572.12 |
| *Pending Lease Applications* | | | |
| Cemetery Expansion | WYW158934 | Town of Superior | 8.00 |

### Trespassing and Illegal Dumping

Trespass has been an ongoing problem in the Planning Area. Limited staff and funding is a contributing factor, allowing trespass to continue unabated. When trespass actions go undetected or are ignored, there is no incentive to cease because there is no deterrent to trespassing. Trespassing on public lands is expected to continue. Unabated trespassing diminishes the public lands and their resources, detracts from accomplishing priority work, fosters an attitude that trespassing will be tolerated, and denies the public receipt of fair market value for use of the public lands. There are four known unresolved trespass cases. Typically one case is resolved each year, with some situations requiring a formal land survey to determine property boundaries. There is a potential of the presence of other unauthorized occupancy trespass situations. Known illegal activities include indiscriminate dumping of trash, debris, and household wastes; farming/irrigation of public land; corrals, fences; and construction of roads and other utility related features. Trash dumping is the most common type, with numerous small acreage areas involved. Illegal dumping of household waste will be a continuing problem.

### Exchanges

Exchange is the process of trading lands or interests in lands. Public lands may be exchanged for lands or interests in lands owned by corporations, individuals, or government entities. Exchanges are the primary means by which land acquisition and disposal are carried out. Except for those exchanges that are congressionally mandated or judicially required, exchanges are voluntary and discretionary transactions with willing landowners. Exchanges serve as a viable tool for the BLM to accomplish its goals and mission. The lands to be exchanged must be of approximately equal monetary value and located within the same state. Exchanges also must be in the public interest and conform to applicable BLM land use plans.

Land exchanges are used to: (1) bring lands and interests in land with high public resource values into public ownership; (2) consolidate land and mineral ownership patterns to achieve more efficient management of resources and BLM programs, and (3) dispose of public land parcels identified for disposal through the planning process. Exchange activity has been low in recent years within the Planning Area, although interest in exchanges continues to increase.

### Purchases

The BLM has the authority under Section 205 of the FLPMA, to purchase lands or interests in lands. Similar to other acquisitions, purchase is used to acquire key natural resources or to acquire legal ownership of lands that enhance the management of existing public lands and resources. Acquiring lands and interests in lands through purchase helps consolidate management areas to strengthen resource protection. Purchases are used primarily to enhance recreational opportunities and acquire crucial wildlife habitats and protect cultural resources.

Acquisition of lands with high resource value, such as cultural/historical sites, riparian lands and land by purchase is used sparingly given the limited funds available through appropriations.

Acquiring access easements across non-federal lands for roads and trails provides for legal public access to “landlocked” public lands. Easement acquisition has been a long-term effort in the Planning Area, in large part because of the scattered land pattern in many areas. Access easements are usually acquired by purchase from appropriated funds. Most access easements provide legal public vehicular, foot, or horseback access on roads or trails to large blocks of federal land. The BLM manages 30 easements acquired for public access across private land in the Planning Area.

**Land Sales**

Section 203 of the FLPMA authorizes the sale of public lands. The objective of BLM land sales is to provide a means for disposal of public lands that are found, through the land use planning process, to be suitable for disposal. Public lands must be sold at not less than fair market value and meet the sale criteria of the FLPMA. Tracts of land that are designated in the BLM land use plans as potentially available for disposal are more likely to be conveyed out of federal ownership through an exchange rather than a sale.

Section 209 of the FLPMA authorizes the conveyance of federal minerals through sale and specifies the conditions under which the mineral rights will be conveyed. The mineral rights may be sold with the land surface, sold as a separate transaction, or retained by the United States. Conveyance of mineral rights has occurred only in conjunction with the sale of land.

Approximately 19,598.34 acres of public land are identified for disposal by sale in the current land use plans. However, little public land has been actually offered for sale. Four parcels have been sold since October 1997, including the following:

- August 23, 2000, 0.06 acres to the David J. Palmer to expand parcel for residential purposes;
- July 1, 2004, 722.50 acres to PacifiCorp for the flue gas ponds at the Jim Bridger Plant;
- November 29, 2007, 40 acres to G&E Livestock to resolve an occupancy trespass;
- October 22, 2009, 29.42 acres to Magagna Bros Inc to resolve occupancy trespass.

**Desert Land Entries**

No BLM-administered public lands within the Planning Area are available for agricultural entry under Desert Land Entry (43 CFR 2520) because of one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources.

## 2. Forecasts

Because of time and costs, it is likely that only lands with high priority exchanges and acquisitions will be processed. Therefore, it is not expected that the rate of land exchanges will increase over the next 2 decades.

A small number of R&PP applications are expected over the next 2 decades. They will most likely involve relatively small acreages. R&PP applications are typically for recreation–related developments, so public benefits would be immediately realized once the facilities are developed. Public land could be needed for expansion purposes of existing facilities such as parks, archery ranges, and landfills. In addition, new needs for local communities may be identified.

## 3. Key Features

While sales may be made to meet community expansion needs, and some other sales will be made as demand dictates, no appreciable sale activity is likely. Sales may also be considered to resolve existing occupancy trespasses. The lands identified for disposal will remain mostly intact, although they can be drawn upon to accomplish acquisition goals and objectives. Staff capacity and BLM emphasis on exchanges would limit the sale program. Generally, lands identified for

disposal provide little or no utility to the public, because most have no legal access and the average parcel size is too small to afford a viable recreation or outdoor experience. Therefore, most are difficult and uneconomic to manage. They have high trespass potential and can result in high management costs to abate and mitigate. Approximately 19,598 acres are identified for disposal in the Planning Area.

Public lands in the Planning Area that have been identified for disposal or as available for recreation or public purpose use authorizations represent key features to accommodate demands for anticipated public land uses in this area.

## 2.2.6. Renewable Energy

It is the BLM's general policy, consistent with the National Energy Policy of 2001 and the Energy Policy Act of 2005, to encourage development of renewable energy in acceptable areas. The Rock Springs RMP will determine what areas within the Planning Area are open and/or closed to renewable energy development, including wind and solar. The focus of this section is on wind energy development because there is high potential for commercially viable wind energy in the Planning Area.

### 2.2.6.1. Wind Energy

The Final Programmatic EIS on Wind Energy Development on BLM–Administered Lands in the Western United States was released in June 2005 and amended the GRRMP in December 2005. The Programmatic EIS on Wind Energy addressed the impacts of the future development of wind energy resources on public lands. The Programmatic EIS also addressed the establishment of policies and best management practices as mitigation measures for potential environmental impacts and addressed the amendment of BLM Land Use Plans (LUPs).

Current management for wind energy development guidance is provided by IM No. 2009-043, dated December 19, 2008. This IM updates and replaces the Wind Energy Development Policy (IM 2006-216), issued August 24, 2006. The new IM requires that the initiation of any new planning effort to create, revise, or amend a BLM LUP must comply with the policy provided in the IM. Subsequent wind-related IMs were released, providing more detailed guidance addressing specific topics that have arisen within wind energy development on federal lands. IM 2011-59 directly advises NEPA Compliance for Utility-Scale Renewable Energy Right-of-Way Authorizations; IM 2011-60 addresses due diligence on solar and wind projects; and IM 2011-61 lays out the pre-screening process.

The BLM Land Use Planning Handbook (H-1601-1) requires that land use planning efforts address existing and potential development areas for renewable energy projects, including wind-produced energy (see H-1601-1, Appendix C, II Resource Uses, Section E. Lands and Realty). The BLM encourages the development of wind energy within acceptable areas, consistent with the Energy Policy Act of 2005 and the BLM Energy and Mineral Policy (August 26, 2008). The new Rock Springs RMP will address the environmental and public concern issues associated with commercial wind energy development.

Therefore, it is critical that when the RSFO makes land use decisions it considers the attainability and manageability of VRM objectives relative to wind energy resources and development potential and is consistent with national energy priorities. The VRM management class designations must be carefully considered in areas with high wind energy resource potential (wind power class 5 and

above). This is especially important when considering the differences in resource management constraints relative to VRM Class II and Class III management classes in the Planning Area.

The IM also addresses ACECs. The Programmatic EIS established the policy that all ACECs were to be excluded from wind development. The subject IM changes this policy to ensure consideration of the purpose and specific environmental sensitivities for which the area was designated. All new, revised, or amended land use planning efforts will address and analyze ACEC land use restrictions individually, including restrictions to wind energy development. For future land use planning efforts, ACECs will not be universally excluded from wind energy site testing, monitoring, or development but will be managed consistent with the management prescriptions for the individual ACEC.

## 1. Current Level

Seven site testing and monitoring ROW grants are currently active in the Planning Area. These authorizations cover approximately 51,450 acres of public lands throughout the RSFO. Six of the seven projects are within the checkerboard landownership area, so they involve private and, in some cases, state lands in addition to public lands. The projects have 2-4 meteorological (MET) towers per project gathering wind resource information. According to wind resource potential maps provided by the US DOE National Renewable Energy Laboratory (NREL), the wind resource level for these areas is high, ranging from Class 4-6.

Four commercial wind energy development applications have been processed in the RSFO, involving more than 53,000 acres of public lands. Three of these projects are within the checkerboard area. The projects range in size from 79 to 240 turbines, and peak generating capacity is expected to range from 197 to 360 MW per project.

A ROW grant is issued for the following types of wind energy projects:

- **Type 1**–A site-specific grant for individual meteorological towers and instrumentation facilities with a term that is limited to 3 years
- **Type 2**–A project area grant for a larger site testing and monitoring area, with a term of three (3) years that may be renewed, consistent with 43 CFR 2807.22 and the provisions of the IM beyond the initial three-year term
- **Type 3**–A commercial development grant with a term that is not limited by the regulations, but will generally be for a term of 30 years.

## 2. Forecasts

The demand for energy-related ROWs should increase nationally, and it is anticipated that the potential for wind energy development within the Planning Area will result in an increased interest in wind energy development.

Based on the wind resource within the Planning Area future development of wind energy projects are contingent on resource values, viable wind resources, and approved ROWs for development.

In recognition of the increasing interest and market for wind energy development in Wyoming, including on public lands, the BLM Wyoming State Office (WSO) has identified a need to

conduct additional studies focusing on the resources, issues, processes, and protocols regarding wind and transmission planning and development.

The WSO proposed to conduct focused studies of wind energy and related transmission development activities in Wyoming. The WSO will evaluate the distribution of wind energy resources, other natural and cultural resources, and available and proposed electricity transmission in order to delineate those areas of public lands that are most suitable for wind and transmission development (Wind Development Areas [WDA]), those areas that are least suitable for development (Avoidance Areas), and those areas that could be suitable for development if specialized mitigation could be development to resolve resource conflicts or political issues (Sensitive Areas).

BLM anticipates applications for areas identified as suitable for development.

## 3. Key Features

In recognition of the increasing interest and market for wind energy development in Wyoming, including on public lands, the BLM WSO has identified a need to conduct additional studies focusing on the resources, issues, processes, and protocols regarding wind and transmission planning and development. The WSO proposed to conduct focused studies of wind energy and related transmission development activities in Wyoming. The WSO will evaluate the distribution of wind energy resources, other natural and cultural resources, and available and proposed electricity transmission in order to delineate those areas of public lands that are most suitable for wind and transmission development (WDAs), those areas that are least suitable for development (Avoidance Areas), and those areas that could be suitable for development if specialized mitigation could be development to resolve resource conflicts or political issues (Sensitive Areas). BLM anticipates applications for areas identified as suitable for development.

## 2.2.6.2. Solar Energy

## 1. Current Level

The demand for solar energy related ROWs within the Planning Area is unlikely because Wyoming is not within the solar energy zones that have been identified. To date, no applications have been approved or submitted for solar development within the Planning Area.

## 2. Forecasts

The solar energy zones are made up of six western states, Arizona, California, Nevada, New Mexico, and Utah, that have been identified as the most appropriate for development containing the highest solar energy potential and fewest environmental and resource conflicts. The demand for solar energy related ROWs within the Planning Area is unlikely because Wyoming is not within the solar energy zones that have been identified. Any solar energy proposal submitted, would be subject to the BMPs outlined in the final Programmatic Solar EIS.

## 3. Key Features

The demand for solar energy related ROWs within the Planning Area is unlikely because Wyoming is not within the solar energy zones that have been identified.

## 2.3. Special Designations

An ACEC is defined in FLPMA, Public Law 94–579, Section 103(a) as an area within the public lands where special management attention is required to protect and prevent irreparable damage to important historical, cultural, and scenic values, fish and wildlife and other natural systems or processes, and to protect life and safety from natural hazards. The BLM prepared regulations for implementing the ACEC provisions of FLPMA. These regulations are found at 43 CFR 1610.7-2(b).

### 2.3.1. Areas of Critical Environmental Concern

The Planning Area currently manages ten ACECs.

1. Cedar Canyon ACEC–The management objective for the BLM-administered public lands is to provide protection and enhancement of relevant and important cultural values, scenic values, and wildlife habitat. Cultural specialists recorded the Cedar Canyon petroglyph site in 2007 and new interpretation has been ordered for the site. Current condition is fair, due in part to the remoteness of the site.

2. Greater Red Creek ACEC–The management objectives for the BLM-administered public lands are to: (1) improve watershed condition and enhance watershed values, including, but not limited to, improving channel stability, vegetation diversity and abundance, and water quality; (2) improve riparian areas that are at less than PFC to PFC as a minimum; (3) repair, improve, or maintain CRCT habitat in Red, Currant, Trout, and Sage creeks and their tributaries; (4) provide opportunities for dispersed recreation uses in the area that are consistent with the primary watershed, riparian, and fisheries management objectives; (5) allow the recreation user the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge, and to use outdoor skills; (6) maintain important wildlife habitat; (7) preserve scenic resources; and (8) reduce the amount of sediment being delivered to the Green River through Red Creek by reducing accelerated sheet, rill, gully, and channel erosion. Current condition is fair due in part to the area being closed to development for 10 years in the 1997 RMP. The sensitive resources are currently endangered because of potential development. This area will require special attention through the RMP revision process.

3. Greater Sand Dunes ACEC–The management objectives for the BLM-administered public lands are to preserve and protect the integrity of the unique values in the area for future public use and enjoyment. These values include the unusual geological features associated with the sand dunes and the Boars Tusk; the biological interrelationships supported by the dunes, especially the Steamboat desert elk herd, mule deer herd, and other dependent plants and animals; and a variety of recreation uses. Current condition overall is good and improving due in part to implementation of management decisions in the JMH CAP.

4. Natural Corrals ACEC–The management objective for the BLM-administered public lands is to protect and enhance the cultural, historical, recreational, and geological values in the area. Current condition is good, due in part to access limitations. Interpretation at the site has been missing since before the 1997 RMP and will need to be replaced.

5. Oregon Buttes ACEC–The management objectives for the Oregon Buttes ACEC are to: (1) protect and enhance the scenic integrity as an historic landmark; and (2) protect the

significant wildlife values that are found in the area. Current condition is fair but guarded because of significant OHV trespass into the WSA.

6. Pine Springs ACEC–The management objective for the Pine Springs ACEC is to enhance and protect cultural, historic, and prehistoric resource values. Current condition is fair but guarded because of repeated livestock trespass and damage to ruptured water lines from the spring.

7. South Pass Historic Landscape ACEC–The management objective for the ACEC is to protect the visual and historical integrity of the historic trails and surrounding viewscape. Condition is good because of implementation of management in the JMH CAP.

8. Steamboat Mountain ACEC–The management objectives for this ACEC are to: (1) enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem; (2) maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas; and (3) provide suitable habitat to maintain the continued existence of the Steamboat elk herd and other big game populations. Condition is good because of implementation of management in the JMH CAP.

9. White Mountain Petroglyphs ACEC–The management objectives of the White Mountain Petroglyphs ACEC are to: (1) protect cultural resource values from degradation; and (2) provide for wildlife and scenic values, and Native American concerns. Conditions have improved significantly because of heightened awareness of the sensitive nature of the site.

10. Special Status Plant ACEC–The management objectives for special status (candidate) plant species are to: (1) prevent destruction or loss of special status (candidate) plant communities and important habitat; (2) provide opportunities for enhancing or expanding habitat; and (3) provide sufficient protection to prevent listing as threatened and endangered species. Condition is good because of strict adherence to management actions.

## 2.3.2. Wilderness Study Areas

There are no congressionally designated Wilderness areas within the RSFO. There are 13 WSAs mandated by Congress to be protected under the Interim Management Policy for Lands under Wilderness Review. In addition, there are 18 Citizens Wilderness Study Proposals listed for consideration and administrative protection for the intact wilderness characteristics each contains. The Secretary of the Interior has also enstated a policy to consider Lands with Wilderness Characteristics for administrative protections for those existing intact wilderness characteristics.

The objective for management of the wilderness resource is to retain the wilderness quality and manage the WSAs in the RMP planning area in accordance with the "Interim Management Policy and Guidelines for Lands Under Wilderness Review," until Congress acts on designation.

The RSFO manages the following 13 WSAs.

1. Buffalo Hump WSA (WY-040-306)–includes 10,300 acres of BLM–administered public lands with no private or state in–holdings. The area is located in north-central Sweetwater County about 30 miles north of Rock Springs, Wyoming. The area is bounded on the north by 15 Mile Spring Road, on the east by the abandoned railroad grade, on the south by an

unnamed primitive two–track road trending east to west on the north of Chicken Springs, and on the west by the Buffalo Hump Road and sections 30 and 31 T. 24 N., R. 105 W.

2. Sand Dunes WSA (WY-040-307)–includes 27,109 acres of BLM-administered land, including 600 acres of split estate land. In addition, there area includes 640 acres of state land and 160 acres of private land. The WSA is located in north-central Sweetwater County approximately 13 miles southeast of Farson, Wyoming. The WSA is bounded on the north by an unnamed primitive two–track road beginning at Ox Yoke Springs, on the east by an old seismic line overlain by a primitive two–track road that skirts Essex Mountain, on the south by the Boar's Tusk Road, and on the west by the abandoned railroad grade.

3. Alkali Draw WSA (WY-040-311)–includes 16,990 acres of BLM-administered lands and 640 acres of state land. It is located 25 miles north of Point of Rocks, Wyoming. It is bounded on the north by County Road 4-21, on the east by an unnamed primitive two–track road, on the south by an unnamed primitive two–track road, and on the west by an unnamed primitive two–track road.

4. South Pinnacles WSA (WY-040-313)–includes 10,800 acres of BLM-administered public lands, including 26 acres split estate land. It is located in northeastern Sweetwater County 30 miles northeast of Rock Springs, Wyoming. It is bounded n the north by an unnamed primitive two–track road, on the east by an unnamed primitive two–track road, on the south by County Road 4-15, and on the west by an unnamed primitive two–track road.

5. East Sand Dunes WSA (WY-040-316/317)–includes 12,800 acres of BLM–administered land with no private or state inholdings. It is bounded on the north by an unnamed primitive two–track road and the northern edge of active sand dunes; on the east by County Road 4-21; on the south by an unnamed primitive two–track road, the southern edge of the sand dunes, and the checkerboard lands; and on the west by an unnamed primitive two–track road. All state and private lands along the boundary are excluded.

6. Red Lake WSA WY-040-318)–includes 9,515 acres of BLM-administered land with no private or state inholdings. It is located in east-central Sweetwater County, 21 miles northeast of the town of Point of Rocks, Wyoming. It is bounded on the north by an unnamed primitive two–track road, and the northern edge of active sand dunes, on the east by the Rock Springs Field Office boundary, on the south by County Road 4-20, and on the west by County Road 4-21 and state-managed road. All state lands along the boundary are excluded.

7. Honeycomb Buttes WSA (WY-040-323)–includes 39,908 acres of BLM-administered land, 640 acres of split estate land, and 640 acres of state–managed land. It is located 52 miles northeast of Rock Springs, Wyoming. It is bounded on the north by an unnamed primitive two–track road, on the east by the RSFO boundary, on the south by an unnamed primitive two–track road, and on the west by an unnamed primitive two–track road. A road and 40 acres of private land are cherry-stemmed out of the WSA along the Sand Creek drainage. State and private lands along the boundary are excluded.

8. Oregon Buttes WSA (WY-040-324)–includes 5,700 acres of BLM-administered land with no private state inholdings. It is located in north-central Sweetwater County, 30 miles northeast of Farson. It is bounded on the north by an unnamed primitive two–track road concordant in part with the south boundary of White Horse Creek WSA, on the east by an unnamed primitive two–track road, on the south by state managed land and an unnamed

primitive two–track road, and on the west by an unnamed primitive two–track road. State and private lands along the boundary are excluded.

9. Whitehorse Creek WSA (WY-040-325)–includes 4,002 acres of BLM-administered public–lands with no state or private inholdings. It is located on southeastern Fremont County, with some of the area extending in Sweetwater County. It is 30 miles northeast of Farson. It is bounded on the north by private land and an unnamed primitive two–track road, on the east by private land and an unnamed primitive two–track road, on the south by an unnamed primitive two–track road concordant with the north boundary of Oregon Buttes WSA, and on the west by an unnamed primitive two–track road.

10. Devils Playground WSA (WY-040-401)–includes 16,046 acres of BLM-administered public lands with no state or private inholdings. It is located 28 miles southwest of Green River, Wyoming. It is bounded on the north by an unnamed primitive two–track road, on the east by a 1 mile offset from State Highway 530, on the south by an unnamed primitive two–track road one–half mile of which is concordant with the northern boundary of the Twin Buttes WSA, and on the west by an unnamed primitive two–track road and the Pine Spring ACEC.

11. Twin Buttes WSA (WY-040-402)–includes 8,164 acres of BLM-administered public lands with no state or private inholdings. It is located 30 miles southwest of Green River, Wyoming. It is bounded on the north by an unnamed primitive two–track road one–half mile of which is concordant with the southern boundary of the Devils Playground WSA, on the east by an unnamed primitive two–track road, on the south by an unnamed primitive two–track road, and on the west by an unnamed primitive two–track road.

12. Red Creek Badlands WSA (WY-040-406)–includes 8,020 acres of BLM-administered lands, 640 acres state managed lands and no private inholdings. It is located in Sweetwater County 35 miles south of Rock Springs, Wyoming. It is bounded on the north by an unnamed primitive two–track road following an unnamed ridge, on the east by County Road 4-27, on the south by an unnamed primitive two–track road and private land boundaries, and on the west by Beef Steer Creek and an unnamed ridge line. State and private land along the boundary is excluded.

13. Adobe Town WSA (WY-040-408) (Rock Springs portion only)–includes 52,857 acres of BLM-administered lands, 640 acres split estate and 1,280 acres state–managed lands. It is located in southeastern Sweetwater County 25 miles south of Wamsutter, Wyoming. It is bounded on the north by the checkerboard lands and Manual Gap Road, on the east by the RSFO boundary, on the south by the RSFO boundary, and on the west by Adobe Town Rim Road.

The WSAs are withdrawn from leasing, in accordance with 43 CFR 3100.0-3 (a) Public Domain (1) Oil and gas in public domain lands and lands returned to the public domain under section 2370 of this title are subject to lease under the Mineral Leasing Act of 1920, as amended and supplemented by acts, including, but not limited to, section 1009 of the Alaska National Interest Lands Conservation Act. (2) Exceptions: (vii) Lands within BLM WSAs. (viii) Lands designated by Congress as WSAs, except where oil and gas leasing is specifically allowed to continue by the statute designating the study area.

**Recommendation for Wilderness Designation**

Lands with Wilderness Characteristics have been identified by the Biodiversity Conservation Alliance (BCA). It is recommending that a much larger area than the current WSA be managed to protect wilderness values (either by designation as a WSA or by other means). BCA requests that the BLM reinventory the lands identified in BCA's report for human intrusions and wilderness quality and accord WSA status or other administrative protections to preserve the wilderness characteristics found there. BCA also requests an immediate interim withdrawal of the lands from road building, oil and gas leasing, or industrial developments of any kind until such time as the inventory can be completed. BCA requests that any activity approved for the lands be allowed to proceed only if it is in accordance with BLM's Interim Management Policy for WSAs. BCA also requests that vehicle travel on the lands be prohibited. The BCA proposal includes 18 areas for further evaluation: Monument Valley, Harris Slough, Honeycomb Buttes, Oregon Buttes Basin, Oregon Buttes, Joe Hay Rim, The Big Empty, Parnell Creek, Alkali Draw, Bush Rim, Buffalo Hump, The Pinnacles, Steamboat Mountain, Whitehorse Creek, Kinney Rim South, Kinney Rim North, Teepee Mountain, and Sand Dunes. Field evaluations were completed for these areas in 2010, and management decisions based on the combined information will be reviewed and appropriate management allocations will be made through the RMP process.

The BLM has issued SRPs for outfitting and guiding in the general area, which includes lands in the WSA. In addition to the general management actions, there are five primary provisions of FLPMA with regard to interim management of WSAs:

1. WSAs must be managed so as not to impair their suitability for preservation as wilderness
2. Activities that are permitted in WSAs must be temporary uses that create no new surface disturbance, nor involve permanent placement of structures
3. 3Grazing, mining, and mineral leasing uses that existed on October 21, 1976, may continue in the same manner and degree as on that date, even if this would impair wilderness suitability of the WSAs
4. WSAs may not be closed to appropriation under the mining laws in order to preserve their wilderness character
5. Valid existing rights must be recognized.

**Resource Capability and Condition**

Discretionary uses within or adjacent to WSAs will be reviewed to ensure they do not create conflicts with management and preservation of wilderness values.

Should Congress designate the WSAs in the Planning Area (partially or wholly) as wilderness, the management of the designated areas will be for wilderness values, either as described in the appropriate wilderness EIS or as directed by Congress.

Should Congress not designate areas (partially or wholly) as wilderness, the management of the nondesignated areas will be in accordance with the approved RMP or through an RMP amendment or as otherwise directed by Congress. The undesignated areas will lose their identity as WSAs and will be managed consistent with the adjoining areas as prescribed in the GRRMP or as otherwise directed by Congress.

If necessary, in the course of incorporating the wilderness decisions into the RMP, the RMP will be amended.

## 2.3.3. Wild and Scenic Rivers

The National WSR System is a system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of designations:

1. Recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past

2. Scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads

3. Wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

In September 1992, a final report was completed evaluating BLM-administered lands along streams and waterways for potential WSR designation within the Rock Field Office area. The final report resulted in segments found to be eligible for Wild and Scenic designation, with four of the five determined to be suitable for WSR designation (Table 46).

**Table 2.46. Summary of Wild and Scenic Rivers Suitability Review of BLM-Administered Public Lands That Meet the WSR Eligibility Criteria Along Waterways in the Green River Resource Area (September 1992)**

| Waterway Reviewed | Determination | Justification |
|---|---|---|
| Red Creek (all BLM land parcels along Red Creek and all other tributaries in the unit) | BLM Lands Not Suitable | Not a worthy addition to WSR System; land ownership conflicts; manageability |
| Currant Creek (all BLM land parcels and all other tributaries in the unit) | BLM Lands Not Suitable | Land ownership conflicts; manageability |
| Pacific Creek | BLM Lands Not Suitable | Land ownership conflicts; manageability |
| North Fork of Bear Creek | BLM Lands Not Suitable | Not a worthy addition to WSR System; lack of interest for designation |
| Canyon Creek | BLM Lands Not Suitable | Potential use conflicts; manageability |
| Green River[1] | BLM Lands Not Suitable | Manageability; land ownership conflicts |
| Sweetwater River (upstream portion, of review segment) | 7 BLM Land Parcels Suitable | Scenic, historic, and recreational values, unique land and resource diversity |
| Sweetwater River (downstream portion of review segment) | 3 BLM Land Parcels Land Not Suitable | Land ownership conflicts |
| Big Sandy River | BLM Lands Not Suitable | Manageability |

[1]Green River - The portion of the Green River administered by the BLM did not meet the suitability factors based upon the inability of the BLM to manage the BLM-administered lands in the context of a wild and scenic river because of the large and numerous separations of the few BLM-administered parcels by interspersed private and state lands and by other federal lands administered by the Reclamation and USFWS. However, the BLM would participate in any future joint WSR reviews or studies that may be conducted on the Green River.

For all of these streams, interim management practices have focused on maintaining or enhancing the scenic, recreational, and cultural Outstandingly Remarkable Values (ORV) and maintaining the relatively primitive, pristine, rugged, and unaltered character of the area. These waterways are located in deep canyons that are capable of both supporting and protecting these values. The corridor boundary is delineated by the canyon rims, except in cases where "rim-to-rim" exceeds an average of half a mile.

Interim management prescriptions for the "Scenic" classification focus on maintaining or enhancing the outstandingly remarkable scenic, recreational, and cultural values and the relatively unmodified character of the area in a near-natural setting. Some intrusions on the public lands involved may be allowed if they do not adversely affect maintaining the scenic classification.

Interim management prescriptions for the "Scenic" classification include, but are not limited to:

- Pursue a withdrawal from land disposal
- Allow new mining claims and mineral leases subject to existing regulations. Reasonable mining claim and mineral lease access will be permitted
- Limit geophysical exploration to foot access and use of surface cables on the public lands unless the Authorized Officer allows use of motorized vehicles.
- Restrict motorized and nonmotorized vehicles to using designated roads
- Allow exceptions can be granted by the Authorized Officer. A travel management plan has been completed for the Little Mountain area limiting vehicle use to designated roads. A designated road lies in the "Scenic" sections, along a portion of the Sweetwater River
- Manage public lands as VRM Class II
- Allow construction of minor structures for various purposes provided there are no substantial adverse effects to the natural appearance of the lands
- Identify, evaluate, and protect historic and prehistoric resource sites
- Allow no development of hydroelectric power facilities would be permitted. No new flood control dams, levees, or other works are allowed in the channel or waterway corridor. All water supply dams and major diversions are prohibited.

**Resource Capability and Condition**

Current management of the BLM-administered lands within the Sweetwater River that meet the eligibility criteria and suitability factors for designation as WSRs has been sufficient. Provisions in the GRRMP and in the interim management prescriptions have protected resources in those areas. In addition, the rugged terrain and limited access have helped to protect the resources from development proposals and high use.

These lands are managed for multiple use, which does not necessarily preclude surface disturbing activities. To sustain or enhance the ORVs, baseline data are needed to create a benchmark to measure acceptable change. Data such as ecosystem health, impacts from visitor use, visual indicators, and OHV management, to name just a few, can be used to create a baseline standard to be used to measure the limits of acceptable change to maintain the ORV characteristics.

Monitoring data from an interdisciplinary approach will be necessary to successfully apply a limit of acceptable change monitoring program.

Further coordination with BLM stakeholders, such as the surrounding private land owners, recreationists, non-profit organizations, and other parties, is needed to enhance conservation management while satisfying the needs of the stakeholders.

Public education and interpretation is needed to further explain the importance of and the uniqueness of the ORVs that made the BLM-administered public lands within the proposed WSRs eligible. Interpretation and education are vital management components in passing stewardship and knowledge to the visitors, which aids in building personal ownership of the resources.

The Interim Management Plan needs to continue as part of the RMP process so it can receive public review and changes or supplemental prescriptions for each proposed WSR can be reviewed or developed.

## 2.3.4. National Historic Landmarks

The South Pass National Historic Landmark (NHL) was congressionally designated in 1961 to preserve and protect the nationally significant character of the historic landscape that was so important to emigrants. The NHL made possible the westward migration that began in the 1840s by providing a relatively gentle pass across the mountains, crossing the Continental Divide. The NHTs discussed earlier in this document all pass through, and are part of the historic landscape. Since that time, several efforts to designate an official Landmark boundary have proved fruitless. Consequently, through a gentleman's agreement with the Wyoming SHPO, for management purposes, the NHL boundary is the same as the South Pass ACEC boundary until such time as an official boundary is designated.

Because the South Pass NHL and the South Pass ACEC effectively use the same boundary, the NHL enjoys additional protections afforded by the ACEC and is generally in good condition. The management objective of the ACEC is to protect the visual and historical integrity of the historic trails and surrounding viewscape. The setting of the NHL is not being adversely affected as rapidly as the NHTs.

It is expected that each year, more people will visit the NHL. The Field Office has a number of visitors each year who are trail enthusiasts and history buffs who wish to visit the NHL, including the NHTs, for a glimpse of what it was like to travel down the trails in the past.

Assuming that the emphasis on energy permitting in the Field Office will continue for years, it is likely that the NHL will see additional impacts on its historic setting as well as physical threats offered by development and increased visitation. There is evidence that the archeological component of the trails within the NHL is being affected by looting, including the markers and monuments associated with the trails.

## 2.3.5. Backcountry Byways

The BLM began a byway program in 1989 with a primary focus of enhancing recreational opportunities. A National Scenic Byway System was created 2 years later, under section 1047 of the Intermodal Surface Transportation Efficiency Act of 1991. This act recognized the BLM

back country and scenic byways as a component of the National Scenic Byway System. The objectives of this program are to:

1. Enhance the opportunities for the American public to see and enjoy the unique scenic and historical opportunities on public lands.
2. Foster partnerships at local, state, and national levels.
3. Contribute to local economies.
4. Enhance the visitor's recreation experience and communicate the multiuse management message through effective interpretive programs.
5. Manage visitor use along the byway to minimize impacts to the environment and on provide protection for the visitor.
6. Contribute to the National Scenic Byway Program in a way that is uniquely suited to national public lands managed by the BLM.

In the GRRMP, the Planning Area identified the following five backcountry byway routes that would be evaluated for development:

- Tri-territory Loop
- Lander Road
- Red Desert
- Fort LaClede Loop
- Firehole-Little Mountain Loop.

One existing backcountry byway, "The Wild Horse Loop Tour," was designated and signed in 2002 after the signing of the GRRMP. Other travel routes that meet the criteria are considered for designation on a case-by-case basis.

In addition, there are two Scenic Loops that include BLM-administered lands and lands managed by other agencies. These are the Flaming Gorge Scenic Loop Tour and the Historic Trail Auto Tour route.

Activity level plans, brochures and signage will be prepared as funding becomes available. All five backcountry byways have been selected for their high scenic value. Other intrinsic values vary by route. The Tri-territory Loop accesses several of the WSAs. The Lander Road and Fort LaClede Loops have high historic tourism visitation. The Red Desert road is an excellent teaching tool for geology, hydrologic processes and wild horse viewing. The Firehole-Little Mountain Loop focuses on wildlife viewing and provides access to the Flaming Gorge Recreation Area.

## 2.3.6. National Historic Trails

NHTs are congressionally designated parts of the National Trails System, administered by the National Park Service. The area managed by the Field Office contains more linear miles of intact NHTs, NHT candidates, and historical wagon roads than any other Field Office in Wyoming. The Planning Area contains a high number of historic properties for which setting is a very important

attribute, including NHTs, NHT candidates and sites associated with NHTs. Highly visible, large–scale, energy–related projects, such as coal and gas field developments, renewable energy projects, and transmission corridors, have resulted in a decline in the number intact portions of NHTs with uncompromised setting.

The Planning Area has a number of visitors each year who are trail enthusiasts and history buffs who wish to visit the historic trails for a glimpse of what it was like to travel down the trails in the past. The biggest impact on NHTs is related to large scale energy projects such as coal and gas field development, and large renewable energy projects. These large projects are often visible for a long distance and frequently result in adverse impacts to sites for which setting is important. While these adverse impacts are being properly mitigated, the overall trend is a decrease in the number of NHTs (and sites associated with NHTs) with undisturbed settings. The overall impact to cultural resources has resulted in a net loss of the numbers of intact segments of trail available for future generations making the surviving resources more valuable.

Adherence to Section 106 of the NHPA, the BLM/SHPO protocol agreement, and the BLM policy of avoiding or mitigating adverse impacts on NHTs provides for continued identification, stabilization, and preservation. While NHTs are being physically protected through policy, it is expected that large–scale energy–related projects will continue to affect the viewshed over a very large area. The potential for affecting NHTs for which the viewshed is an important factor is expected to increase as the demand for energy increases. Assuming that the emphasis on energy permitting in the Planning Area will continue for years, it is likely that additional NHT variants and sites associated with trails will be recorded. There is evidence that the archeological component of the trails is being affected by looting, including the markers and monuments associated with the trails.

Among the most significant cultural resources in the Planning Area are the hundreds of miles of NHTs including the Oregon, Mormon-Pioneer, California, and Pony Express. The Overland and Cherokee Trails are not congressionally designated but are considered candidates for inclusion within the National Trails System. Both are eligible for nomination to the NRHP.

## 2.4. Social and Economic

Management actions on BLM-administered lands potentially affect the social and economic conditions of surrounding communities. The BLM's land planning process recognizes this relationship and strives to consider these potential impacts throughout the process.

### 2.4.1. Tribal Interests

Tribal roles and responsibilities are not well defined within the current GRRMP (1997). Our guiding framework should include Executive Order 13007 (Indian Sacred Sites, May 1996), and Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments, November 2000). These Executive Orders provide for tribal involvement in the planning process. Additional guidance is provided under BLM manual 8120 (Tribal Consultation) and the 8120 Handbook.

Wyoming has one reservation, the Wind River Reservation, housing two federally recognized tribes, the Eastern Shoshone and the Northern Arapaho. The reservation is not within the RSFO Planning Area but the two tribes are actively involved in consultations regarding proposed projects

and their effects on sites and areas of tribal interest within the Planning Area as the Planning Area includes lands in their traditional territories. Two other tribes have requested to be consulted on undertakings in the Planning Area that may affect sites and areas of interest to the tribe because the Planning Area includes lands in their traditional territories. They are the Shoshone Bannock of the Fort Hall Indian Reservation and the Ute Tribe of the Uinta and Ouray Reservation.

Typically tribal consultation on projects and planning documents involves all four of these tribes although the Shoshone-Bannock have frequently deferred to the decisions/involvement of the Eastern Shoshone.

## 2.4.2. Public Safety

### 2.4.2.1. Hazardous Materials

Within the Planning Area, spills, illegal dumping, and hazardous material releases are investigated to determine the need for immediate cleanup or other long-term remediation actions. This often involves working with the EPA, WDEQ, and potentially responsible parties to fund and expedite the cleanup of hazardous sites and disposal activities that result from recreational use and industrial activities.

Neither increases nor decreases in reporting hazmat incidents have been detected in the Planning Area. However, as the demand for oil and gas, and minerals resources increases, so does the potential for petroleum and hazardous substance spills and subsurface contamination of soils and groundwater. Increased recreational activities on BLM-administered lands will put visitors at a greater risk of encountering hazards, such as chemical and physical hazards from past industrial operations, illegal waste dumping, and illegal drug manufacturing wastes. Response to hazardous waste issues on BLM-administered lands will continue to be managed. Emphasis on protection of public health, safety, and the environment, as well as cleanup and restoration actions and compliance with all laws, policies, and regulations, will continue.

### 2.4.2.2. Abandoned Mine Lands

The BLM's Abandoned Mine Land (AML) program addresses the environmental and safety hazards associated with AML sites on public lands. These sites unfortunately have proven to be an alluring and sometimes life-threatening attraction for children, adolescents, and adults. Serious injury or death can occur at these sites. The presence of such sites can compromise other land uses and land quality. Abandoned mines are common features on BLM-administered lands. The RSFO, in an ongoing collaboration with the State of Wyoming DEQ, Abandoned Mine Land Division (DEQ AML), has been identifying and prioritizing the abandoned mine hazards in its area, since 1999. In 1999, the BLM and the DEQ AML signed a cooperative agreement that further facilitated the reclamation of AML sites on BLM-administered lands. The state program, as required by the Surface Mining Control and Reclamation Act of 1977, focuses on public safety hazards. In addition, the BLM has received some funding within its Watershed Management Program to address environmental hazards and watershed concerns associated with abandoned mines on a site-specific basis. By combining available funding, safety hazards and environmental impacts on water quality and watershed function can continue to be addressed in a comprehensive fashion at priority AML sites. Some of the common physical hazards posed by AML sites (WDEQ, Abandoned Mine Land Division 2009a) include highwalls, radon, wildlife, disorientation, and mine fire areas.

Approximately 290 known potential AML sites have been identified in the Planning Area based on site data from a WDEQ AML database; more than 130 of these sites have been reclaimed in conjunction with WDEQ. These sites are predominately abandoned coal mine, but could and do included the following: sand, gravel, uranium, gold, and other miscellaneous mineral mining sites. New AML sites are found every year; therefore, current database records might not include every AML site in the Planning Area.

The BLM WSO has a prioritized list of AML sites that pose the greatest risk to people and the environment. The BLM has set as its highest AML physical safety action priority the cleaning up of those AML sites situated at locations:

1. Where a death or injury has occurred, and the site has not already been addressed.
2. Where the site is situated on or in immediate proximity with high visitor use.

Under the Clean Water Action Plan, AML sites adversely affecting watersheds also are a high priority. Using the watershed approach accomplishes the following objectives:

1. It allows mitigation to be risk–based by identifying priority sites first.
2. It fosters collaborative efforts across federal, state, and private administrative boundaries.
3. It considers all issues important to water resource protection.
4. It reduces the cost of mitigation.
5. It provides the most efficient method of remediating AML sites by using a wide range of available resources.

The BLM continues to support the WDEQAML Division in reclaiming AML sites on public surface.

## 2.4.3. Social Conditions

Social conditions include demographic trends; regional history, social values, sense of place, and social organization; and housing and public services. As described in Section 1.1.2, the Planning Area for the RSFO contains approximately 3.6 million BLM-administered surface acres located within Lincoln, Sublette, Fremont, Uinta and Sweetwater counties in Wyoming. Figure 2.26 shows the distribution of these BLM lands across these counties.

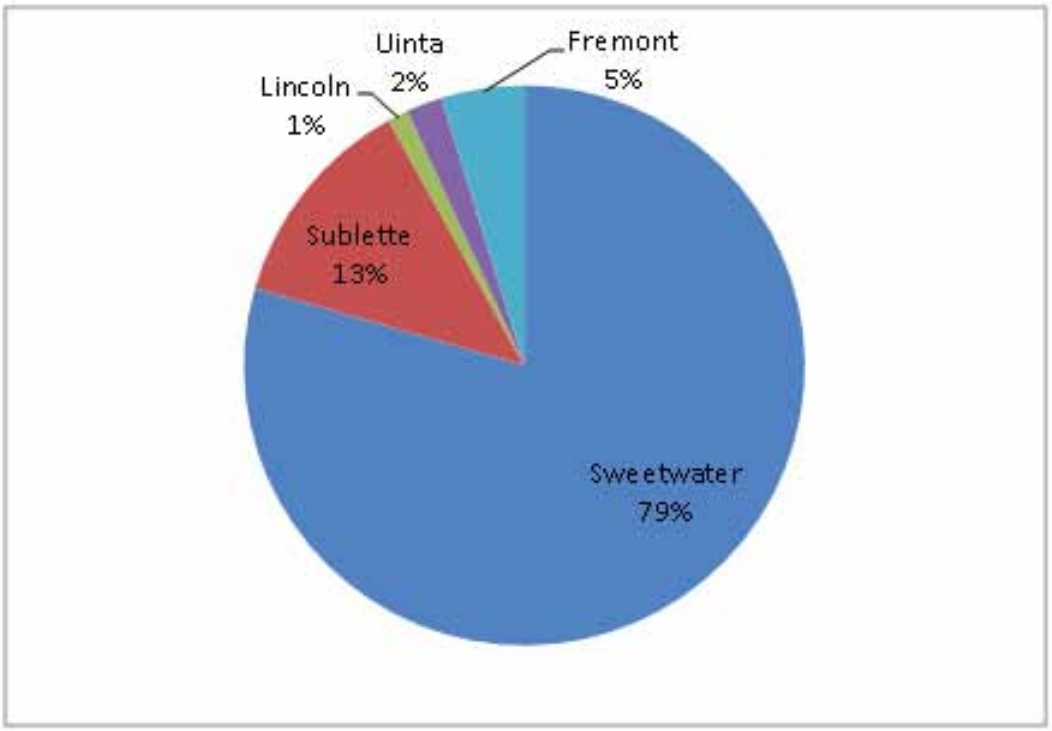



**Figure 2.26. BLM Land Distribution across Counties**

Although almost 80 percent of BLM-administered lands in the RSFO are located in Sweetwater County, BLM preliminarily recommends the study area for social conditions be defined to include all five counties. The basis for this recommendation is twofold:

- The impact of management decisions on social conditions often extends beyond the Planning Area boundary. Therefore, analyzing the greater region may provide a more accurate reflection of the impact of the RSFO's management decisions on social conditions.

- Data used to define social conditions is often available at the county level (or for larger geographic areas). Therefore, the study area for an assessment of social conditions typically follows county boundaries. When available, data for smaller geographic areas (e.g., towns and cities) will be presented.

The BLM may expand or contract this study area once the relationship between BLM management decisions and local social conditions has been more clearly defined. Such information could be gathered during Economic Strategies Workshops that will be conducted as part of this RMP process.

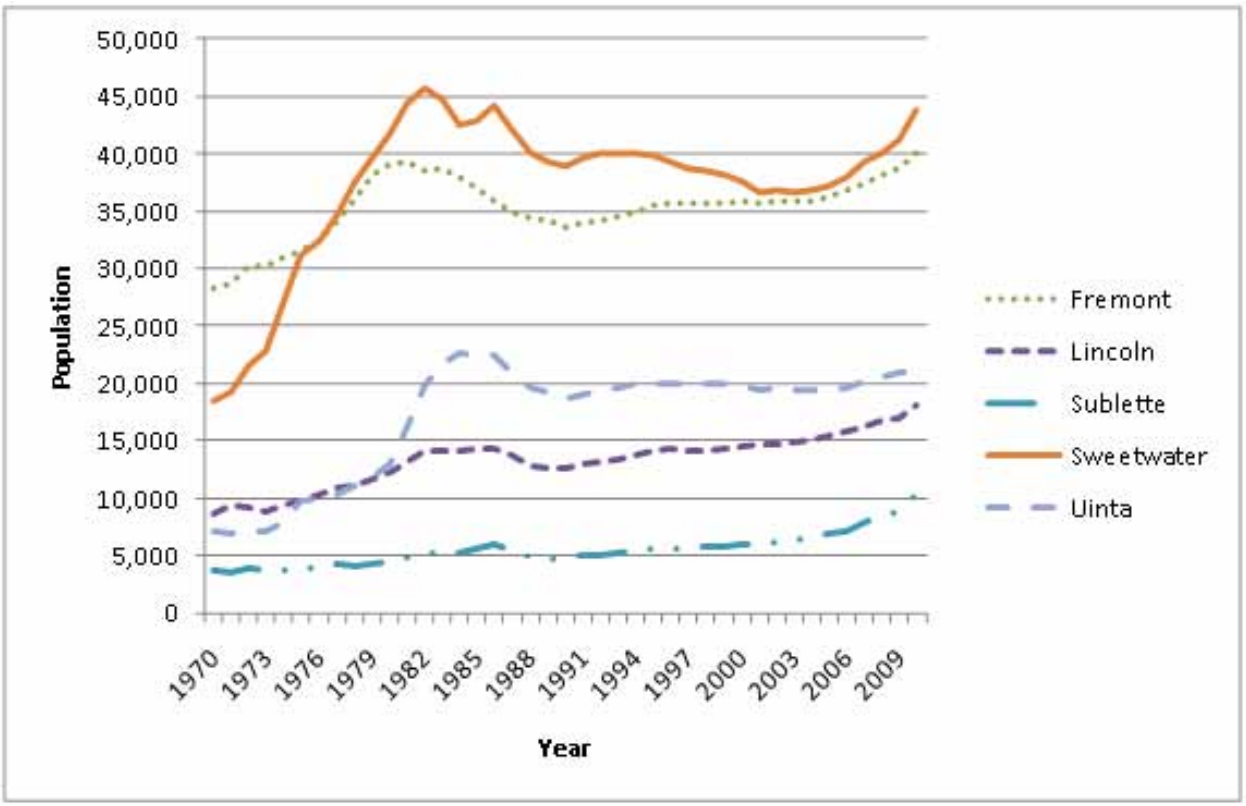
## 2.4.3.1. Populations

Table 2.47 shows historical population trends for the study area, including the largest population centers within each county. The population in the five–county study area grew by approximately 17 percent between 2000 and 2010. Sweetwater County grew at a similar rate. Sublette County experienced substantially faster growth in this same period (73 percent); whereas Uinta County grew at a slightly slower rate (7 percent).

**Table 2.47. Current and Historical Population in the Study Area**

| Geographic Area | 1970 | 1980 | 1990 | 2000 | 2005 | 2010 | Percent Change (2000-2010) |
|---|---|---|---|---|---|---|---|
| Sweetwater County | 18,391 | 41,723 | 38,823 | 37,613 | 37,266 | 43,806 | 16% |
| Green River (city) | 4,196 | 12,807 | 12,711 | 11,808 | 11,534 | 12,515 | 6% |
| Rock Springs (city) | 11,657 | 19,458 | 19,050 | 18,708 | 18,422 | 23,036 | 23% |
| Fremont County | 28,352 | 38,992 | 33,662 | 35,804 | 36,277 | 40,123 | 12% |
| Lander (city) | 7,125 | 7,867 | 7,023 | 6,867 | 6,903 | 7,487 | 9% |
| Riverton (city) | 7,995 | 9,562 | 9,202 | 9,310 | 9,450 | 10,615 | 14% |
| Lincoln County | 8,640 | 12,177 | 12,625 | 14,573 | 15,345 | 18,106 | 24% |
| Afton (town) | 1,290 | 1,481 | 1,630 | 1,818 | 1,749 | 1,911 | 5% |
| Kemmerer (city) | 2,292 | 3,273 | 3,020 | 2,651 | 2,437 | 2,656 | 0% |
| Sublette County | 3,755 | 4,548 | 4,843 | 5,920 | 6,870 | 10,247 | 73% |
| Pinedale (town) | 948 | 1,066 | 1,181 | 1,412 | 1,647 | 2,030 | 44% |
| Uinta County | 7,100 | 13,021 | 18,705 | 19,742 | 19,431 | 21,118 | 7% |
| Evanston (city) | 4,462 | 6,265 | 10,904 | 11,507 | 11,214 | 12,359 | 7% |
| Lyman (town) | 643 | 2,284 | 1,896 | 1,938 | 1,894 | 2,115 | 9% |
| TOTAL | 66,238 | 110,461 | 108,658 | 113,652 | 115,189 | 133,400 | 17% |

Figure 2.25 depicts the historical population trends for the five–county study area.




**Source: WEAD 2011a, WEAD 2011b, WEAD 2011c, WEAD 2011d, WEAD 2011e.**

**Figure 2.27. County Population Trends**

In general, population in the study area grew during the 1970s, and rapidly in some counties. All of the counties experienced a decrease of population in the early 1980s. Fremont, Uinta, Lincoln,

and Sublette counties began to grow again, albeit slowly, in the late-1980s. Sweetwater County continued to decrease in population until the early 2000s. The rate of population growth in each of the counties increased noticeable around 2005.

### 2.4.3.1.1. Regional History and Social Values

Information related to the regional history and social values can be valuable to the BLM during the planning process. This information provides insight into the settlement and growth of population centers within the study area, economic drivers in the region overtime, causes of historical population fluctuations, general social values of residents within the region, and future goals.

During the development of the Affected Environmental portion of the RMP, these topics should be researched and summarized. Key sources of information may include:

- County and municipal government websites
- County and municipal libraries
- Contacts at cooperating government agencies
- Historical foundations, chambers of commerce, economic development associations, and other organizations and associations within the study area
- Existing county or municipal economic development and comprehensive plans
- State-level resources such as the Wyoming's Economic Analysis Division's (WEAD) Cost of Living Index (see http://eadiv.state.wy.us/WCLI/Cost.html).

### 2.4.3.1.2. Other Demographic Characteristics

Other demographic characteristics of the study area may be useful during the planning process. These may include, but are not limited to:

- Population density and population of unincorporated areas. This information provides additional insight into the human dimension of the study area (e.g., predominately rural and low-density).
- Trends in the age distribution of the population. Changes in the age distribution can provide some insight into the availability of working age individuals or the growth/contraction of the retirement community. For example, a downward trend in the working age segment of the population could be valuable information if planning alternatives are expected to lead to an increase employment demand.
- Housing tenure and availability. Information on housing tenure and availability trends in the study area could be especially valuable for future studies of proposed site-specific projects on BLM lands in the RSFO.

### 2.4.3.1.3. Public Services

Management actions on BLM-administered lands could have an impact on public services within the study area. The BLM should be informed about the demand for public services in the study

area and the current resources available to meet these demands. This information will also be valuable for future studies of proposed site-specific projects on BLM lands in the RSFO.

Some specific public services to consider characterizing in the Affected Environmental portion of the RMP include:

- Education. The Wyoming Department of Education (WDE) maintains current and historical data including school-level enrollment, district-level student to teacher ratios, and number of teachers at the district-level.
- Law Enforcement. The Wyoming Division of Criminal Investigation (WDCI) publishes an annual report titled "Crime in Wyoming" that includes crime statistics and law enforcement workforce data, for Wyoming's law enforcement jurisdictions. Informal interviews with district superintendents could provide information on school capacities and current employment of teachers at the school-level.
- Fire Protection and Emergency Response. The US Fire Administration (USFA) maintains the National Fire Department Census Database, which contains information on fire departments such as location, type (e.g., volunteer), and number of firefighters. Additional emergency response resources in the study area may be provided by local hospitals.
- Healthcare. The Wyoming Department of Health (WDH) maintains a database of all healthcare facilities licensed and/or certified by the Wyoming Office of Healthcare Licensing and Surveys. This database also contains occupancy statistics and data on the number of "licensed beds" for each facility.
- Water and Wastewater. Information related to water and wastewater services might also be informative.

## 2.4.3.2. Economic Conditions

The economic conditions assessment should consider the economic characteristics of the five–county study area as well as the economic contributions that can be directly attributable to the BLM's RSFO and land and mineral uses on BLM-administered lands in the RSFO.

### 2.4.3.2.1. Income

Table 2.48 shows the distribution of labor earnings by county and sector, as well as the total labor earning in 2009 (earned within the county). The sectors with the largest contribution to labor earnings generally include mining, government, and construction. In particular, more than one-third of all labor earnings in Sweetwater County came from the mining sector in 2009.

Additional data should be gathered to gain insight into changes in labor earnings by sector overtime.

**Table 2.48. Labor Earnings by County (Percentage of 2009 Total)**

| Sector | Sweetwater | Fremont | Lincoln | Sublette | Uinta |
|---|---|---|---|---|---|
| Farm earnings | 0.0% | ~0.0% | 0.3% | 0.4% | ~0.0% |
| Forestry, fishing, and related activities | N/A | 0.4% | 0.6% | 0.4% | N/A |
| Mining | 34.4% | 9.0% | 20.8% | 42.5% | 18.4% |
| Utilities | N/A | 0.8% | N/A | 0.8% | 1.7% |

| Sector | Sweetwater | Fremont | Lincoln | Sublette | Uinta |
|---|---|---|---|---|---|
| Construction | 7.8% | 6.8% | 14.1% | 11.0% | 15.7% |
| Manufacturing | 7.7% | 1.8% | 2.0% | 0.8% | 4.2% |
| Wholesale trade | N/A | 2.2% | N/A | 1.5% | 3.8% |
| Retail trade | 4.8% | 7.8% | 5.7% | 3.6% | 6.3% |
| Transportation and warehousing | 7.1% | 3.3% | 4.2% | 5.8% | 6.4% |
| Information | 0.5% | 1.3% | 1.8% | 0.5% | 2.7% |
| Finance and insurance | 1.7% | 2.0% | 1.6% | 1.1% | 1.5% |
| Real estate and rental and leasing | 1.8% | 2.2% | 1.2% | 0.8% | 2.1% |
| Professional, scientific, and technical services | 2.9% | 4.1% | 2.8% | N/A | 3.9% |
| Management of companies and enterprises | 0.3% | 0.3% | N/A | N/A | 0.1% |
| Administrative and waste services | 1.2% | 1.1% | N/A | N/A | 1.1% |
| Educational services | 0.1% | N/A | 0.1% | N/A | N/A |
| Health care and social assistance | 3.2% | N/A | 3.6% | N/A | N/A |
| Arts, entertainment, and recreation | 0.3% | 1.6% | 0.4% | 0.9% | 0.3% |
| Accommodation and food services | 2.9% | 3.1% | 2.0% | 3.3% | 2.4% |
| Other services, except public administration | 2.3% | 4.1% | 2.9% | 1.8% | 2.9% |
| Government and government enterprises | 15.0% | 35.7% | 25.9% | 15.6% | 19.1% |
| Categories for which data were not disclosed | 6.1% | 12.8% | 10.1% | 9.2% | 7.7% |
| Earnings by place of work (million dollars)[1] | $1,727 | $877 | $382 | $444 | $594 |

Source: BEA-REIS 2011a. Notes: [1] Reported in 2009 dollars. N/A: Not available or not disclosed by BEA. Total for these sectors has been captured in "Categories for which data were not disclosed" line.

Personal income by place of residence accounts for labor earnings, non-labor earnings, and an adjustment for cross-county commuters. Table 2.49 shows the distribution of these categories, as well as the total personal income of residents within each county.

**Table 2.49. Total Personal Income by Place of Residence (Percentage of 2009 Total)**

| Sector | Sweetwater | Fremont | Lincoln | Sublette | Uinta |
|---|---|---|---|---|---|
| Earnings by place of work | 90.9% | 59.4% | 60.7% | 80.0% | 67.8% |
| Net non-labor income | 16.2% | 38.8% | 32.6% | 21.4% | 18.8% |
| Contributions for social insurance (deduction) | -11.6% | -7.6% | -7.6% | -9.9% | -8.4% |
| Dividends, interest, and rent | 16.8% | 25.2% | 25.4% | 24.6% | 14.5% |
| Transfer payments[1] | 11.0% | 21.2% | 14.9% | 6.6% | 12.8% |
| Adjustment for residence[2] | -7.1% | 1.8% | 6.7% | -1.4% | 13.4% |
| Personal income by place of residence (million dollars)[3] | $1,900 | $1,475 | $630 | $555 | $876 |

Source: BEA-REIS 2011a.

Notes: 1. Transfer payments are payments to persons for which no current services are performed. It consists of payments to individuals and to nonprofit institutions by federal, state, and local governments and by businesses. Government payments to individuals includes retirement and disability insurance benefits, medical payments (mainly Medicare and Medicaid), income maintenance benefits, unemployment insurance benefits, veterans benefits, and federal grants and loans to students.

2. Residence adjustment represents the net inflow of the earnings of inter-area commuters (here, expressed as a percentage of total personal income). A positive number indicates that on balance, county residents tend to commute outside the county to find jobs; a negative number indicates that on balance, people from other counties tend to commute in to find jobs.

[3] Reported in 2009 dollars.

Non-labor income is a substantial source of income for residents in each of the counties, especially in the cases of Fremont (38.8 percent) and Lincoln (32.6 percent). These high levels could be

an indicator of a large retirement and/or low-income community. Additional data should be collected and analyzed to investigate the role of non-labor income overtime to residents within the study area.

The adjustment for residence terms provides insight into the commuting patterns for each county. These data indicate that a non-trivial proportion of the Sweetwater County workforce commutes into the county; whereas, many of the residents of Lincoln County commute to other counties for work. Between 2001 and 2009, the adjustment for residence to personal income proportion in Sweetwater County has been relatively constant–ranging from -6.3 percent to -7.8 percent. Therefore, over the past decade, it appears that Sweetwater County has consistently employed residents of other counties.

## 2.4.3.2.2. Employment

Table 2.50 shows total employment levels in 2009 by county and the distribution of employment across sectors. Sweetwater County employs the largest number of individuals followed by Fremont County.

**Table 2.50. Employment by Sector (Percent of 2009 Total)**

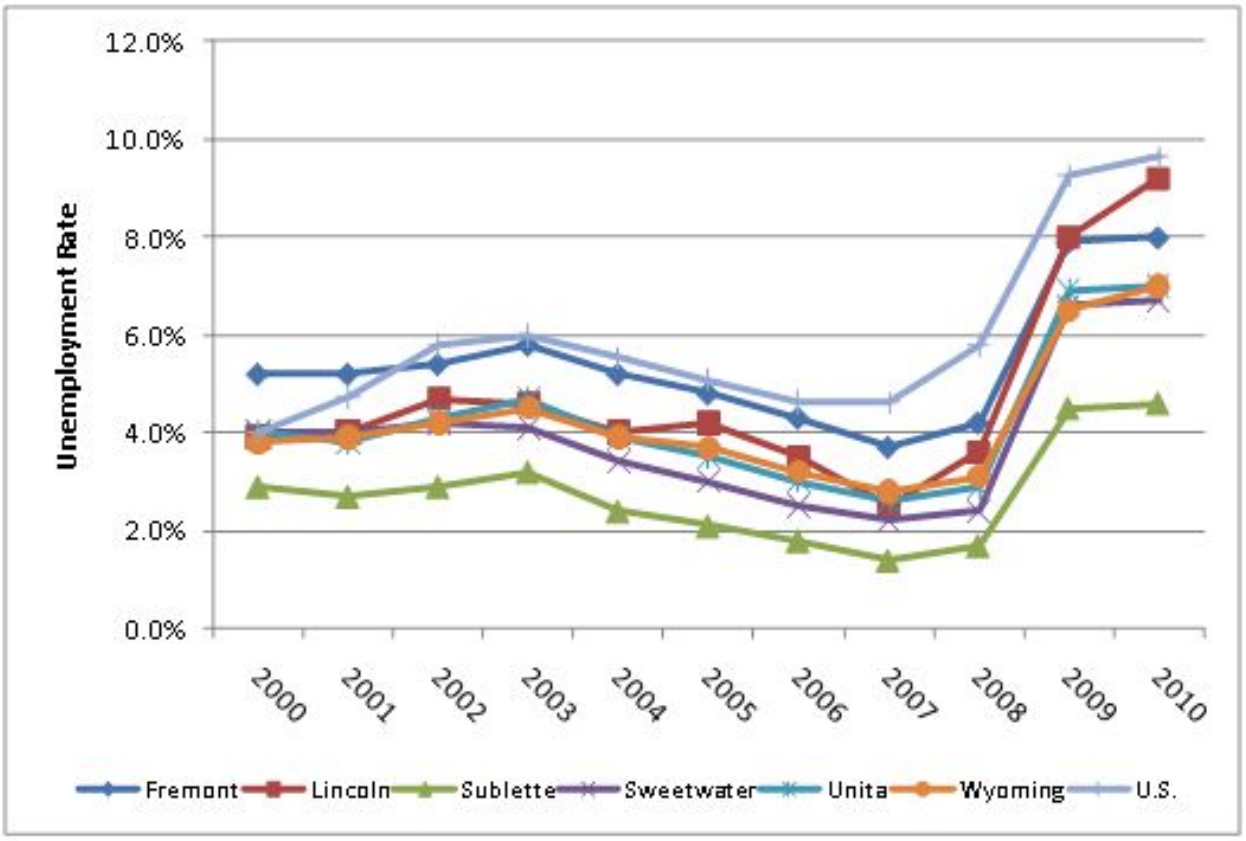
| Sector | Sweetwater | Fremont | Lincoln | Sublette | Uinta |
|---|---|---|---|---|---|
| Farm employment | 0.9 percent | 6.0% | 5.9% | 5.2% | 2.9% |
| Private employment | 83.5% | 69.6% | 75.1% | 81.5% | 79.7% |
| Forestry, fishing, and related activities | N/A | 0.9% | 1.3% | 1.3% | N/A |
| Mining | 20.3% | 4.5% | 8.2% | 26.2% | 8.0% |
| Utilities | N/A | 0.3% | N/A | 0.4% | 0.8% |
| Construction | 7.5% | 7.0% | 13.9% | 11.2% | 11.9% |
| Manufacturing | 4.5% | 2.2% | 2.5% | 1.0% | 2.7% |
| Wholesale trade | N/A | 1.7% | N/A | 1.1% | 2.5% |
| Retail trade | 9.5% | 10.6% | 9.0% | 7.1% | 11.6% |
| Transportation and warehousing | 5.9% | 2.4% | 2.9% | 4.4% | 3.3% |
| Information | 0.9% | 1.2% | 1.4% | 0.6% | 2.0% |
| Finance and insurance | 2.9% | 3.0% | 4.4% | 2.2% | 2.9% |
| Real estate and rental and leasing | 3.8% | 4.8% | 4.9% | 3.6% | 4.3% |
| Professional, scientific, and technical services | 2.8% | 3.6% | 3.5% | N/A | 4.1% |
| Management of companies and enterprises | 0.3% | 0.1% | N/A | N/A | 0.2% |
| Administrative and waste services | 2.4% | 2.1% | N/A | N/A | 2.5% |
| Educational services | 0.5% | N/A | 0.4% | N/A | N/A |
| Health care and social assistance | 4.6% | N/A | 4.5% | N/A | N/A |
| Arts, entertainment, and recreation | 0.9% | 1.7% | 1.5% | 1.2% | 1.1% |
| Accommodation and food services | 8.2% | 6.5% | 5.8% | 6.6% | 6.9% |
| Other services, except public administration | 4.1% | 5.6% | 4.6% | 3.4% | 3.7% |
| Government and government enterprises | 15.6% | 24.4% | 19.1% | 13.3% | 17.4% |
| Federal, civilian | 0.8% | 1.9% | 1.3% | 1.7% | 0.6% |
| Military | 0.8% | 0.9% | 1.0% | 0.6% | 1.0% |
| State and local | 14.0% | 21.6% | 16.8% | 10.9% | 15.9% |
| Categories for which data were not disclosed | 4.6% | 11.3% | 6.3% | 11.1% | 11.2% |
| Total employment | 29,977 | 24,752 | 10,192 | 8,192 | 13,198 |
| Source: BEA-REIS 2011b. | | | | | |

Consistent with the labor earnings data presented in the prior section, mining, construction, and government are among the highest employing sectors for the counties within the study area. The retail trade and accommodation and food services sectors also employ a relatively large proportion of the workforce. The proportion for these two sectors exceeds the share of labor earnings shown in Table 2.49 This result reflects the lower average incomes in these sectors compared with the top labor income sectors. This claim could be further supported by gathering and analyzing wage data from the Wyoming Labor Market Information at http://doe.state.wy.us/lmi.

## 2.4.3.2.3. Labor Force

Figure 2.28 shows unemployment rate trends between 2000 and 2010 for the five study area counties, Wyoming, and the United States. Throughout this period unemployment rates within the study area were lower than the United States (with the exception of Fremont County in 2000 and 2001).

Between 2007 and 2009 unemployment rates increased substantially and generally leveled off, but remained relatively high, between 2009 and 2010 (the unemployment rate in Lincoln County continued to rise). This overall pattern reflects the recession that affected the United States over this period of time.




**Source: WDOE 2011.**

**Figure 2.28. Unemployment Rates (2000-2010)**

## 2.4.3.2.4. Sector-Level Economic Conditions within the Study Area

An overview of specific sectors (primarily those sectors influenced by BLM management decisions) provides useful baseline information for comparison with the BLM RSFO's contribution to these sectors. These sectors include mining, agriculture, and recreation/tourism, at a minimum. During the development of the Affected Environmental portion of the RMP, this assessment should be more thoroughly researched and described.

### Mining

As noted above, the mining industry (including oil and gas) is a large economic contributor to the study area. In the development of the overview of this sector, information should first be sought from the Energy and Minerals section prior to gathering information from other sources.

The Wyoming Department of Revenue (WDOR) tracks county-level annual production levels, and the corresponding taxable valuable, for the various minerals (including oil and gas) extracted from lands in Wyoming. See http://revenue.state.wy.us/PortalVBVS/DesktopDefault.aspx?tabindex=3&tabid=10. For example, Table 2.51 shows the production levels of minerals in Sweetwater County in 2000, 2005, and 2009.

**Table 2.51. Estimated Mineral Production (Sweetwater County)**

| Mineral | 2000 | 2005 | 2009 |
|---|---|---|---|
| Oil (bbls sold) | 4,306,100 | 4,537,736 | 4,918,383 |
| Crude oil | 4,276,569 | 4,496,136 | 4,909,546 |
| Stripper oil | 29,531 | 41,600 | 8,837 |
| Natural gas (mcf sold) | 197,998,633 | 187,801,960 | 224,624,561 |
| Coal (tons produced) | 9,900,407 | 9,412,918 | 9,102,672 |
| Surface coal | 9,900,407 | 9,140,964 | 5,630,828 |
| Underground coal | 0 | 271,954 | 3,471,844 |
| Trona (tons produced) | 17,837,340 | 19,508,616 | 16,143,317 |
| Sand and gravel (tons) | 305,781 | 1,212,279 | 883,794 |

This information should be gathered for each study area county as well as for the state as a whole to provide insight into relative production levels. Table 2.51 provides a valuable example of how these data can uncover key trends and questions related to the sector. In particular, while coal production has remained relatively constant, there has been a shift from surface to underground mining.

The WOGCC is another source for statistics on oil and gas development. See http://wogcc.state.wy.us/.

### Agriculture

While labor earnings and employment data do not highlight the agriculture sector as a large economic contributor to the study area, farming and ranching often play an important role in rural communities. Earnings and employment data often do not capture the social importance of this sector (and in many cases do not fully capture the economic impact). Furthermore, water-related challenges in the study area could have important implications for the agriculture industry, which also supports the need for a clear understanding of this sector in the study area.

A wide range of data available from the USDA could be used to characterize this sector. The 2007 Census of Agriculture. See http://www.agcensus.usda.gov/. provides detailed county-level information, while more current data can be collect through the National Agricultural Statistics Service (NASS). See http://www.nass.usda.gov/.

### Recreation and Tourism

While often difficult to quantify, recreation can be a substantial contributor to the local economy. A 2009 US DOI report found that almost 35,000 jobs in the United States can be attributed to recreation on BLM lands (DOI 2009). According to the Outdoor Industry Foundation, the "active outdoor recreation economy" in Wyoming contributes more than $4.4 billion to the state economy and supports approximately 52,000 in the state (OIF 2006). Within the study area in 2010, spending on travel to the five counties amounted to an estimated $467 million and directly supported almost 5,200 jobs (Dean Runyan Associates 2010). These figures highlight the value in understanding the recreational opportunities available in the study area.

Various sources of data and information may contribute to the characterization of the recreation sector in the study area including:

- The Recreation section of this AMS
- Wyoming Office of Tourism, including the Wyoming Travel Impacts report
- Wyoming State Parks, Historic Site & Trails, including the State Comprehensive Outdoor Recreation Plan (SCORP).

## 2.4.3.2.5. Economic Contribution Directly Attributable to the RSFO

An analysis of the economic contribution directly attributable to the RSFO should be conducted as part of the Affected Environment section of the RMP. This assessment should characterize and quantify the different channels that BLM's management of the RSFO contributes to the local economy. Input information for this analysis should be collected from resources specialists and RSFO staff. This analysis should consider the economic contribution (e.g., jobs supported by each category) from the following:

**Livestock grazing.** This analysis should describe grazing on BLM-administered lands in the RSFO, including (but not limited to) current and historical authorized grazing use in terms of annual AUMs, number of allotments and preference limit for AUMs, and number of livestock operators (permittees). Authorized AUMs should be disaggregated into cattle/horses and sheep/goats. In the RSFO, all AUMs fall under Section 3 of the Taylor Grazing Act.

Public (BLM) versus private grazing fee rates should be cited.

**Mineral development and production.** This analysis should include a summary of mineral activities in the Planning Area including oil and gas development and production, coal, and any others (e.g., trona, sand and gravel, decorative stone). The analysis should also summarize government revenues collected from mineral development and production activity and the proportion of those revenues that are allocated to federal, state, and local entities.

**Recreation use.** Between 2008 and 2010, there was an estimated annual average of 300,000 recreation visits to the RSFO planning area (BLM 2011). The BLM defines a recreation visits

as one entrance per individual per day. The RSFO offers a wide range of recreation activities, including, for example, OHV trails, nature and wildlife viewing (including wild horses), hunting and fishing, and hiking, backpacking, and picnicking. This analysis should include a summary of historical visitation levels.

Visitors spend money on gas, meals, lodging, and supplies. Estimating the overall economic contribution of trip-related expenditures is a common approach to quantifying the economic effects from recreation. This approach is recommended for this analysis.

**Timber harvesting.** This section should summarize any timber harvesting that occurs within the RSFO, including historical harvest and sales levels.

**Direct BLM contributions.** This category includes BLM employment and operating expenditure, ecosystem restoration activities, and payments in lieu of taxes (PILT).

**Renewable energy development.** This section should summarize the section of the AMS that describes renewable energy development in the RSFO. This section could also identify potential economic effects from renewable energy development (focusing on wind development) such as construction and operation expenditures and potential effects on property values.

**Non-market values.** Certain management decisions for BLM lands likely have value to residents in the study area, Wyoming, and the United States as a whole, but are difficult to quantify. For example, some individuals value wildlife and wilderness protection. Many recreation opportunities likely carry a higher value to participants than the trip–expenditures they incur. These types of values (or benefits) are called non-market values because they do not involve market transactions and therefore lack prices. Economic techniques have been developed to estimate these values. Quantification of these values often requires substantial research and data collection and, therefore, is generally out of the scope of a RMP. However, this section should expand on this subject by providing additional qualitative information such as citing some of the literature related to this topic.

## 2.4.3.2.6. Environmental Justice

Executive Order 12898, dated February 11, 1994, established the requirement to address Environmental Justice concerns within the context of federal agency operations. Fundamental principles of environmental justice require that federal agencies:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations
- Ensure the full and fair participation by all potentially affected communities in the decision making process
- Prevent the denial of, reduction in or significant delay in the receipt of benefits of the project by minority and low-income populations.

Evaluation of environmental justice impacts requires identification of minority and low-income populations (including Native American tribes) within the affected area and evaluation of the potential for the alternatives to have disproportionately high and adverse impacts on such populations.

This section lays the initial framework for identifying populations of potential concern in terms of environmental justice issues.

## Key Environmental Justice Terminology

A number of important terms are used in the evaluation of potential environmental justice issues. While there is some room for interpretation, the guidance on environmental justice terminology developed by the President's Council on Environmental Quality (CEQ 1997) is discussed below.

**Low-Income Population.** A low-income population is determined based on annual statistical poverty thresholds developed by the Bureau of Census. A low-income community may include either a group of individuals living in geographic proximity to one another or dispersed individuals (such as migrant workers or Native Americans) where the group experiences a common effect or environmental exposure.

**Minority.** Minorities are individuals who are members of the following population groups: American Indian, Alaskan Native, Asian, Pacific Islander, Black, or Hispanic.

**Minority Population Area.** An area is defined as a minority population area if either the aggregate population of all minority groups combined exceeds 50 percent of the total population in the area or the percentage of the population in the area composed of all minority groups is meaningfully greater than the minority population percentage in the broader region. Like a low-income population, a minority population may include either individuals living in geographic proximity to one another or dispersed individuals experiencing a common effect or exposure.

**Disproportionately High and Adverse Environmental Effects.** A disproportionate impact is an impact on the natural or physical environment that significantly and adversely affects a minority or low-income population to a greater degree than the general population as a whole. Effects may include ecological, cultural, human health, economic, or social impacts interrelated to the impact on the natural or physical environment. A disproportionate impact on such populations is one that appreciably exceeds the impact on the general population or other appropriate comparison group (CEQ 1997).

**Comparison Population.** For the purpose of identifying a minority population or a low-income population concentration, the comparison population used in this study is the State of Wyoming as a whole.

## Low-Income Populations

Table 2.52 shows indicators for identifying low-income populations within the study area based on data from the American Community Survey (ACS) 5–year average sample (2005–2009). The median household income in Wyoming was $51,990 (in 2009 dollars), which was similar to the Unites States ($51,425). Most of the communities included in the table had a median household income greater than the state. Fremont County, as well as the cities of Lander and Riverton, had median household incomes below the state–the lowest being in Riverton.

In Fremont County, the proportion of the population below the poverty level was approximately 1.46 times higher than the state average. The City of Riverton and the Town of Afton had proportions of the population below the poverty level that were approximately 1.49 and 1.57 times higher than the state average. This comparison may be interpreted as a meaningful difference, which would lead these communities to be potentially classified as low-income communities.

**Table 2.52. Income Indicator for the Study Area (2005–2009)**

| Geographic Area | Percentage Below Poverty Level | Median Household Income (2009 dollars) |
|---|---|---|
| Sweetwater County | 7% | $67,210 |
| Green River (city) | 8% | $70,726 |
| Rock Springs (city) | 7% | $65,818 |
| Fremont County | 14% | $43,872 |
| Lander (city) | 10% | $45,689 |
| Riverton (city) | 14% | $39,331 |
| Lincoln County | 7% | $57,446 |
| Afton (town) | 15% | $44,327 |
| Kemmerer (city) | 3% | $67,167 |
| Sublette County | 3% | $74,224 |
| Pinedale (town) | 5% | $65,781 |
| Uinta County | 10% | $56,407 |
| Evanston (city) | 9% | $50,379 |
| Lyman (town) | 12% | $64,800 |
| Wyoming | 10% | $51,990 |
| Source: Census 2011a, Census 2011b. | | |

Additional analysis of income should be conducted during the development of the Affected Environmental portion of the RMP, including reviewing data for other communities as well as at the Census block or Census block group level. A geospatial analysis would also be valuable.

## Minority Populations

Table 2.53 shows the proportion of the population in 2010 that were members of minority groups in each of the five study area counties, several of the largest incorporated communities, and Wyoming. As shown in the table, none of these areas had a minority population exceeding 50 percent of the overall population and, therefore, would not be classified as a minority population area. The proportion of minorities in the region was slightly higher than the state as a whole. With the exception of Fremont County, the minority populations in these areas were predominately Hispanic. In Fremont County, about 70 percent of the minority population identified themselves as American Indian. In the region as a whole, approximately one-third of the minority population was American Indian compared with about 15 percent of the minority population for Wyoming as a whole.

**Table 2.53. Race and Ethnicity (2010)**

| Geographic Area | Total | Non-Hispanic White ( percent) | Minority (percent) | Hispanic (percent) | Hispanic (as percent of minority) |
|---|---|---|---|---|---|
| Sweetwater County | 43,806 | 81% | 19% | 15% | 80% |
| Green River (city) | 12,515 | 84% | 16% | 13% | 83% |
| Rock Springs (city) | 23,036 | 79% | 21% | 16% | 78% |
| Fremont County | 40,123 | 71% | 29% | 6% | 20% |
| Lander (city) | 7,487 | 85% | 15% | 5% | 32% |
| Riverton (city) | 10,615 | 79% | 21% | 9% | 42% |
| Lincoln County | 18,106 | 94% | 6% | 4% | 66% |
| Afton (town) | 1,911 | 93% | 7% | 4% | 63% |
| Kemmerer (city) | 2,656 | 90% | 10% | 8% | 76% |

| Geographic Area | Total | Non-Hispanic White ( percent) | Minority (percent) | Hispanic (percent) | Hispanic (as percent of minority) |
|---|---|---|---|---|---|
| Sublette County | 10,247 | 90% | 10% | 7% | 72% |
| Pinedale (town) | 2,030 | 86% | 14% | 10% | 71% |
| Uinta County | 21,118 | 89% | 11% | 9% | 77% |
| Evanston (city) | 12,359 | 85% | 15% | 12% | 80% |
| Lyman (town) | 2,115 | 94% | 6% | 4% | 67% |
| Region Total | 208,124 | 82% | 18% | 9% | 50% |
| Wyoming | 133,400 | 86% | 14% | 9% | 63% |
| Source: Census 2011c. Note: Minority is defined as all persons other than Non-Hispanic White. | | | | | |

Additional analysis of race and ethnicity should be conducted during the development of the Affected Environmental portion of the RMP, including reviewing data for other communities as well as at the Census block or Census block group level. A geospatial analysis would also be valuable.

# Chapter 3. Current Management Direction

This page intentionally
left blank

**Table 3.1. List of Relevant BLM Plans and Amendments**

| Document Title | Date |
|---|---|
| Green River RMP and Record of Decision October 1997 (GRRMP) | 1997 |
| Jack Morrow Hills Coordinated Management Plan (Amendment to GRRMP) and approved Record of Decision, July 2006 (JMH CAP) | 2006 |
| Wind Energy Development Program and Associated Land Use Plan Amendments and Approved Record of Decision, 2005 (Wind Energy EIS) | 2005 |
| Geothermal Leasing in the Western United States Final EIS, and Approved Record of Decision, December 2008. | 2008 |
| Designation of Energy Corridors on BLM-Administered Lands in the 11 Western States and Record of Decision, January 2009 | 2009 |
| Oil Shale and Tar Sands Resources to Address Land Use Allocations in Colorado, Utah and Wyoming, Final Programmatic EIS and Record of Decision, November 2008 (OSTS PEIS) | 2008 |

# 3.1. Resources

## 3.1.1. Air Resources

**Table 3.2. Current Management for Air Resources**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0001 | GRRMP | Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases).<br><br>Construction and surface disturbing activities will be designed with dust control measures to reduce particulate matter and visibility impacts. Coordination with local and state agencies to control dust on unimproved dirt roads will occur where necessary.<br><br>Plant facilities could be authorized where they minimize air quality impacts over the Planning Area, particularly the Flaming Gorge National Recreation Area. They may not be authorized where they might cause heavy fog conditions that are hazardous to public health by causing black ice on major highways, or possibly extreme and continual fog that could inhibit transportation or recreation activities. | Ongoing |
| 0002 | GRRMP | Surface disturbing activities will be managed to prevent violation of air quality regulations. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0003 | GRRMP | BLM will continue to participate with other agencies in the collection of air quality data and air quality pollution analysis.<br><br>The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming, in managing and monitoring air resources. For example, air quality data (e.g., atmospheric deposition, or acid rain, monitoring data) will be used to determine actual impacts from air pollutant emission sources, and emission levels will be inventoried and tracked to predict potential impacts, including effects on the Bridger Wilderness Area (which is a Prevention of Significant Deterioration Class I area) and to provide detailed information on proposed emission sources.<br><br>Cooperation to develop and apply visibility standards and guidelines is encouraged. BLM will cooperate with Wyoming DEQ on review of air quality regulations which may impact BLM-managed activities.<br><br>See other resource management prescriptions in this document for other prescriptions and guidance that may apply to air quality management activities. | Ongoing |
| 0004 | JMH CAP | Best management practices (BMPs) will be used whenever practical to reduce general air quality impacts and visibility impacts. Application of special requirements (including BMPs) is identified on a case-by-case basis. The rationale for BMPs is identified and documented in site-specific NEPA or other analyses. BMPs are applied as stipulations, conditions of approval, and terms and conditions in the authorizing document. When practicable, projects will be designed to reduce affects to sensitive air sheds. Design considerations include use of Best Available Control Technology (BACT), timing, sequencing, and placement of facilities. See other resource management sections in this document (Implementation, Monitoring, and Evaluation Process; Surface Use Activities; Heritage Resources; Land and Water Resources; Minerals and Alternative Energy Resources; Recreation Resources; Travel, Access, and Realty; Visual Resources; and SMAs and Other Management Areas) for other prescriptions and guidance that apply to Air Resources Management. | Ongoing |
| 0005 | JMH CAP | Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases). Examples of such requirements would include: limiting emissions, spacing of source densities, requiring the collection of meteorological and/or air quality data, covering conveyors at mine sites (to lower dust emissions), and placing restrictions on flaring of natural gas (to reduce sulfur emissions). | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0006 | JMH CAP | Surface disturbing activities will be managed to prevent violation of air quality regulations. | Ongoing |
| 0007 | JMH CAP | BLM will coordinate with state and local agencies, having regulatory authority, to control dust generated from construction and travel on unimproved roads. BLM will continue to participate with other agencies in the collection of air quality data and air quality pollution analysis.<br><br>The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA–Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming in managing and monitoring air resources. Cooperation to develop and apply visibility standards and guidelines is encouraged. BLM will cooperate with Wyoming DEQ on review of air quality regulations which may impact BLM-managed activities. | Ongoing |

## 3.1.2. Soil Resources

### Table 3.3. Current Management for Soil Resources

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0008 | GRRMP | Heavy equipment or actions that will cause surface disturbance will be used only after a site specific analysis has been performed and approved. Activities that cause surface disturbance will be considered on a case-by-case basis. | Ongoing |
| 0009 | GRRMP | A 500 foot buffer from standing or flowing water, floodplains, and/or riparian/wetland areas will be applied to surface disturbing activities (e.g., roads), unless impacts to soils, watershed, water quality, and fisheries can be mitigated. No surface disturbance is allowed within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages, without an approved plan to mitigate impacts to water quality. Linear crossings will be considered on a case-by-case basis. | Ongoing |
| 0010 | GRRMP | Noncommercial forest lands (woodlands) will be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses. | Ongoing |
| 0011 | GRRMP | *Silvicultural treatments in mature timber stands will be designed to improve wildlife habitat and watershed condition,* i.e., create small openings to provide forage for wildlife and accumulate snow drifts to increase moisture. | Ongoing |
| 0012 | GRRMP | No BLM-administered public lands within the Planning Area are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0013 | GRRMP | Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. | Ongoing |
| 0014 | GRRMP | Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions. | Ongoing |
| 0015 | GRRMP | *Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis. Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas.* | Ongoing |
| 0016 | GRRMP | *Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources.* These restrictions will be placed on areas where resources could be avoided or adverse effects could be mitigated. | Ongoing |
| 0017 | GRRMP | *Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources.* Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas. Exceptions to seasonal restrictions may be granted if the criteria are met. | Ongoing |
| 0018 | GRRMP | No topsoil sale areas will be established. | Ongoing |
| 0019 | GRRMP | Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved. | Ongoing |
| 0020 | GRRMP | Undeveloped recreation sites and other recreation use areas will be managed with priority consideration for air quality, cultural resources, watershed protection, wildlife values, and public health and safety. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0021 | GRRMP | *Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met.* An exception may be granted if the operator/individual and surface management agency could arrive at an acceptable mitigation plan for anticipated impacts. Options in the mitigation plans may include consideration of development in one portion of the area coupled with no development in other areas. Other considerations may include placement of multiple facilities in a specific area (e.g., multiple wells and production facilities on one drill pad) and using remote control operations (e.g., remote well head and production facility control) to limit trips into locations or other areas. | Ongoing |
| 0022 | GRRMP | *Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species.* Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities (Appendix A). | Ongoing |
| 0023 | GRRMP | The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. Desired plant community objectives can be short and long term. Desired plant community objectives take into consideration all uses of the riparian area which can include livestock grazing, wildlife, recreation, fisheries, flood control, etc. | Ongoing |
| 0024 | GRRMP | *Areas where the soils are highly erodible or difficult to reclaim will receive increased attention, and are avoidance areas for surface disturbing activities.* Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation will not occur and that water quality will not be adversely affected. When applicable, an erosion control plan (such as an ERRP) will be prepared as part of the site specific analysis process for activity and implementation planning. Rehabilitation plans will be developed and implemented for disturbed areas, as needed | Ongoing |
| 0025 | GRRMP | *Site specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) will be prepared for areas where needed.* These areas include but are not limited to Cedar Mountain and Sage Creek/Currant Creek. The Red Creek watershed plan will continue to be implemented, as appropriate. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0026 | GRRMP | *Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objectives*. Priority areas (particularly for development of AMPs) include Upper Bitter Creek, Four J Basin, Vermillion Creek, and Upper Salt Wells watersheds. | Ongoing |
| 0027 | GRRMP | *Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination.* Such practices could include lining of reserve, production, and other types of pits and will include alternate locations for plants, mill sites, ponds, and sewage lagoons where soils are highly permeable. | Ongoing |
| 0028 | GRRMP | *Aquifer recharge areas will be managed to protect groundwater quality and to ensure continued ability for recharging aquifers.* Protection will be provided by limiting road density and surface occupancy to maintain a healthy recharge area. Vegetative cover and geologic soil condition that are conducive to groundwater recharge will be maintained. | Ongoing |
| 0029 | GRRMP | *Areas may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of watershed resources.* BLM will not use powers of condemnation to acquire lands. | Ongoing |
| 0030 | GRRMP | *The BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values*. | Ongoing |
| 0031 | GRRMP | *Highly erodible soils throughout the ACEC will be managed to maintain or reduce erosion levels and to improve vegetative ground cover.* Guidelines necessary to protect these areas will be developed. Surface disturbing activities may require approval of engineering design plans. Where necessary, identified roads will be upgraded, maintained, and properly surfaced in accordance with BLM standards. | Ongoing |
| 0032 | GRRMP | The management objectives for the area are to: 1) improve watershed condition and enhance watershed values, including, but not limited to, improving channel stability, vegetation diversity and abundance, and water quality; 2) improve riparian areas that are at less than proper functioning condition to proper functioning condition as a minimum; 3) repair, improve, or maintain Colorado River cutthroat trout habitat in Red, Currant, Trout, and Sage Creeks and their tributaries; 4) provide opportunities for dispersed recreation uses in the area that are consistent with the primary watershed, riparian, and fisheries management objectives; 5) allow the recreation user the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge, and to use outdoor skills; 6) maintain important wildlife habitat; 7) preserve scenic resources; and 8) reduce the amount of sediment being delivered to the Green River through Red Creek by reducing accelerated sheet, rill, gully, and channel erosion. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0033 | GRRMP | All resource and land uses in the area will be managed in support of watershed stability and Colorado River cutthroat trout habitat management objectives. | Ongoing |
| 0034 | GRRMP | *The Greater Red Creek ACEC will, in general, be managed as an avoidance area for rights-of-way and surface disturbing activities*. Exceptions (in some specific areas) are described in the individual watershed sections. | Ongoing |
| 0035 | GRRMP | *Re-introduction of Colorado River cutthroat trout and other native species will be considered if consistent with watershed and riparian objectives.* This will be done in cooperation with the WGFD. Habitat for special status plant and animal species will be monitored and site specific activity plans will be developed to address habitat repair, maintenance, and enhancement needs. | Ongoing |
| 0036 | GRRMP | *About 9,600 acres of federal coal in the Sage Creek watershed are acceptable for further consideration for development by surface and subsurface coal mining methods, with certain stipulations.* Coal leases and development in the area will include a requirement for plans of development, mining plans, etc., to include adequate mitigation measures to assure protection of the fisheries and watershed values, prior to allowing any mining activity.<br><br>The watershed (about 52,270 acres) will be managed consistent with the Class III visual resource management classification. | Ongoing |
| 0037 | GRRMP | *Actions Unique to the Currant Creek Watershed*<br><br>MANAGEMENT ACTIONS: *All BLM-administered public lands within this watershed (about 23,740 acres) are closed to: 1) surface disturbing activities ; 2) mineral material sales; and 3) mineral location. A withdrawal from entry under land laws and mineral location will be pursued. This area is also an exclusion area for rights-of-way*.<br><br>Exceptions to these requirements are:<br><br>A north-south right-of-way window, parallel to the east side of the Flaming Gorge National Recreation Area will be established at County Road 4-33 or to the west of this road.<br><br>Above ground power lines that span the drainage (from rim to rim) could be considered east of County Road 4-33 in the northern portion of the Currant Creek watershed, if environmental analysis demonstrates that scenic, watershed, and fisheries objectives could be met.<br><br>The rim areas within the Currant Creek watershed (tops of the watershed ridges) with slopes of less than 25 percent could be considered for surface disturbing activities if environmental analysis demonstrates that watershed, fisheries, wildlife, and scenic objectives could be met. Within the Currant Creek watershed, slopes greater than 25 percent and areas in or within 500 feet of riparian areas | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | and floodplains are closed to surface disturbance unless the action is designed specifically for the enhancement of watershed values and Colorado River cutthroat trout habitat.<br><br>*The BLM-administered public lands in the watershed are closed to coal and sodium exploration, prospecting, leasing, and development activities.*<br><br>*BLM will pursue possibilities of land exchanges to acquire lands along Currant Creek and Trout Creek to improve management opportunities for Colorado River cutthroat trout and its habitat.* | |
| 0038 | GRRMP | Fire suppression activities in this watershed will be limited to containment at ridgetops. | Ongoing |
| 0039 | GRRMP | *The BLM-administered public lands within this watershed (about 55,880 acres) are closed to: 1) surface disturbing activities; 2) mineral leasing; 3) mineral material sales; and 4) mineral location. A withdrawal from entry under the land laws and mineral location will be pursued for the area.* | Ongoing |
| 0040 | GRRMP | *The one pipeline right-of-way concentration area in the watershed is an avoidance area for any additional rights-of-way. However, that part of the right-of-way concentration area, from the Red Creek escarpment south to Richards Gap, is closed to any new rights-of-way development for at least 10 years to allow soils to stabilize from previous disturbance. At the end of the 10-year period, new rights-of-way in the area could be reconsidered if satisfactory stabilization has occurred. The remainder of the BLM-administered public lands that lie east of the right-of-way concentration area will also be managed as an exclusion area for rights-of-way.* An evaluation may occur sooner than 10 years if there is evidence of vegetation recovery on the majority of the concentration area, and disturbed soils appear to have stabilized. | Ongoing |
| 0041 | GRRMP | Surface water, soils, and shallow aquifers will be protected from contamination by practices such as closed drilling systems or installation of pit liners. Pit liners will be removed prior to reserve pit reclamation | Ongoing |
| 0042 | GRRMP | Any proposed activity or use that involves surface disturbance will require appropriate engineering design, geotechnical analysis, mitigation planning, etc. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0043 | GRRMP | *The vegetation and habitat management objectives described for the Steamboat ACEC will apply. These objectives are to enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem; maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas; and provide suitable habitat to maintain the continued existence of the Steamboat elk herd and other big game populations. This important habitat overlap area is within the elk herd unit (about 27,000 acres) but lies outside and adjacent to the ACEC .* | Ongoing |
| 0044 | GRRMP | *The management objective for the Monument Valley area is to provide protection of wildlife, geologic, cultural, watershed, scenic, and scientific values (paleontological and cultural).* | Ongoing |
| 0045 | GRRMP | *Wild horse herd management will be consistent with the wild horse herd management plan for the area. Construction of wild horse traps and range improvements will be allowed provided the management objectives of the area can be met.* Areas with highly erosive soils or slopes are not suitable for wild horse traps and range improvements. Improvements will be considered with protection provided for slopes, raptors, cultural, scientific, scenic, and watershed resources. | Ongoing |
| 0046 | GRRMP | *The area is not designated as an ACEC, but will be maintained as a geographic management unit* (see Glossary). The Pine Mountain management area is not recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus will not need to receive the same management emphasis. | Ongoing |
| 0047 | GRRMP | *Livestock grazing objectives and management practices will be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian).*<br><br>Reintroduction of Colorado River cutthroat trout and other native species will be considered, if consistent with watershed and riparian objectives. | Ongoing |
| 0048 | GRRMP | *Forested areas will be managed primarily toward meeting the watershed, riparian, wildlife, and recreation objectives for the area.* Timber harvest levels and logging practices will be designed to help meet those objectives.<br><br>Any increase in vegetative production will be reserved for watershed stabilization and improvement purposes. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0049 | GRRMP | *Camping is allowed within 200 feet of water if damage to watershed, water quality, and wildlife values can be avoided.* Otherwise, camping will be located at further distances from water. | Ongoing |
| 0050 | GRRMP | Livestock grazing will be managed to allow for optimum vegetation recovery in the long term and for uplands and riparian areas to reach proper functioning condition as a minimum. If necessary, forage will be reserved for watershed purposes. Full consideration will be given to maintaining and protecting important wildlife habitat. | Ongoing |
| 0051 | GRRMP | *To meet management objectives, surface occupancy and surface disturbance on BLM-administered public lands will be severely limited or prohibited. No surface occupancy is allowed on the escarpment or toe slopes.* Due to the highly erosive nature of these soils, all surface disturbing activities should be designed for zero runoff into the established drainages. | Ongoing |
| 0052 | GRRMP | *The preferred route for rights-of-way in the management area is the east-west window described in the Lands and Realty Management section. Other areas will be considered if in conformance with wildlife, watershed, cultural, and scenic resource management objectives. Overhead powerlines are prohibited in the area.* | Ongoing |
| 0053 | GRRMP | *Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian).* | Ongoing |
| 0054 | GRRMP | *The Sugarloaf Basin area is not designated an ACEC, but will be maintained as a geographic management unit.* The area is not recommended as part of the Greater Red Creek ACEC because Sugarloaf Basin does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in the area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus does not need to receive the same management emphasis. The watershed, scenic, and wildlife resources are determined to be neither more than locally significant nor fragile, sensitive, or rare, when compared to those values found in Currant, Sage, and Red Creeks. | Ongoing |
| 0055 | GRRMP | *Livestock grazing objectives will be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian).* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0056 | GRRMP | *The public lands are closed to most surface disturbing activities such as construction of rights-of-way and mineral development. Some surface disturbing activities may be allowed. Activities such as recreational developments (development and improvement of campgrounds, put in or take out areas, etc.), range improvements, and wildlife improvements may be considered, provided such activity is done in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment, and if a site specific analysis determines that no adverse effects would occur.* | Ongoing |
| 0057 | JMH CAP | This was done to maintain operational consistency with the Green River RMP and maintain a broad range of management options for future resource management within the JMH CAP area that might otherwise have been limited by allowing development or disturbance within highly sensitive areas for wildlife and/or areas that are sensitive for soils, vegetation, visual intrusion, etc. Because these criteria specifically affected oil and gas operations, BLM offered to suspend existing oil and gas leases (under guidance from Section 39 of the Mineral Leasing Act, as amended) on a voluntary basis within the JMH CAP Planning Area pending completion of the CAP. As a result, many oil and gas operators in the Planning Area asked that their leases be suspended. | Ongoing |
| 0058 | JMH CAP | These uses include sustainability of crucial big game habitat, air and water quality, scenic quality, vegetative cover and soil stability, recreational activities, livestock grazing and range improvement activities, mineral development, and other important resource concerns. | Ongoing |
| 0059 | JMH CAP | Riparian areas will be maintained, improved, or restored to enhance forage conditions, provide wildlife habitat, and improve stream and water quality. To achieve PFC, riparian areas will be managed to maintain dominance by species capable of stabilizing soils and stream banks. Riparian areas will be assessed as needed to determine existing condition and whether specific management actions are needed for improvement. | Ongoing |
| 0060 | JMH CAP | Watershed health assessments will be initiated to determine the condition of riparian areas and will be prioritized based on levels of development, rangeland standards, PFC, and other available data. Watersheds with more sensitive baseline conditions will be the focus for increased monitoring efforts and mitigation. | Ongoing |
| 0061 | JMH CAP | Low-intensity burns during periods of high soil moisture will be the preferred method/times in mountain shrub communities. Prescribed burns will be restricted or prohibited in areas with coal or other fossil fuel outcrops to prevent ignition of coal or fossil fuels. | Ongoing |
| 0062 | JMH CAP | Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objectives. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0063 | JMH CAP | Heavy equipment or actions that will cause surface disturbance will be used only after a site specific analysis has been performed and approved. Activities that cause surface disturbance will be considered on a case-by-case basis. | Ongoing |
| 0064 | JMH CAP | The objectives for livestock grazing management are to: 1) improve forage production and ecological conditions for the benefit of livestock use, wildlife habitat, watershed, and riparian areas; 2) maintain, improve, or restore riparian habitat to enhance forage conditions, wildlife habitat, and stream quality; and 3) achieve proper functioning condition or better on riparian areas (this is the first priority for vegetation management). | Ongoing |
| 0065 | JMH CAP | Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. | Ongoing |
| 0066 | JMH CAP | Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions. | Ongoing |
| 0067 | JMH CAP | Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis. | Ongoing |
| 0068 | JMH CAP | The objectives for management of forests and woodlands are to: 1) provide for healthy forest resources and primarily to meet multiple resource objectives (i.e., improved watershed, soils, recreation, and wildlife habitat values); 2) maintain and enhance biological diversity; 3) provide a long-range view of desired plant community concepts at the landscape level; 4) identify old growth areas; and 5) in commercial forests, provide for production of forest products in balance with these other resource management objectives. (Long-term stand structure development will be an integral part of all forest management.) | Ongoing |
| 0069 | JMH CAP | Objectives will maintain and improve the condition and trend in plant communities that provide wildlife habitat, recreation, forage, scientific, scenic, ecological, and water and soil conservation benefits for consumptive and non-consumptive uses. | Ongoing |
| 0070 | JMH CAP | The basin big sagebrush/lemon scurfpea community could be adversely affected by surface disturbing activities. Providing protection for this unique vegetation association, which stabilizes the sandy soils and provides habitat and forage for wildlife, will ensure this plant community remains healthy and productive. Measures to protect this plant community include avoidance of these areas, intensive mitigation measures, and reclamation of any disturbed area. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0071 | JMH CAP | Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species. Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities. | Ongoing |
| 0072 | JMH CAP | All vegetation manipulation projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed. | Ongoing |
| 0073 | JMH CAP | While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area. | Ongoing |
| 0074 | JMH CAP | The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. | Ongoing |
| 0075 | JMH CAP | Noncommercial forest lands (woodlands) will be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses. | Ongoing |
| 0076 | JMH CAP | Silvicultural treatments in mature timber stands will be designed to improve wildlife habitat and watershed condition, i.e., create small openings to provide forage for wildlife and accumulate snow drifts to increase moisture. | Ongoing |
| 0077 | JMH CAP | The objectives for watershed/soils management are to: 1) stabilize and conserve soils; 2) increase vegetative production; 3) maintain or improve surface and groundwater quality; and 4) protect, maintain, or improve wetlands, floodplains, and riparian areas. | Ongoing |
| 0078 | JMH CAP | Areas with highly erodible soils will be avoidance areas for all surface disturbing activities. Activities could be allowed if a site-specific analysis determines that no adverse impacts will occur to areas with highly erodible soils and a plan to mitigate those impacts is approved. When applicable, erosion control plans will be required as part of surface disturbing project proposals. | Ongoing |
| 0079 | JMH CAP | Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0080 | JMH CAP | The JMH CAP Planning Area will be managed to maintain, improve, or enhance the biological diversity of wildlife species while ensuring healthy ecosystems and to restore disturbed or altered habitat. Objectives include attaining desired native plant communities while providing for wildlife needs and soil stability and, to the extent possible, providing suitable wildlife habitat and forage to support the WGFD strategic plan population objectives. | Ongoing |
| 0081 | JMH CAP | The objectives for management of wildlife and fish habitat are to: 1) maintain, improve, or enhance the biological diversity of plant and wildlife species while ensuring healthy ecosystems; and 2) restore disturbed or altered habitat with the objective to attain desired native plant communities, while providing for wildlife needs and soil stability. | Ongoing |
| 0083 | JMH CAP | The objectives for management of wetlands/riparian areas are to: 1) achieve a healthy and productive condition for long-term benefits and values in concert with range, watershed, and wildlife needs; and 2) enhance or maintain riparian habitats by managing for deep-rooted native herbaceous or woody vegetation. | Ongoing |
| 0084 | JMH CAP | The lease stipulations will notify the leaseholder that development activities may be limited, prohibited, or implemented with mitigation measures to protect specific resources. The stipulations will allow the leaseholder's development activities while providing BLM with the authority for substantial delay or site changes or the denial of operations with the terms of the lease contract. The types of lease stipulations include CSU through limitation on the amount and type of surface disturbance, CSU through avoidance of other resources, timing limitations (TL) on development activity, and NSO. Standard lease terms and conditions may also apply. | Ongoing |
| 0085 | JMH CAP | Surface disturbing exploration activities of five acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than five acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain federally proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0086 | JMH CAP | *Greater Sage-Grouse nesting habitat will be open to mineral material disposals only if related disturbance and reclamation can occur during one field season (August 1 to November 15) and the site could be returned (through reclamation efforts) to a condition usable by Greater Sage-Grouse prior to the next strutting season.* Nesting habitat reclamation would require stockpiling and redistribution of top soil and planting of containerized stock (sagebrush, grass, forbs) of sufficient size and density to meet the nesting requirements of the birds (see Table 2.18). | Ongoing |
| 0087 | JMH CAP | Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources. | Ongoing |
| 0088 | JMH CAP | The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats. | Ongoing |
| 0089 | JMH CAP | Most of the Planning Area is open to consideration of mineral material sales and activity except for areas where such activity would cause unacceptable impacts.<br><br>As sale areas, community pits, and localized common use areas become established to provide for sales of mineral materials, such as moss rock and sand, their use and management will be in conformance with other resource objectives.<br><br>Establishment of mineral material sites will be evaluated on a case-by-case basis.<br><br>No topsoil sale areas will be established. | Ongoing |
| 0090 | JMH CAP | Undeveloped recreation sites and other recreation use areas will be managed with priority consideration for air quality, cultural resources, watershed protection, wildlife values, and public health and safety. | Ongoing |
| 0091 | JMH CAP | The transportation plan also applies to the transport of gas, condensate, or water via pipelines and electric power transmission (buried power lines) within the Planning Area. Pipelines and buried power lines generally will be located adjacent to roads to reduce new surface disturbance. | Ongoing |
| 0092 | JMH CAP | No BLM-administered public lands within the Planning Area are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources. | Ongoing |
| 0093 | JMH CAP | Vehicular travel is restricted to designated roads in sensitive watersheds and in cultural site management areas. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0094 | JMH CAP | For oil and gas projects, mitigation actions could include surface disturbance conditional requirements; transportation planning before initiating any activity with the objective of managing travel in areas of crucial access; remote control and monitoring of fluid mineral production facilities to limit travel; multiple-well pads to limit surface disturbances; limiting the number of pads per section in sensitive areas; use of directional drilling to minimize disturbance of sensitive areas; clustering or centrally locating ancillary facilities; shrub reclamation (e.g., containerized stock and transplanting) to restore, rehabilitate, or replace habitat; application of geotechnical material for construction; and potential unitization prior to exploration and development. | Ongoing |
| 0095 | JMH CAP | Rights-of-Way: In the basin big sagebrush/lemon scurfpea plant community area, future linear projects and the associated surface disturbance will be analyzed and, if found to be necessary and acceptable, will to the extent practicable follow an existing right-of-way and keep disturbance to a minimum. Appropriate mitigation will be applied. Paralleling, consolidation, or rerouting may be necessary to minimize cumulative surface disturbance and to meet transportation planning objectives. | Ongoing |
| 0096 | JMH CAP | Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |
| 0097 | JMH CAP | Any proposed activity or use that involves surface disturbance will require appropriate engineering design, geotechnical analysis, mitigation planning, etc. | Ongoing |
| 0098 | JMH CAP | Surface water, soils, and shallow aquifers will be protected from contamination by practices such as closed drilling systems or installation of pit liners. Pit liners will be removed prior to reserve pit reclamation. | Ongoing |
| 0099 | JMH CAP | Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |
| 0100 | JMH CAP | For oil and gas projects, mitigation actions could include conditional requirements for surface disturbance; transportation planning before initiating any activity with the objective of managing travel in areas of crucial access; remote control and monitoring of fluid mineral production facilities to limit travel; multiple-well pads to limit surface disturbances; limiting the number of pads per section in sensitive areas; use of directional drilling to minimize disturbance of sensitive areas; clustering or centrally locating ancillary facilities; shrub reclamation (e.g., containerized stock and transplanting) to restore, rehabilitate, or replace habitat; application of geotechnical material for construction; and potential unitization prior to exploration and development. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0101 | JMH CAP | Summary of Actions Unique to the Portion of the ACEC that is not visible from the Historic Trails: About 20,000 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails and provided that environmental analysis indicates that the visual integrity of the area can be maintained. The portion of the ACEC shielded by topography and not visible from the trail is open to consideration of mineral material sales provided that effects to visual, cultural, and other sensitive resource values can be mitigated. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities. Rights-of-way applications will be examined for necessity. Paralleling, consolidation, or rerouting may be necessary to minimize cumulative surface disturbance and to meet transportation planning objectives. | Ongoing |
| 0102 | JMH CAP | Some maintenance and construction of facilities may become necessary to meet the ACEC objectives, including providing material for roads in conformance with the transportation plan and watershed stabilization. | Ongoing |
| 0103 | JMH CAP | *Heritage resource inventories in this area will be required, including analysis of subsurface deposits to ascertain whether they include important archaeological materials.*<br><br>Site locations will be kept confidential, and surface disturbance will be limited in the vicinity.<br><br>*Subsurface inventory will be required by remote sensing techniques, hand-dug test excavations, or mechanical testing prior to issuing any surface disturbing authorizations in the West Sand Dunes Archaeological District.* The testing strategy should be appropriate to meet the goal of finding buried paleosols and evaluating their potential association with archaeological materials. | Ongoing |
| 0104 | JMH CAP | For oil and gas projects, mitigation actions could include conditional requirements for surface disturbance . See the Heritage/Cultural discussion in this section. | Ongoing |
| 0105 | JMH CAP | The management objective for the Red Desert Watershed Area is to manage for all resource values in the Red Desert area with emphasis on protection of visual resources, watershed values, and wildlife resources and to provide large areas of unobstructed views for enjoyment of scenic qualities. | Ongoing |
| 0106 | JMH CAP | The preferred route for rights-of-way in the management area is the east-west window described in the Lands and Realty Management section. Other areas will be considered if in conformance with wildlife, watershed, cultural, and scenic resource management objectives. Overhead powerlines are prohibited in the area. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0107 | JMH CAP | The Steamboat Mountain Management Area (88,290 acres of BLM-administered public lands) is a geographic area which includes the Steamboat Mountain ACEC including the Steamboat Mountain ACEC expansion, and additional area containing other important Native American cultural values, Indian Gap, important watershed values, unique wildlife habitat features, and crucial and overlapping big game habitat. Specific management prescriptions for the Steamboat Mountain ACEC may be found in that section of this document. | Ongoing |
| 0108 | JMH CAP | Some maintenance and construction of facilities may become necessary to meet the management area objectives, including providing material for roads in conformance with the transportation plan, and for watershed stabilization. | Ongoing |
| 0109 | JMH CAP | Rights-of-way applications will be examined for necessity. Paralleling, consolidation, or rerouting may be necessary to minimize cumulative surface disturbance and to meet transportation planning objectives. | Ongoing |

## 3.1.3. Water Resources

Water is a resource that affects and is affected by many other resources and activities. Relating all of these resource relationships creates a very complex web of interactions. In order to improve the readability and understanding of these interactions, the general categories have been summarized in the paragraphs below. Those activities that have a more direct influence on water quality have been expanded into table format.

Many of the interrelations with other BLM improved activities may be summarized as follows. Actions that could potentially affect the location and extent of surface disturbance, vegetation distribution and or health, or create direct discharge into surface or ground water could have a potential direct or indirect affect on water resources quality and/or quantity. This includes visual designations, realty actions, and areas protected for various reasons, as they could affect the extent and location of surface disturbing activities within the areas themselves and in their vicinity. In many cases, the extent of the potential effect would be both difficult and impractical to quantify but would be part of the cumulative impacts on the water resource associated with multiple use of the public lands.

Summary of resource decisions that have the potential to affect water resources:

## Air Quality

Provided that there is no diversion of pollutants from air to water, efforts to improve air quality generally have a positive effect on water quality. Air quality can affect water quality through deposition of particulate matter. This is often more pronounced in areas of soils with low buffering capacity (mainly granite based soils in the higher mountains).

## Cultural and Paleontological

Cultural and Paleontological areas of protection generally reduce the amount of surface disturbance and thus assist in protection of the soil sponge. This frequently results in positive impacts to water quality and quantity. Areas of Cultural and Paleontological protection can result in diversion of roads or other disturbances to areas outside of the Cultural and Paleontological resource area. The affect that this has on water resources varies with individual sites. Excavation of Cultural and Paleontological resources creates small areas of intense disturbance that may or may not be significant depending on the location.

## Fire

Fire can create short term disturbances that negatively affect water quality. With improvement in the density, diversity, and resiliency of the vegetation community that can follow a fire, long term positive effects to water quality and quantity often come from fire. The methods of control and reclamation may have positive or negative effects on both long and short term effects to the vegetative community and thus water quality and quantity. The existing guidelines are designed to reduce negative impacts.

## Forest and Woodland Management

Activities that reduce disturbance and improve vegetative health within the forested area have a positive effect on water quality and quantity through maintenance and improvement of vegetative cover. The location of harvest related disturbances in relation to drainage features and the rate of recovery all can influence water quality, quantity, and timing. The protection of riparian areas, through buffers and not harvesting cottonwoods, has a direct influence on the soil sponge as well as water quality, quantity and timing.

## Hazardous Materials

Hazardous materials have a greater potential influence on surface and ground water quality. Water levels may be influenced, in the long term, if the hazardous material in question affects vegetation which could affect water retention. Proper handling and use, well protection, and buffering riparian areas provide the greatest protections.

## Lands and Realty

Lands and realty actions do not directly affect water quality or quantity but they do have a significant effect on the extent, location, and timing of disturbances to soils and vegetation, which can affect the water and riparian resources.

## Livestock Management

Most every aspect of livestock grazing can affect water through surface disturbance or vegetation management. Most grazing influences are related to surface water but groundwater developments can affect both surface and ground water quality and quantity. Riparian resources are key aspects

of water management and are highly affected by livestock management from vegetation removal and surface runoff.

**Mineral Exploration and Development**

Most every aspect of mineral (fluid, solid, locatable, etc.) exploration and development can affect the water resource directly or indirectly, through surface disturbance, reclamation, hazardous material releases, geological disturbances, and transportation. Existing regulations are designed to minimize these negative effects.

**OHV Management**

OHV management is designed to reduce surface disturbance, resulting positive effects to water quality.

**Recreation**

Recreation management is designed to reduce surface disturbance, resulting positive effects to water quality.

**Vegetation Management**

All vegetation management actions have the potential affect water quality and quantity to one degree or another. The general purpose of vegetation management is to improve vegetation cover and diversity, which has a positive effect on water quality and quantity.

**Riparian Vegetation Management**

All riparian vegetation management decisions affect water quality. The general purpose of riparian vegetation management is to improve vegetation cover and diversity, which has a positive effect on water quality and quantity.

**Visual Resource Management**

Visual resource management does not directly affect the water resource but it may affect the amount and placement of surface disturbances. Avoiding ridge tops and other visually prominent locations may or may not result in placement of approved disturbances closer to drainages resulting in increased negative impacts. Reduction of total disturbance frequently has positive impacts to, vegetation, soil, and water resources.

**Wild Horse Management**

Wild horse management is similar to livestock grazing in terms of surface disturbance, vegetation management, and impacts to water resources.

**Areas of special designations Management Areas, WSA's, ACEC's, etc.**

Areas with special designations, such as management areas, WSA, ACEC, etc., frequently result in reduced surface disturbances and thus have a positive impact on water resources. ACECs have the potential to include stipulations that allow for additional disturbances, depending on the concerns being addressed. In such cases, the impacts to water quality, quantity, and timing would be addressed at the level of the ACEC.

## Wildlife

Activities associated with wildlife frequently result in reduced surface disturbances and thus have a positive impact on water resources. Over-utilization of the environment by wildlife populations may result in negative impacts to water quality.

### Table 3.4. Current Management Decisions for Water Resources

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0110 | RMP | **Riparian habitat will be maintained, improved, or restored to provide wildlife and fish habitat, improve water quality, and enhance forage conditions. Where possible, acquisition of additional riparian area acreage will be pursued to enhance riparian area management**. | Ongoing |
| 0111 | RMP | **The minimum management goal for riparian areas is to achieve proper functioning condition. This is considered the first priority for vegetation management. Desired plant communities must meet the criteria for proper functioning condition.** | Ongoing |
| 0112 | RMP | **Desired plant community objectives for upland and riparian areas will be established for the Planning Area through individual site specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans will incorporate desired plant community objectives.** Native plant communities are the preferred species identified when establishing desired plant community objectives (EO-11098, BLM Manual 1745) (see Riparian Vegetation Guidelines for additional guidance). | Ongoing |
| 0113 | RMP | The Green River Resource Area uses BLM Technical References on Proper Functioning Condition TR 1737-15* and TR 1737-16* to guide the effort in classifying or rating all lotic (moving water) and lentic (still water) riparian areas.<br><br>(* Commentary: The original references were to Technical References 1737-9 and 1737-11. These references have been updated to 1737-15 and 1737-16 respectively). | Ongoing |
| 0114 | RMP | Site specific activity and implementation plans will be used to identify methods to achieve or maintain proper functioning condition in riparian areas. | Ongoing |
| 0115 | RMP | **Management in the Planning Area will emphasize:**<br><br>**-reduction of sediment, phosphate, and salinity load in drainages where possible.** Measures will be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations will also be applied, as necessary (Wyoming 1989); **-maintaining and improving drainage channel stability; and restoring damaged wetland areas.**<br><br>Exclosures will be designed to allow ample water for livestock and allow minimum impediments to big game migration. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0116 | RMP | **Activity and implementation plans will be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River**. | Ongoing |
| 0117 | RMP | BLM will participate with federal and local government agencies and the Colorado River Salinity Control Forum to develop and implement salinity control plans. | Ongoing |
| 0118 | RMP | BLM will participate with federal and local government agencies to develop and implement phosphate reduction plans in tributaries to Fontenelle Reservoir and Flaming Gorge Reservoir. | Ongoing |
| 0119 | RMP | **Wetlands and floodplains within the Planning Area will be managed in accordance with Executive Orders 11988 and 11990.** | Ongoing |
| 0120 | RMP | **The 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g., storage tanks, structure pits, etc.). Proposals for linear crossings in these areas will be considered on a case-by-case basis.** | Ongoing |
| 0121 | RMP | **Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, powerlines, roads, recreation sites, fences, wells, etc.) that could adversely affect water quality, and wetland and riparian habitat, will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages**. **Proposals for linear crossings in these areas will be considered on a case-by-case basis**. Activities could be allowed if a site specific analysis determines that no adverse impacts will occur to floodplains, wetlands, perennial streams, or water quality, and a plan to mitigate impacts to water quality is approved. | Ongoing |
| 0122 | RMP | **Activities within the water recharge area for the Town of Superior water supply will be designed to protect groundwater quality and will be allowed only if groundwater quality will be protected.** | Ongoing |
| 0123 | RMP | **BLM will cooperate with the State of Wyoming on the Wyoming State 208 water quality plan, and will coordinate the development of water quality plans consistent with BLM programs and RMP recommendations and decisions.** | Ongoing |
| 0124 | RMP | Water quality will be monitored as needed to determine pollution and land health conditions. | Ongoing |
| 0125 | RMP | Legal protection of those water uses, both consumptive and nonconsumptive (including instream uses), that are necessary for the accomplishment of BLM programs will be obtained, so that the beneficial uses may be continued or made possible in the future. | Ongoing |

# 3.1.4. Vegetative Communities

## 3.1.4.1. Riparian

### Table 3.5. Current Management Decisions for Vegetative Communities– Riparian Management

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0126 | GRRMP | *Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Green River Resource Area* (see Glossary). *Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition.* | Ongoing |

## 3.1.4.2. Forestry and Woodlands

### Table 3.6. Current Management Decisions for Forests, Woodlands, and Forest Products Management Decisions

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0127 | GRRMP | **The Planning Area is divided into 4 timber compartments for timber management: Wind River Front, Pine Mountain, Little Mountain, and Hickey Mountain-Table Mountain**. | Ongoing |
| 0128 | GRRMP | **Hickey Mountain-Table Mountain will be managed as described in the woodland prescriptions.** | Ongoing |
| 0129 | GRRMP | **The Wind River Front is a restricted forest management area where forest resources will be managed for commercial forest values, to improve the health, vigor, and diversity of forest stands, and still give full consideration to other resource values such as watershed, wildlife, minerals, recreation, and scenic values.** | Ongoing |
| 0130 | GRRMP | **Where possible, and within RMP objectives, timber compartments (commercial and woodland forest lands) will be managed to meet the local demand for minor forest products (e.g., fuelwood, posts and poles, wildlings, and Christmas trees).** | Ongoing |
| 0131 | GRRMP | **The major consideration for timber harvesting in the Wind River Front is to improve the condition of the forest stand with emphasis on meeting wildlife habitat needs. The major consideration for harvesting in other areas is to provide watershed stability and habitat for wildlife needs.** Soil, watershed, and wildlife cover are important considerations. Timber stand conditions and management considerations will dictate harvest methods and size and shape of units. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0132 | GRRMP | Cutting methods include, but are not limited to, clearcutting, individual tree marking, shelter wood, thinning, and group selection. Individual clearcut units will not exceed 25 acres in size unless a site specific analysis indicates RMP resource objectives will be met with a larger clearcut unit size. All clearcut design and planning will consider other resource values such as escape cover for wildlife. Clearcut unit size and shape will be designed to maximize natural regeneration and edge effect for wildlife. | Ongoing |
| 0133 | GRRMP | **Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values will not be adversely affected.** | Ongoing |
| 0134 | GRRMP | **Timber harvesting activities will be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse (sage, sharptail, etc.) strutting and nesting, and raptor nesting activity.** | Ongoing |
| 0135 | GRRMP | **Timber harvest activities will be designed to protect water quality.** | Ongoing |
| 0136 | GRRMP | Logging operations on slopes steeper than 45 percent will be limited to technologically, environmentally, and economically acceptable methods such as cable yarding and/or horse skidding. | Ongoing |
| 0137 | GRRMP | Slash disposal will be tailored to the individual harvest unit to promote reforestation, minimize erosion, and allow big game movement. Methods could include broadcast burning, piling and burning, lopping and scattering, chipping, and roller chopping. | Ongoing |
| 0138 | GRRMP | Stand replacement of harvested areas or areas denuded by natural causes will be revegetated with tree seedlings within 5 to 15 years (fully stocked). | Ongoing |
| 0139 | GRRMP | **Cottonwood trees are not available for any harvesting.** | Ongoing |
| 0140 | GRRMP | **Firewood cutting for camping purposes will be limited to designated areas** (this mainly applies to the area around developed recreation sites). | Ongoing |

## 3.1.4.3. Rangelands (Uplands)

### Table 3.7. Current Management Decisions for Vegetative Communities– Grasslands and Shrublands Management

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0141 | GRRMP | Prescribed burns may be conducted in crucial big game winter ranges if habitat values will be improved for these species. Prescribed fire is the preferred method of vegetation manipulation, and spring burns are preferred to regenerate shrubs. Chemical treatment will be used only where national guidelines can be exercised to prevent unwanted effects or harm to desirable fauna or flora and to prevent transportation of chemicals to other areas by water or air movement. | Ongoing |
| 0142 | GRRMP | Approximately 26,700 acres of vegetative treatment will be designed to increase forage, while about 41,000 acres will primarily be designed to improve wildlife habitat. Treatment methods available include mechanical, biological, chemical, and prescribed fire (see Appendix A). | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0143 | GRRMP | Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of two growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops. | Ongoing |
| 0144 | GRRMP | All vegetation manipulation projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed. | Ongoing |
| 0145 | GRRMP | Vegetation treatments will be designed to be compatible with special status plant species. For example, spraying, burning, mechanical disturbances, etc... will not be allowed to adversely affect these plant species. | Ongoing |
| 0146 | GRRMP | All vegetation treatments will be designed on a case-by-case basis and will be irregular in shape for edge effect, cover, and visual esthetics. | Ongoing |
| 0147 | GRRMP | *Vegetation treatment projects will be designed to protect water quality and dissipate erosion.* This generally means accomplishing vegetation treatments in a mosaic pattern and leaving sufficient untreated vegetation to buffer riparian areas and intermittent and ephemeral drainages from erosion. Specific treatment designs for erosion control will be determined on a case-by-case basis. | Ongoing |
| 0148 | GRRMP | Methods applied where grazing occurs include (but are not limited to) fencing, establishment of pastures and exclosures, off-site water development, off-site salt or mineral supplement placement, timing and seasons of use, establishment of allowable use levels for key riparian species, herding, grazing systems, etc. Methods applied where surface disturbing activities occur include (but are not limited to) distance restrictions, timing constraints, sediment containment and control design, and reclamation practices. | Ongoing |
| 0149 | GRRMP | While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area. | Ongoing |

# 3.1.5. Invasive Species and Pest Management

### Table 3.8. Current Management Decisions for Invasive Species and Pest Management

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0150 | JMH CAP | An invasive species is one that is nonnative to a particular ecosystem and its introduction is likely to cause harm to the economy, environment, or human health. Federal agencies are directed under Executive Order 13112 to expand and coordinate efforts to prevent the introduction and spread of invasive species. Preventing the introduction and proliferation of invasive species will be accomplished through close monitoring and containment of infestations and through implementation of best management practices for all surface disturbing activities. Public education regarding invasive species and the means to address them will also be promoted. | Ongoing |

# 3.1.6. Wildlife and Fisheries Habitat

## 3.1.6.1. Wildlife

### Table 3.9. Current Management Decisions for Wildlife

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0151 | GRRMP | Approximately 1,436 acres of commercial timber within big game winter ranges are closed to logging activity, usually from November 15 to April 30. If the logging unit encompasses big game parturition habitats, the area is closed to timber harvest activities usually from May 1 through June 30. There will be no logging activity within grouse nesting sites and raptor nesting sites usually from February 1 to July 31 (see Minerals Management). | |
| 0152 | GRRMP | Commercial conifer stands will be managed under the guidelines for suppression of wildfires. Aspen and juniper stands will be open to prescribed fire activities to enhance watershed and wildlife values.<br><br>Habitat fragmentation will be prevented if it has a negative ecological effect.<br><br>*Woodland forest acreage will be maintained. Treatments may be implemented that influence successional stages, but such treatments will not permanently convert the areas to another vegetation type.* Old aspen stands may be replaced by stands of sprouting aspen by various treatment methods (e.g., burning). Old decadent trees may be left standing or downed to provide cover or other habitat for wildlife (e.g., Animal Inn), and juniper stands may be replaced where they are encroaching into other vegetation types. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | *Silvicultural treatments in mature timber stands will be designed to improve wildlife habitat and watershed condition,* i.e., create small openings to provide forage for wildlife and accumulate snow drifts to increase moisture. | |
| 0153 | GRRMP | The authorized active livestock use and existing forage reservations for wildlife and wild horses will be maintained. Historic levels and types of rangeland monitoring will continue and additional levels and types of monitoring or evaluation may be initiated, as necessary, to determine any need for forage allocation adjustment.<br><br>*Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine if vegetation objectives will be met for all affected resource values and uses (livestock grazing, wild horses, wildlife, watershed, etc.).*<br><br>Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses.<br><br>Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions.<br><br>*Site specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities.* A site specific plan that considers wildlife needs will be developed for the Pine Canyon, Long Canyon, Cedar Canyon, and Table Mountain area to alleviate conflicts between oil and gas production and exploration, wildlife needs, and livestock grazing. | |
| 0154 | GRRMP | *The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats.* Such investigations, studies and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing or development proposals (e.g., mine plans) or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where existing raptor nests become abandoned or where new raptor nests become established, etc.), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc.), interested parties, and with industry will occur as needed or required. | |
| 0155 | GRRMP | *Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This will be accomplished through controlled timing and sequencing of Federal coal leasing and development in these areas.* For example: satisfactory abandonment and adequate reclamation of mined lands in big game crucial winter ranges and birthing areas will be required before additional Federal coal leasing and development is initiated in the same crucial winter ranges and birthing areas. | |
| 0156 | GRRMP | *The Greater Cooper Ridge and Elk Butte areas are open to further consideration for Federal coal leasing and development, pending further study* (about 25,368 acres). This study is for the purpose of defining the extent of any deer and antelope crucial winter range in the area, and for determining if certain methods of coal mining can occur in the area without having a significant long-term impact on the deer and antelope herds. | |
| 0157 | GRRMP | The following distances, and timeframes will be utilized in all resource management implementation actions (authorizations and projects) that involve activities that may impact sage-grouse or their habitats on BLM administered Public Lands in the field office. These distances and timeframes are based on current information, and may be subject to change in the future based upon new information.<br><br>**Sage-grouse leks:** 1) Avoid surface disturbance or occupancy within 1/4 mile of the perimeter of occupied sage-grouse leks. 2) Avoid human activity between 8 p.m. and 8 a.m. from March 1 — May 15 within 1/4 mile of the perimeter of occupied sage-grouse leks.<br><br>**Sage-grouse nesting/early brood-rearing habitat:** 3) Avoid surface disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitat within two miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitat outside the 2–mile buffer from March 15 — July 15.<br><br>**Sage-grouse winter habitat:** 4) Avoid disturbance and disruptive activities in sage-grouse winter habitat from November 15 — March 14.<br><br>5) Disruptive activities will include, but not be limited to, the following examples: resource surveys that require that personnel be in nesting habitats for longer than one hour (e.g., excavation of cultural sites, land surveys, project construction, geophysical activities, permitted or organized recreational activities, prescribed fires, noise, etc.). Field Offices should determine if these guidelines apply to future | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | maintenance and operation of facilities and clearly address maintenance and operation in their LUPs.<br><br>6) Exceptions to control surface use and timing restrictions will continue to be considered on a case-by-case basis. Exception criteria will be established and included in new LUPs and revisions.<br><br>7) The field office will continue to utilize the 2–mile radius circle as a flagging device for applying stipulations or COAs to all disturbance and disruptive activities, where appropriate. Not all sagebrush habitats within this 2–mile radius circle may be suitable as nesting habitat or other seasonal habitats for sage-grouse. Biologists and resource specialists should make management recommendations on sage-grouse habitat characteristics both inside and outside the 2–mile radius that involves these seasonal habitats. Upon identification and mapping of nesting habitat, the Field Office will apply appropriate stipulations or conditions of approval for these habitats beyond the 2–mile radius. Site specific evaluations will be conducted. The Field Office will strive to delineate these seasonal habitats regardless of distance from leks. Upon completion of site specific evaluations of projects affecting nesting and early brood-rearing habitats beyond 2 miles from leks, biologists and other resource specialists shall identify and recommend protective and conservation measures for sage-grouse populations and their habitat. These protective and conservation measures may include timing restrictions and reduction, relocation, or elimination of disturbances. These types of protective measures will also be considered for winter habitats.<br><br>8) Biologists and other resource specialists will also work with the project proponents (including those within BLM) to relocate site-specific activities that may be detrimental to leks, nesting/early brood-rearing and winter habitats. These activities should be located to less sensitive habitats wherever necessary and possible. It should be noted that in some circumstances a project may not be re-locatable due to the uniformity of the habitat. In these situations the project should be located in the least sensitive habitat as possible.<br><br>9) Other mitigation/conservation measures should be developed, if appropriate. This effort should be accomplished in conjunction with the WGFD. These measures should be developed to protect, conserve, improve, or mitigate impacts to productive sage-grouse habitat.<br><br>10) All recommendations/mitigation/conservation measures will be analyzed in a site-specific NEPA document, and be incorporated, as appropriate, into conditions of approval of the permit, plan of development, and/or other use authorizations including distances and | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | timeframes identified in item number 6 above for all resource authorizations and actions.<br><br>11) Rehabilitation of surface disturbance activities in nesting/early brood-rearing habitats and winter habitats will include sagebrush (including locally adapted species and subspecies) for rehabilitation activities. Field Offices will include a minimum of one to two species of appropriate forb species in seed mixtures for nesting and early brood rearing habitats<br><br>Connely et al. 2000 | |
| 0158 | GRRMP | *BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, grouse leks, cultural values, geologic features, and rights-of-way* (about 28,000 acres).<br><br>*These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats.* Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing and development proposals by the state or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc...), special interest groups, and with industry will occur as needed or required. | |
| 0159 | GRRMP | *Vehicular travel in crucial and important wildlife habitats and during crucial and important periods will be restricted seasonally, as necessary* (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.). | |
| 0160 | GRRMP | Dispersed camping is prohibited near water sources in designated areas where it is necessary to protect water quality and wildlife and livestock watering areas. Camping in other riparian areas is allowed within 200 feet of water. Areas will be closed to camping if resource damage occurs. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0161 | GRRMP | *The management objective emphasis for this unit of the SRMA is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources; and to provide protection to the Class I airshed in the Bridger Wilderness.*<br><br>*Major facilities (including linear facilities) are generally prohibited in this unit. Some facilities could be allowed if analysis indicates that the management objectives for the unit could be met*. For example, small and short-distance feeder lines (e.g., power, telephone, water) may be considered.<br><br>This unit of the SRMA is closed to mineral leasing.<br><br>Surface disturbing activities must conform to unit management objectives. | |
| 0162 | GRRMP | *Western Unit* (approximately 172,630 acres)<br><br>*The management objective emphasis for this unit of the SRMA is for dispersed recreation uses such as camping, hunting, and fishing, with full consideration given to wildlife, cultural, vegetation, watershed values, and mineral development activity.*<br><br>*This unit of the SRMA is open to mineral leasing.* Daily vehicle use and access may not be feasible for this entire area. Access, particularly proposed roads, may be limited and a road density analysis may be required. To prevent conflicts with recreation users, alternative access may be needed.<br><br>Surface disturbing activities in this unit will be limited through controlled surface use requirements or closing areas where maximum resource protection is necessary.<br><br>Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met. | |
| 0163 | GRRMP | *Restoring damaged wetland areas.* Exclosures will be designed to allow ample water for livestock and allow minimum impediments to big game migration. | |
| 0164 | GRRMP | *Specific habitat objectives for herd management areas will be developed.* Consideration will be given to desired plant communities, wildlife, watershed, livestock grazing, and other resource needs. | |
| 0165 | GRRMP | *To the extent possible, suitable wildlife habitat and forage will be provided to support the Wyoming Game and Fish Department 1989 Strategic Plan objectives. Changes within Wyoming Game and Fish Department planning objective levels will be considered based on habitat capability and availability and site specific analysis.* | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0166 | GRRMP | BLM will cooperate with the Wyoming Game and Fish Department (WGFD) in preparation of studies for the introduction and re-introduction of native and non-native wildlife and fish species. | |
| 0167 | GRRMP | *High value wildlife habitats will be maintained or improved by reducing habitat loss or alteration and by applying appropriate distance and seasonal restrictions and rehabilitation standards to all appropriate activities.* These habitats include crucial winter habitat, parturition areas, sensitive fisheries habitat, etc. | |
| 0168 | GRRMP | *Big game crucial winter ranges and parturition areas will be protected to ensure continued usability by limiting activities during critical seasons of use and by limiting the amount of habitat disturbed.* (See Glossary for surface disturbance factor for wildlife and surface disturbance activity.) | |
| 0169 | GRRMP | Grouse breeding and nesting areas will be protected. | |
| 0170 | GRRMP | Above ground facilities (power lines, storage tanks fences, etc.) are prohibited on or within 1/4 mile of grouse breeding grounds (leks). Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/4 mile of leks, in certain circumstances. | |
| 0171 | GRRMP<br><br>Plan Change No. 24-1<br><br>1/19/2005<br><br>WY-IM 2004-057 (Statewide standardization of Sage-Grouse Stips) | *To protect breeding grouse, disruptive activities will avoid occupied grouse leks from 8:00 p.m. to 8:00 a.m. daily. The actual area to be avoided and appropriate time frame (usually from March 1 through May 15) will be determined on a case-by-case basis* . The avoidance area size (usually within 1/4 to 1/2 mile of the lek) may vary depending on natural topographic barriers, terrain, line of sight distance, etc. | |
| 0172 | GRRMP<br><br>Plan Change No. 24-2<br><br>1/19/2005<br><br>WY-IM 2004-057 (Statewide standardization of Sage-Grouse Stips) | To protect grouse nesting habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 15 through July 15) will be determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria can be met. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0173 | GRRMP | *Active and historic raptor nesting sites will be protected and managed for continued nesting activities.* An active raptor nest is one that has been occupied within the past 3 years; an historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The appropriate level of protection will be determined on a case-by-case basis depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Different species of raptors may require different types of protective measures. | |
| 0174 | GRRMP | *Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than 1/2 mile) will be determined on a case-by-case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/2 mile of active raptor nests, in certain circumstances*. | |
| 0175 | GRRMP | Nesting raptors will be protected by restricting disruptive activities seasonally within 1/2 to 1 mile radius of occupied raptor nesting sites. | |
| 0176 | GRRMP | Raptor nest surveys will be conducted within a 1-mile radius, or linear distance of proposed surface uses or activities, if such activities are proposed to be conducted during raptor nesting seasons, usually between February 1 and July 31. | |
| 0177 | GRRMP | Livestock and wild horse water developments in crucial habitat could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial habitat. | |
| 0178 | GRRMP | Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use. | |
| 0179 | GRRMP | Seasonal restrictions for surface disturbing activities to protect game fish and special status fish populations during spawning will be applied as necessary. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0180 | GRRMP | The BLM will continue to coordinate and to annually review with APHIS - Wildlife Services (WS), their annual wildlife damage management plan for animal damage control activities on public lands. Areas where proposed animal damage control activities (all or specific methods) are not compatible with BLM planning and management prescriptions or objectives for other resource activities and users, will be identified on a case-by-case basis, and APHIS-WS will be requested to amend or adjust proposed animal damage control activities accordingly. | |
| 0181 | GRRMP | *Habitat management plans will be developed, where needed, particularly for highly developed and disturbed areas to mitigate wildlife habitat losses.* Plans could include habitat expansion efforts, Threatened and Endangered species reintroduction, and population goals and objectives. Such actions as preparing transportation plans and reclaiming roads, seeding, and vegetation enhancement (vegetation treatments, fencing), water developments, and reclamation actions to reduce the amount of disturbance, will be considered. Areas identified for consideration of such plans include but are not limited to the Little Colorado Desert (including the Fontenelle II and Blue Forest units), Nitchie Gulch, Wamsutter Arch, Patrick Draw, and Cedar Canyon areas. | |
| 0182 | GRRMP | Vegetation will be managed to provide habitat for wildlife. | |
| 0183 | GRRMP | Habitat for raptors will be maintained or enhanced. Cliffs, tree hollows, and pinnacles will be managed to provide nesting habitat. | |
| 0184 | GRRMP | Site specific analyses will be conducted to provide direction to alleviate conflicts between wildlife use, livestock grazing, and development activities. | |
| 0185 | GRRMP | *Motorized vehicle travel in the ACEC (including over-the-snow vehicles) is limited to designated roads and trails.* All off-road vehicle travel in the area is restricted during the winter and spring to protect wildlife during high stress periods of severely cold temperatures, heavy snow cover, and short food supply. | |
| 0186 | GRRMP | Wildlife waters will be developed and maintained as necessary. | |
| 0187 | GRRMP | *About 2,190 acres that are more than 1/2 mile from the rock art site (i.e., outside of the 360-acre vista area), are open to: 1) the location of mining claims; 2) mineral material sales; and 3) seismograph activity, including the use of explosives and blasting, provided the wildlife, cultural, and scenic values are protected. This area is also an avoidance area for surface disturbing activities. Constraints will be applied as appropriate to protect the wildlife, cultural, and scenic resource values.* Within this 2,190 acres, disturbed areas must be reclaimed to blend with the landscape. New rights-of-way will be required to follow existing roads and rights-of-way wherever feasible. Limited surface facilities for other surface disturbing activities could be considered if they meet the management objectives for the ACEC. | |
| 0188 | GRRMP | Management will include emphasis on maintaining or improving important wildlife habitat. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0189 | GRRMP | Camping is allowed within 200 feet of surface water if damage to watershed, water quality, and wildlife values can be avoided. Areas will be closed to camping if resource damage occurs. | |
| 0190 | GRRMP | The rim areas within the Currant Creek watershed (tops of the watershed ridges) with slopes of less than 25 percent could be considered for surface disturbing activities if environmental analysis demonstrates that watershed, fisheries, wildlife, and scenic objectives could be met. Within the Currant Creek watershed, slopes greater than 25 percent and areas in or within 500 feet of riparian areas and floodplains are closed to surface disturbance unless the action is designed specifically for the enhancement of watershed values and Colorado River cutthroat trout habitat. | |
| 0191 | GRRMP | *To support and improve the diversity of wildlife species within the area, wildlife habitat on the BLM-administered public lands will be protected, maintained, or enhanced. Crucial elk winter range in the area will be maintained as an essential component of the Steamboat Mountain-Sands elk habitat*. | |
| 0192 | GRRMP | Projects to improve the inter-dunal ponds for bird, amphibian, and mammal habitat will be considered and evaluated for development on the BLM-administered public lands. | |
| 0193 | GRRMP | Interpretive materials and educational programs may be developed to describe wildlife, cultural, and other values in the area. | |
| 0194 | GRRMP | *Native vegetation will be maintained and protected on the BLM-administered public lands to allow natural plant succession to continue.* Revegetation of disturbed areas with big sagebrush and other adaptable shrubs will be required to maintain and/or improve big game habitat. | |
| 0195 | GRRMP | The relatively pristine portion of the eastern area that has no developments (approximately 8,800 acres), including the base of Steamboat Rim, will be managed to protect big game habitat, vegetation communities, and visual and recreation resources. | |
| 0196 | GRRMP | Road construction and new access may not be feasible for much of the entire eastern portion portions of Steamboat Rim. To prevent conflicts with big game, recreation users, and other resource and land use activities, alternative access methods may be needed (use of existing or designated roads or pads, seasonal travel requirements or restrictions, use of helicopters, etc.). | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0197 | GRRMP | *Surface disturbing activities, geophysical activities, and oil and gas exploration and development activities are restricted seasonally on crucial big game winter ranges and big game birthing areas*. Exceptions to this restriction may be approved for activities such as oil and gas development, rights-of-way, construction, and range improvement development. Once an operation starts (such as oil and gas drilling/completion), it would be allowed to be completed into or through the winter. Decision points for shutdown due to unacceptable winter conditions occur between exploration or development stages, such as pad construction and drilling startup, and between drilling/completion and production facility installation. | |
| 0198 | GRRMP | *Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods*. | |
| 0199 | GRRMP | *The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of barriers to ensure protection to the area. Restrictions for raptors and big game parturition areas apply*. | |
| 0200 | GRRMP | *Leasing and development of federal coal in the area will be considered for subsurface mining methods only. Development or mine plans will be required to ensure adequate measures are taken to protect and maintain the elk herd and habitat. The location of surface facilities relating to subsurface mining will be considered on a case-by-case basis.* Approximately 9,810 acres of federal coal lands with development potential occur within the Steamboat Mountain ACEC. | |
| 0201 | GRRMP | Seasonal restrictions will be applied to land and resource uses as needed, to protect elk and deer during severe winter conditions and during birthing periods. | |
| 0202 | GRRMP | *The ACEC is an avoidance area for rights-of-way. Communication sites are prohibited in the ACEC.* Linear rights-of-way and geophysical activities are allowed if impacts to the elk and the unique habitats can be mitigated. | |
| 0203 | GRRMP | *Motorized vehicle travel is limited to designated roads and trails. Seasonal road and trail closures may be implemented as necessary to protect elk and deer during critical winter and birthing periods.* Transportation planning will be completed to identify the designated roads and trails. The May 10 - July 1 seasonal closure for vehicular travel in the area remains in effect to protect big game calving and fawning activity. | |
| 0204 | GRRMP | Any additional forage that becomes available in the ACEC will be allocated to wildlife use. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0205 | GRRMP | *Management of an area where crucial elk winter range and parturition area overlap will be addressed in the CAP for the Steamboat and Greater Sand Dunes areas. Progressive or sequential timing of development (disturbance of only one or two small areas at any given time) may be required. The vegetation and habitat management objectives described for the Steamboat ACEC will apply. These objectives are to: enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem; maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas; and provide suitable habitat to maintain the continued existence of the Steamboat elk herd and other big game populations This important habitat overlap area is within the elk herd unit (about 27,000 acres) but lies outside and adjacent to the ACEC.* | |
| 0206 | GRRMP | Since this highly sensitive area of big game use has a high development potential for oil and gas resources, some specific considerations for oil and gas development to be addressed in the CAP are identified here. Design transportation plans to minimize fragmentation of habitats by limiting roads, access, and use. Remote control operations may be needed to accomplish this. Centralizing locations for condensate may also be needed to limit trips into well locations, especially during parturition and crucial winter periods. To minimize effects to habitat, it may be necessary to place linear facilities above ground. | |
| 0207 | GRRMP | Vehicle use and access may not be feasible for much of the area. Access may be limited by low road densities, necessary to achieve area management objectives. To prevent conflicts with big game, recreation users, and other resources, alternative access methods may be needed (use of existing roads, pads, helicopters, etc.). | |
| 0208 | GRRMP | *Human activity, recreation use, etc., is restricted seasonally (usually from February 1 through July 31) to protect nesting raptors.* Exception from this restriction may be approved if conditions apply. | |
| 0209 | GRRMP | *Forested areas will be managed primarily toward meeting the watershed, riparian, wildlife, and recreation objectives for the area.* Timber harvest levels and logging practices will be designed to help meet those objectives. | |
| 0210 | GRRMP | *Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply*. Exceptions to these restrictions may be approved if conditions and criteria apply. | |
| 0211 | GRRMP | *Human activity, recreation use, etc. will be restricted seasonally (usually from February 1 through July 31), where needed to protect nesting raptors.* Exceptions to this restriction may be approved if conditions apply. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0212 | GRRMP | *Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than 1/2 mile) will be determined on a case-by-case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/2 mile of active raptor nests, in certain circumstances*. | |
| 0213 | GRRMP | *The preferred route for rights-of-way in the management area is the east-west window described in the Lands and Realty Management section. Other areas will be considered if in conformance with wildlife, watershed, cultural, and scenic resource management objectives. Overhead powerlines are prohibited in the area*. | |
| 0214 | GRRMP | Vegetation resources in the area will be managed for continued livestock grazing, and wild horse and wildlife uses in accordance with the management objectives for those resource values. | |
| 0215 | GRRMP | *Forested areas will be managed primarily toward meeting the watershed, riparian, wildlife, and recreation objectives for the area.* Timber harvest levels and logging practices will be designed to help meet those objectives. | |
| 0216 | GRRMP | Management of habitat or special status species, if identified, will be developed on a case-by-case basis. | |
| 0217 | GRRMP | The public lands are closed to surface disturbing activities such as construction of recreational developments (e.g., campgrounds, put-in or take-out areas, or other such facilities), wildlife habitat improvements, range improvements, rights-of-way, mineral development, etc. Hiking trails may be built, "by hand labor", if there is a demand for them and they conform with the management objective for these lands. | |
| 0218 | GRRMP | *The public lands are closed to most surface disturbing activities such as construction of rights-of-way, mineral development, most types of recreation site development, and wildlife habitat and range improvements.* Some recreation developments (such as put in or take out areas), and wildlife and range improvements may be allowed on the public lands so long as there is no substantial adverse effect to the natural-like appearance of the lands within the river corridor and their immediate environment. | |
| 0219 | JMH CAP | *An implementation, monitoring, and evaluation process, including an interdisciplinary monitoring plan, will evaluate the overall effectiveness of implementing the management decisions for the Planning Area and will be used as a basis for making management adjustments.* The implementation, monitoring, and evaluation process will apply to all land and resource programs in the Approved JMH CAP. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0220 | JMH CAP | Resource indicators, developed as part of the Planning Area management strategy of the implementation, monitoring, and evaluation process, will provide measurements of authorized activity effects on resource values. | |
| 0221 | JMH CAP | Three management areas defined by the relative resource value within the Planning Area. Area 1, Area 2, and Area 3 have been identified to guide management analysis and decisions. Identification of these areas combines many factors (e.g., wildlife usage, presence of crucial habitat, plant species distribution, historic or cultural importance, and general sensitivity to the impact of surface activities) into a single quantity. The area designations provide a general guide to reviewing proposed surface use activities in the Planning Area. For example, Area 3 has the highest relative ranking and so proposed surface use activities located here will be subject to the most stringent mitigation. | |
| 0222 | JMH CAP | Sensitive Resources<br>1. Integrity of the core area wildlife habitat<br>2. Key habitat (e.g., escape cover and birthing areas)<br>3. Connectivity area (migratory corridor)<br>4. Inaccessible areas (overlapping resource concerns, i.e., sensitive resources 1 to 8 above)<br>5. Special status plant and animal species' habitats | |
| 0223 | JMH CAP | Portions of crucial habitats and other areas of sensitive or important resources will be open to further consideration for various multiple-use activities so long as 1) the activity is beneficial to the resource, or 2) crucial habitats and other sensitive or important resources will be protected from significant or irreversible adverse effects, and 3) the activity meets resource management objectives. Other portions are closed to some multiple-use activities. | |
| 0224 | JMH CAP | Surface Disturbance/Disruptive Activity Limitation Area<br>*NO SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES 2*<br>Raptor nest sites (active)<br>Other sensitive resource values<br>*SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS* Greater Sage-Grouse leks + ¼-mile buffer<br>Greater Sage-Grouse winter concentration area 3<br>Potential Greater Sage-Grouse nesting habitat 4<br>SEASONAL SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS<br>Elk crucial winter habitat November 15 – April 30 | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | Deer crucial winter habitat November 15 – April 30<br><br>Antelope crucial winter habitat November 15 – April 30<br><br>Elk birthing areas May 1 – June 30<br><br>Deer birthing areas May 1 – June 30<br><br>Raptor nest sites + ½- to 1-mile buffer February 1 – July 31<br><br>Greater Sage-Grouse leks + ¼-mile buffer March 1 – May 15<br><br>Greater Sage-Grouse winter concentration area 3 November 15 – March 14<br><br>Greater Sage-Grouse potential nesting habitat 4 March 15 – July 15<br><br>Mountain plover aggregation areas + ¼-mile buffer April 10 – July 10 | |
| 0225 | JMH CAP | Surface disturbing and disruptive activities will be subject to extensive review and mitigation that will allow appropriate levels of activity while meeting objectives and safeguarding sensitive resources in the following areas: portions of Steamboat Mountain ACEC, Greater Sand Dunes ACEC, the White Mountain and Split Rock areas, the core and connectivity areas, and other areas of sensitive resource values. Monitoring and evaluation will determine the effectiveness of the management prescriptions and mitigation measures. Adjustments can be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects. This determination will be based on the effects on elk and their movement patterns and use of habitat, other wildlife species and habitats, public health and safety, watershed condition, and other sensitive resources. | |
| 0226 | JMH CAP | Application of restrictions and mitigation measures will be accomplished through an implementation strategy that will include case-by-case review of all proposals including evaluation of the 12 sensitive resources. Management prescriptions and mitigation measures, including controlled location and timing of the various activities and related reclamation, may also be considered to meet area objectives. For example, satisfactory reclamation of surface disturbance may be required before additional surface disturbing activities are allowed in big game crucial ranges, migration routes, and birthing areas. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0227 | JMH CAP | The following general land and water resource management actions apply to this entire section of all land and water resources categories (i.e., fire management, livestock grazing management, vegetation management, water resources management, wild horses management, and wildlife habitat management). They are presented here rather than repeated in all the sections within the Land and Water Resources category to reduce duplication. | |
| 0228 | JMH CAP | Vegetation treatments will be used to abate, alter, or transform vegetation communities in an effort to achieve desired plant community (DPC) objectives, protect water quality, dissipate erosion, and conform to requirements to protect or enhance special status plant and/or wildlife species and associated habitats. | |
| 0229 | JMH CAP | Vegetative treatments will be designed on a case-by-case basis. Activities may include seeding, reseeding, fence construction, weed control, and enhancement of fish and wildlife habitat. Activities may also include manual or mechanical manipulation, chemical treatments, and prescribed burns. | |
| 0230 | JMH CAP | Where documented wildlife conflicts with fencing on public lands occur, fences will be modified, reconstructed, or, if necessary, removed. Herding control of livestock will be encouraged as an alternative to fencing. Fence construction will be in accordance with BLM design standards and located so as not to overly impede wildlife movement. Consideration will also be given to special status species and wild horse movement. | |
| 0231 | JMH CAP | Livestock water developments and range improvements will be considered to maintain or improve resource conditions, enhance livestock distribution, or both. Compatibility with special status plant species will be required. Water developments and/or range improvements proposed in sensitive areas will be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects will occur. | |
| 0232 | JMH CAP | Management of conifer and aspen communities will be designed to promote forest and woodland health. Old, decadent trees may be left standing or downed to provide cover or other habitat for wildlife. | |
| 0233 | JMH CAP | Water developments will be provided as needed to improve wild horse herd distribution and manage forage utilization. *Water developments within sensitive wildlife habitats will be considered only if wildlife habitat and resource conditions will be improved or maintained.* Compatibility with special status plant species will be required. | |
| 0234 | JMH CAP | Habitat management plans (HMP) will be prepared as needed to meet area management objectives. An HMP identifies management actions to be implemented to achieve specific objectives related to land use planning decisions. | |
| 0235 | JMH CAP | Wildlife water developments will be considered on a case-by-case basis to maintain or improve wildlife habitat and resource conditions. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0236 | JMH CAP | Crucial winter range or sensitive habitats (such as birthing areas, the connectivity area (migration corridor), nesting sites, Greater Sage-Grouse breeding habitats and winter concentration areas, and sensitive fisheries habitats) will be managed by maintaining habitat or reducing habitat loss or alteration, improving habitat where possible, and applying appropriate mitigation requirements (e.g., distance and seasonal limitations and rehabilitation) to all appropriate activities.<br><br>Exceptions can be provided on a case-by-case basis should exception criteria be met. | |
| 0237 | JMH CAP | Seasonal limitations for wildlife habitat will be applied as necessary to protect sensitive wildlife areas from development and/or disruptive activities during sensitive time periods in animals' life cycles, such as nesting, birthing, and wintering.<br><br>Wildlife seasonal stipulations will not close an area to development but will protect wildlife species if weather or other habitat needs dictate that it is necessary.<br><br>The BLM Authorized Officer may decide to grant, or not grant exceptions to seasonal limitations based on recommendations from the wildlife biologist, in coordination with the WGFD. | |
| 0238 | JMH CAP | In Greater Sage-Grouse habitats, surface disturbing maintenance and/or operational activities will require mitigation measures or development plans.<br><br>These mitigation measures and/or development plans will be based on local situations on a case-by-case basis. | |
| 0239 | JMH CAP | The management practices in Greater Sage-Grouse sensitive habitats will be designed to limit direct loss of habitat and prevent habitat degradation. Surface disturbing and disruptive activities will avoid these habitats.<br><br>*Measures will be taken to improve habitat character as needed in conformance with BLM Manual 6840 policy and, to the extent possible, with the Wyoming Greater Sage-Grouse Conservation Plan (WGSGCP).* See also the Surface Use Activities and Fluid Minerals Management sections of this document. | |
| 0240 | JMH CAP | Site-specific field reviews will be conducted, as needed, prior to approval of any surface disturbing or disruptive activities (including prior to issuing an oil and gas lease) in Greater Sage-Grouse breeding (leks, nesting, and early brood-rearing) and winter concentration areas. Activities in these habitats will be restricted or prohibited. New oil and gas leases that contain these habitats will be given a controlled surface use stipulation and timing limitations as appropriate.<br><br>See the Leasable Fluid Minerals Management section for related information on oil and gas lease stipulations and practices. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0241 | JMH CAP | Avoidance areas may vary depending on natural topographic barriers, terrain, type of activity, line-of-sight distance, vegetation structure and cover, habitat needs, and other such factors. Exceptions to avoidance areas and seasonal limitations could be provided on a case-by-case basis provided appropriate mitigation could be implemented and the exception criteria have been met.<br><br>The actual area to be avoided and appropriate time frames will be determined on a case-by-case basis dependent on applicable scientific research and site-specific analysis. | |
| 0242 | JMH CAP | Before surface disturbing or disruptive activities are approved, site-specific evaluations will be conducted for breeding habitat (leks, nesting, and early brood rearing) as expeditiously as possible after receiving a completed application/proposal for an activity.<br><br>Field searches conducted as part of these evaluations will determine if the site has the scientifically accepted habitat variables (i.e., vegetation composition, height, cover, etc.) necessary to support Greater Sage-Grouse breeding activities. These variables may change as new information becomes available. | |
| 0243 | JMH CAP | Surface occupancy (long-term or permanent above ground facilities) will be prohibited within ¼ mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated.<br><br>Distances will be subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis. | |
| 0244 | JMH CAP | Disruptive activities will also avoid occupied Greater Sage-Grouse leks during appropriate evening and early morning hours, 8 p.m. to 8 a.m. daily. The actual area to be avoided and appropriate time frame (typically March 1 to May 15) will be determined and applied on a case-by-case basis. | |
| 0245 | JMH CAP | No disruptive activities are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis.<br><br>In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality within the areas. | |
| 0246 | JMH CAP | *Disruptive activities will be prohibited in Greater Sage-Grouse winter concentration areas typically from November 15 to March 14.* These areas and/or dates are subject to change based on new data and scientific information. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0247 | JMH CAP | Disruptive activities will be prohibited in big game crucial winter range between November 15 and April 30. Seasonal limitations may be excepted, provided criteria can be met and appropriate mitigation can be implemented (as determined by BLM). Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | |
| 0248 | JMH CAP | Surface disturbing and disruptive activities are prohibited in big game birthing areas from May 1 to June 30. To meet management objectives, the amount of habitat disturbed in these areas will also be limited (see Sensitive Habitat discussion).<br><br>Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | |
| 0249 | JMH CAP | Surveys for black-footed ferrets will be completed according to current USFWS protocol within 1 year prior to conducting any surface disturbing or disruptive activities in all or portions of potential ferret habitat areas (prairie dog colonies 200 acres or greater in size) because of the close association of the two species<br><br>White-tailed prairie dog towns that have been block cleared by the USFWS may not require surveys. The USFWS has established survey protocols for the black-footed ferret (listed as endangered under the Endangered Species Act). At any time a ferret is found, all disruptive activities will be halted until protective measures developed with the USFWS are implemented. Surface disturbing activities can proceed provided the surveys' result indicates no presence of black-footed ferrets. | |
| 0250 | JMH CAP | BLM will cooperate with USFWS and WGFD on any black-footed ferret reintroduction within the JMH CAP Planning Area. | |
| 0251 | JMH CAP | Measures will be taken, as appropriate, to reduce potential raptor perches in and around prairie dog towns and colonies, such as constructing anti-perch devices on power poles. | |
| 0252 | JMH CAP | Mountain plover surveys will be required prior to authorizing any surface disturbing or disruptive activities in potential plover habitat. Surveys will be conducted within suitable mountain plover habitat by a qualified biologist using protocol determined by the Rock Springs BLM biologist. Active mountain plover nesting aggregation areas will be avoidance areas for surface disturbing and disruptive activities within ¼ mile of the area from April 10 to July 10. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0253 | JMH CAP | Traffic speeds on BLM roads during the brood-rearing period (June and July) will be limited within ¼ mile of nesting aggregation areas as necessary to avoid nesting birds. Exceptions or other mitigation measures could be applied on a case-by-case basis, as determined by BLM. Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | |
| 0254 | JMH CAP | Measures (e.g., avoidance, burying power lines, installation of anti-perch devices, and exclusion for artificial nest structures) will be taken to limit hunting perches or artificial nest sites for avian predators within ¼ mile of nesting aggregation areas. | |
| 0255 | JMH CAP | Seasonal limitations for surface disturbing activities to protect game and special status fish species during spawning will be applied. | |
| 0256 | JMH CAP | Active and historic raptor nesting sites will be protected and managed (e.g., through distance restrictions) for continued nesting activities. Different species of raptors may require different types of protective measures.<br><br>Permanent or high-profile structures (e.g., power lines or other structures that may negatively impact raptors) will be prohibited within a specified distance of active raptor nests. Distance will be determined on a case-by-case basis and will depend on the raptor species involved, natural topographic barriers, line-of-sight distances, and other such factors.<br><br>Temporary disturbances associated with placement of facilities such as pipelines and other actions such as seismic activities can be allowed within ½ to 1 mile of active raptor nests. | |
| 0257 | JMH CAP | Disruptive activities will be seasonally restricted within a ½- to 1-mile radius of occupied raptor nesting sites. Raptor nest surveys will be conducted within a 1-mile radius or linear distance of proposed surface uses or activities during raptor nesting season.<br><br>Seasonal limitations may be excepted, provided criteria can be met and appropriate mitigation can be implemented (as determined by BLM). Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | |
| 0258 | JMH CAP | Wildlife Services (APHIS-WS) and review its annual management plan for animal damage control activities on public lands. Proposed animal damage control activities not compatible with BLM planning and management prescriptions or *objectives for other resource activities and uses will be identified on a case by-case basis.*<br><br>BLM will determine appropriate planning strategies with input from APHIS-WS. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0259 | JMH CAP | *The JMH CAP Planning Area will be designated as a "restricted control area" for animal control in coordination with APHIS-WS.*<br><br>Restricted control areas are public land areas where animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives. Emphasis will be placed on non-lethal methods. Control techniques and methods will be discussed at the annual management meeting between BLM and APHIS-WS. | |
| 0260 | JMH CAP | BLM will cooperate with the WGFD in studies for the introduction and reintroduction of native and nonnative (game) wildlife and fish species. | |
| 0261 | JMH CAP | BLM will cooperate with the USFWS in studies for, and reintroduction of, special status species. | |
| 0262 | JMH CAP | GENERAL JMH CAP Planning Area<br><br>NO LEASE 3<br><br>*NO SURFACE OCCUPANCY* 5,6<br><br>*CONTROLLED SURFACE USE* 5,6<br><br>*SEASONAL LIMITATIONS* 5,6<br><br>JMH CAP CORE AREA<br><br>NO LEASE 3<br><br>*NO SURFACE OCCUPANCY* 5,6<br><br>*CONTROLLED SURFACE USE* 5,6<br><br>*SEASONAL LIMITATIONS* 5,6 | |
| 0263 | JMH CAP | The remainder of Area 3 is closed to oil and gas leasing (about 92,000 acres). This closure is established to meet the resource goals and objectives for the Planning Area. These objectives include providing adequate habitat as well as opportunity for the use of crucial winter range, calving/fawning areas, migration corridors, etc. and protection of sensitive resources and public health and safety.<br><br>Area 3 includes portions of the Steamboat Mountain ACEC, Greater Sand Dunes ACEC, White Mountain Petroglyphs ACEC, Oregon Buttes ACEC, South Pass Historic Landscape ACEC, the White Mountain and Split Rock areas, and the core and connectivity areas. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0264 | JMH CAP | An interdisciplinary BLM team, in coordination with the working group, stakeholders, and other members of the public, will evaluate monitoring data and determine changes in management. The lease stipulations may be adjusted or clarified based on these data.<br><br>Twelve basic sensitive resources and uses will be used to evaluate these lands and ensure that the appropriate mitigation is provided. These sensitive resources and uses may change or be added to in the future based on the implementation, monitoring, and evaluation strategy.<br><br>If an evaluation concludes that Planning Area management objectives are not being met, the analysis of actions will include application of strategies that ensure continuity between activities and the land use plan. Any changes to the lease stipulations identified in will be applied to new leases only. | |
| 0265 | JMH CAP | Monitoring of sensitive resource indicators will determine the effectiveness of lease stipulations and COAs and provide guidance for adopting new or modified stipulations, exception criteria, or COAs needed to meet resource objectives.<br><br>Indicators could include, but are not limited to, wildlife population trends, reproduction rates, observed ranges, and habitat integrity. Development levels may be adjusted or new stipulations may be applied to new leases when offered. COAs may be applied to proposed activities as appropriate and necessary to protect resource values.<br><br>Adjustments could be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects.<br><br>Proposed changes will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) in accordance with law and policy. Changes will be based on several factors including the following:<br><br>● Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts from other causes such as disease, drought, hunting pressure, introduction of nonnative species, and recreation activities.<br><br>● Fragmentation of habitat and migration pathways due to development activities.<br><br>● Net amount of surface disturbance, including approved development activities that will be implemented in nearby areas and planned reclamation of existing surface disturbances. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0266 | JMH CAP | Raptor nest sites (active)<br><br>Greater Sage-Grouse leks + ¼-mile buffer | |
| 0267 | JMH CAP | Lands within the Coal Occurrence and Development Potential Area have been identified as having a known or assumed potential for coal development. These lands were reviewed against 20 criteria to determine whether they were suitable for development (43 CFR 3461). These criteria considered existing resource values, such as heritage resources, scenic values, wildlife, threatened and endangered species, natural landmarks, and watersheds. The coal planning decisions made in the Green River RMP apply. | |
| 0268 | JMH CAP | Open to Federal Coal Leasing Consideration for subsurface mining with controls on surface activities and facilities.<br><br>Raptor nest sites + ½- to 1-mile buffer | |
| 0269 | JMH CAP | Important geological, ecological, and historic resources will be open to consideration for coal leasing and development by subsurface mining methods only. Areas acceptable for coal leasing and development by subsurface mining methods only with no surface operations include Boars Tusk and Crookston Ranch. Areas acceptable for coal development by subsurface mining methods only and controls on placement of surface facilities include Steamboat Mountain ACEC, the eastern part of Greater Sand Dunes ACEC, Tri-Territory Marker, and raptor nest sites with a ½- to 1-mile buffer. The portions of the Steamboat Mountain Management area within the Coal Occurrence and Development Potential Area will also be acceptable for leasing and development by subsurface mining methods with appropriate mitigation to protect these resources (similar to CSU).<br><br>Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development and adequate crucial winter range and birthing area habitats. | |
| 0270 | JMH CAP | *Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the Steamboat Mountain ACEC, and the Pinnacles Geologic Feature.*<br><br>Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | |
| 0271 | JMH CAP | Elk birthing areas (northern) 5,228<br><br>withdrawn from non-metallic mineral location 345,740 | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0272 | JMH CAP | In conjunction with the overall transportation planning for JMH, travel management plans will be developed for the two northern calving areas and the Steamboat Mountain, White Mountain, and Essex Mountain areas to control access in these areas. | |
| 0273 | JMH CAP | Greater Sage-Grouse potential nesting habitat 1 Connectivity area | |
| 0274 | JMH CAP | *The extent of right-of-way exclusion and avoidance areas, based on the location of specific sensitive resources*. Development levels may be adjusted and/or additional mitigation may be applied to proposed activities as appropriate and necessary to protect resource values.<br><br>Adjustments could be made to ensure that additional rights-of-way will not cause fragmentation and abandonment of wildlife habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects.<br><br>Proposals will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) in accordance with law and policy. Changes will be based on consideration of several factors including:<br><br>● Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts on indicators from other causes such as disease, drought, or hunting.<br><br>● Fragmentation of habitat and migration pathways due to surface disturbance.<br><br>● Net amount of surface disturbance, including approved development activities or rights-of-way that will be implemented in nearby areas, and planned reclamation of existing surface disturbances.<br><br>● Amount and location of actual land use activity. | |
| 0275 | JMH CAP | LIMITED TO SEASONAL ACCESS 1<br><br>476,750<br><br>Elk crucial habitat<br><br>Deer crucial habitat<br><br>Antelope crucial habitat<br><br>Elk birthing areas<br><br>Mule deer birthing areas<br><br>Raptor nest sites + ½- to 1-mile buffer<br><br>Greater Sage-Grouse winter concentration area 2<br><br>Greater Sage-Grouse leks + ¼-mile buffer | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | Greater Sage-Grouse potential nesting habitat 3<br><br>Mountain plover aggregation areas + ¼-mile buffer<br><br>Steamboat Mountain | |
| 0276 | JMH CAP | Land withdrawals identified in the Green River RMP will be pursued. *New withdrawals in addition to those identified in the Green River RMP include the top of Steamboat Mountain, the Pinnacles Geologic Feature, and two northern elk calving areas.* | |
| 0277 | JMH CAP | Management Actions: Portions of crucial habitats and other areas of sensitive or important resources will be open to further consideration for various multiple use activities, so long as crucial habitats and other sensitive or important *resources will be protected from irreversible adverse effects and the objectives for the ACEC can be met. Portions of the ACEC will also be closed to some activities if they will result in irreversible adverse effects*. | |
| 0278 | JMH CAP | *Area 2 (about 8,630 acres) is open to leasing considering such factors as operational need, resource recovery, geology, and ability to mitigate impacts and with stipulations applied to protect sensitive resources in Area 2*. BLM may request potential lessees to share data (such as reservoir data or geologic data) or plans related to the development of the potential oil and gas resource prior to leasing; sharing of these data is voluntary. The information will be used to ensure that impacts resulting from development interest will remain within the acceptable level of impacts analyzed. | |
| 0279 | JMH CAP | Locatable Minerals: *Withdrawal from mineral location will be pursued for the northern elk calving areas in part of the South Pass Historic Landscape ACEC.* Withdrawal from mineral location will also be pursued on South Pass Summit as identified in the Green River RMP. | |
| 0280 | JMH CAP | *The area is not designated as an ACEC, but will be maintained as a geographic management unit.* The Steamboat Mountain Management Area (88,290 acres of BLM-administered public lands) is a geographic area which includes the Steamboat Mountain ACEC including the Steamboat Mountain ACEC expansion, and additional area containing other important Native American cultural values, Indian Gap, important watershed values, unique wildlife habitat features, and crucial and overlapping big game habitat. Specific management prescriptions for the Steamboat Mountain ACEC may be found in that section of this document. | |

## 3.1.6.2. Fisheries and Fish Habitat

### Table 3.10. Current Management Decisions for Fisheries

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0281 | GRRMP | *Acquisition of lands will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between parties involved.* Lands considered will include private/State lands along upper stream reaches of the Big Sandy River; State inholdings in WSAs; other lands with important resource values. Consideration will be given to exchanges for state lands in special management areas such as ACECs. In those instances where a purchase or exchange is not feasible, attempts will be made to enter into cooperative agreements to protect cultural/historical sites; threatened and endangered species habitat; and riparian habitat. Green River RMP describes proposed acquisitions (about 28,000 acres) that could be made by purchase/exchange or through cooperative agreement to support resource needs. | Ongoing |
| 0282 | GRRMP | *All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments.* AMPs will be written or modified for I category allotments. AMPs for M category allotments will not be modified unless monitoring and evaluation indicate a change in management is needed or riparian objectives need to be included. Riparian objectives will also be developed for C category allotments where riparian values exist. | Ongoing |
| 0283 | GRRMP | Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas. | Ongoing |
| 0284 | GRRMP | *Wetland and riparian areas on Federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements:* Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of ancillary facilities, roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required. | Ongoing |
| 0285 | GRRMP | *The area within 500 feet of riparian areas and floodplains is an avoidance area for recreation site facilities.* Exceptions may be considered following a site specific analysis. Adverse impacts to riparian areas and water quality is prohibited. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0286 | GRRMP | Management prescriptions for threatened and endangered species and proposed threatened and endangered species will be developed on a case-by-case basis in consultation with the U.S. Fish and Wildlife Service. | Ongoing |
| 0287 | GRRMP | *Land uses and surface disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to pre-disturbance conditions.* Practices to carry out these actions may include ensuring that construction of stream crossings occurs during normal stream flows, not during high or peak flows when additional sediment from construction could be swept in the stream; and ensuring water discharges meet appropriate standards. Streambank erosion and channel incision are of particular concern as either would result in unacceptable losses of riparian habitat. Accelerated surface erosion will impact riparian habitat adversely and reduce productivity in uplands. | Ongoing |
| 0288 | GRRMP | *Aquatic, wetland, and riparian habitat are not suitable for disposal unless opportunities exist for land exchange for lands of equal or better value* (including monetary value and functional resource values). BLM will consider acquiring additional lands along perennial waters and wetlands. Water rights for BLM water developments will be pursued as appropriate. | Ongoing |
| 0289 | GRRMP | *Management toward proper functioning condition or desired future condition of riparian areas will be implemented*. Executive Order 11990 for the protection of wetlands will apply. | Ongoing |
| 0290 | GRRMP | The area will be open to consideration for such activities as fencing, interpretive signs, construction and placement of transportation barriers, sediment or erosion control, and fish habitat structures to meet resource management objectives. | Ongoing |
| 0291 | GRRMP | *Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian)*. | Ongoing |
| 0292 | GRRMP | Any activity that could preclude the achievement of proper functioning condition of uplands and riparian areas and achievement of other management objectives is prohibited. | Ongoing |
| 0293 | GRRMP | *Forested areas will be managed primarily toward meeting the watershed, riparian, fisheries, and recreation objectives for the ACEC.* Timber harvest levels and logging practices will be designed to help meet those objectives. | Ongoing |
| 0294 | GRRMP | *Herbicide loading sites must be located at least 500 feet from surface water or at least 500 feet from riparian areas (whichever is greater)*. Herbicide treatment of noxious weeds on BLM-administered public lands requires a site specific analysis to help determine whether or not such action will be authorized. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0295 | GRRMP | *The Red Creek watershed will be managed to minimize accelerated erosion and increased sedimentation into the Green River/Colorado River system*. Activities such as the installation of structures designed to reduce sediment, siltation, or erosion; and the rerouting or maintenance of roads (including the instillation of culverts and similar structures), could be accomplished to meet the area objectives and provide needed or improved access. | Ongoing |
| 0296 | GRRMP | Activities that preclude the achievement or maintenance of proper functioning condition of uplands and riparian areas, and achievement of other management objectives are prohibited. | Ongoing |
| 0297 | GRRMP | *Herbicide loading sites must be located at least 500 feet from surface water or 500 feet from riparian areas (whichever is greater).* Herbicide treatment of noxious weeds on BLM-administered public lands will require a site specific analysis to help determine whether or not such actions will be authorized. | Ongoing |
| 0298 | JMH CAP | Riparian areas will be managed to attain and/or maintain a PFC minimum standard, which is the minimum acceptable level of ecological condition for riparian areas. The PFC for different types of riparian-wetland systems is fully defined in Technical Reference (TR) 1737-15, A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas, and TR 1737-16, A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas.<br><br>PFC can be summarized as the minimum acceptable level of ecological status where vegetation, landform, and/or woody debris create a level of inherent resiliency that allows the stream or wetland system to be protected from erosive forces, capture sediment, provide for infiltration, and create appropriate habitat. Riparian areas will be maintained, improved, or restored to enhance forage conditions, provide wildlife habitat, and improve stream and water quality. To achieve PFC, riparian areas will be managed to maintain dominance by species capable of stabilizing soils and stream banks. Riparian areas will be assessed as needed to determine existing condition and whether specific management actions are needed for improvement.<br><br>Site-specific activity and implementation plans will be prepared where needed to identify methods to achieve or maintain proper functioning condition as a minimum. Plans could include measures to reduce erosion and sediment yield, promote ground cover, and enhance water quality. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0299 | JMH CAP | Salt or nutritional supplements will be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources would not be adversely affected. These supplements also will be prohibited on areas inhabited by special status plant species.<br><br>*Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources will be encouraged to better distribute livestock.* | Ongoing |
| 0300 | JMH CAP | Riparian exclosures can be maintained and/or modified based on site-specific analysis. Where site-specific analysis determines they no longer serve their purpose, they can also be removed. New exclosures can be developed if they will benefit in meeting the management objectives. Riparian exclosures are used to protect degraded riparian areas from further impacts associated with livestock grazing and to ensure reclamation of vegetation communities and ecological processes.<br><br>Most of the exclosures in the Planning Area were created for mitigation for converting sheep grazing to cattle grazing. Exclosures will remain closed to livestock grazing, and AUMs in these exclosures are not available for livestock use. | Ongoing |
| 0301 | JMH CAP | Special status wildlife species are those species federally listed as threatened or endangered, proposed for listing, or candidates for listing under the Endangered Species Act of 1973 as amended. They also include species designated by each BLM State Director as sensitive and any species designated by a state agency in a category implying potential endangerment or extinction. BLM will consult or conference (for proposed species) with USFWS to determine whether its actions may affect any listed or proposed species and to document its determinations in a Biological Assessment as directed by the Endangered Species Act. Land use decisions will be implemented with appropriate conservation measures and/or reasonable and prudent alternatives to avoid jeopardizing any species, causing the need to list a species, or destroying or adversely modifying designated or proposed critical habitat.<br><br>Surveys or searches will be conducted in potential habitat for federally listed, proposed, candidate, and sensitive species before any surface is disturbed. At any time a listed, proposed, or candidate species is found, all disruptive activities will be halted until protective measures developed with the USFWS are implemented. BLM will take proactive measures to improve habitat character as needed in accordance with Section 7 of the Endangered Species Act and BLM Manual 6840 policy. | Ongoing |

# 3.1.7. Special Status Species

## 3.1.7.1. Special Status Species — Wildlife (Including SSS Fish)

### Table 3.11. Current Management for Special Status Species — Wildlife (Including Fish)

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0302 | GRRMP | The rim areas within the Currant Creek watershed (tops of the watershed ridges) with slopes of less than 25 percent could be considered for surface disturbing activities if environmental analysis demonstrates that watershed, fisheries, wildlife, and scenic objectives could be met. Within the Currant Creek watershed, slopes greater than 25 percent and areas in or within 500 feet of riparian areas and floodplains are closed to surface disturbance unless the action is designed specifically for the enhancement of watershed values and Colorado River cutthroat trout habitat. | |
| 0303 | JMH CAP | The Taylor Grazing Act of 1934 is the legislative authority providing for livestock grazing on and protection of public land. FLPMA and other acts direct the management of public land for multiple use and sustained yield. Rangeland management strategies will provide for the maintenance or restoration of watershed function, nutrient cycling and energy flow, water quality, habitat for special status species, and habitat quality for populations and communities of native plants and animals. These management strategies have been supported by development of the Wyoming Standards for Healthy Rangelands (USDI 1997a).<br><br>The development and application of these standards and guidelines are to achieve the four fundamentals of rangeland health outlined in the grazing regulations (43 CFR 4180.1). The four fundamentals are expressed as the following circumstances:<br><br>1. watersheds are functioning properly;<br>2. water, nutrients, and energy are cycling properly;<br>3. water quality meets state standards; and<br>4. habitat for special status species is protected. | |
| 0304 | JMH CAP | A lease stipulation is applied to all leases for protection of special status species and their habitats. | |

## 3.1.7.2. Special Status Species —Plants

### Table 3.12. Current Management for Special Status Species —Plants

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0305 | GRRMP | *Any management actions on potential habitat of special status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) will require searches for the plant species prior to project or activity implementation to determine the locations of special status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat.* Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants. | Ongoing |
| 0306 | GRRMP | *Known locations of special status plant species communities will be protected and closed to:*<br>1. surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat;<br>2. the location of new mining claims (withdrawal from mineral location and entry under the land laws will be pursued);<br>3. mineral material sales;<br>4. all off-road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and<br>5. the use of explosives and blasting. | Ongoing |
| 0307 | GRRMP | *Locations of special status plant species are open to consideration for mineral leasing with a no surface occupancy requirement.* | Ongoing |
| 0308 | GRRMP | On essential and important special status plant species habitat, all fire suppression activities are limited to existing roads and trails. A site specific analysis will be prepared for all fire management activities (e.g., prescribed fires, fire suppression) around special status plant species sites to determine the appropriate fire management response. | Ongoing |
| 0309 | GRRMP | Activities such as fencing, interpretive signs, or barriers to ensure protection to the special status plant species and their habitat will be considered on a case-by-case basis. | Ongoing |
| 0310 | GRRMP | *BLM will pursue acquisition of approximately 1,920 acres of additional Descurania torulosa habitat on Pine Butte.* | Ongoing |
| 0311 | GRRMP | *Should new special status plant species be identified, they will be managed under the same prescriptions described above for the known species.* This may result as new information about vegetation types and communities is acquired. | Ongoing |

| | | | |
|---|---|---|---|
| 0312 | GRRMP | *Known locations of special status species will be evaluated on a case-by-case basis to determine if they meet the relevance and importance criteria to be considered for ACEC designation.* If appropriate, such locations will be proposed for ACEC designation and the Green River RMP will be amended, as necessary (see the section on Special Designation Management Areas). | Ongoing |
| 0313 | GRRMP | See other resource management prescriptions in this document for other prescriptions and guidance that may apply to special status plant species management activities. | Ongoing |
| 0314 | JMH CAP | Special status plants are those species federally listed as threatened or endangered, proposed for listing, or candidates for listing under the Endangered Species Act. They also include species designated by each BLM State Director as sensitive and any species designated by a state agency in a category implying potential endangerment or extinction. The State of Wyoming does not have an official list of designated sensitive, threatened, or endangered plant species. Surveys will be conducted of potential habitat for federally listed, proposed, or candidate threatened and endangered plant species before any surface is disturbed. Should any such species be found, all disruptive activities will be halted until species-specific protective measures are developed and implemented. For listed species, protective measures will be coordinated with the USFWS. | Ongoing |
| 0315 | JMH CAP | Specific management actions related to known locations of special status species habitat include closing locations to surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat and closing locations of special status species to location of new mining claims, mineral material sales, OHV use including vehicles used for geophysical exploration activities and surveying, and use of explosives and blasting. Known locations of special status plant species will be open to consideration for fluid mineral leasing with a no surface occupancy stipulation. | Ongoing |
| 0316 | JMH CAP | Special status plant species potential habitat areas will be areas of controlled surface use (CSU) for surface disturbing activities related to oil and gas activities. Surface disturbing activities for other uses or projects may also be restricted or prohibited based on site-specific analysis. | Ongoing |
| 0317 | JMH CAP | Areas where Wyoming BLM sensitive plant species are known to exist and/or have potential habitat will be right-of-way avoidance areas. The Authorized Officer could grant exceptions if analysis shows that there is no adverse impact to the plant populations. | Ongoing |
| 0318 | JMH CAP | A site-specific analysis will be prepared for all fire management actions around special status plant species sites to determine the appropriate fire management response. Fire equipment and fire suppression techniques such as vegetation clearing will be limited to existing roads and trails in special status plant species habitat. | Ongoing |

| | | | |
|---|---|---|---|
| 0319 | JMH CAP | Surveys will be conducted of potential habitat for federally listed, proposed, or candidate threatened and endangered plant species before any surface is disturbed or water sources are depleted. If such a species is located, formal consultation with USFWS will occur. Management prescriptions to provide, maintain, or improve habitat will be developed on a case-by-case basis. | Ongoing |
| 0320 | JMH CAP | *Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain will be provided protection by controlling surface use or implementing other intense mitigation to preserve the character of vegetation communities.* Implementation of healthy rangeland standards will ensure the viability of vegetation resources. Water developments will be considered only if the resource conditions are maintained or improved. | Ongoing |
| 0321 | JMH CAP | Known locations of special status plant species would be open to consideration for mineral leasing with NSO stipulations *unless the special status plant species occur within Area 3 which is closed to future oil and gas leasing*. | Ongoing |

# 3.1.8. Wild Horse and Burro

### Table 3.13. Current Wild Horses Management Decisions

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0322 | GRRMP<br><br>Plan Change No. 23-1<br><br>10/29/99 | *Wild horses will be managed within five Wild Horse Herd Management Areas*. These are the White Mountain, Divide Basin, Adobe Town, Salt Wells, and Little Colorado Desert Wild Horse Herd Management Areas. | |
| 0323 | GRRMP | *An appropriate management level of 1,105 to 1,600 wild horses will be maintained among the five herd management areas*. | |
| 0324 | GRRMP<br><br>Plan Change No. 23-2<br><br>10/29/99 | *The Little Colorado Desert Wild Horse Herd Management Area is hereby established. An appropriate management level (AML) of 69 to 100 horses in the Little Colorado Desert is established.* The herd area, originally established in 1971, encompasses about 519,541 acres of BLM-administered public lands. The specific boundary and specific management prescriptions for this area will be identified in an activity plan. | |
| 0325 | GRRMP | *The site specific activity plans for the five wild horse herd management areas in the Planning Area will be maintained to conform with RMP objectives for vegetation management and implemented.* A monitoring program will be developed to provide information to support wild horse management decisions. | |
| 0326 | GRRMP | *Water developments will be provided if necessary, to improve herd distribution and manage forage utilization.* The feasibility of water development on the checkerboard land portion of the herd areas, to better distribute wild horses will be determined. Any water developments proposed in the Rock Springs Allotment would primarily enhance management of wild horses. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0327 | GRRMP | *Water developments on crucial winter ranges could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial winter range.* In JMH, water developments within sensitive wildlife habitats will be considered only if wildlife habitat and resource conditions will be improved or maintained. Compatibility with special status plant species will be required. | |
| 0328 | GRRMP | Wild horse herd management will be directed to ensure that adequate forage (about 17,400 AUMs) will be available to support appropriate management levels in the herd units and that herds maintain appropriate age, sex, and color ratios. | |
| 0329 | GRRMP | *Selective gathering programs will be implemented in each of the wild horse herd management areas. Gathering plans will be prepared for removal of excess horses from inside and outside the wild horse herd management areas.* Gathering cycles will vary by plan objectives, resource conditions, and needs. Fertility control will be initiated only if necessary. These actions will aid in stabilizing populations, managing for conditions and special characteristics, and supply an adoptable population (young horses). | |
| 0330 | GRRMP | Fencing in wild horse herd management areas will be restricted to those situations where multiple-use values will be enhanced. All fences will be constructed to minimize restriction of wild horse movement. | |
| 0331 | GRRMP | *Opportunity for public education and enjoyment of wild horse herds will be provided by placing interpretive signs, providing interpretive sites, and providing access to the herd areas.* Signs providing information on wild horses will be placed in strategic locations such as the rest area east of Rock Springs along Interstate 80, on the Bar X Road at the junction with I–80, and at the entrance to the Oregon Buttes and Continental Peak areas on Highway 28. See the Recreation and Visual Resource Management sections for direction on wild horse herd viewing areas. | |
| 0332 | GRRMP | Other resource uses will be maintained and protected consistent with those resource management objectives while maintaining viable, healthy wild horse herds and appropriate herd management levels. Wild horse herd management areas will be managed in a natural, healthy state and for an ecological balance among wild horses and land and resource uses. | |
| 0333 | GRRMP | Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0334 | GRRMP | Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement. | |
| 0335 | GRRMP | Requests for conversions of kinds of livestock and changes in seasons of grazing use will be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with wildlife, wild horse, watershed, and riparian objectives. Special status plant species and vegetation objectives must be considered before allowing livestock conversions, and all conversions will be consistent with available forage. | |
| 0336 | GRRMP | Maintain or enhance vegetation community health, composition, and diversity in order to meet watershed, wild horse, wildlife, and livestock grazing resource management objectives and provide for plant diversity (desired plant communities). | |
| 0337 | GRRMP | The JMH CAP Planning Area will be managed to 1) protect, maintain, and control viable, healthy herds of wild horses in the Great Divide Basin Herd Management Area (HMA) at appropriate management levels (AML) while retaining their free-roaming nature; 2) provide adequate habitat for free-roaming wild horses through management consistent with principles of multiple use and environmental protection; and 3) provide opportunity for the public to view wild horses. | |
| 0338 | GRRMP | The BLM is required by law, regulations, and Executive Orders to manage wild free roaming horses and burros in a manner designed to achieve and maintain a thriving natural ecological balance on the public lands. | |
| 0339 | GRRMP | Wild horse populations will be managed within the Great Divide Basin HMA at an AML of 415 to 600 horses. The Great Divide Basin HMA boundaries will remain unchanged from those identified in the Green River RMP (1997). | |
| 0340 | GRRMP | Water developments will be provided as needed to improve wild horse herd distribution and manage forage utilization. *Water developments within sensitive* wildlife habitats will be considered only if wildlife habitat and resource *conditions will be improved or maintained.* Compatibility with special status plant species will be required. | |
| 0341 | GRRMP | A gather plan incorporating the national selective removal policy will be developed and implemented to remove excess horses from inside and outside the HMA to maintain the existing AMLs. The scheduling of gathers will vary according to HMA objectives, resource conditions, and need. Fertility control will be initiated only if deemed appropriate by a site-specific analysis. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0342 | GRRMP | Public education and enjoyment of wild horse herds is an important component of the National Wild Horse and Burro Program. Portions of this program will be implemented in the Great Divide Basin HMA by providing interpretive signs and access sites for viewing horses. | |
| 0343 | GRRMP | The site specific activity plans for the five wild horse herd management areas in the Planning Area will be maintained to conform with Green River RMP objectives for vegetation management and implemented. | |
| 0344 | GRRMP | Wild horse herd management will be directed to ensure that adequate forage will be available to support appropriate management levels in the herd units and that herds maintain appropriate age, sex, and color ratios. | |
| 0345 | GRRMP | Recreation project plans and interpretive prospectuses will be developed as needed to address public demand and use of the Crookston Ranch historic site, Boars Tusk, wild horse viewing areas, Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, National Historic Trails, White Mountain Petroglyphs, Indian Gap, and other Native American sites. | |

# 3.1.9. Wildland Fire Ecology and Management

### Table 3.14. Current Management for Unplanned Ignitions (Wildfires)

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0346 | GRRMP | *Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases).* | Ongoing |
| 0347 | GRRMP | *The Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain rock art sites are exclusion areas, and are closed to surface disturbing activities that could adversely affect rock art resources. These sites are closed to: 1) the location of mining claims and entry under the land laws (withdrawals will be pursued as necessary and the existing Sugarloaf and White Mountain withdrawals will be retained; 2) mineral material sales for sand, gravel, or other types of construction or building materials; 3) the use of explosives and blasting; and 4) the use of fire retardant chemicals containing dyes. Off-road vehicular use, including vehicles used for geophysical exploration activities, are limited to designated roads and trails.* | Ongoing |
| 0348 | GRRMP | Wildfire suppression will emphasize appropriate management response. Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential to threaten structural property. | Ongoing |
| 0349 | GRRMP | Ambient air quality standards will be maintained during prescribed fire operations. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0350 | GRRMP | Use of chemical fire suppression agents is prohibited in rock art sites. | Ongoing |
| 0351 | GRRMP | Wildfires occurring in forested areas will be appropriately suppressed in accord with resource values threatened, as determined on a case-by-case basis. | Ongoing |
| 0352 | GRRMP | *Pine and Little Mountain areas will be managed to enhance other resources, and activities will be designed to benefit these other resource uses. Priority for timber harvesting will be given to mature, decadent, and diseased trees*. | Ongoing |
| 0353 | GRRMP | Special management areas (old growth, scientific research areas) will be identified and appropriate management incorporated into activity plans. | Ongoing |
| 0354 | GRRMP | *Woodland forest areas will be managed using silvicultural practices that promote stand viability.* Treatments could include thinning, harvesting, chaining, and burning. The vegetative material resulting from these treatments will normally be sold through public demand sales. | Ongoing |
| 0355 | GRRMP | Surface disturbing activities are prohibited within 1/4 mile of recreation sites unless such activities are determined to be compatible with or are done for meeting recreation objectives for the area. | Ongoing |
| 0356 | GRRMP | Projects and facilities will be designed to meet the objectives of the established visual classifications and appropriate mitigation will be included. | Ongoing |
| 0357 | GRRMP | *Management actions on public lands with a Class II visual resource management classification must be designed to blend into and retain the existing character of the natural landscape*. | Ongoing |
| 0358 | GRRMP | Management actions on public lands with a Class III visual resource management classification must be designed to partially retain the existing character of the landscape. | Ongoing |
| 0359 | GRRMP | All surface disturbing actions, regardless of the visual resource management class, are required to be mitigated to reduce visual impacts. | Ongoing |
| 0360 | GRRMP | *Management actions in areas classified as rehabilitation areas will be designed to reclaim and improve visual resource values to achieve a higher classification*. | Ongoing |
| 0361 | GRRMP | The scenic values along Highway 28 within Fremont County will be protected. All proposed lands actions and other activities within view of the highway will be evaluated for impacts and will require mitigation to protect the scenic and historic values of this area. Class II visual resource management classifications on public lands will be retained. | Ongoing |
| 0362 | GRRMP | Discretionary uses within or adjacent to WSAs will be reviewed to ensure they do not create conflicts with management and preservation of wilderness values. | Ongoing |
| 0363 | GRRMP change 24 -2 | Grouse breeding and nesting areas will be protected. Appropriate distances determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria in can be met. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0364 | GRRMP | *Proposed surface disturbing activities on BLM-administered public lands, within 1/2 mile from the Cedar Canyon Petroglyph rock art site (about 360 acres), will be analyzed for the visual effects to the actual area that can be seen from the rock art site within the 1/2 mile area surrounding the site (vista area). Most surface disturbing activities visible within this vista are prohibited. Some disturbance activities, such as interpretive facilities, within the vista area will be allowed, if they do not affect the integrity of the rock art site.* Other kinds of activities, such as audible disturbances, may not be allowed if they would adversely affect the sacred Native American values. | Ongoing |
| 0365 | GRRMP | The vista area is also closed to: 1) the location of mining claims and entry under the land laws (withdrawal from land entry and mineral location will be pursued); 2) mineral material sales; 3) the use of explosives and blasting, and vibroseis operations; and 4) the use of fire retardant chemicals containing dyes. | Ongoing |
| 0366 | GRRMP | Vegetation treatments will be designed to help meet and be consistent with all management objectives for the area. | Ongoing |
| 0367 | GRRMP | All activities will be designed to place priority consideration on elk habitat over conflicting land uses to ensure continued elk use of the area. Steamboat Rim and the base of the rim will be managed to protect big game habitat, vegetation communities, and visual and recreation resources. | Ongoing |
| 0368 | GRRMP | The ACEC is open to actions that will enhance the management objectives for the area. | Ongoing |
| 0369 | GRRMP | Vegetation management will be designed to maintain, preserve, or enhance biological diversity while providing big game forage and cover requirements. | Ongoing |
| 0370 | GRRMP | Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities. Fire management, suppression needs, and prescribed burning in timber stands will be determined on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snow fence effect" is preserved. Fire management in other areas will be determined on a case-by-case basis to ensure that area objectives are met. | Ongoing |
| 0371 | GRRMP | Vegetation treatments will be designed to help meet and be consistent with management objectives for the area. | Ongoing |
| 0372 | GRRMP | Travel and transportation of firefighting equipment is limited to designated roads and trails. Fire management, suppression needs, and prescribed burning in timber stands will be evaluated on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snowfence effect" is preserved. Fire management in other areas will be evaluated on a case-by-case basis to ensure that area objectives will be met. | Ongoing |
| 0373 | GRRMP | Any fire suppression activities on public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment will be used to suppress fires. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0374 | GRRMP | Any fire suppression activities on the public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment off of designated roads and trails will be used to suppress fires. | Ongoing |
| 0375 | GRRMP | The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation. | Ongoing |
| 0376 | GRRMP | Fires on public lands will be suppressed using appropriate techniques provided no permanent impacts would occur. | Ongoing |
| 0377 | JMH CAP | Heritage resources in special management areas will remain protected through specific and general management actions (mitigation requirements and site-specific management prescriptions) including those associated with designated ACECs, WSAs, and National Historic Trails. | Ongoing |
| 0378 | JMH CAP | The Wyoming Standards for Healthy Rangelands (USDI 1997a) will apply to all resource uses on BLM-administered lands. | Ongoing |
| 0379 | JMH CAP | Prescribed burns will be the preferred method of vegetation manipulation to convert stands of shrubs to grasslands and to promote regeneration of aspen stands and/or shrub species. | Ongoing |
| 0380 | JMH CAP | Prescribed burns will generally be conducted in areas having greater than 35 percent sagebrush composition and 20 percent desirable grass composition and more than 10 inches of precipitation. | Ongoing |
| 0381 | JMH CAP | All vegetation treatments should be designed to be irregular in shape for edge effect, cover, and visual aesthetics. | Ongoing |
| 0382 | JMH CAP | Areas proposed for treatment with prescribed burns will be rested 1 full year prior to treatment (unless vegetation cover prior to burning has adequate fine fuels to carry the fire) and 24 months after treatment, unless an on site analysis determines that this time frame should be expanded or reduced. | Ongoing |
| 0383 | JMH CAP | Herbicide loading sites will be prohibited within 500 feet of water sources, floodplains, riparian areas, and special status plant locations and will be used in accordance with the guidelines. | Ongoing |
| 0384 | JMH CAP | Native vegetation will be managed to allow natural plant succession to continue, with emphasis on mountain shrub, basin big sagebrush/lemon scurfpea, aspen, and other unique or important vegetation types as appropriate to meet desired plant community objectives. | Ongoing |
| 0385 | JMH CAP | Fire management in the Planning Area will be implemented through the “Fire Management Plan Southwestern Zone Wyoming BLM” (2004). | Ongoing |
| 0386 | JMH CAP | Appropriate management response to protect the basin big sagebrush/lemon scurfpea plant communities will be applied. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0387 | JMH CAP | Wildland and prescribed fires will be managed in all vegetation types to maintain or improve biological diversity and the overall health of the public lands. | Ongoing |
| 0388 | JMH CAP | Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain will be provided protection by controlling surface use (closed or limited) or by implementing other intense mitigation to preserve the character of vegetation communities. Full fire suppression for basin big sagebrush/lemon scurfpea plant communities will be applied. | Ongoing |

# 3.1.10. Cultural and Heritage Resources

### Table 3.15. Current Management Decisions for Cultural and Heritage Resources

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0389 | GRRMP | Sites eligible for or listed on the National Register of Historic Places (NRHP) will be managed for their local, regional, and national significance, under the guidelines of the National Historic Preservation Act (especially sections 106 and 110) and the Archeological Resources Protection Act (ARPA). These sites will be managed to ensure against adverse effects through proper mitigation, if disturbance or destruction is not avoidable. Management prescriptions for sites that are not eligible for the NRHP will be determined on a case-by-case basis according to values involved. | Ongoing |
| 0390 | GRRMP | An appropriate level of analysis of all BLM undertakings or authorizations will be conducted to determine eligibility of sites for listing on the National Register of Historic Places and to determine potential effects to those historic properties from proposed actions in accordance with the National Historic Preservation Act. | Ongoing |
| 0391 | JMH CAP | Heritage resources will be managed pursuant to the National Historic Preservation Act (NHPA); the Archeological Resources Protection Act (ARPA); and other pertinent laws, regulations, and policies. The Wyoming State Historic Preservation Office must be consulted concerning eligibility of resources for the National Register of Historic Places (NRHP) and concerning any potential effects that could result from BLM supported, authorized, or assisted undertakings. Sites that are not eligible for the NRHP will be managed on a case-by-case basis according to their values. Sites that are listed or eligible for listing on the NRHP will be managed for their local, regional, and national significance in accordance with the NHPA and the ARPA. Sites will be managed to ensure against adverse effects through proper mitigation if disturbance or destruction is not avoidable. Mitigation may include scientific information retrieval as well as other measures such as interpretation and improved public appreciation of the heritage resource. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0392 | GRRMP | Incidences of potential violation of the Archeological Resources Protection Act will be investigated. | Ongoing |
| 0393 | GRRMP | Management of historic roads and trails that are eligible for the NRHP but are not Congressionally designated will generally be the same as for designated trails including a 1/4 mile protective setback on either side of the trails. **These trails may be recommended for listing to the National Register of Historic Places. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road.** | Ongoing |
| 0394 | GRRMP | **LaClede Stage Station and Dug Springs Stage Station on the Overland Trail will be protected as exclusion areas and will be closed to surface disturbing activities that could adversely affect the sites. These sites will be closed to exploration and development of locatable minerals and entry under the land laws, and withdrawals will be pursued.** Cultural resource management plans may be written for these sites and interpretive and visitor management efforts would be allowed as necessary (see discussions in Lands and Realty Management and Minerals Management). | Ongoing |
| 0395 | GRRMP | **The Dry Sandy Stage Station and Fort LaClede may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of important historic resources. The BLM will not use powers of condemnation to acquire these parcels**. | No Action |
| 0396 | GRRMP | Various Expansion Era (i.e., 1870-1940) roads will be managed according to their historical context. **Expansion Era roads are those routes developed after establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan will be applied, although the 1/4 mile protective setback might not always be applied. Management actions will include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify.** | Ongoing |
| 0397 | GRRMP | The Big Sandy Station, Big Timber Station, Freighter Springs Station, Camp Carmichael, Lander's Camp, and the site of the Simpson's Gulch wagon train burning will be managed for the preservation of cultural and historical values. **Site specific resource management actions may be developed in cultural resource management plans for these sites.** | Ongoing |
| 0398 | GRRMP | Five significant rock art sites and their surrounding viewsheds (within 1/2 mile) will be managed to protect their cultural and historical values. Surface disturbing activities and visual intrusions will be prohibited within these areas if they would adversely affect these values. Management of visitor use at rock art sites may include interpretive signing, fencing, barriers, and other activities. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0399 | GRRMP | **The vistas surrounding these five significant rock art sites (i.e., the actual area that can be seen from the rock art sites, within 1/2 mile), are avoidance areas for surface disturbing activities and visual intrusions. Most surface disturbing and other activities visible within these vistas will be prohibited if they would adversely affect rock art site values.** Surface disturbing and other activities will be analyzed for the effects to the actual area seen from the rock art site for a distance of 1/2 mile surrounding the sites (vista). Some activities within 1/2 mile of the rock art, but not visible from the rock art panels, may be allowed. Other kinds of activities, such as audible disturbances, may not be allowed if they would adversely affect the sacred Native American values at the rock art sites. Site specific activity or implementation plans will be prepared for these sites. | Ongoing |
| 0400 | GRRMP | If other significant rock art sites are identified in the future, they will be managed in the same manner as the above five significant sites. | Ongoing |
| 0401 | GRRMP | **All other rock art sites will be managed on a case-by-case basis according to resource values.** Consideration will be given to applying site specific and time specific use limitations to avoid disturbance of traditional Native American practices at rock art sites or other cultural resource sites. | Ongoing |
| 0402 | GRRMP | The Tri-Territory Marker is an exclusion area and is closed to:<br>1. Surface disturbing activities that could adversely affect it; and<br>2. Exploration and development of locatable minerals. A withdrawal will be pursued. The site will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area.<br>**A cultural resource activity plan may be prepared for the site if necessary (see discussions in Lands and Realty Management and Minerals Management).** | Ongoing |
| 0403 | JMH CAP | The Tri-Territory Marker will be an exclusion area for rights-of-way and will continue to be closed to surface disturbing activities. The Tri-Territory Marker will be withdrawn from mineral location and closed to coal and sodium exploration. The Tri-Territory Marker will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0404 | GRRMP | **Archeological data will be synthesized in the Little Colorado Desert, Greater Nitchie Gulch, and Wamsutter Arch concentrated oil and gas development areas and the areas will be managed with the objective of facilitating surface disturbing or disrupting activities without sacrificing significant archeological values.** These areas may be eligible for listing on the NRHP because of their scientific information content (e.g., Criterion D). A programmatic memorandum of agreement would be negotiated with the SHPO and ACHP to achieve this objective. Historic resources that could be eligible for listing for reasons other than their scientific information content (e.g., Criteria A, B, or C) may not be managed according to this prescription. | No Action |
| 0405 | GRRMP | **Playa Lake areas with high cultural site density would be managed as historic districts.** Management prescriptions for surface disturbing activities in playa lake areas will be developed on a case-by-case basis. A programmatic memoranda of agreement for data recovery with the SHPO and ACHP would also be pursued. Each playa may be managed as an NRHP eligible historic district (Blue Forest, Blue Point, and Adobe Town Rim). | No Action |
| 0406 | GRRMP | The Pine Springs ACEC (6,030 acres) is closed to surface disturbing activities. About 2,000 acres in the area will be closed to exploration and development of locatable minerals and entry under the land laws. Withdrawal from these activities will be pursued. The existing 90-acre withdrawal will be retained. **Cultural resource management plans may be written for the site and interpretive and visitor management efforts may be allowed as necessary. (See also Pine Springs ACEC, Lands and Realty Management and Minerals Management discussions). (Surface disturbing activities may include activities associated with mineral exploration and development; construction of roads, pipelines, powerlines; mineral material sales; etc...).** | Ongoing |
| 0407 | GRRMP | The Eden-Farson, Finley, Krmpotich, and Morgan archaeological sites, and similar sites identified in the future, will be managed to protect their important scientific values. **No public interpretive efforts will be initiated at these sites. These sites will be managed according to Sections 106 and 110 of the NHPA and their locations will be kept confidential pursuant to NHPA regulations. Periodic law enforcement patrol and other efforts will be instituted to ensure that the ARPA is enforced and that these sites are protected.** | Ongoing |
| 0408 | GRRMP | All known human burial sites will be protected regardless of their ethnic affiliation. **Management of Native American burial sites will take into account recommendations from appropriate tribes. Data recovery will not be the preferred method for mitigation of adverse effects to any burial location.** | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0409 | GRRMP | **Known burial areas will be closed to surface disturbing activities that could adversely affect them** (see discussions in Lands and Realty Management and Minerals Management). | Ongoing |
| 0410 | GRRMP | **Management emphasis for the prehistoric quarry site will be for scientific data recovery. The prehistoric quarry site will be protected by closing it to mineral location and pursuing a withdrawal. The site is an exclusion area and is closed to surface disturbing activities that could adversely affect it.** Only those surface disturbing activities related to data recovery would be allowed (see discussions in Lands and Realty Management and Minerals Management). | Ongoing |
| 0411 | GRRMP | **North and South Table Mountains (the Bozovich Site complex) will be managed to preserve cultural values within standard Section 106 and 110 NHPA compliance. The area will be closed to surface disturbing activities that could adversely affect the cultural sites, but will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area.** Appropriate scientific study of sites in this area will be a priority within the resource area cultural program (see discussions in Lands and Realty Management and Minerals Management). | Ongoing |
| 0412 | GRRMP | Consultation with appropriate Native American tribes concerning areas of concern to them for traditional cultural purposes will be in accordance with the American Indian Religious Freedom Act and BLM Manual 8160-1 Handbook. Native American consultation would occur within the context of specific development proposals, but will also be an ongoing process between BLM and affected Indian tribes and traditional cultural leaders. | Ongoing |
| 0413 | GRRMP | **Interpretive materials will be prepared describing the cultural resources of the area, their significance, and BLM's responsibility to manage them. Historical aspects of BLM programs will be interpreted as appropriate for public appreciation.** | Ongoing |
| 0414 | GRRMP | **Exchanges for acquisition and cooperative agreements will be pursued to enhance management of cultural resources**. | Ongoing |
| 0415 | GRRMP | Management needs for other cultural sites will be determined on a case-by-case basis according to their resource values. | Ongoing |
| 0416 | GRRMP | **Cedar Canyon ACEC (2,550 acres of BLM-administered public lands).**<br><br>**The BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values**. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0417 | GRRMP | About 2,190 acres that are more than 1/2 mile from the rock art site (i.e., outside of the 360-acre vista area), are open to:<br>1. The location of mining claims;<br>2. Mineral material sales; and<br>3. Seismograph activity, including the use of explosives and blasting, provided the wildlife, cultural, and scenic values are protected. This area is also an avoidance area for surface disturbing activities. Constraints will be applied as appropriate to protect the wildlife, cultural, and scenic resource values.<br>[Cedar Canyon Petroglyphs] | Ongoing |
| 0418 | GRRMP | **The Crookston Ranch site will be managed to preserve its historic features and for the interpretation of ranching history in the area. About 500 acres of BLM-administered public lands surrounding the site (the area within a 1/2 mile radius) will be managed to preserve the setting of the historic ranch.** | Ongoing |
| 0419 | GRRMP | The Crookston Ranch site (about 40 acres) is closed to:<br>1. Surface disturbing activities;<br>2. Mineral material sales; and<br>3. Use of explosives and blasting | Ongoing |
| 0420 | GRRMP | The Crookston Ranch area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the sites. Facilities are prohibited from being developed on site. Either a protective right-of-way or withdrawal for the Crookston Ranch will be pursued to accomplish this. | Ongoing |
| 0421 | JMH CAP | The Crookston Ranch and surrounding 500-acre area are closed to surface mining activities such as coal mining, and to the placement of related surface facilities. | Ongoing |
| 0422 | JMH CAP | The Crookston Ranch area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the sites. Facilities are prohibited from being developed on site. Either a protective right-of-way or withdrawal for the Crookston Ranch will be pursued to accomplish this. | Ongoing |
| 0423 | GRRMP | **Fires in the Crookston Ranch area will be immediately suppressed if there is any potential of the structures being burned.** | Ongoing |
| 0424 | GRRMP | **Natural Corrals ACEC (1,276 acres of BLM-administered public lands).**<br>**The ACEC designation for the 1,276 acres of BLM-administered public lands in the area is retained. The entire ACEC is open to consideration of oil and gas leasing with a No Surface Occupancy stipulation.** | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0425 | GRRMP | **Any surface disturbing activities that could adversely affect the relevant and important resources in the ACEC are prohibited**. | Ongoing |
| 0426 | GRRMP | Cultural resource values on BLM-administered public lands will be protected. **Methods include stabilizing archeological components in place and by limiting surface disturbing uses and activities that could adversely affect the cultural resources. The components may be excavated to recover archeological information if stabilization is not effective.** | Ongoing |
| 0427 | GRRMP | **The ACEC [Natural Corrals] is closed to surface coal mining activity and related facilities and to mineral material sales. The ACEC is open to consideration of further leasing and development by subsurface mining methods only. Any related ancillary facilities and surface disturbing activities are prohibited.** | Ongoing |
| 0428 | GRRMP | **Natural Corrals.**<br><br>The 357-acre of mineral location withdrawal in the area will be retained. | Ongoing |
| 0429 | GRRMP | The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of transportation barriers or barriers to other types of uses, to meet resource management objectives. **Management activities will be designed to increase public awareness of the significance of the area.** | Ongoing |
| 0430 | GRRMP | The Oregon Buttes ACEC is closed to:<br><br>1. surface disturbing activities that could adversely affect the resource values in the area;<br><br>2. mineral material sales for sand, gravel, or other types of construction or building materials; and<br><br>3. motorized vehicle travel, including those utilized for seismograph operations<br>. | Ongoing |
| 0431 | GRRMP | **The 6,030 acres of BLM-administered public lands in the Pine Springs area are designated the Pine Springs ACEC. The Pine Springs ACEC is expanded from 90 acres to 6,030 acres.** | Ongoing |
| 0432 | GRRMP | **The Pine Springs ACEC is closed to:**<br><br>1. Surface disturbing activities that could adversely affect resource values or preclude meeting ACEC management objectives;<br><br>2. Mineral location and entry under the land laws (an additional withdrawal of about 2,000 acres will be pursued;<br><br>3. Mineral material sales for sand, gravel, or other types of construction or building materials; and<br><br>4. Off-road vehicle travel, with the exception of about 820 acres | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0433 | GRRMP | **The Pine Springs site (90 acres) is closed to all geophysical operations and to the use of explosives and blasting.** | Ongoing |
| 0434 | GRRMP | **The ACEC is open to consideration of such actions as fencing, interpretive signs, or construction of barriers to ensure protection to the area; to maintenance of the spring development; and to additional spring developments if these actions will not impact cultural values.** | Ongoing |
| 0435 | JMH CAP | The South Pass Historic Landscape encompasses the viewshed along the Oregon, Mormon Pioneer, California, and Pony Express trails and the Lander Cutoff (about 16.42 miles of trail with a 6-mile wide corridor along the Oregon, Mormon Pioneer, and California trails, and a 2-mile wide corridor along the Lander Cutoff). | Ongoing |
| 0436 | GRRMP | **The 53,780 acres of BLM-administered public lands in the South Pass Historic Landscape area are designated the South Pass Historic Landscape ACEC.** The ACEC will be evaluated to determine if it meets the criteria for nomination to the National Register of Historic Places. | Ongoing |
| 0437 | GRRMP | **The South Pass Historic Landscape encompasses the viewshed along the Oregon, Mormon Pioneer, California, and Pony Express trails and the Lander Cutoff (about 16.42 miles of trail with a 6-mile wide corridor along the Oregon, Mormon Pioneer, and California trails, and a 2-mile wide corridor along the Lander Cutoff)**. | Ongoing |
| 0438 | GRRMP | **South Pass Historic Landscape.**<br><br>The landscape is open to consideration of mineral leasing and mineral material sales, provided that effects to the visual and cultural resource values could be mitigated. | Ongoing |
| 0439 | GRRMP | **Most of the ACEC is also open to exploration and development of locatable minerals. A plan of operations is required to address measures to mitigate affects to the viewshed before any mining claim activity is allowed. A withdrawal of about 5,260 acres from mineral location and entry under public land laws will be pursued, if necessary.** | Ongoing |
| 0440 | JMH CAP | Portions of the South Pass Historic Landscape ACEC (about 36,560 acres in Area 1) are open to fluid minerals leasing consideration with stipulations to protect sensitive resources | Ongoing |
| 0441 | GRRMP<br><br>Plan Change No. 33-1<br><br>12/19/00 | A right-of-way grant for the Altamont Pipeline Company will not be issued and this pipeline cannot be built across public lands through the South Pass Historic Landscape Area. | |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0442 | GRRMP<br><br>Plan Change No. 33-2<br><br>12/19/00 | The Altamont Pipeline grant will not be issued, resulting in no one-time right-of-way authorization through the South Pass Historic Landscape Area. Future rights-of-way across public lands through this area (for linear utilities, transmission lines, communication sites, roads and highways, etc.), that could adversely affect the values of the historic landscape are prohibited. In addition, the Altamont Pipeline will not be built, the South Pass Historic Landscape Area will be closed to any subsequent right-of-way proposal, that could either replace or substitute for the Altamont Pipeline, or any similar future proposed action across public lands in the area. | |
| 0443 | GRRMP | **South Pass Historic Landscape.**<br><br>**About 33,700 acres surrounding the trails and visible from the trails are closed to surface disturbing activities that could adversely affect the viewshed. This is an exclusion area for all rights-of-way.** | Ongoing |
| 0444 | GRRMP | **South Pass Historic Landscape.**<br><br>**About 20,080 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails, and provided that environmental analysis indicates that the visual integrity of the area can be maintained. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities**. Small feeder lines could be allowed if analysis indicates that the visual integrity of the area will not be compromised. Rights-of-way along roads in the area could also be allowed if they did not compromise the visual integrity of the area. The prescriptions for the management of historic trails will also apply to this area. | Ongoing |
| 0445 | JMH CAP | About 25,925 acres surrounding the trails and visible from the trails are closed to surface disturbing activities that could adversely affect the viewshed. **This portion of the ACEC will continue to be managed as a right-of way exclusion area for any right-of-way action that will adversely affect the viewshed (such as major transmission facilities or high-profile facilities).** An NSO lease stipulation will apply to all oil and gas leases. This area is closed to solid leasable minerals and exploration and to saleable mineral activities (mineral material sales). | |
| 0446 | GRRMP | **South Pass Historic Landscape.**<br><br>**All activities for the ACEC will be managed consistent with the Class II visual resource management classification.** All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. The scenic values of the Highway 28 visual corridor (3 linear miles) will be protected. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0447 | JMH CAP | About 20,000 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails and provided that environmental analysis indicates that the visual integrity of the area can be maintained. The portion of the ACEC shielded by topography and not visible from the trail is open to consideration of mineral material sales provided that effects to visual, cultural, and other sensitive resource values can be mitigated. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities. | Ongoing |
| 0448 | GRRMP | **Generally, vibroseis activity and shot hole activity is prohibited on and within 300 feet of the historic trails. Other geophysical operations may be allowed within the historic trails corridors (about 16.42 miles) if site specific analysis determines that no effects adverse to the visual and historical integrity of the trails will occur.** | Ongoing |
| 0449 | GRRMP | **South Pass Historic Landscape.**<br><br>**The entire ACEC is open to consideration of such activities that meet the objectives for the area.** Activities include but are not limited to fencing, interpretive signs, or construction of barriers to ensure protection of the landscape. | Ongoing |
| 0450 | GRRMP | **South Pass Historic Landscape.**<br><br>**Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area.** | Ongoing |
| 0451 | GRRMP | **The ACEC designation for the 20 acres of BLM-administered public lands in the White Mountain Petroglyphs area is retained. The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction or placement of barriers to ensure protection of the site.** Public awareness and use of the area as an educational site is encouraged. | Ongoing |
| 0452 | GRRMP | **White Mountain Petroglyphs.**<br><br>**The ACEC is an exclusion area for:**<br><br>1. Surface disturbing activities that could adversely affect the resource values in the area;<br><br>2. The location of mining claims and entry under the land laws (the existing withdrawal will be retained);<br><br>3. Mineral material sales for sand, gravel, or other types of construction or building materials;<br><br>4. The use of explosives and blasting; and<br><br>5. Rights-of-way | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0453 | GRRMP | **White Mountain Petroglyphs.**<br><br>**Vibroseis activities are prohibited within 300 feet of the rock art site.** Other kinds of activities, such as audible disturbances, may not be allowed if the sacred Native American values at the rock art sites would be adversely affected. | Ongoing |
| 0454 | GRRMP | **White Mountain Petroglyphs.**<br><br>**Lands visible within 1/2 mile radius of the rock art site (vista) will be an avoidance area and are open for consideration of such activities as fencing, interpretive signs, or construction and placement of trail and off-road vehicle barriers to ensure protection to the rock art. Most surface disturbing activities visible within the vista are prohibited. Some activities within 1/2 mile of the rock art but not visible from the panels will be allowed, if they do not affect the rock art site**. | Ongoing |
| 0455 | GRRMP | **White Mountain Petroglyphs.**<br><br>**The ACEC is closed to off-road vehicle travel including vehicles used for geophysical exploration activities and to the use of fire retardant chemicals containing dyes**. | Ongoing |
| 0456 | JMH CAP | **The ACEC, which is within Area 3, is closed to fluid minerals leasing consideration.** | Ongoing |
| 0457 | JMH CAP | Leasable Solid Minerals: White Mountain Petroglyphs Vista (the area within a ½-mile radius of the rock art site) is closed to coal and sodium exploration. | Ongoing |
| 0458 | GRRMP | **Monument Valley Management Area (69,940 acres of BLM-administered public lands.**<br><br>**Designation of the area as an ACEC will be deferred until a determination can be made that specific resources meet the ACEC relevance and importance criteria.** Although the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. **The area is open to:**<br><br>1. Consideration for mineral leasing, exploration, and development provided mitigation can be applied to retain the resource values;<br><br>2. Consideration for mineral material sales with the appropriate constraints applied to all surface disturbing activities; and<br><br>3. Development and public use with necessary consideration for wildlife, raptors, cultural, watershed, and scientific values. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0459 | GRRMP | **Monument Valley.**<br><br>**The area is a priority area for future cultural and paleontological inventory. A paleontological survey is required prior to surface disturbing activities.** The standard Section 106 compliance process will apply to cultural resource management. | Ongoing |
| 0460 | GRRMP | **Monument Valley.**<br><br>**The oil shale withdrawal will remain in effect until a comprehensive study is completed for the area. If necessary, needed withdrawals for any of these lands will be identified and will be pursued for protection of their scientific or other resource values before the oil shale withdrawal is terminated**. | Ongoing |
| 0461 | GRRMP | **Monument Valley.**<br><br>**Surface disturbing activities, including rights-of-way, will be managed to avoid slopes greater than 25 percent and highly erosive areas unless a plan can be developed to mitigate adverse effects to the resource values**. | Ongoing |
| 0462 | GRRMP | **Management of BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors. Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.** | Ongoing |
| 0463 | JMH CAP | Management of heritage resources will include inventories and mitigation as needed for specific projects. An appropriate level of analysis of all surface disturbing activities will be conducted to determine the potential effect of the activity on the resource and its eligibility for listing on the NRHP. Site stewardship and public education aspects of the Heritage Resource Program will continue to be implemented. Sites eligible for inclusion in the NRHP because of their scientific value will be protected. Preservation of the scientific information will be the preferred mitigation method should avoidance of such sites not be possible. | Ongoing |
| 0464 | JMH CAP | The paleosol deposition area, including the Finley, Krmpotich, and Eden-Farson archaeological sites and geological deposits in the area, has been identified as an important heritage resource area. **The paleosol deposition area will be designated the West Sand Dunes Archaeological District Special Management Area to be managed for scientific study, education, and interpretation.** | Ongoing |
| 0465 | JMH CAP | **West Sand Dunes Archaeological District.**<br><br>**Site locations will be kept confidential, and surface disturbance will be limited in the vicinity.** | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0466 | JMH CAP | **West Sand Dunes Archaeological District.**<br><br>**Heritage resource inventories in this area will be required to include analysis of subsurface deposits to ascertain whether they include important archaeological materials.** | Ongoing |
| 0467 | JMH CAP | **West Sand Dunes Archaeological District.**<br><br>**Subsurface inventory will be required using remote sensing techniques, hand-dug test excavations, or mechanical testing prior to issuing any surface disturbing authorizations in the West Sand Dunes Archaeological District.** The testing strategy should be appropriate to meet the goal of finding buried paleosols and evaluating their potential association with archaeological materials. | Ongoing |
| 0468 | JMH CAP | **West Sand Dunes Archaeological District.**<br><br>**Subsurface testing will require an approved testing plan and BLM–State Historic Preservation Officer (SHPO) consultation. Mitigation may include research-oriented data recovery excavation.** | |
| 0469 | JMH CAP | The Finley site will be nominated to the NRHP under the Register's History of American Archaeology context and the Earliest Americans context. | Completed |
| 0470 | JMH CAP | The Krmpotich site will be nominated to the NRHP under the Register's Earliest Americans context. | No Action |
| 0471 | JMH CAP | All National Register-eligible historic sites will be protected through provisions of the NHPA and ARPA. Sites eligible under Criteria A, B, or C will be protected and mitigation measures will be developed on a case-specific basis depending on site values and proposed activity. Scientific data recovery may not be the appropriate mitigation strategy for these sites. | Ongoing |
| 0472 | JMH CAP | Sites eligible for inclusion in the NRHP under Criterion D because of their scientific information content will be surrounded by a minimum 100-foot avoidance area, pursuant to the Protocol Agreement between BLM and SHPO. | Ongoing |
| 0473 | JMH CAP | Eligible sites may be nominated to the NRHP. BLM may work with partners to fund preparation of NRHP nominations on a case-by-case basis. | Ongoing |
| 0474 | JMH CAP | **When activity is proposed in the vicinity of Traditional Cultural Places (TCP), sacred sites, and/or respected places, management will be developed through consultation with Tribal leaders, SHPO, and the activity proponent based on the characteristics of the site and the proposed activity. Mitigation may include siting activity in such a way as to protect the foreground viewshed of the area of concern, if appropriate.**<br><br>Areas located on Steamboat Mountain, Steamboat Rim, White Mountain Rim, Essex Mountain, Monument Ridge, Joe Hay Rim, and the Indian Gap Trail have been | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | identified as respected places, which may include Native Americans' sacred sites or TCPs. | |
| 0475 | JMH CAP | The Indian Gap Trail will be researched, and a trail interpretive plan will be developed. | No Action |
| 0476 | JMH CAP | **The Indian Gap will be managed as part of the Steamboat Mountain ACEC. A portion of Indian Gap will be closed to surface disturbing and disruptive activities. The remainder of Indian Gap will be open to consideration of surface disturbing and disruptive activities with mitigation to protect resource values.** | Ongoing |
| 0477 | JMH CAP | **A portion of Indian Gap will be closed to surface disturbing and disruptive activities. The remainder of Indian Gap will be open to consideration of surface disturbing and disruptive activities with mitigation to protect resource values.** | Ongoing |
| 0478 | JMH CAP | The combination of sensitive resources in the Indian Gap area can best be maintained by use of intense limitation of surface disturbing or disruptive activities. Proposals will be considered on a site specific basis. See also the Heritage Resources Management section of this document for management of heritage and cultural resources that apply to the area. | Ongoing |
| 0479 | JMH CAP | Historic and archaeological sites within the context of early contact between Native Americans and Euro-American peoples have been identified, but they are understood only in general terms. The historical context of these sites will continue to be developed, and an interpretive program will be developed to improve public appreciation of these locations. Some or all of these sites may be nominated to the NRHP and/or included in the Backcountry Byways program. | |
| 0480 | JMH CAP | Expansion Era roads will be managed in a manner similar to that of the historic trails covered in the Oregon/Mormon Pioneer National Historic Trails Management Plan (BLM 1986), with prescriptions from that plan applied, although the ¼-mile protective setback might not always be applicable. Management actions will include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments of the historic roads. Activity plans may include NRHP nomination of those Expansion Era roads that qualify. | Ongoing |
| 0481 | JMH CAP | **NRHP-eligible historic livestock management sites will be protected from surface disturbing activities within a minimum area of 100 feet.** | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0482 | JMH CAP | Management needs for other cultural sites will be determined on a case-by-case basis according to their resource values | Ongoing |
| 0483 | JMH CAP | Withdrawals will be revoked for lands classified as prospectively valuable for oil shale (oil shale is a leasable mineral). Upon revocation, the area will be open to the filing of mining claims, exploration, and development of locatable minerals. The White Mountain Petroglyphs ACEC, located in the oil shale classification lands, will be withdrawn from mineral location prior to the revocation. Other areas that will be withdrawn from mineral location prior to the revocation of the coal classification include Greater Sand Dunes ACEC (western portion), special status plant sites, Crookston Ranch, public water reserves, Tri-Territory Marker, and South Pass Summit. | Ongoing |

# 3.1.11. Paleontological Resources

### Table 3.16. Current Management for Paleontological Resources

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0484 | GRRMP | Significant paleontological resources will be managed for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365. | Ongoing |
| 0485 | GRRMP | *Collecting of vertebrate fossils may be allowed with written authorization which may be issued only to an academic, scientific, governmental, or other qualified institution or individual. Collection of common invertebrate fossils and petrified wood for hobby purposes is allowed on public lands and is regulated under 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365.* A site protection plan may be written and implemented for the Farson Fossil Fish Beds. | Ongoing |
| 0486 | GRRMP | *Surface disturbing activities that affect known vertebrate fossil localities will be considered in site specific analyses and potential adverse effects will be mitigated.* At the Area Manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Mitigation measures may include surface inventory, construction monitoring, excavation/salvage, or other measures considered to be reasonable and appropriate by the Area Manager. Operators are required to report any paleontological resources discovered during the course of operations. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0487 | JMH CAP | *Surface disturbing activities that affect known vertebrate fossil localities will be considered in site specific analyses and potential adverse effects will be mitigated.* At the Area Manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Mitigation measures may include surface inventory, construction monitoring, excavation/salvage, or other measures considered to be reasonable and appropriate by the Area Manager. Operators are required to report any paleontological resources discovered during the course of operations. | Ongoing |
| 0488 | JMH CAP | The Boars Tusk area will continue to be closed to surface disturbing activities, mineral material sales, and use of explosives and blasting. The area within a ½-mile radius of Boars Tusk (including Boars Tusk) will be closed to blasting and explosive charges. The Boars Tusk area will be open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the site; however, facilities will be prohibited from being developed on the geologic feature. The Boars Tusk area will be a right-of-way avoidance area. The Boars Tusk and approximately 1,400 acres of BLM-administered public lands in the surrounding area will be closed to any surface mining activity, but open to consideration of subsurface mining methods. Activities or ancillary facilities related to subsurface mining will be prohibited | Ongoing |
| 0489 | JMH CAP | The Pinnacles Geologic Feature (about 1,345 acres).<br><br>Will be an exclusion area for rights-of-way. Surface use will also be controlled. The use of explosives on and within ½ mile of the Pinnacles Geologic Feature will be prohibited. The visual resource management (VRM) classification for the Pinnacles Geologic Feature will be Class II. Vehicular travel within ½ mile of the Pinnacles Geologic Feature, and including the features, will be limited to designated roads and trails. The Pinnacles proper will be closed to surface disturbance. | Ongoing |
| 0490 | JMH CAP | Paleontological Sites.<br><br>Documented significant fossil sites will be avoided to protect scientific and educational values. Management guidelines included in BLM Handbook 8270-1 will apply. If impacts are unavoidable, a BLM-approved paleontologist will evaluate the site (a paleontological survey may also be required) and will coordinate with BLM in developing a mitigation plan. The mitigation plan may include activity monitoring, fossil documentation, recovery, and storage in a federally approved repository. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0491 | GRRMP | Management of BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors<br><br>Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification (involving 5.8 miles of the river) will focus on maintaining or enhancing the outstandingly remarkable historic, scenic and recreational values and maintain the relatively primitive, pristine, rugged and unaltered character of the area. Any activities that would conflict with this objective and any physical or visual intrusions on the public lands involved are prohibited.<br><br>Temporary cultural and paleontology activities (e. g. recordation, sampling, testing, stabilization, rehabilitation and reconstruction) may be allowed on the public lands if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor. | Ongoing |
| 0492 | | Management of BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors.<br><br>Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Recreation Classification (involving 3.4 miles of the river) *will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values in a modestly modified setting and retain the character of the area.* Any activities that would conflict with this objective and any physical or visual intrusions on the public lands involved are prohibited.<br><br>Temporary cultural and paleontology activities (e. g. recordation, sampling, testing, stabilization, rehabilitation and reconstruction) may be allowed on the public lands if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.<br><br>The public lands will be managed under a Class II VRM classification. | Ongoing |

# 3.1.12. Visual Resources Management

### Table 3.17. Current Management Decisions for Visual Resources

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0493 | GRRMP | *Visual resource classes will be retained or modified to enhance other resource objectives such as those for* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | *cultural resource and recreation management, wild horse viewing, and special management areas.* | |
| 0494 | GRRMP | All activities in the unit will conform with the requirements of the Class II visual resource management classification and all management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer.<br><br>*Eastern Unit* (approximately 88,510 acres).<br><br>The Wind River Front is Designated a Special Recreation Management Area (SRMA).<br><br>The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests.<br><br>Location of long linear facilities will be avoided the unit. If avoidance is not possible, such facilities will be required to meet the Class II visual resource management classification standards. | Ongoing |
| 0495 | GRRMP | *Western Unit* (approximately 172,630 acres)<br><br>The Wind River Front is Designated a Special Recreation Management Area (SRMA).<br><br>The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests.<br><br>*All activities in the unit will conform with the requirements of Class III and Class IV visual resource management classifications and all management actions will be designed and located to remain subordinate to the characteristic landscape or to repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape*. | Ongoing |
| 0496 | GRRMP | The public lands along all other major highways in the Planning Area will be managed under their respective visual resource management classifications. | Ongoing |
| 0497 | GRRMP | All activities that could be viewed from the Fontenelle Reservoir will be designed to be subordinate to the landscape. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0498 | GRRMP<br><br>Plan change 21-1<br><br>12/18/06<br><br>Superseded by PC 21-2 7/09/08<br><br>Plan change 21-2<br><br>7/09/08 | *Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a 1/2 mile distance surrounding them will be closed to long-term or permanent intrusions and surface disturbing activities that could interfere with opportunities to view horses* (e.g., structures, mineral activities, powerlines, roads, etc.). *Short-term intrusions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis.* The Wild Horse Loop Tour on White Mountain will be managed as a wild horse viewing area. The Wild Horse Loop Tour on White Mountain will be managed as the Wild Horse Scenic Loop Byway (see Environmental Assessment, WY-040-03-054). The Scenic Loop Byway on White Mountain offers the public a unique opportunity to view wild horses while also offering views of other sights having social, geologic, or historical importance. In order to clarify the management of the Byway, the intent is to provide an opportunity to view wild horses while recognizing valid existing and future rights for surface and sub-surface use. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to wild horse management activities. | Ongoing |
| 0499 | GRRMP | *Cedar Canyon ACEC (2,550 acres of BLM-administered public lands).*<br><br>The ACEC will be managed consistent with the Class II, Class III, and Class IV visual resource management classifications to protect, maintain, and enhance the visual resource values. All future facilities will be designed to blend with the landscape, including painting where necessary, and disturbed areas will be revegetated to keep visual resource impacts to a minimum.<br><br>The vista area will be managed consistent with a Class II visual resource management classification. | Ongoing |
| 0500 | GRRMP | *Greater Red Creek ACEC (131,890 acres of BLM-administered public lands).*<br><br>Actions Unique to the Sage Creek Watershed.<br><br>The watershed (about 52,270 acres) will be managed consistent with the Class III visual resource management classification. | Ongoing |
| 0501 | GRRMP | *Greater Red Creek ACEC (131,890 acres of BLM-administered public lands).*<br><br>Actions Unique to the Currant Creek Watershed.<br><br>*The area will be managed consistent with the Class II visual resource management classification.* Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0502 | GRRMP | *The Pine Springs ACEC is expanded from 90 acres to 6,030 acres.*<br><br>*The ACEC will be managed consistent with the Class II visual resource management classification.* Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape. | Ongoing |
| 0503 | GRRMP<br><br>Plan change 33-2<br><br>12/19/00 | *South Pass Historic Landscape ACEC (53,780 acres of BLM-administered public lands)*<br><br>Future rights-of-way across public lands through this area (for linear utilities, transmission lines, communication sites, roads and highways, etc.), that could adversely affect the values of the historic landscape are prohibited. In addition, the Altamont Pipeline will not be built, the South Pass Historic Landscape Area will be closed to any subsequent right-of-way proposal, that could either replace or substitute for the Altamont Pipeline, or any similar future proposed action across public lands in the area.<br><br>*About 33,700 acres surrounding the trails and visible from the trails are closed to surface disturbing activities that could adversely affect the viewshed. This is an exclusion area for all rights-of-way. About 20,080 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails, and provided that environmental analysis indicates that the visual integrity of the area can be maintained. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities.* Small feeder lines could be allowed if analysis indicates that the visual integrity of the area will not be compromised. Rights-of-way along roads in the area could also be allowed if they did not compromise the visual integrity of the area. The prescriptions for the management of historic trails will also apply to this area.<br><br>*All activities for the ACEC will be managed consistent with the Class II visual resource management classification.* All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. The scenic values of the Highway 28 visual corridor (3 linear miles) will be protected. | Ongoing |
| 0504 | GRRMP | *Steamboat Mountain ACEC (43,270 acres of BLM-administered public lands)*not including expansion….3980<br><br>*All activities in the ACEC will be managed consistent with the Class II and Class III visual resource management classifications.* All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0505 | GRRMP | *White Mountain Petroglyphs ACEC (20 acres of BLM-administered public lands)*<br><br>*The ACEC will be managed consistent with the Class II visual resource management classification.* Management actions on the lands classified as Class II lands will be designed to retain the existing character of the landscape. | Ongoing |
| 0506 | GRRMP | *Monument Valley Management Area (69,940 acres of BLM-administered public lands)*<br><br>*The entire area will be managed consistent with the Class II visual resource management classification.* All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. | Ongoing |
| 0507 | GRRMP | *Pine Mountain Management Area (64,200 acres of BLM-administered public lands).*<br><br>The entire area will be managed consistent with the Class III visual resource management classification. | Ongoing |
| 0508 | GRRMP | *Red Desert Watershed Management Area (341,060 acres of BLM-administered public lands).*<br><br>*The Red Desert Watershed Area will be managed to ensure developments and activities conform with the concepts of open space. The area will be managed consistent with the Class II and Class III visual resource management classifications.* Site specific visual resource reviews (inventories) will be conducted prior to allowing activities that may affect these values. | Ongoing |
| 0509 | GRRMP | Management of BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors:<br><br>The public lands will be managed under a Class II VRM classification. | Ongoing |
| 0510 | JMH CAP | Management Actions for Visual Resources Management.<br><br>Projects will be designed, sited, screened, or painted to reduce visual impacts regardless of the VRM classification. The VRM classes provide the design standards for all surface disturbing projects.<br><br>Visual resource classes will be retained or modified to enhance other resource objectives such as heritage resources, recreation uses, wild horse viewing, and special management areas. Projects will be designed to meet established visual classifications objectives, and appropriate mitigation will be applied.<br><br>The four VRM classes (I, II, III, IV) set standards for planning, designing, and evaluating projects by identifying various permissible levels of landscape alteration while protecting overall regional scenic quality. The approved VRM class objectives<br><br>provide the visual management standards for the design and development of future projects and rehabilitation | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | of existing projects. Visual design considerations are incorporated into all surface disturbing projects regardless of size or potential impact.<br><br>The VRM class objectives range from very limited management activity (Class I) to activity allowing major landscape modifications (Class IV). Refer to the Glossary for a full description of the objective of each VRM class. | |
| 0511 | JMH CAP | VRM Class I Areas.<br><br>The WSAs are managed as VRM Class I areas to preserve the natural setting and existing character of the landscape. As a result, the Oregon Buttes ACEC and the western portion of the Greater Sand Dunes ACEC are managed as VRM Class I areas. | Ongoing |
| 0512 | JMH CAP | VRM Class II Areas.<br><br>Management actions on lands classified as VRM Class II will be designed to retain the existing character of the landscape.<br><br>A visual transition area of 1 mile adjacent to each Class I area (WSA) will be managed as Class II to retain the existing character of the Class I areas (WSA) and surrounding landscapes.<br><br>A low level of change will be acceptable to the characteristic landscapes of the ACECs, thus the eastern portion of the Greater Sand Dunes ACEC, South Pass Historic Landscape ACEC, and White Mountain Petroglyphs ACEC will be managed as VRM Class II areas. Steamboat Mountain ACEC, Steamboat Mountain Management Area (includes Split Rock), and unique geological features and landforms, including portions of White Mountain, Pinnacles Geological Feature, and the West Sand Dunes Archaeological District, will also be managed as VRM Class II areas. | Ongoing |
| 0513 | JMH CAP | VRM Class III Areas.<br><br>Eden Valley, portions of White Mountain, a portion of the Red Desert Watershed within the Planning Area (not already designated as Class I or II), and Joe Hay Rim will be managed as VRM Class III. | Ongoing |
| 0514 | JMH CAP | VRM Class IV Areas.<br><br>All areas not managed as VRM Class I, II, or III will be managed as VRM Class IV. | Ongoing |
| 0515 | JMH CAP | WSAs VRM: These areas are managed as VRM Class I areas to preserve the natural setting and existing character of the landscape. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0516 | JMH CAP | *ACEC — Greater Sand Dunes ACEC VRM:*<br><br>The western portion of the ACEC will be managed consistent with a Class I VRM classification. VRM Class I objectives are to maintain a landscape setting that appears unaltered by humans. VRM: The eastern portion of the ACEC will be managed consistent with a Class II VRM classification. The VRM Class II objective is to retain the existing character of the landscape. Facilities (either in place or new), including linear rights-of-way, will be screened, painted, or designed to blend with the surrounding landscape. | Ongoing |
| 0517 | JMH CAP | *ACEC — Oregon Buttes ACEC VRM:*<br><br>The ACEC will be managed as a VRM Class I area. | Ongoing |
| 0518 | JMH CAP | *ACEC — South Pass Historic Landscape ACEC VRM:*<br><br>The entire ACEC will be managed as a VRM Class II area. | Ongoing |
| 0519 | JMH CAP | *ACEC — Steamboat Mountain ACEC VRM:*<br><br>The entire ACEC will be managed as a VRM Class II area. | Ongoing |
| 0520 | JMH CAP | *ACEC — White Mountain Petroglyphs ACEC VRM:*<br><br>The ACEC is a VRM Class II area. | Ongoing |
| 0521 | JMH CAP | Red Desert Watershed Management Area VRM: The area will be managed consistent with the Class I, Class II, and Class III visual resource management classifications. The portions of the Red Desert<br><br>*Watershed Management Area not managed as VRM Class I or II will be managed as a VRM Class III area.* VRM Class I objectives are to maintain a landscape setting that appears unaltered by humans. The VRM Class II objective is to retain the existing character of the landscape. Facilities (either in place or new),including linear rights-of-way, etc., would be screened, painted, or designed to blend with the surrounding landscape. VRM Class III objectives are to design proposed alterations so as to partially retain the existing character of the landscape. | Ongoing |
| 0522 | JMH CAP | *Pinnacles Geographic Area VRM:*<br><br>The area will be managed as a VRM Class II area. | Ongoing |
| 0523 | JMH CAP | *Steamboat Mountain Management Area VRM:*<br><br>The Steamboat Mountain Management Area will be managed as a VRM Class II area. | Ongoing |

# 3.2. Resource Uses

## 3.2.1. Energy and Minerals

### 3.2.1.1. Leasable Fluid Minerals

#### 3.2.1.1.1. Geothermal

**Table 3.18. Current Management Decisions for Geothermal**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0524 | GRRMP | Geothermal resources are open to leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing. | Ongoing |
| 0525 | GRRMP | Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and other activities in the same manner as they are applied to oil and gas exploration and development activities. | Ongoing |

#### 3.2.1.1.2. Oil and Gas

**Table 3.19. Current Management Decisions for Oil and Gas**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0526 | GRRMP | *BLM-administered public lands not specifically closed are open to consideration of oil and gas leasing. Public lands closed to leasing include lands within the Red Creek ACEC and portions of the Wind River Front.* | Ongoing |
| 0527 | GRRMP | *The remainder of the public lands in the Planning Area are open to consideration for oil and gas leasing with appropriate mitigation measures.* | Ongoing |
| 0528 | GRRMP | *Where maximum protection of resources is necessary, a No Surface Occupancy requirement will be imposed.* Additional areas may be identified through site specific environmental analysis and activity planning. | Ongoing |
| 0529 | GRRMP | *Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development.* Limitations on the amount, sequence, timing, or level of development may occur. This may result in transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0530 | GRRMP | Prior to issuing Federal mineral leases in areas around or adjacent to local communities or occupied dwellings, community and county governments will be consulted to obtain input and direction to protect public health and safety. Unleased lands in such areas may be offered for lease with an NSO stipulation or, if the areas are too large for directional drilling, they may remain unleased. | Ongoing |
| 0531 | GRRMP | *Leases may also be issued with other appropriate mitigation requirements necessary to protect public health and safety and to allow for urban expansion.* These NSO areas may only be accessed through directional drilling. The NSO stipulation will be used to facilitate drainage problems or needs, under the assumption that industry is the best judge of whether technology will enable access to the oil and gas resources under the terms of the lease. | Ongoing |
| 0532 | GRRMP | Leasing with an NSO stipulation could become necessary for several reasons. For example, if the area is characterized by occupied dwellings and the potential for additional urban expansion; if the area is surrounded by the scenic steep slopes of White Mountain, Wilkins Peak, and other similar topographic features. Any disturbance in the expanding urban areas or on the steep slopes, can affect the potential for expansion, public health and safety, watershed values, and the scenic resources. Likelihood of success in producing gas varies from low to high, which means that some development will likely occur and production facilities will be necessary along with year-round access. Any requests for relief from these requirements will require an environmental analysis on the action being considered and the RMP may have to be amended. | Ongoing |
| 0533 | GRRMP | *To the extent that laws and regulations allow, the areas closed to oil and gas leasing will remain closed to leasing of oil and gas unless drainage results in a loss of Federal minerals through production on adjacent private or State lands.* At such time, the no lease prescription will be re-evaluated. Actions such as drainage agreements will also be considered | Ongoing |
| 0534 | JMH CAP | The Planning Area (Map 1.1) will be managed to maintain or enhance opportunities for mineral exploration and development while providing for other resource values. | Ongoing |
| 0535 | JMH CAP | All minerals and energy resource management actions will recognize valid existing rights and ensure compliance with existing legal and regulatory requirements. These include leases issued under the Mineral Leasing Act of 1920 and Amendments, mining claims filed under the Mining Act of 1872, and existing sale contracts and free use permits for mineral materials. | Ongoing |
| 0536 | JMH CAP | Fluid mineral leasing, exploration, and development will be allowed in portions of the Planning Area with necessary mitigation. | Ongoing |
| 0537 | JMH CAP | The JMH CAP area is divided into three implementation management areas. Area 1 is open to fluid mineral leasing with appropriate stipulations applied to protect sensitive resources in Area 1. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 538 | JMH CAP | As leases expire within Area 1, they will be considered for subsequent lease offerings. Stipulations for subsequent lease offerings, those identified through monitoring as will be applied if deemed necessary. | Ongoing |
| 0539 | JMH CAP | Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential (Approximate Acres) SEE TABLE IN JMH CAP ROD | Ongoing |
| 0540 | JMH CAP | Area 2 is open to leasing considering such factors as operational need, resource recovery, geology, and ability to mitigate impacts and with stipulations applied to protect sensitive resources in Area 2. BLM may request potential lessees to share data (such as reservoir data or geologic data) or plans related to the development of the potential oil and gas resource prior to leasing; sharing of these data is voluntary. | Ongoing |
| 0541 | JMH CAP | As leases expire within Area 2, they will be considered for subsequent lease offerings. Stipulations identified through monitoring as described in the implementation, monitoring, and evaluation management strategy and the Lease stipulations paragraphs will be applied to new leases if deemed necessary. | Ongoing |
| 0542 | JMH CAP | Approximately 35,500 acres along the perimeter of Area 3 are available for leasing with an NSO stipulation. This acreage represents a distance of ½ mile within portions of the boundary of Area 3. Although current technologies suggest that the ½-mile distance is adequate at this time, these NSO areas may be expanded to include additional adjacent acreage provided the Planning Area resource objectives can be met. | Ongoing |
| 0543 | JMH CAP | As existing leases expire in Area 3, they will not be re-offered for lease (approximately 88,200 acres) unless they are within the 35,500 acres along the perimeter of Area 3 identified above. | Ongoing |
| 0544 | JMH CAP | Oil and gas leases within the Planning Area that were suspended during preparation of the JMH CAP will be reinstated within 3 years of signing the Record of Decision or earlier with an approved development plan. Should new lease suspensions become necessary, they will be considered on a case-by-case basis. | Ongoing |
| 0545 | JMH CAP | Buyout or exchange of existing leases from willing sellers may be considered on a case-by-case basis. Congressional legislation will be required to authorize and fund lease buyouts. | Ongoing |
| 0546 | JMH CAP | Areas that cannot be offered for lease include WSAs (about 119,000 acres) and other areas where fluid mineral leasing and development would not be in compliance with other laws or with land use planning decisions that prohibit fluid mineral leasing and development in certain areas. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0547 | JMH CAP | Any surface disturbing and disruptive activities involved with development of existing leases will be subject to extensive review and mitigation that will allow appropriate levels of activity while meeting resource objectives and protecting sensitive resources in the area. BLM specialists will review sensitive resources with lease operators to develop and implement measures to allow for effective development operations where impacts could be avoided or mitigated. BLM has and will continue to apply and enforce necessary COAs identified through a site-specific NEPA or other analysis. | Ongoing |
| 0548 | JMH CAP | COAs attached to an Application for Permit to Drill (APD) will be based on site specific NEPA or other analysis and will establish specific, necessary mitigation measures not covered by stipulations for resource and environmental protection.<br><br>Some areas will need more intensive mitigation measures to protect sensitive resources and provide for public health and safety. These intensive mitigation measures or COAs will mostly apply to areas with overlapping sensitive resources (e.g., Areas 2 and 3). Examples of intensive mitigation that can apply to all activities based on site-specific analysis include offsite placement of facilities, remote control monitoring, restricted or prohibited surface use including road construction, multiple wells from a single pad, central tank batteries/facilities, and pipelines and power lines concentrated in specific areas. | Ongoing |
| 0549 | JMH CAP | Exceptions to lease stipulations and COAs will be allowed when site-specific analyses shows impacts to sensitive resources are within acceptable limits. Timing of activities will be considered where consistent with lease rights. | Ongoing |
| 0550 | JMH CAP | Well spacing requirements for oil and gas resource protection will defer to the Wyoming Oil and Gas Conservation Commission guidance, with consideration for surface resource values. The Wyoming Oil and Gas Commission is responsible for establishing down-hole spacing for the State of Wyoming, which does not include an assessment of surface resources. BLM is responsible for managing all aspects of the public lands under its jurisdiction, including the appropriate surface use or "spacing," giving consideration to the design, location, and placement of well sites and facilities and potential impacts on surface resources. Surface spacing for wells will be evaluated based on appropriate NEPA or other analysis that considers impacts to all resources. The resultant surface spacing may not be the same as the down-hole spacing established by the Wyoming Oil and Gas Commission. | Ongoing |

## 3.2.1.2. Leasable Solids Minerals

### 3.2.1.2.1. Coal

**Table 3.20. Current Management Decisions for Coal**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0551 | GRRMP | *With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and Federal coal lands in the Green River Planning Area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential.* | Ongoing |
| 0552 | GRRMP | The North Fork Vermillion Creek drainage and the City of Rock Springs Expansion Area are closed to further consideration for Federal coal leasing and development. | Ongoing |
| 0553 | GRRMP | *Federal coal lands within the Coal Occurrence and Development Potential area* (about 422,000 acres) *are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses*. | Ongoing |
| 0554 | GRRMP | For the protection of important rock art sites, other important cultural resource values, and important geologic and ecologic features, Federal coal lands with these important values are open to consideration for further leasing and development by subsurface mining methods only. | Ongoing |
| 0555 | GRRMP | In general, cultural sites on Federal coal lands are avoidance areas for surface disturbing activities. As avoidance areas, cultural sites are open to consideration for coal leasing and development with appropriate measures to protect these resources | Ongoing |
| 0556 | GRRMP | Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements:<br><br>Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0557 | GRRMP | Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc..., are prohibited in these areas.<br><br>During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks (i.e., those leks occupied by mating birds). | |
| 0558 | GRRMP | Grouse nesting areas (sage or sharptail grouse) are open to consideration for Federal coal leasing and development, with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement:<br><br>If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed. | Ongoing |

## 3.2.1.2.2. Oil Shale

### Table 3.21. Current Management Decisions for Oil Shale

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0559 | OSTS PEIS | Identify the most geologically prospective oil shale areas within the planning unit. | Completed |
| 0560 | OSTS PEIS | Specify that while the PEIS refers to "application for leasing for commercial oil shale development," the BLM could publish in the *Federal Register* one or more additional requests for expressions of interest in RD&D leasing within one or more of the states of Colorado, Utah, and Wyoming. Any new RD&D lease would have to be consistent with the applicable BLM land use plans. | Not implemented |
| 0561 | OSTS PEIS | Specify that commercial leasing will occur utilizing a lease by the application process. The process will require that additional NEPA analysis be conducted prior to lease issuance. Information collected as part of the lease application process will be incorporated into the NEPA analysis. | Not implemented |
| 0562 | OSTS PEIS | Specify that approval of the project-specific plan of operation will require NEPA review to consider site-specific and project-specific factors. The NEPA review for the plan of operations may be incorporated into NEPA for the lease application if adequate operational data are provided by the applicant(s). | Not implemented |
| 0563 | OSTS PEIS | Specify that the BLM will consider and give priority to the use of land exchanges, where appropriate and feasible, to consolidate land ownership and mineral interests within the oil shale basins. | Not implemented |
| 0564 | OSTS PEIS | Designate 788,230 acres of land within the most geologically prospective oil shale area as available for application for leasing for commercial oil shale development in accordance with applicable federal and state regulations and BLM policies. | Completed |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0565 | OSTS PEIS | Specify that applications for commercial leases using surface mining technologies will only be accepted within an area of 248,000 acres within the most geologically prospective oil shale area where the overburden is 0 to 500 ft. thick. Applications for commercial leasing using surface mining technologies will not be accepted in any other areas. | Not implemented |
| 0566 | OSTS PEIS | Commercial leasing is excluded from all designated WSAs, and other areas that are part of the NLCS administered by the BLM (e.g., National Monuments, NCAs, WSRs, and National Historic and Scenic Trails), existing ACECs that are currently closed to mineral development, and lands within incorporated town and city limits. | Ongoing |
| 0567 | OSTS PEIS | Additional areas would be closed and would not be available for future opportunity to lease for commercial development of oil shale resources under both programmatic alternatives. These additional areas include, but are not limited to:<br>● Mechanically Mineable Trona Area (MMTA). This area, which is located in the Green River Basin in Wyoming, falls within a portion of the Known Sodium Leasing Area (KSLA) that encompasses the world's largest known trona deposits. Trona leases were issued within this area, and production occurs from a number of underground mines. The MMTA would be excluded from oil shale leasing until technology or other factors exist to allow development of the oil shale resource without jeopardizing the safe operation of underground trona mines.<br>● Segments of rivers that the BLM has determined to be potentially eligible for WSR status by virtue of a WSR inventory. These river segments and a corridor extending at least 0.25 mi from the high water mark on either side of these segments would be excluded from commercial leasing.<br>● Historic trails. Historic trails identified by the BLM Wyoming State Office and a corridor extending at least 0.25 mi on either side of the trail will be excluded from commercial leasing.<br>(Continued below) | Not implemented<br>Ongoing<br>Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0568 | OSTS PEIS | • Monument Valley Management Area. Oil shale development within this management area, which is located in the Rock Springs Field Office area, is prohibited in the Green River RMP (BLM 1997a). Specifically, the RMP directs that these lands remain withdrawn from oil shale development until a comprehensive study of the area has been conducted, including an assessment of the potential designation of this area as an ACEC on the basis of the need to protect cultural and paleontological resources.<br><br>• Management Area 3, Jack Morrow Hills Planning Area. In accordance with the Jack Morrow Hills Coordinated Activity Plan (BLM 2006a), extensive restrictions on surface disturbing activities have been established for Area 3 within the Jack Morrow Hills Planning Area because of the presence of sensitive natural and cultural resources. The portion of Area 3 that overlaps with the most geologically prospective oil shale resources in the Green River Basin is restricted to No Surface Occupancy (NSO) and has been excluded from future leasing on the basis of input from the field office.<br><br>• Expansion Areas around Rock Springs and Green River, Wyoming. The BLM will not issue leases within the "expansion areas" agreed upon with the cities of Rock Springs and Green River, Wyoming. | Ongoing<br><br>Ongoing<br><br>Ongoing |
| 0569 | GRRMP | *Policies and BMPs in the Oil Shale and Tar Sands Resources ROD will be adopted.*<br><br>In accordance with applicable federal and state regulations and BLM policies, an estimated 788,230 acres of land within the most geologically prospective oil shale area (Green River formation basin) is available for application for leasing, for commercial oil shale development. Avoidance of surface disturbance, controlled surface use, special management areas, and other planning decisions still apply. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to commercial oil shale development. | Completed |

## 3.2.1.2.3. Sodium (Trona)

### Table 3.22. Current Management Decisions for Sodium (Trona)

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0570 | GRRMP | *Leasing of other leasable minerals will be considered on a case-by-case basis and is subject to appropriate mitigation.* | Ongoing |
| 0571 | GRRMP | *The known sodium (trona) leasing area is open to exploration and consideration for leasing and development, but is closed to prospecting permits.* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0572 | GRRMP | *The remainder of the Planning Area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities* (areas closed to drilling, off-road vehicle use, and explosive charges). | Ongoing |
| 0573 | GRRMP | Sodium (trona) leasing will be considered on a case-by-case basis, and is subject to the same conditional requirement as oil and gas and coal, and the general management direction applied in this RMP. | Ongoing |

## 3.2.1.3. Locatable Minerals

### Table 3.23. Current Management Decisions for Locatable Minerals

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0574 | GRRMP | With the exception of lands withdrawn from mineral location, the Planning Area is open to filing of mining claims and exploration for and development of locatable minerals. | Ongoing |
| 0575 | GRRMP | *The mineral classification withdrawals in the RMP Planning Area (phosphate, coal, oil shale) will be revoked. In some areas, these classification withdrawals will remain in effect until replaced with an appropriate withdrawal for other, appropriate purposes (see Special Management Area section). Other withdrawals from mineral location will be pursued to provide protection to important resource values.* | Ongoing<br><br>(need to validate status with Realty) |
| 0576 | JMH CAP | Valid existing rights to develop locatable mineral claims under the Mining Act of 1872 will be recognized. | Ongoing |

## 3.2.1.4. Salable Minerals

### Table 3.24. Current Management Decisions for Salable Minerals

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0577 | GRRMP | *Most of the Planning Area is open to consideration of mineral material sales and activity except for areas where such activity would cause unacceptable impacts.* | Ongoing |
| 0578 | GRRMP | *As sale areas, community pits, and localized common use areas become established to provide for sales of mineral materials, such as moss rock and sand, their use and management will be in conformance with other resource objectives.* Adequate mine and reclamation plans for use areas will be developed. Requests from users for mineral material will be evaluated on a case-by-case basis. | Ongoing |
| 0579 | GRRMP | Establishment of mineral material sites will be evaluated on a case-by-case basis. | Ongoing |
| 0580 | GRRMP | No topsoil sale areas will be established. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0581 | JMH CAP | The Planning Area will be open to mineral material disposals where required to meet planning objectives, such as construction and maintenance of roads in the approved transportation plan, construction of recreational facilities, or other construction related to approved development activities. Mining and reclamation plans will be prepared for each use of saleable mineral materials to provide protection for sensitive resources and to restore disturbed areas. | Ongoing |
| 0582 | JMH CAP | *Areas currently closed to mineral material disposals will remain closed.* These include Crookston Ranch, Oregon Buttes ACEC, Native American burial sites, Boars Tusk, White Mountain Petroglyphs, Greater Sand Dunes ACEC, South Pass Historic Landscape ACEC (visible portion), South Pass summit (5,260 acre), raptor nesting sites, WSAs, and special status plant species. *Other areas closed to mineral materials disposals will include the lava rock portion of Steamboat Mountain ACEC, the Pinnacles Geologic Feature, and Greater Sage-Grouse leks and ¼ mile around the lek perimeter.* | Ongoing |
| 0583 | JMH CAP | The remainder of Steamboat Mountain ACEC and the Steamboat Mountain Management Area will be available for saleable mineral development only when required to meet other planning objectives within the Planning Area. The objectives for the Steamboat Mountain ACEC and the Steamboat Mountain Management Area must also be met. | Ongoing |

# 3.2.2. Livestock Grazing Management

### Table 3.25. Current Management Decisions for Livestock Grazing

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0584 | GRRMP | Authorized grazing use will not exceed the recognized permitted active AUMs (318,647 AUMs). Public lands will be made available for livestock grazing while considering the needs of other resources | Ongoing |
| 0585 | GRRMP | The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met. Allotments are placed in one of three selective management categories identified as improve (I), maintain (M), or custodial (C). Livestock grazing will be managed on 31 I category allotments, 18 M category, and 29 C category Allotments, and one allotment may not be categorized. | Ongoing |
| 0586 | GRRMP | The Palmer Draw area (970 acres) and special management exclosures are closed to livestock grazing. AUMs currently authorized in these areas will be suspended. | Ongoing |
| 0587 | GRRMP | All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0588 | GRRMP | Management actions identified in the Rangeland Program Summary Update (1990) will continue to be implemented, as appropriate, through site specific activity planning. | Ongoing |
| 0589 | GRRMP | Cooperative allotment management plans prepared in coordination with other agencies, such as the Forest Service and Natural Resource Conservation Service, will be consistent with this land use plan. | Ongoing |
| 0590 | GRRMP | Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover (see Vegetation section). New range improvements may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy. | Ongoing |
| 0591 | GRRMP | Combining and splitting allotments will be considered when such action will help meet RMP objectives (e.g., the Henrys Fork allotment could be split into 3 allotments and managed under the guidelines of revised AMPs). The Cottonwood Creek and Antelope Wash allotments could be consolidated into one two pasture allotment and managed under the guidelines of a new AMP. | Ongoing |
| 0592 | GRRMP | Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means. BLM will cooperate and coordinate with County weed and pest districts. | Ongoing |
| 0593 | GRRMP | Stock driveway withdrawals numbers 4, 21, and 23 will be revoked. | Ongoing |
| 0594 | GRRMP | See other resource management prescriptions in this document for other prescriptions and guidance that may apply to livestock grazing management activities. | Ongoing |
| 0595 | GRRMP | Vegetation manipulation projects will be conducted to reach multiple use objectives and will involve site specific environmental analysis and coordination. Funds for vegetation manipulation in I category allotments will be provided by the BLM, other state or federal agencies, and private sources.<br><br>All vegetation manipulation projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed. | Ongoing |
| 0596 | GRRMP | The Green River Resource Area uses BLM Technical Reports on Proper Functioning Condition (TR 1737-9 and TR 1737-11) to guide the effort in classifying or rating all lotic (moving water) and lentic (still water) riparian areas. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0597 | GRRMP | The cooperative management agreement with the WGFD for annual monitoring, maintenance, and the development of additional waters will continue as needed. Livestock water developments will be modified or protected where possible to enhance wildlife habitat and to maintain or enhance water quality. Water developments within sensitive wildlife habitats will be considered only if wildlife habitat and resource conditions will be improved or maintained. Compatibility with special status plant species will be required. | Ongoing |
| 0598 | GRRMP | Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |
| 0599 | GRRMP | Livestock grazing objectives would be evaluated, and as needed, modified to be consistent with the management objectives for the area. | Ongoing |
| 0600 | GRRMP | Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). Maintenance and use of existing rangeland improvements on the BLM-administered public lands is allowed. Proposed rangeland improvements must be part of an allotment management plan, and be consistent with the management objectives for the area. Environmental analyses of such improvements will be conducted to consider the effects on resource values from rangeland improvement construction and maintenance activities and equipment used for these activities. | Ongoing |
| 0601 | GRRMP | Materials used for improvements must be compatible with the natural character of the area to reduce intrusive visual effects on the natural environment. | Ongoing |
| 0602 | GRRMP | Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). Prescribed management actions for livestock grazing include continuous monitoring, establishing objectives for livestock use in riparian areas, and encouraging cooperative management. | Ongoing |
| 0603 | GRRMP | Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |
| 0604 | GRRMP | Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for the ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0605 | GRRMP | Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives of this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Ongoing |
| 0606 | GRRMP | The coal and stock driveway withdrawals will be revoked. | Ongoing |
| 0607 | GRRMP | Increases in active grazing preference and construction of new range improvements on the public lands are prohibited. | Ongoing |
| 0608 | GRRMP | Increases in active grazing preference on the public lands are prohibited. Range improvements will only be allowed if they are compatible with objectives for the scenic river classification. | Ongoing |
| 0609 | GRRMP | Increases in active grazing preference are prohibited. Range improvements will only be allowed if they are compatible with the objectives for recreational river classification. | Ongoing |
| 0610 | JMH CAP | Public lands will be made available for livestock grazing while considering the needs of other resources. | Ongoing |
| 0611 | JMH CAP | The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Authorized active livestock use and existing forage reservations for wildlife and wild horses will be maintained. Historic levels and types of rangeland monitoring will continue, and additional levels and types of monitoring or evaluation may be initiated as necessary to determine any need for forage allocation adjustment. | Ongoing |
| 0612 | JMH CAP | Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine whether vegetation objectives will be met for all affected resource values and uses (livestock grazing, wild horses, wildlife, watershed, etc.). | Ongoing |
| 0613 | JMH CAP | Requests for conversions of kinds of livestock and changes in seasons of grazing use will be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with wildlife, wild horse, watershed, and riparian objectives. Special status plant species and vegetation objectives must be considered before allowing livestock conversions, and all conversions will be consistent with available forage. | Ongoing |
| 0614 | JMH CAP | All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses. | Ongoing |
| 0615 | JMH CAP | Allotments have been placed in one of three selective management categories, identified as improve (I), maintain (M), or custodial (C) based on criteria found in the Green River RMP. | Ongoing |
| 0616 | JMH CAP | AMPs will be developed or existing AMPs will be modified. Priority for AMP development and modification is I, M, and then C category allotments. All AMPs would incorporate riparian and desired plant community objectives. Riparian objectives would be developed for C category allotments where riparian values exist. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0617 | JMH CAP | Site-specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. | Ongoing |
| 0618 | JMH CAP | Range improvements will be directed at resolving or reducing resource concerns, at improving wetland/riparian areas, and at overall improvement of vegetation/ground cover (see Vegetation section). Vegetation manipulation projects would be designed to meet CAP objectives. | Ongoing |
| 0619 | JMH CAP | Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. | Ongoing |
| 0620 | JMH CAP | Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and to improve livestock distribution. | Ongoing |
| 0621 | JMH CAP | Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site-specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. | Ongoing |
| 0622 | JMH CAP | All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement. | Ongoing |
| 0623 | JMH CAP | Combining and splitting allotments will be considered when such action will help meet RMP objectives. Combining and splitting allotments would be considered if they would help to meet resource management objectives. | Ongoing |
| 0624 | JMH CAP | Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means. BLM will cooperate and coordinate with county weed and pest districts. | Ongoing |
| 0625 | JMH CAP | Cooperative AMPs prepared in coordination with other agencies will be consistent with the approved Green River RMP. | Ongoing |
| 0626 | JMH CAP | *Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas.* Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources will be encouraged to better distribute livestock in JMH. | Ongoing |
| 0627 | JMH CAP | Water developments and/or range improvements proposed in the JMH sensitive areas will be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects will occur. | Ongoing |

# 3.2.3. Recreation and Visitor Services

### Table 3.26. Current Management Decisions for Recreation

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0628 | GRRMP | Most public lands in the Planning Area are open to consideration of all individual, commercial, and competitive outdoor recreation uses. | Ongoing |
| 0629 | GRRMP | *Developed recreation sites will be managed to assure public health and safety.* | Ongoing |
| 0630 | GRRMP | *A 14-day camping limit is established on all BLM-administered public lands.* Camping is limited to 14 days within a 28-day consecutive period. After the 14th day of occupation, campers must move outside a 5-mile radius of the previous location. | Ongoing |
| 0631 | GRRMP | *Special recreation permits will be considered on a case-by-case basis.* Appropriate mitigation will be included in special recreation permits, commercial recreation uses, and major competitive recreation events to provide resource protection and public safety. | Ongoing |
| 0632 | GRRMP | *The Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, Leucite Hills, Red Creek, Pine Mountain, Little Mountain, and Cedar Canyon areas will be managed to assure their continuing value for recreational opportunities*. Recreation area management plans will be prepared for these areas if necessary. | Ongoing, some are finished, some are in process |
| 0633 | GRRMP | *The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, and the Wind River Front are designated special recreation management areas (SRMAs) to place management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses. The former SRMA designations (Killpecker Sand Dunes and Oregon and Mormon Pioneer National Historic Trails) are retained*. The management plan for the Oregon and Mormon Pioneer Trails will be implemented. Management plans for the Green River, Wind River Front, the Sand Dunes, and the Continental Divide National Scenic Trail and Snowmobile Trail will be developed. | Ongoing, some are finished, some are in process |
| 0634 | GRRMP | The remainder of the Planning Area will be managed as an extensive recreation management area (ERMA). | Ongoing |
| 0635 | GRRMP | Recreation project plans and an interpretive prospectus will be developed for the 14-Mile recreation site, Sweetwater Campgrounds, Boars Tusk, Leucite Hills, and the Continental Divide Snowmobile Trail. | Ongoing |
| 0636 | GRRMP | *The 14-Mile Recreation Area is closed to surface disturbing and development activities, except for those specifically associated with construction and development of recreation facilities for the site The public water reserve and the recreational withdrawal which closes the area to mineral location and disposal will be retained*. | amended |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0637 | GRRMP | *The integrity of the Continental Divide Snowmobile Trail will be maintained to allow for continued snowmachine use. The trail system may be expanded by adding loop trails.* Maintaining trail integrity will be accomplished by limiting surface disturbing activities, structures, or facilities that block or hinder trail use on or within 1/4 mile of the trail. The only exceptions will be facilities that support trail visitor use and experiences along the trail or to protect the health and safety of trail users. | Ongoing |
| 0638 | GRRMP | *Mountain bike trail opportunities will be explored. Specific areas include but are not limited to the Little Mountain-Firehole Canyon-Flaming Gorge area and the Wyoming Continental Divide Snowmobile Trail. Other mountain bike trails may be developed on a case-by-case basis.*Partnerships with local citizens and Chambers of Commerce, Forest Service, and the State of Wyoming will be pursued. Trails will be signed, and brochures will be developed. Implementation plans will consider mountain bike and other mechanized vehicle needs. | Ongoing |
| 0639 | GRRMP | *The Green River, Sweetwater River, Big Sandy River, and the Bitter Creek segment between the towns of Rock Springs and Green River will be managed for recreation values.* Recreation area management plans will be developed, where necessary. | Ongoing |
| 0640 | GRRMP | *Five backcountry byways are designated and will include consideration for mountain bike use. They are Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop.* Brochures and interpretive signs will be prepared to inform users.<br><br>Additional travel routes that meet the criteria will be considered for designation as backcountry byways on a case-by-case basis. | Ongoing |
| 0641 | GRRMP | Cutting of trees and firewood for camping purposes in developed recreation sites is limited to designated areas. | Ongoing |
| 0642 | GRRMP | Recreation site development projects and access routes along intensively used streams and reservoirs will be managed to maintain or improve wetland habitat conditions. | Ongoing |
| 0643 | GRRMP | *Development of permanent recreation sites and facilities in undeveloped recreation use areas will be considered, provided proper mitigation and exceptions to Executive Order 11988 apply. The area within 500 feet of riparian areas and floodplains is an avoidance area for recreation site facilities.* | Ongoing |
| 0644 | GRRMP | Vegetation buffer strips will be maintained between developed recreational facilities and surface water. | Ongoing |
| 0645 | GRRMP | *The natural values of Boars Tusk, Pilot Butte, and Emmons Cone will be protected. Surface occupancy and surface disturbing activities are prohibited in these areas, unless such activity would enhance management of these geologic features*. Interpretive facilities will be allowed. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0646 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit* (approximately 88,510 acres).<br><br>*The management objective emphasis for this unit of the SRMA is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources; and to provide protection to the Class I airshed in the Bridger Wilderness.* | Ongoing |
| 0647 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>*Major facilities (including linear facilities) are generally prohibited in this unit. Some facilities could be allowed if analysis indicates that the management objectives for the unit could be met.* For example, small and short-distance feeder lines (e.g., power, telephone, water) may be considered. | Ongoing |
| 0648 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>This unit of the SRMA is closed to mineral leasing. | Ongoing |
| 0649 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>Surface disturbing activities must conform to unit management objectives. | Ongoing |
| 0650 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>The 500 acres associated with the *Arabis pusilla* portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, off-road vehicle (ORV) use is limited to designated roads and trails. | Ongoing |
| 0651 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>*Seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river) will be managed under the Wild and Scenic Rivers Act interim management guidelines. The purpose of this interim management is to maintain or enhance the outstandingly remarkable resource values on the public lands along the river and to maintain their suitability for consideration by Congress for inclusion into the National Wild and Scenic River Preservation System. The suitable public land parcels along the river are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued.* More detailed information on the management of these public lands with the potential for Wild and Scenic River designation can be found in the Wild and Scenic River section. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0652 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>The Sweetwater Bridge and Guard Station campgrounds are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued. | Ongoing |
| 0653 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>Additional withdrawals may be pursued in the unit to meet unit management objectives, if necessary. | Ongoing |
| 0654 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit* (approximately 88,510 acres).<br><br>The Sweetwater Bridge and Guard Station Campgrounds will be upgraded to better provide for public health and safety, reduce natural resource degradation, and to meet Bureau accessibility standards. | Ongoing |
| 0655 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>*The integrity of the Continental Divide Snowmobile Trail, the Continental Divide National Scenic Trail, and the South Pass Cross Country Ski Trail will be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within 1/4 mile of the trails. The only exceptions will be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety*. | Ongoing |
| 0656 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>All activities in the unit will conform with the requirements of the Class II visual resource management classification and all management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. | Ongoing |
| 0657 | GRRMP | Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): *Eastern Unit (approximately 88,510 acres).*<br><br>*Location of long linear facilities will be avoided the unit. If avoidance is not possible, such facilities will be required to meet the Class II visual resource management classification standards.* A transportation plan will be completed prior to allowing developments in the unit. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0658 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit (approximately 88,510 acres).*<br><br>*The public lands along about 1.5 miles of the Big Sandy River, adjacent to the Bridger-Teton Forest boundary, will be managed to retain their inherent pristine character. Actions that would alter these characteristics in this area are prohibited. Along this segment of the Big Sandy River, and within a 1/2 mile of either bank of the river, the public lands are closed to surface disturbing activities.* | Ongoing |
| 0659 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit* (approximately 88,510 acres)<br><br>*The management objective emphasis for this unit of the SRMA is for dispersed recreation uses such as camping, hunting, and fishing, with full consideration given to wildlife, cultural, vegetation, watershed values, and mineral development activity. A no surface occupancy requirement will be imposed on the area including the river and within 1/2 mile of either bank of the river.* | Ongoing |
| 0660 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres). This unit of the SRMA is open to mineral leasing.*<br><br>Daily vehicle use and access may not be feasible for this entire area. Access, particularly proposed roads, may be limited and a road density analysis may be required. To prevent conflicts with recreation users, alternative access may be needed. | Ongoing |
| 0661 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>Surface disturbing activities in this unit will be limited through controlled surface use requirements or closing areas where maximum resource protection is necessary. | Ongoing |
| 0662 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met. | Ongoing |
| 0663 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>All activities in the unit will conform with the requirements of Class III and Class IV visual resource management classifications and all management actions will be designed and located to remain subordinate to the characteristic landscape or to repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0664 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>Off-road vehicle use in the unit is limited to designated roads and trails. | Ongoing |
| 0665 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>Transportation planning will be completed prior to allowing development in the unit. Linear facilities will be required to conform with the transportation plan and follow existing routes and previously disturbed areas. | Ongoing |
| 0666 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Western Unit (approximately 88,510 acres).*<br><br>*Surface disturbing activities are prohibited in the Dry Sandy Swales and the area within 1 mile of Dry Sandy Swales.* A no surface occupancy requirement will be imposed in the area including the Dry Sandy Swales and within 1 mile of Dry Sandy Swales. | Ongoing |
| 0667 | GRRMP | *Cedar Canyon ACEC (2,550 acres of BLM-administered public lands).*<br><br>*Opportunities will be made available for the various dispersed recreational activities (e.g., camping, picnicking) that occur in the area.* This may include maintaining, preserving, or enhancing existing opportunities and developing new opportunities to provide for optimum visitor experience. Facilities and projects will be signed to interpret and provide information about sites in the area and directions for travel through the ACEC. | Ongoing |
| 0668 | GRRMP | *Greater Red Creek ACEC (131,890 acres of BLM-administered public lands).*<br><br>*Various dispersed recreation uses will be allowed. Recreation development will be kept to a minimum.* On-site controls and facilities will be provided for the protection of resource values and the safety of the users only.<br><br>Camping is allowed within 200 feet of surface water if damage to watershed, water quality, and wildlife values can be avoided. Areas will be closed to camping if resource damage occurs. | Ongoing |
| 0669 | GRRMP | *Actions Unique to the Currant Creek Watershed*<br><br>*A north-south right-of-way window, parallel to the east side of the Flaming Gorge National Recreation Area will be established at County Road 4-33 or to the west of this road.* | Ongoing |
| 0670 | GRRMP | *Greater Sand Dunes ACEC (38,650 acres of BLM-administered public lands) Greater Sand Dunes ACEC (38,650 acres of BLM-administered public lands.*<br><br>*Camping is restricted to the BLM 14-day limit, and subject to "Pack In-Pack Out" requirements for trash, etc.* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0671 | GRRMP | *Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area.*<br><br>*Activities will not be permitted to disrupt access to or use of developed and semi-developed recreation sites.* Activities that are incompatible with recreation sites will be managed to avoid these sites. | Ongoing |
| 0672 | GRRMP | *Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area.*<br><br>About 10,500 acres are designated open to off-road vehicle travel on the active sand dunes. Off-road vehicle travel on about 5,810 acres of stabilized dune areas is limited to existing roads and trails. | Ongoing |
| 0673 | GRRMP | *Natural Corrals ACEC (1,276 acres of BLM-administered public lands).*<br><br>*In conformance with the management objectives, the opportunities for various recreational activities such as camping, picnicking, winter sports, and hunting, will be developed, maintained, preserved, or enhanced to provide for an optimum and satisfying visitor experience*. A "Pack In-Pack Out" policy and a 14-day stay limit applies for camping. Camping around the spring (within 200 feet) is prohibited. | Ongoing |
| 0674 | GRRMP | *Pine Mountain Management Area (64,200 acres of BLM-administered public lands)*<br><br>Camping is allowed within 200 feet of water if damage to watershed, water quality, and wildlife values can be avoided.<br><br>Otherwise, camping will be located at further distances from water. | Ongoing |
| 0675 | GRRMP | *Pine Mountain Management Area (64,200 acres of BLM-administered public lands).*<br><br>*Recreation developments will be kept to a minimum and designed primarily for the protection of resource values the prevention of resource damage, and for public health and safety.* | Ongoing |
| 0676 | GRRMP | *Red Desert Watershed Management Area (341,060 acres of BLM-administered public lands).*<br><br>Recreational activities, opportunities, and uses will be maintained. | Ongoing |
| 0677 | GRRMP | *Sugarloaf Basin Management Area (85,880 acres of BLM-administered public lands).*<br><br>*Camping is allowed within 200 feet of water if damage to watershed, water quality, and wildlife values can be avoided.* Otherwise, camping will be located at further distances from surface water. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0678 | GRRMP | *Sugarloaf Basin Management Area (85,880 acres of BLM-administered public lands).*<br><br>Recreation developments will be kept to a minimum and designed primarily for the protection of resource values, the prevention of resource damage, and for public health and safety. | Ongoing |
| 0679 | GRRMP | *BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors* | Ongoing |
| 0680 | GRRMP | *BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors.*<br><br>The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales. | Ongoing |
| 0681 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river) will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values and the relatively unmodified character of the area in a near-natural setting. Any activities that conflict with this objective are prohibited. | Ongoing |
| 0682 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales.* | Ongoing |
| 0683 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river) *will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values in a modestly modified setting and retain the character of the area. Any activities that would conflict with this objective are prohibited.* Some intrusions may be allowed if they will not adversely affect the characteristics of the area and the maintenance of the recreational classification. | Ongoing |
| 0684 | JMH CAP | Indian Gap Trail: The Indian Gap Trail will be researched, and a trail interpretive plan will be developed. | In process |
| 0685 | JMH CAP | The Indian Gap will be managed as part of the Steamboat Mountain ACEC. A portion of Indian Gap will be closed to surface disturbing and disruptive activities. The remainder of Indian Gap will be open to consideration of surface disturbing and disruptive activities with mitigation to protect resource values. | In process |
| 0686 | JMH CAP | A recreation site plan will be implemented that will expand the parking area and camping facilities in the Greater Sand Dunes Recreation Area. This plan addresses public health and safety, resolving user conflict, and protecting adjoining resources. | In process |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0687 | JMH CAP | Overnight camping will be allowed throughout the Planning Area, including WSAs, in accordance with BLM guidelines. Dispersed camping will be allowed within 200 feet of a water source except where necessary to protect water quality and wildlife and livestock watering areas. Areas will be closed to camping if resource damage occurs. Camping designations are a discretionary action approved by a BLM Authorized Officer. | Ongoing |
| 0688 | JMH CAP | Special Recreation Use Permits<br><br>Special recreation use permits for managed activities that occur in the JMH CAP planning area will be reviewed and subject to recommendations made by the RSFO.<br><br>This will allow the RSFO to track the amount, location, and timing of organized activity occurring within the Planning Area to monitor resource pressure. The permit evaluation process will consider the nature of the event, potential impacts to resources, conflicts with other events, and impacts to the quality of other visitors' experiences. Mitigation measures necessary to protect the resources will be included in any permit issued. A plan of operation will be required for all commercial recreational operators and outfitters. The plan will describe the type, extent, and location of the recreation use and the mechanisms by which the operator/outfitter will prevent impacts to environmental resources. Any requests in special recreation use permit applications to remove natural resources will be evaluated on a case-by-case basis after an environmental analysis process. | Ongoing |
| 0689 | JMH CAP | Recreational Prospecting, Gold Panning, and Other Similar Activity<br><br>Recreational activities involving gold panning or casual use relating to prospecting and other similar activity will be allowed in those parts of the Planning Area that are not withdrawn from mineral location or where such withdrawals will not be pursued.<br><br>Withdrawn areas include the White Mountain Petroglyphs ACEC. Withdrawals will be pursued for the Steamboat Mountain diamond potential area, the western portion of the Greater Sand Dunes ACEC, South Pass Summit, Tri-Territory Marker, Crookston Ranch, Pinnacles Geologic Feature, Public Water Reserves, special status plant species locations, and the northern elk birthing areas. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0690 | JMH CAP | Public lands under mining claims cannot be worked without the permission of the mining claim holder. | Ongoing |
| 0691 | JMH CAP | The Continental Peak/South Pass Connecting Side Trail will be managed as a side trail to the existing Continental Divide National Scenic Trail (CDNST).<br><br>Management will be as described for the CDNST (BLM 1999). Existing primitive two track roads, BLM roads that provide legal public access through certain private lands, segments of cross-country travel on BLM-administered public land, and an existing trail will be used as CDNST components. The existing primitive two-track roads and BLM road segments will continue to be open to motorized use. Cross-country travel routes will not be open to motorized use. | Ongoing |

# 3.2.4. Comprehensive Trails and Travel Management

## 3.2.4.1. Off-Highway Vehicles

### Table 3.27. Current Management Decisions for Off Highway Vehicles (OHV)

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0692 | GRRMP | Areas for ORV rallies, cross-country races, and outings may be provided on a permit basis. | Ongoing |
| 0693 | GRRMP | Approximately 170,000 acres are closed to off-road vehicle use to protect naturalness and outstanding opportunities for solitude, or primitive and unconfined recreation. | Ongoing |
| 0694 | GRRMP | In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the authorized officer. This limitation applies to all activities involving motorized vehicles. Except for areas that are closed to off-road vehicle travel, some types of off-road motor vehicle use may be allowed by the authorized officer provided resource damage does not occur. | Ongoing |
| 0695 | GRRMP | *Vehicular travel is restricted to designated roads in sensitive watersheds and in cultural site management areas.* | Ongoing |
| 0696 | GRRMP | Generally, over-the-snow vehicle use is subject to the prescriptions unless a site specific analysis determines that exceptions can be allowed. | Ongoing |
| 0697 | GRRMP | ORV implementation plans will be prepared, as necessary, and will reflect the ORV designations made in this RMP. ORV implementation planning will also be a part of comprehensive activity planning efforts. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0698 | GRRMP | *Geophysical activities will generally be required to conform to the ORV designations and ORV management prescriptions for the Planning Area..*<br><br>However, geophysical exploration has been and will continue to be routinely granted site specific authorization for off-road vehicle use subject to appropriate limitations to protect various resources identified during analysis of proposed actions. Geophysical Notices of Intent will continue to be evaluated on a case-by-case basis, and all authorizations will be issued with appropriate analysis and mitigation requirements. | Ongoing |
| 0699 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands) Eastern Unit (approximately 88,510 acres).*<br><br>The 500 acres associated with the *Arabis pusilla* portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, off-road vehicle (ORV) use is limited to designated roads and trails. | Ongoing |
| 0700 | GRRMP | *Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands) Western Unit (approximately 172,630 acres).*<br><br>Off-road vehicle use in the unit is limited to designated roads and trails. | Ongoing |
| 0701 | GRRMP | *Cedar Canyon ACEC (2,550 acres of BLM-administered public lands).*<br><br>*Motorized vehicle travel in the ACEC (including over-the-snow vehicles) is limited to designated roads and trails.*<br><br>All off-road vehicle travel in the area is restricted during the winter and spring to protect wildlife during high stress periods of severely cold temperatures, heavy snow cover, and short food supply. | Ongoing |
| 0702 | GRRMP | *Greater Red Creek ACEC (131,890 acres of BLM-administered public lands)*<br><br>*Off-road vehicle travel on BLM-administered public lands within the area is limited to designated roads and trails.*<br><br>A transportation plan will be developed for the area. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0703 | GRRMP | *Actions Unique to the Red Creek Watershed*<br><br>The 8,020 acres of the area that overlap the Red Creek WSA are closed to off-road vehicle travel, including over-the-snow vehicles, to maintain natural conditions, outstanding opportunity for solitude, or a primitive or unconfined type of recreation in the area. Mechanized vehicle use will be determined on a case-by-case basis. | Ongoing |
| 0704 | GRRMP | *Greater Sand Dunes ACEC (38,650 acres of BLM-administered public lands).*<br><br>*A diversity of non-motorized recreation uses, including hiking, bird watching, photography, sightseeing, and hunting, will be encouraged.*<br><br>Appropriate recreation facilities will be developed and maintained on BLM-administered public lands to provide for a diversity of motorized and non-motorized recreation uses. | Ongoing |
| 0705 | GRRMP | *Additional or Different Items Specific to the Western Portion of the Greater Sand Dunes Area.*<br><br>The portion of the area that overlaps the WSAs is closed to off-road vehicles, including over-the-snow vehicles, and some mechanized vehicles to maintain the unique naturalness, solitude, and primitive and unconfined recreational opportunities. | Ongoing |
| 0706 | GRRMP | *Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area.*<br><br>Geophysical activity, including off-road vehicle travel, is allowed, provided resource damage is minimized and the activities conform with ORV designations and transportation plans for the area. The relatively pristine portion of the eastern area that has no developments (approximately 8,800 acres) including the base of Steamboat Rim, will be managed to protect big game habitat, vegetation communities and visual and recreation resources. | Ongoing |
| 0707 | GRRMP | The Crookston Ranch.<br><br>Off-road vehicle use is limited to designated roads and trails in this area. | Ongoing |
| 0708 | GRRMP | The Boars Tusk will be managed to preserve its value as a geologic feature.<br><br>Off-road vehicle use is limited to designated roads and trails in this area. The road around the Boars Tusk is closed. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0709 | GRRMP | *Natural Corrals ACEC (1,276 acres of BLM-administered public lands).*<br><br>*The road/trail from the spring located in the SE1/4NW1/4, NE1/4SW1/4 of Section 18 and the National Register of Historic Places (NRHP) site are closed to off-road vehicle use. This 20-acre NRHP site is also closed to vehicle use for geophysical activities and by over-the-snow vehicles, and to the use of explosives and to blasting. The remainder of the ACEC is open to over-the-snow vehicles; all other off-road vehicle travel is limited to designated roads and trails.* | Ongoing |
| 0710 | GRRMP | *Pine Springs ACEC (6,030 acres of BLM-administered public lands) The ACEC is closed to off-road vehicle travel, with the exception of about 820 acres.* | Ongoing |
| 0711 | GRRMP | *Pine Springs ACEC (6,030 acres of BLM-administered public lands).*<br><br>*Motorized vehicle travel and some non-motorized vehicle travel along the east edge of the ACEC (about 730 acres) and the Pine Springs 90-acre site is limited to existing roads and trails.* | Ongoing |
| 0712 | GRRMP | *South Pass Historic Landscape ACEC (53,780 acres of BLM-administered public lands).*<br><br>Off-road vehicle travel is limited to designated roads and trails in the areas that are visible from the historic trails. | Ongoing |
| 0713 | GRRMP | *South Pass Historic Landscape ACEC (53,780 acres of BLM-administered public lands).*<br><br>Off-road vehicle travel is limited to existing roads and trails in these areas that are shielded by topography. | Ongoing |
| 0714 | GRRMP | *Special Status (Candidate) Plant Species ACEC (900 acres of BLM-administered public lands).*<br><br>Known locations of special status (candidate) plant species communities are closed to off-road vehicle travel. Off-road vehicle travel in the remainder of the ACEC is limited to designated roads and trails. | Ongoing |
| 0715 | GRRMP | *White Mountain Petroglyphs ACEC (20 acres of BLM-administered public lands).*<br><br>*Off-road vehicle travel, including vehicles used for geophysical exploration and fire suppression activities, within that part of the vista that lies outside of the ACEC is limited to designated roads and trails.* | Ongoing |
| 0716 | GRRMP | *Monument Valley Management Area (69,940 acres of BLM-administered public lands).*<br><br>Off-road vehicle travel is limited to designated roads and trails. A transportation/road plan will be prepared to manage public use of the area and to keep the miles of roads and trails to a minimum. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0717 | GRRMP | *Pine Mountain Management Area (64,200 acres of BLM-administered public lands).*<br><br>*Off-road vehicle travel is limited to designated roads and trails.* A transportation plan will be completed. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area. | Ongoing |
| 0718 | GRRMP | *Sugarloaf Basin Management Area (85,880 acres of BLM-administered public lands).*<br><br>*Motorized vehicle use is limited to designated roads and trails*. A transportation plan will be completed. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area. | In process |
| 0719 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*The public lands are closed to motorized and non-motorized vehicles.*<br><br>Hikers will be required to "pack it out"; there will be no garbage facilities. Campfires are permitted in keeping with current fire management regulations. | Ongoing |
| 0720 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*Motorized and non-motorized vehicles are restricted to using designated roads and trails. Hiking trails may be built if there is a demand for them and they conform with the objective for the scenic classification. Mountain biking is allowed to the extent that no adverse effects occur.* Hikers will be required to "pack it out"; there will be no garbage facilities. Campfires are permitted in keeping with current fire management regulations. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0721 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*Motorized and non-motorized vehicles are restricted to using designated roads and trails. Hiking trails may be built if there is a demand for them and they conform with the objective for the recreational classification. Mountain biking is allowed to the extent that no adverse effects would occur.* Public use and access may be regulated and distributed where necessary to protect and enhance outstandingly remarkable values. | Ongoing |
| 0722 | JMH CAP | The Pinnacles Geologic Feature will be closed to OHV use, and OHV use will be limited to designated roads and trails in the South Pass Historic Landscape ACEC (portion not visible), cushion plant community, and Steamboat Mountain Management Area.<br><br>The remaining public lands in the JMH CAP Planning Area will remain open, limited, or closed to OHV use (see Glossary for definitions) as previously described in the Green River RMP. The OHV management prescriptions identified in the Green River RMP will be implemented. | Ongoing |
| 0723 | JMH CAP | Management of OHV activities will be in accordance with Executive Order 11644, as amended by Executive Order 11989, and applicable regulations (43 CFR 8340) that address the use of OHVs on public lands. Designation and authorization of OHV use will be controlled to protect resource values, promote users' safety, and minimize conflict among various public lands uses. In areas where roads have not been assessed and road designations not completed, management will be the same as that for "existing roads and trails" until the assessment can be completed. | Ongoing |
| 0724 | JMH CAP | Specific roads and trails may be closed or seasonally closed to OHV use as needed for public health and safety reasons, restoration or remediation actions, habitat protection, or other valid reasons as determined by BLM. | Ongoing |
| 0725 | JMH CAP | The Authorized Officer may grant exceptions to closed or limited OHV designations in consideration of such factors as scientific purposes and emergency access needs. | Ongoing |
| 0726 | JMH CAP | Over-the-Snow Vehicles<br><br>Travel by over-the-snow vehicles will be limited to the OHV designations and BLM trails designated for snow vehicle access. Any travel off existing routes will be considered on a case-by-case basis. | Ongoing |
| 0727 | JMH CAP | *ACEC — Greater Sand Dunes ACEC*<br><br>OHV Use: The western portion of the ACEC is closed to OHV use. | Done |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0728 | JMH CAP | *Greater Sand Dunes ACEC.*<br><br>OHV Use: The eastern portion of the ACEC containing the Greater Sand Dunes Recreation Area is open to OHV use. The remainder of the eastern portion of the ACEC will be limited to existing roads and trails for OHV use. | Ongoing |
| 0729 | JMH CAP | *ACEC — Oregon Buttes ACEC.*<br><br>OHV Use: The ACEC is closed to motorized vehicle travel, including those used for seismographic operations. | Ongoing |
| 0730 | JMH CAP | ACEC — South Pass Historic Landscape ACEC.<br><br>OHV Use: OHV use within the entire ACEC is limited to designated roads and trails. | Ongoing |
| 0731 | JMH CAP | *ACEC — Steamboat Mountain ACEC.*<br><br>OHV Use: OHV use (motorized vehicles) will be limited to designated roads and trails. | Ongoing |
| 0732 | JMH CAP | *ACEC — White Mountain Petroglyphs ACEC.*<br><br>OHV Use: The ACEC is closed to motorized vehicle (OHV) use outside of identified access and designated parking areas. | Ongoing |
| 0733 | JMH CAP | West Sand Dunes Archaeological District OHV.<br><br>Use: OHV use is limited to existing roads and trails. | Ongoing |
| 0734 | JMH CAP | *Red Desert Watershed Management Area.*<br><br>OHV Use: OHV use will be limited to designated roads and trails except for those areas identified as closed (WSA, Pinnacles Geologic Feature). | Ongoing |
| 0735 | JMH CAP | Pinnacles Geologic Feature.<br><br>OHV Use: The area will be closed to OHV use. | Done |
| 0736 | JMH CAP | Steamboat Mountain Management Area OHV.<br><br>Use: OHV use will be limited to designated roads and trails. | Ongoing |

## Table 3.28. Current Management Decisions Travel Management

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0737 | GRRMP | The existing GRRMP did not specifically address transportation Management decisions | N/A |
| 0738 | JMH CAP | Proposed road installations and improvements will follow the JMH CAP and Green River RMP management objectives and applicable BLM guidelines until a JMH transportation plan is prepared and approved. Exceptions to the plan will address site-specific conditions to minimize impacts on natural and cultural resource values. Proposed roads and improvements for Steamboat Mountain and White Mountain will follow the guidelines specified. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0739 | JMH CAP | Geophysical exploration (vehicles and detonation) activities will be prohibited within ½ mile of the Pinnacles Geologic Feature. Areas of sensitive heritage resources and geologic features, such as Boars Tusk, White Mountain Petroglyphs, special status plant species, WSAs, and historic trails, will remain closed. Receiver lines may be laid using foot traffic within these areas. Exceptions to these restrictions may be granted on a case-by-case basis subject to appropriate site-specific analysis and mitigation requirements. | Ongoing |
| 0740 | JMH CAP | The remainder of the Planning Area will be open to geophysical exploration, with application of appropriate mitigation. Rights-of-way limitations in the Planning Area apply to on- and off-road vehicle traffic used for geophysical activities. Exploration activities will be allowed in sensitive resource areas only if they can be performed with acceptable mitigation of impacts. | Ongoing |

# 3.2.5. Lands and Realty

### Table 3.29. Current Management Decisions for Land Ownership Adjustments

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0741 | GRRMP | *Public lands will be retained in federal ownership with the exception of those lands which have potential for disposal. The preferred method of disposal will be by land exchanges. Other lands will be considered for disposal on a case-by-case basis.*<br><br>All disposals must conform to the criteria. The disposal of these lands and any lands identified in the future must allow for the acquisition of important resource lands or meet other important public objectives such as community expansion and economic development. Public lands may have further potential for disposal because they are isolated and would be difficult to manage. | Ongoing |
| 0742 | GRRMP | *Lands will be provided to government entities for solid waste disposal through sale, exchange, or Recreation and Public Purposes (R&PP) patent.*<br><br>Government entities will be encouraged to purchase unused portions of sanitary landfills currently authorized under Recreation and Public Purposes leases. The BLM will aid in finding suitable landfill sites on public land (see the Hazardous Materials Management section). | Ongoing |

| | | | |
|---|---|---|---|
| 0743 | GRRMP | Sweetwater County School District No. 1 will be given the opportunity to acquire Lots 3, 4, 5, Section 28, T. 19 N., R. 105 W. (124 acres) for school purposes prior to any other type of disposal. | Completed |
| 0744 | GRRMP | *Unauthorized uses within the Planning Area will be resolved.*<br><br>If circumstances warrant, the issuance of a permit, lease, or right-of-way authorizing the use could occur as a means of resolving trespass. Disposal of the parcel through sale or exchange may be considered to resolve long-standing trespasses. | Ongoing |

## 3.2.5.1. Utility Corridors and Communication Sites

### Table 3.30. Current Management Decisions for Utility/Transportation Systems

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0745 | GRRMP | Public lands will be made available throughout the Planning Area for rights-of-way, permits, and leases. | Ongoing |
| 0746 | GRRMP | *The Planning Area, with the exception of defined exclusion and avoidance areas, will be open to the consideration of granting rights-of-way.* | Ongoing |
| 0747 | GRRMP | Right-of-way corridors will not be designated due to the predominate checkerboard private land pattern in the Planning Area. | Ongoing |
| 0748 | GRRMP | *Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts.* | Ongoing |
| 0749 | GRRMP | *An avoidance area for major utility lines will be located along I-80 between Point of Rocks and Green River.*<br><br>Due to topography, congestion in the concentration area, and surface mining, this area will be restricted to local distribution service lines. All other utilities will be located, if possible, in the northern or southern east-west windows. | Ongoing |
| 0750 | GRRMP | *Areas designated as utility windows, rights-of-way concentration areas, and existing communication sites will be preferred locations for future grants.*<br><br>Five windows have been identified: 2 east-west, 3 north-south. Other areas will be considered for rights-of-way on a case-by-case basis. | Ongoing |
| 0751 | GRRMP | Windows 1/2 mile in width have been identified for the placement of utilities. The northern east-west window will be for underground facilities only, and the southern east-west window will be for both above and below ground facilities. A 1/2 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities. | Ongoing |

| | | | |
|---|---|---|---|
| 0752 | | *Programmatic policies and Interagency Operation Procedures (IOPs) for the designation of the preferred energy transport corridors will be adopted applies only to BLM-administered lands.*<br><br>Avoidance of surface disturbance, controlled surface use, special management areas, and other planning decisions outlined in the Green River RMP (1997) still apply. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to the preferred energy transport corridors. | Completed 2/24/2009 |
| 0753 | GRRMP | *The Aspen Mountain Communications Site Plan will govern development of sites at this location. Sites at other locations will be approved on a case-by-case basis.* Sharing of sites will be advocated, where possible. | Ongoing |

## 3.2.5.2. Withdrawals and Classifications

### Table 3.31. Current Management Decisions for Withdrawals (Withdrawals to be Pursued)

| Planning Decision Number | Decision Source | Current Management Decision | Acreage | Status |
|---|---|---|---|---|
| 0754 | GRRMP | 4-J Basin | * | Not Implemented |
| 0755 | GRRMP/JMH CAP | Cedar Canyon Petroglyph Site and ACEC (WYW139932) | 515 acres | Not Implemented |
| 0756 | GRRMP/JMH CAP | Crookston Ranch | * | Not Implemented |
| 0757 | GRRMP | Dug Springs Stage Station (WYW139933) | 10 acres | Not Implemented |
| 0758 | GRRMP | Flaming Gorge Reservoir (Reclamation).<br><br>An additional 63 acres inundated by water under Flaming Gorge Reservoir may be withdrawn for the Bureau of Reclamation. | 63 acres | Not Implemented |
| 0759 | GRRMP | Greater Red Creek ACEC (Red Creek/Currant Creek Drainage) | 79,620 acres | Not Implemented |
| 0760 | GRRMP | Greater Sand Dunes ACEC | 25,250 acres | Not Implemented |
| 0761 | GRRMP/JMH CAP | LaBarge Bluffs Petroglyph Site (WYW140949) | 20 acres | Not Implemented |
| 0762 | GRRMP | LeClede Stage Station (WYW140948) | 10 acres | Not Implemented |
| 0763 | GRRMP | Monument Valley Area | * | Not Implemented |
| 0764 | GRRMP | Pine Springs Expansion Area | 2,000 acres | Not Implemented |
| 0765 | GRRMP | Prehistoric Quarry Site | 160 acres | Not Implemented |
| 0766 | GRRMP | Public Water Reserve | 9,386 acres | Not Implemented |

| | | | | |
|---|---|---|---|---|
| 0767 | GRRMP/JMH CAP | South Pass Historic Landscape (Withdrawal from mineral location will be pursued for the northern elk calving areas in part of the South Pass Historic Landscape ACEC) | 5,260 acres | Not Implemented |
| 0768 | GRRMP/JMH CAP | Steamboat Mountain Area | 43,270 acres** | Not Implemented |
| 0769 | GRRMP | Sweetwater Recreation Site (Sweetwater Campground-Bridge Station / Sweetwater Campground – Guard Station) | 80 acres | Unknown |
| 0770 | GRRMP | Sweetwater River Seg-ment(WYW132601) | * | Completed (expires 12/08/2022) |
| 0771 | GRRMP/JMH CAP | Tolar Petroglyph Site (WYW140947) | 20 acres | Not Implemented |
| 0772 | GRRMP | Tri-Territory Marker (WYW139934) | 10 acres | Not Implemented |
| 0773 | GRRMP | Wind River Front (east) | 88,510 acres** | Not Implemented |
| 0774 | GRRMP | Small Rockcress (*Arabis pusilla*) (WYW134662) | 3,610 acres*** | Completed (expires 2/22/2048) |
| 0775 | GRRMP | Meadow Pussytoes (*Antennaria arcuata*) | 3,610 acres*** | Not Implemented |
| 0776 | GRRMP | Williams' Rockcress (*Arabis williams ii*) | 3,610 acres*** | Not Implemented |
| 0777 | GRRMP | Mystery Wormwood (*Artemisia biennis var. diffusa*) | 3,610 acres*** | Not Implemented |
| 0778 | GRRMP | Precocious Milkvetch (*Astragalus proimanthus*) (WYW138578) | 3,610 acres*** | Not implemented |
| 0779 | GRRMP | Ownbey's Thistle (*Cirsium ownbeyi*) | 3,610 acres*** | Not Implemented |
| 0780 | GRRMP | Wyoming Tansy Mustard (*Descurainia torulosa*) (WYW136098) | 3,610 acres*** | Not implemented |
| 0781 | GRRMP | Large-Fruited Bladderpod (*Lesquerella macrocarpa*) | 3,610 acres*** | Not Implemented |
| 0782 | GRRMP | Contracted Indian Ricegrass (*Oryzopsis contracta*) | 3,610 acres*** | Not Implemented |
| 0783 | GRRMP | Swallen's Mountain Ricegrass (*Oryzopsis swallenii*) | 3,610 acres*** | Not Implemented |
| 0784 | GRRMP | Stemless Beardtongue (*Penstemon acaulis*) | 3,610 acres*** | Not Implemented |
| 0785 | GRRMP | Tufted Twinpod (*Physaris condensata*) | 3,610 acres*** | Not Implemented |
| 0786 | GRRMP | Green River Greenthread (*Thelesperma caespitosum*) | 3,610 acres*** | Not Implemented |
| 0787 | GRRMP | Uinta Greenthread (*Telesperma pubescens*) (WYW136096) | 3,610 acres*** | Completed (expires 5/15/2048) |

| | | | | |
|---|---|---|---|---|
| 0788 | GRRMP | Cedar Rim Easter Daisy (*Townsendia microcephala*) | 3,610 acres*** | Not Implemented |
| * Actual withdrawal acreage to be determined<br>** Actual withdrawal acreage for these areas to be determined upon completion of site specific management plans.<br>*** Acreage for all 13 Special Status Plants is 3,610 acres | | | | |

## Table 3.32. Current Management Decisions for Withdrawals to be retained

| Planning Decision Number | Decision Source | Current Management Decision | Acreage | Status |
|---|---|---|---|---|
| 0789 | GRRMP | BLM Rock Springs Administrative Site | 14.43 acres | Completed-issued in perpetuity |
| 0790 | GRRMP | *The BLM Rock Springs Administrative Site withdrawal will be retained* | 14.43 acres | Application submitted to WO-not approved |
| 0791 | GRRMP | 14-Mile Recreation Site (WYW0312819) | 70 acres | Status under review |

## Table 3.33. Current Management Decisions for Withdrawals to be revoked (Withdrawals which no longer serve the purpose for which they were established will be revoked. Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection.)

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0804 | GRRMP | Classification Withdrawal — 1,080,600 acres | Unknown |
| 0805 | GRRMP/JMH CAP | Coal Withdrawal — 890,477 | Unknown |
| 0806 | GRRMP | Multiple Use Management.<br><br>*The Multiple Use Management Classification as it affects public lands in the Planning Area* (200 acres)*will be revoked.* | Not Implemented |
| 0807 | GRRMP/JMH CAP | Oil Shale — 1,680,830 acres | Revocation Completed 2/9/2009 |
| 0808 | GRRMP/JMH CAP | Phosphate — 14,795 acres | Unknown |
| 0809 | GRRMP | Public Water Reserves — 21,368 acres<br><br>*Public Water Reserves will be terminated where no longer needed, and acquired where the need exists* . (Nos. 3, 32, 36, 58, 75, 107, 108, 149 & 155) | Revocation completed 6/25/1998 |
| 0810 | GRRMP/JMH CAP | Stock Driveways — 37,111 acres | Unknown |
| **Desert Land Entries** | | | |

| | | | |
|---|---|---|---|
| 0811 | GRRMP | No BLM-administered public lands within the Planning Area are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources. | Ongoing |
| **Access** | | | |
| 0812 | GRRMP | *Access to public lands will be provided throughout the Planning Area. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values* (see ORV Management discussion).<br><br>Easements will be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres). | Ongoing |
| 0813 | JMH CAP | A transportation plan for the JMH CAP Planning Area will be developed in coordination with local governments, users, and other members of the public. The transportation plan could include mitigation measures (such as offsite placement of facilities, remote control monitoring, restricted or prohibited surface use including road construction, multiple wells from a single pad, central tank batteries/facilities, and pipelines and power lines concentrated in specific areas, all based on site-specific analysis) in areas subject to seasonal limitations and use restrictions such as CSU and NSO stipulations for oil and gas development. | Ongoing |
| 0814 | JMH CAP | Transportation planning will provide for access to achieve multiple-use goals while providing maximum protection for crucial habitats and sensitive resources and will consider:<br><br>● Limiting points of access for all activities to minimize disruption.<br><br>Closing and rehabilitating unused roads and trails and those causing resource damage. This will be subject to county review of existing rights-of-way needs. The transportation plan and affected maps will be corrected to reflect closed roads and trails.<br><br>● Avoiding construction of stream or riparian area crossings in sensitive areas and closing unnecessary crossings. Exceptions may be granted if crossings will reduce adverse effects, benefit area objectives, and reduce miles of road and/or frequency of use. Bridges (versus culverts) will be required for perennial stream crossings.<br><br>● Limiting development zones to be accessed by designated routes. | Ongoing |

| | | | |
|---|---|---|---|
| 0815 | JMH CAP | Proposed road installations and improvements will follow the JMH CAP and Green River RMP management objectives and applicable BLM guidelines until a JMH transportation plan is prepared and approved. Exceptions to the plan will address site-specific conditions to minimize impacts on natural and cultural resource values. Proposed roads and improvements for Steamboat Mountain and White Mountain will follow the guidelines specified in the final EIS. | Ongoing |
| 0816 | JMH CAP | The Planning Area, with the exception of defined exclusion and avoidance areas, will be open to considering grants of rights-of-way if area objectives can be met. Exclusion areas are closed to rights-of-way. Avoidance and special management areas not identified as exclusion areas will be open to consideration only after site-specific analysis demonstrates area objectives can be met (see glossary). | Ongoing |
| 0817 | JMH CAP | The extent of right-of-way exclusion and avoidance areas is based on the location of specific sensitive resources. | Ongoing |
| 0818 | JMH CAP | The transportation plan also applies to the transport of gas, condensate, or water via pipelines and electric power transmission (buried power lines) within the Planning Area. Pipelines and buried power lines generally will be located adjacent to roads to reduce new surface disturbance. | Ongoing |
| 0819 | JMH CAP | Buried pipelines, waterlines, and other facilities often are a temporary disturbance that ends with successful reclamation within a few years. Actions such as the construction of oil or gas locations, roads, and reservoirs often affect a larger area for longer periods of time and therefore are more difficult to mitigate. These types of disturbances cause greater consequences for the resources present. The resources present, management objectives, and multiple uses in the area help guide which types of surface disturbances might be compatible with the management goals for the Planning Area. | Ongoing |
| 0820 | JMH CAP | The JMH area is not expected to be a major corridor for transmission lines, transportation, or large-scale developments (industrial or otherwise) because of the large number and high frequency of sensitive resources within the Planning Area boundaries. Routes for these facilities have been identified in other portions of the RSFO in the Green River RMP. | Ongoing |
| 0821 | JMH CAP | To the extent possible, utility and transportation rights-of-way will be located to coincide with existing roads, trails, and other right-of-way or easement concentration areas where they will not create safety hazards or conflict with other resource objectives. Linear rights-of-way will be considered as part of transportation planning and included as part of travel management plans. | Ongoing |
| 0822 | JMH CAP | Access to public, state, and private land will be evaluated on a case-by-case basis, provided throughout the Planning Area, and restricted only where necessary to protect public health and safety and sensitive resources. Access will be guaranteed across public lands to land owners whose private land is landlocked and to state lands consistent with the guidelines and objectives set forth in the FLPMA. Access decisions will be consistent with existing regulatory requirements and will provide for the reasonable use and enjoyment of inholdings. | Ongoing |

| | | | |
|---|---|---|---|
| 0823 | JMH CAP | Winter access will be subject to seasonal road closures. Where winter access on roads other than those identified for winter access in the transportation plan is necessary, routes will be determined on a case-by-case basis in accordance with transportation planning requirements. Plowing of roads will be considered on a case-by-case basis. | Ongoing |
| **Withdrawals/Classifications** | | | |
| 0824 | JMH CAP | Public lands will be retained in federal ownership unless it is determined to be in the best public interest to dispose of some of them. | Ongoing |
| 0825 | JMH CAP | Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the Steamboat Mountain ACEC, and the Pinnacles Geologic Feature. Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | Not Implemented |
| 0826 | JMH CAP | Withdrawals will be revoked for lands classified as prospectively valuable for oil shale (oil shale is a leasable mineral). Upon revocation, the area will be open to the filing of mining claims, exploration, and development of locatable minerals. The White Mountain Petroglyphs ACEC, located in the oil shale classification lands, will be withdrawn from mineral location prior to the revocation. Other areas that will be withdrawn from mineral location prior to the revocation of the coal classification include Greater Sand Dunes ACEC (western portion), special status plant sites, Crookston Ranch, public water reserves, Tri-Territory Marker, and South Pass Summit. | Ongoing (Oil Shale Withdrawal revoked, White Mountain. Petroleum. Withdrawal Renewed) |
| 0827 | JMH CAP | Land withdrawals identified in the Green River RMP will be pursued. New withdrawals in addition to those identified in the Green River RMP include the top of Steamboat Mountain, the Pinnacles Geologic Feature, and two northern elk calving areas. | Not Implemented |
| 0828 | JMH CAP | Exchanges will conform to the JMH planning objectives and actions. BLM land acquisition will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between the willing parties involved. Exchanges for state lands in WSAs and other special management areas will be considered to ensure easier and consistent management in these areas. Exchanges will be considered to acquire state or private lands that hold high cultural and historical value; that hold important resource values, such as habitat for threatened and endangered species; and that will facilitate resource management objectives, such as preventing habitat fragmentation. | Ongoing |
| 0829 | JMH CAP | Aquatic, wetland, and riparian habitat will not be suitable for disposal unless opportunities exist for land exchanges of equal or greater value (including monetary and functional resource values). | Ongoing |

## 3.2.6. Renewable Energy

**Table 3.34. Current Management Decisions for Renewable Energy Management Decisions**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0830 | GRRMP<br><br>Plan Amendment A-1<br><br>2/24/09<br><br>(Wind Energy EIS) | Programmatic policies and BMPs in the Wind Energy Development Program will be adopted. | |

## 3.3. Special Designations

## 3.3.1. Areas of Critical Environmental Concern

**Table 3.35. Current Management Decisions for Areas Critical of Environmental Concern (ACEC)**

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0831 | | Special Status (Candidate) Plant Species ACEC<br><br>(Completed by Jim Glennon) | |
| 0832 | GRRMP | *The BLM-administered public land areas occupied by four special status (candidate) plant species are included in the ACEC designation (making up about 66 sites involving about 1200 acres of BLM-administered public lands). Additional acres may be added to the ACEC, if more of these special status (candidate) plant species or their essential habitat areas are found on BLM-administered public lands. Management and protection to actual plant locations is provided for Arabis pusilla, Astragalus proimanthus, Descurainia torulosa, and Thelesperma pubescens.* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0833 | GRRMP | *The ACEC is closed to:*<br><br>1. direct surface disturbing activities or any disrupting activities (e.g., off-site dust, air pollutants, etc.) that could adversely affect the special status plant species and their habitat;<br><br>2. the location of mining claims (withdrawal from mineral location and entry under the land laws will be pursued);<br><br>3. surface occupancy and surface disturbing activities (such as leasable mineral exploration and development activities or construction of long-term placement of facilities or structures);<br><br>4. mineral material sales; and<br><br>5. the use of explosives and blasting | Ongoing |
| 0834 | GRRMP | While ensuring the maximum protection to the plant species, mineral lease parcels will be designed prior to lease issuance, with the intent of providing access to mineral resources, where possible. | Ongoing |
| 0835 | GRRMP | *Searches will be conducted to identify any additional areas where special status (candidate) plant species are located.* Habitat needs will be determined and management prescriptions will be specified. The window for inventory will be mainly from May through August. As new populations are identified, site boundaries and any ACEC designation on BLM-administered public lands will be expanded to cover any new or expanded sites. Should a plant species be removed from the special status (candidate or sensitive) plant species list, the portion of any ACEC designation attributed to that plant species will be discontinued. The ACEC acreage could, thus, increase or decrease, depending upon the results of the searches or if a plant species should be de-listed. Nonessential habitat to support these plants will not be included in the ACEC designation. | Ongoing |
| 0836 | GRRMP | *Searches for special status (candidate) plant species will be required on potential habitat areas prior to implementing surface disturbing activities or projects.*<br><br>If plant species are not found in a potential habitat area, surface occupancy and activities will be allowed with proper guidelines and mitigation for the habitat. If plants are found, the site and its associated habitat area will be avoided and surface occupancy could be prohibited. | Ongoing |
| 0837 | GRRMP | *Special status (candidate) plant species population areas are closed to any surface disturbing fire suppression activities unless necessary for species survival. The use of fire suppression ground vehicles will be consistent with ORV designations in these areas.* The type of suppression activity, if any, will be determined through site specific analysis. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0838 | GRRMP | Wild horse management in the area will be consistent with wild horse herd management plans and management objectives for this area. No wild horse traps will be constructed within this area. | Ongoing |
| 0839 | GRRMP | *BLM will attempt to acquire approximately 1,900 acres on Pine Butte to enhance management for the mountain tansymustard (Descurainia torulosa).* | Ongoing |
| 0840 | GRRMP | *Activities that meet or that do not conflict with the objectives for the ACEC could be allowed.*<br><br>For example, activities such as fencing, interpretive signs, or barriers for the purpose of ensuring protection of the plant species will be considered for both known and potential habitat areas. | Ongoing |
| 0841 | JMH CAP | The Special Status Plants ACEC will not be expanded into the JMH CAP Planning Area. The ACEC could be expanded in the future if the criteria identified in the Green River RMP are met (more of the four identified special status (candidate) plant species or their essential habitat areas are found on BLM-administered public lands). Should other special status plant species be determined to need the additional management actions as designated for the Special Status Plants ACEC, and they meet the requirements for inclusion, they may be included in the ACEC and managed under the same prescriptions as described in the Green River RMP for the ACEC. | Ongoing |

# 3.3.2. Wilderness Study Areas

### Table 3.36. Current Management Decisions for Wilderness Study Areas

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0842 | GRRMP | Should Congress designate the WSAs in the Planning Area (partially or wholly) as wilderness, the management of the designated areas will be for wilderness values, either as described in the appropriate wilderness EIS or as directed by Congress. | Ongoing |
| 0843 | GRRMP | *Should Congress not designate areas (partially or wholly) as wilderness, the management of the non-designated areas will be in accordance with the approved Green River RMP or as otherwise directed by Congress.*<br><br>The undesignated areas will lose their identity as WSAs and will be managed consistent with the adjoining areas as prescribed in the Green River RMP or as otherwise directed by Congress. | Ongoing |
| 0844 | GRRMP | If necessary, in the course of incorporating the wilderness decisions into the RMP, the RMP will be amended. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0845 | JMH CAP | Management of the WSAs in the JMH CAP Planning Area will be in accordance with the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" until the Congress either acts to designate them as wilderness or releases them for other management activities. Wilderness management recommendations and alternatives for this area are addressed in the Rock Springs District Final Wilderness EIS. Where the prescribed management in these areas is more stringent than either the Interim Management Policy or wilderness policy for designated wilderness areas, it is addressed here. | Ongoing |
| 0846 | JMH CAP | Geophysical Activities: Geophysical vehicles and explosive charges (detonation activities) remain prohibited in these areas. | Ongoing |
| 0847 | JMH CAP | OHV Use: These areas remain closed to OHV use. | Ongoing |
| 0848 | JMH CAP | Leasable Fluid Minerals: These areas remain non-discretionary closure areas for fluid minerals leasing. | Ongoing |
| 0849 | JMH CAP | Leasable Solid Minerals: These areas remain closed to leasable solid minerals exploration and leasing. | Ongoing |
| 0850 | JMH CAP | Saleable Minerals: These areas remain closed to mineral material sales. | Ongoing |
| 0851 | JMH CAP | Locatable Minerals: A plan of operations is required for all activities greater than casual use. | Ongoing |
| 0852 | JMH CAP | VRM: These areas are managed as VRM Class I areas to preserve the natural setting and existing character of the landscape. | Ongoing |

# 3.3.3. Wild and Scenic Rivers

### Table 3.37. Current Management Decisions for Wild and Scenic Rivers

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0853 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river) *Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.* | Ongoing |
| 0854 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river)<br><br>*The public lands are closed to mineral leasing and related exploration and development activities.* Existing mineral leases on these lands will be allowed to expire. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0855 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river) *The public lands are closed to mineral location (e.g., filing of mining claims and related exploration and development). A withdrawal from land disposal, mineral location, and entry under the land laws will be pursued.* Valid existing rights (existing mining claims) will be recognized. | Ongoing |
| 0856 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>Geophysical exploration is limited to foot access and use of surface cables on the public lands (use of motorized or non-motorized vehicles is prohibited). Surface charges may be allowed if site specific analyses determine no permanent adverse impacts would occur. | Ongoing |
| 0857 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river). *The public lands are closed to land disposal actions. Exchanges of public lands "outside the corridor" could be considered for acquiring private or state lands within the corridor or between the public land parcels along the river; however, public lands within the corridor will not be exchanged* | Ongoing |
| 0858 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river) *The public lands are an exclusion area for rights-of-way* | Ongoing |
| 0859 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river) *Water impoundments or diversions are prohibited on the public Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river). *Water impoundments or diversions are prohibited on the public lands.* | Ongoing |
| 0860 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*The public lands are closed to motorized and non-motorized vehicles. Any fire suppression activities on public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment will be used to suppress fires.* Helicopter bucket drops and the use of chainsaws may be allowed if no permanent impacts would occur. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0861 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*The public lands are closed to commercial timber sales and harvesting.* Cutting of trees will only be allowed with written permission or in association with safety and environmental protection requirements (such as clearing trails, visitor safety, and fire control). | Ongoing |
| 0862 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors.* The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales. | Ongoing |
| 0863 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*Increases in active grazing preference and construction of new range improvements on the public lands are prohibited.* | Ongoing |
| 0864 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>*The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation.* Undesirable and exotic species could be removed by hand. | Ongoing |
| 0865 | GRRMP | *Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification* (involving 5.8 miles of the river).<br><br>The public lands will be managed under a Class II VRM classification. | Ongoing |
| 0866 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*The public lands are closed to mineral leasing and related exploration and development activities.* Existing mineral leases on these lands will be allowed to expire. *The public lands are closed to mineral location (e.g., filing of mining claims and related exploration and development). A withdrawal from mineral location and entry under the land laws will be pursued.* Valid existing rights (existing mining claims) will be recognized. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0867 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*Geophysical exploration is allowed if a site specific analysis determines no adverse effects will occur. Vehicles will be restricted to designated roads and trails only. Foot access is required off of existing roads. Surface charges may be allowed if site specific analyses determine no permanent adverse impacts will occur.* | Ongoing |
| 0868 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*Exchanges of public lands "outside the corridor" could be considered for acquiring private or state lands within the corridor or between the public land parcels along the river; however, public lands within the corridor will not be exchanged.* | Ongoing |
| 0869 | GRRMP | Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification (involving 0.5 miles of river).<br><br>*The public lands are closed to most surface disturbing activities such as construction of rights-of-way, mineral development, most types of recreation site development, and wildlife habitat and range improvements.* | Ongoing |
| 0870 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*Water impoundments or diversions are prohibited on the public lands.* | Ongoing |
| 0871 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>The public lands are an exclusion area for rights-of-way. | Ongoing |
| 0872 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*Any fire suppression activities on the public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment off of designated roads and trails will be used to suppress fires.* Helicopter bucket drops and the use of chainsaws may be allowed if no permanent impacts would occur. | Ongoing |
| 0873 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*The public lands are closed to commercial timber sales and harvesting.* Cutting of trees will only be allowed with written permission or in association with safety and environmental protection requirements (such as clearing trails, visitor safety, and fire control). | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0874 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>Increases in active grazing preference on the public lands are prohibited. Range improvements will only be allowed if they are compatible with objectives for the scenic river classification. | Ongoing |
| 0875 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification* (involving 0.5 miles of river).<br><br>*The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation.* Undesirable and exotic species could be removed by hand. | Ongoing |
| 0876 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.* | Ongoing |
| 0877 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales.* Geophysical exploration is allowed if a site specific analysis determines no adverse effects would occur. Vehicles will be restricted to designated roads and trails only. Foot access is required off of existing roads. Surface charges may be allowed if site specific analyses determine no permanent adverse impacts would occur. | Ongoing |
| 0878 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*The public lands are closed to most surface disturbing activities such as construction of rights-of-way and mineral development. Some surface disturbing activities may be allowed. Activities such as recreational developments (development and improvement of campgrounds, put in or take out areas, etc.), range improvements, and wildlife improvements may be considered, provided such activity is done in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment, and if a site specific analysis determines that no adverse effects would occur.* | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0879 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*Water impoundments or diversions are prohibited on the public lands. The public lands are an exclusion area for rights-of-way.* | Ongoing |
| 0880 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*Fires on public lands will be suppressed using appropriate techniques provided no permanent impacts would occur.* Motorized and non-motorized vehicle ground equipment on designated roads and trails, the use of chainsaws, and helicopter bucket drops may be used to suppress fires. Campfires are permitted in keeping with current fire management regulations. | Ongoing |
| 0881 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*The public lands are closed to commercial timber sales and harvesting*. Firewood collection for camp fires and some post and pole cutting will be allowed provided no substantial adverse effects occur to the public lands. | Ongoing |
| 0882 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*Increases in active grazing preference are prohibited. Range improvements will only be allowed if they are compatible with the objectives for recreational river classification.* | Ongoing |
| 0883 | GRRMP | *Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification* (involving 3.4 miles of river).<br><br>*The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation.* Undesirable and exotic species could be removed by hand. | Ongoing |

# 3.3.4. National Historic Trails

### Table 3.38. National Historic Trails

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0884 | GRRMP | **The BLM will cooperate with the National Park Service in implementing the Oregon/Mormon Pioneer National Historic Trails Management Plan.** | Ongoing |

| | | | |
|---|---|---|---|
| 0885 | GRRMP<br><br>Plan change No. 4-1<br><br>6/09/06 | Crossings may include additional disturbance of trail ruts in the areas where previous disturbances have occurred but the ruts themselves have not been disturbed. Development actions will be analyzed on a case-by-case basis through site specific analysis to identify mitigation needs and meet management objectives. | Ongoing |
| 0886 | GRRMP | Motorized vehicles, such as those used for geophysical exploration, or large heavy vehicles such as buses used in recreational tours, or similar activities, could cross and drive down the trails, provided a site specific analysis determines that no adverse effects will occur. | Ongoing |
| 0887 | GRRMP | **Geophysical activities such as shotholes, blasting, and vibroseis locations could, generally, be allowed, provided they are at least 300 feet from the trail, do not occur directly on the trail, and a site specific analysis determines that visual intrusions and adverse effects will not occur.** | Ongoing |
| 0888 | GRRMP | **No blading will be allowed on any historic trail unless necessary to protect life or property. Historic trails are not available for use as industrial access roads** (e.g., oil and gas drilling access roads, or as haul roads for heavy truck traffic). | Ongoing |
| 0889 | GRRMP | **The Parting-of-the-Ways historical site will be protected by closing it to exploration and development of locatable and saleable minerals and pursuing a withdrawal from mineral location. An existing 40-acre mineral location withdrawal in the area will be retained**. **The site will be managed under the prescriptions for management in the Oregon/Mormon Pioneer National Historic Trails Management Plan.**. | Ongoing |
| 0890 | GRRMP | **The integrity of the Dry Sandy Swales trail segment** (about 1 mile) **will be protected. The site will be an exclusion area and will be closed to surface disturbing activities that could adversely affect it** (see discussions in Lands and Realty Management and Minerals Management). | Ongoing |
| 0891 | GRRMP | **The area within 1/4 mile of either side of the Dry Sandy Swales trail segment will be managed in accordance with the Oregon/Mormon Pioneer National Historic Trails Management Plan.** | Ongoing |
| 0892 | GRRMP | The area within 1/4 mile or the visual horizon (whichever is less) of any contributing trail segment will be an avoidance area for surface disturbing activities. Developments such as roads, pipelines, and powerlines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance. | Ongoing |

# 3.4. Social and Economic

### Table 3.39. Social and Economic Conditions

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0893 | GRRMP/JMH CAP | No specific management decisions were identified in either the GRRMP or JMH plans. | |

# 3.4.1. Tribal Interest

### Table 3.40. Tribal Interest

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0894 | GRRMP | Native American Sites: When activity is proposed in the vicinity of Traditional Cultural Places (TCP), sacred sites, and/or respected places, management will be developed through consultation with Tribal leaders, SHPO, and the activity proponent based on the characteristics of the site and the proposed activity. Mitigation may include siting activity in such a way as to protect the foreground viewshed of the area of concern, if appropriate. Areas located on Steamboat Mountain, Steamboat Rim, White Mountain Rim, Essex Mountain, Monument Ridge, Joe Hay Rim, and the Indian Gap Trail have been identified as respected places, which may include Native Americans' sacred sites or TCPs. | Ongoing |

# 3.4.2. Public Safety

## 3.4.2.1. Hazardous Materials

### Table 3.41. Current Management Decisions for Public Safety-Hazardous Materials

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| 0895 | GRRMP | For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. If safety hazards are identified as a result of hazardous waste spills on BLM-administered public lands, the BLM will provide appropriate warnings.<br><br>Sale or transfer of public lands on which storage or disposal of hazardous substances has been known to occur will require public notification of the type and quantity of these substances. | Ongoing |
| 0896 | GRRMP | *BLM-administered public land sites contaminated with hazardous wastes will be reported, secured, and cleaned up according to applicable federal and state regulations and contingency plans.* Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed in federal and state regulations. | Ongoing |

| Planning Decision Number | Decision Source | Current Management Decision | Status |
|---|---|---|---|
| | | Certain wastes generated by the oil and gas industry are exempt from regulation as hazardous wastes. These exemptions are too complex in detail to be listed here but are on file in BLM offices. Pits containing produced water or drilling fluids at well sites or other locations may be tested for TCLP constituents if nonexempt, hazardous wastes are indicated. Costs for testing and proper disposal will be borne by the operator if analysis confirms the presence of a nonexempt waste.<br><br>See other resource management prescriptions in this document for other prescriptions and guidance that may apply to hazardous materials management activities. | |

This page intentionally
left blank

# Chapter 4. Management Opportunities

This page intentionally
left blank

# 4.1. Resources

## 4.1.1. Air Resources

### Table 4.1. Adequacy of Current Management Direction for Air Resources

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases). | Yes | Stipulations and conditions of approval specific to air quality have not been developed. Increased mineral development, population growth, and cumulative impacts from other activities along with changing policy and regulation pose new challenges to the Rock Springs Field Office for managing air resources. | Develop specific management actions to support the air quality objectives.<br><br>Develop use authorization and leasing stipulations for mineral development activities specific to the air quality objectives.<br><br>Develop conditions of approval for mineral development activities specific to the air quality objectives.<br><br>Include objectives and management actions to protect air quality and visibility in identified Class I and sensitive Class II areas.<br><br>Include objectives and management actions to minimize contributions to ozone formation and green house gases.<br><br>Include air monitoring objectives to determine the effectiveness of air resource management. |
| Surface disturbing activities will be managed to prevent violation of air quality regulations. | Yes | There is a continued need to reduce particulate matter, green house gas, and ozone precursor emissions from surface disturbing activities. | Develop performance based objectives for reducing emissions of regulated air pollutants from surface disturbing activities.<br><br>BLM actions or authorizations that result in air quality or visibility degradation will be conditioned to avoid violating Wyoming or national ambient air quality standards. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| | | | BLM will minimize, within the scope of its authority, any emissions that may add to atmospheric deposition, degrade visibility, or cause violations of ambient air quality standards.<br><br>BLM will manage prescribed burns to comply with WDEQ smoke management rules and regulations. |
| BLM will continue to participate with other agencies in the collection of air quality data and air quality pollution analysis. | Yes | BLM funds and operates several air monitoring stations around the state of Wyoming. BLM has conducted several air modeling analyses in cooperation with other state and federal agencies for air pollution analysis. | BLM will determine when pre-construction air monitoring is necessary for mineral development (and other) projects on a case-by-case basis.<br><br>BLM will continue to operate its air monitoring network and will work cooperatively with WDEQ to meet additional air monitoring needs.<br><br>Obtain additional air monitoring data to determine existing conditions and long term effectiveness of air quality management objectives.<br><br>BLM will participate in interagency regional modeling analyses. |
| The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA–Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming in managing and monitoring air resources. | Yes | BLM works cooperatively with the listed agencies through its Air Quality interagency review team. | |
| Cooperation to develop and apply visibility standards and guidelines is encouraged. BLM will cooperate with Wyoming DEQ on review of air | Yes | BLM works cooperatively with the WDEQ and other federal land management agencies through its Air | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| quality regulations which may impact BLM-managed activities. | | Quality interagency review team. | |

## 4.1.2. Geology

The revision will consider various ways to protect unique geologic resources such as ACECs and other special designations.

## 4.1.3. Soil Resources

Sustainable soils require management, maintenance and in some cases, restoration. These are achieved through interdisciplinary team efforts. These efforts include, but are not limited to Rangeland Health Assessments, erosion control and avoid or minimize disturbance on "hard to reclaim areas." Staff needed to attain sustainable soils would include, but not limited to, Botanists, Hydrologists, Natural Resource Specialists, Range Conservationists, Soil Scientists and Wildlife Biologists. The amount of staff, annual budget and workload would depend on the current and future issues for soil management and how soil affects other resources, as well as any improvements that may be required to attain sustainable soils. Soil management areas could be divided into watershed basins. Specific ecological issues could be established within each watershed, focusing on dominant ecological patterns; critical resources that would impact the soil and vice versa and areas with sensitive soils.

**Table 4.2. Adequacy of Current Management Direction for Soil Resources**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| No topsoil sale areas will be established. | Yes | Adequate<br><br>Extra topsoil very limited due to wind and water erosion, wouldn't suggest changing this decision. | None |
| Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved. | No | Inadequate missing some key resources, plan of operations should be submitted to all operations. | Get rid of notice. All disturbing activities on BLM lands should have a plan of operations include reclamation plan (this is first choice).<br><br>Other option would be to add LWCs, Threatened and Endangered species, wildlife stipulations, riparian areas, wildlands, if a notice |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| | | | is not changed or removed. |
| Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species. Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities. | No | Inadequate, what is considered high moisture | Should define what high soil moisture is for example, saturated soil, at field capacity, etc... |
| Areas where the soils are highly erodible or difficult to reclaim will receive increased attention, and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation will not occur and that water quality will not be adversely affected. When applicable, an erosion control plan (such as an ERRP) will be prepared as part of the site specific analysis process for activity and implementation planning. Rehabilitation plans will be developed and implemented for disturbed areas, as needed. | No | Inadequate: other soils, conditions should be considered. | Saline, sodic and saline-sodic soils, soil with columnar structure (highly unstable), percent slope, 2:1 clays should be considered. |
| Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination. Such practices could include lining of reserve, production, and other types of pits and will include alternate locations for plants, mill sites, ponds, and sewage lagoons where soils are highly permeable. | No | Inadequate | Should consider here the Gold Book, and Wyoming Oil and Gas Regulations. |
| All resource and land uses in the area will be managed in support of watershed stability and Colorado River cutthroat trout habitat management objectives. | No | Inadequate | Consider guidelines for watershed stability, statement seams too vague. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Surface water, soils, and shallow aquifers will be protected from contamination by practices such as closed drilling systems or installation of pit liners. Pit liners will be removed prior to reserve pit reclamation | No | Inadequate | Pit liners should follow Gold Book standards and Wyoming Oil and Gas Commission, also pits in these areas should have a leak detection system. |
| Wild horse herd management will be consistent with the wild horse herd management plan for the area. Construction of wild horse traps and range improvements will be allowed provided the management objectives of the area can be met. Areas with highly erosive soils or slopes are not suitable for wild horse traps and range improvements. Improvements will be considered with protection provided for slopes, raptors, cultural, scientific, scenic, and watershed resources. | No | Inadequate | Might want to also consider saline, sodic saline-sodic soils, soils with 2:1 clays. |
| These uses include sustainability of crucial big game habitat, air and water quality, scenic quality, vegetative cover and soil stability, recreational activities, livestock grazing and range improvement activities, mineral development, and other important resource concerns. | Yes | Adequate | None |
| Watershed health assessments will be initiated to determine the condition of riparian areas and will be prioritized based on levels of development, rangeland standards, PFC, and other available data. Watersheds with more sensitive baseline conditions will be the focus for increased monitoring efforts and mitigation. | No | Inadequate; list what the items are to establish baseline conditions i.e. sensitive soils, plant cover etc... | Should mention soil conditions such as slope, sensitive soils such as highly erodible, saline, sodic and saline-sodic soils, soils with 2:1 clays. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Low-intensity burns during periods of high soil moisture will be the preferred method/times in mountain shrub communities. Prescribed burns will be restricted or prohibited in areas with coal or other fossil fuel outcrops to prevent ignition of coal or fossil fuels. | No | Inadequate; what is considered high moisture | Should define here what high soil moisture is for example, saturated soil, at field capacity, etc... |
| Areas with highly erodible soils will be avoidance areas for all surface disturbing activities. Activities could be allowed if a site-specific analysis determines that no adverse impacts will occur to areas with highly erodible soils and a plan to mitigate those impacts is approved. When applicable, erosion control plans will be required as part of surface disturbing project proposals. | No | Inadequate. Almost all lands here are considered highly erodible due to the wind erodibility index, so might want to set parameters for areas to avoid. | Should also consider, very shallow and shallow soils, wet soils, unstable soils (soils with columnar structure, 2:1 clays), natural drainage ditches say with a 50 foot buffer of more, percent plant cover, percent slope, can use wind and water erodibility index and tolerable soil loss factor (T factor). |
| Surface disturbing exploration activities of 5 acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than 5 acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain federally proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | No | Inadequate missing some key resources, plan of operations should be submitted to all operations. | Get rid of notice. All disturbing activities on BLM lands should have a plan of operations include reclamation plan (this is first choice).<br><br>Other option would be to add LWCs, Threatened and Endangered species, wildlife stipulations, riparian areas, wildlands if a notice is not changed or removed |
| Surface water, soils, and shallow aquifers will be protected from contamination | No | Inadequate. | Gold Book and Wyoming Oil and Gas Commission for |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| by practices such as closed drilling systems or installation of pit liners. Pit liners will be removed prior to reserve pit reclamation. | | | pits, and pits should have a leak detection system. |

# 4.1.4. Water Resources

### Table 4.3. Adequacy of Current Management Direction for Water Resources

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Surface disturbing activities will be managed to prevent violation of air quality regulations.** Construction and surface disturbing activities will be designed with dust control measures to reduce particulate matter and visibility impacts. Coordination with local and state agencies to control dust on unimproved dirt roads will occur where necessary (see the Wyoming AQ Regulations). | Yes | Reduction of air pollution would reduce pollutant precipitate contributions to riparian areas and water sources. | Accelerate reclamation activities using all appropriate techniques. |
| The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming, in managing and monitoring air resources. For example, air quality data (e.g., atmospheric deposition, or acid rain, monitoring data) will be used to determine actual impacts from air pollutant emission sources, and emission levels will be inventoried and tracked to predict potential impacts, including effects on the Bridger Wilderness Area (which is a Prevention of Significant Deterioration Class I area) and to provide detailed information on proposed emission sources. | Yes | Reduction of air pollution would reduce pollutant precipitate contributions to riparian areas and water sources. | Address trona patch contributions.<br><br>Address ozone contributions from upwind areas outside of Pinedale FO, that has seen $O_3$ in excess of standards.<br><br>Work with the state to address the effects of County road maintenance methods on particulate contributions. |
| Protection of cultural sites (graves, trails, known cultural sites) from surface disturbance. | Yes | Reduced surface disturbance: At the same time, the disturbance associated with excavation may create a local effect. | Increased area of surface protection associated with cultural sites.<br><br>Storm Water Pollution Prevention Plan. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Significant paleontological resources will be managed for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365.** | Yes | Reduced surface disturbance. At the same time, the disturbance associated with excavation may create a local effect. | Increased area of surface protection associated with paleontological sites.<br><br>Follow state guidance for Storm Water Pollution Prevention Plans for all surface disturbances. |
| **Surface disturbing activities that affect known vertebrate fossil localities will be considered in site specific analyses and potential adverse effects will be mitigated.** At the Area Manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Mitigation measures may include surface inventory, construction monitoring, excavation/salvage, or other measures considered to be reasonable and appropriate by the Area Manager. Operators are required to report any paleontological resources discovered during the course of operations. | Yes | Reduced surface disturbance At the same time, the disturbance associated with excavation may create a local effect. | Increased area of surface protection associated with paleontological sites.<br><br>Follow state guidance for Storm Water Pollution Prevention Plans for all surface disturbances. |
| The Steamboat Mountain and Boars Tusk-Killpecker Sand Dunes areas will be managed to protect the unique geological and ecological features and to provide for public interpretation of these features. The road around Boars Tusk is closed. | Yes | Reduced surface disturbance and protection of infiltration areas. | Increase area of protection around features.<br><br>Increase protection of sand dunes and surrounding areas that are source areas for flockets. |
| Fire suppression actions will be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans will be developed for designated fire management areas defining specific parameters for all fire occurrence (Map 2.2). | Yes | Reduced unintentional surface disturbance associated with fire. | Include language in fire section to strengthen reclamation and restoration efforts. |
| **Heavy equipment or actions that will cause surface disturbance will be used only after a site specific analysis has been performed and approved. Activities that cause surface disturbance will be considered on a case-by-case basis.** | Yes | Reduced unintentional surface disturbance. | Link heavy equipment use to reclamation plans. |
| **Noncommercial forest lands (woodlands) will be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses.** | Yes | Reduced amounts of exposed soil. | Coordinate with other forest management issues, including but not limited to: bark beetles, fire, climate change, etc... |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values will not be adversely affected.** | Yes | Reduced amounts of exposed soil in vicinity of riparian areas. | Use edge of riparian instead of water.<br><br>Include ephemeral drainages (100 feet unless greater distance is needed). |
| **Timber harvest activities will be designed to protect water quality.** | Yes | Protection of water quality. | Treat land for improvement of water quality when needed. |
| A 500 foot buffer from standing or flowing water, floodplains, and/or riparian/wetland areas will be applied to surface disturbing activities (e.g., roads), unless impacts to soils, watershed, water quality, and fisheries can be mitigated. No surface disturbance is allowed within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages, without an approved plan to mitigate impacts to water quality. Linear crossings will be considered on a case-by-case basis (see Watershed section). | Yes/No | Create buffer to protect surface water and groundwater storage, filtration, and protection functions associated with riparian areas. Protect ephemeral channels from surface disturbance (reducing sediment input). | 500 foot riparian/ 100 foot ephemeral avoidance areas become minimal standards. Could be expanded if AO determines that additional protection is needed. |
| Forestry Management | Yes/No | Changing environments and improvements in harvest methods, will need extensive discussions. | Changing environments, bark beetles, and improvements in harvest methods will need extensive discussions. |
| **Cottonwood trees are not available for any harvesting.** | Yes | Protection of riparian species. | Create a riparian woody species planting and expansion program. |
| **For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. If safety hazards are identified as a result of hazardous waste spills on BLM-administered public lands, the BLM will provide appropriate warnings.** | Yes | Protection of water quality. | Review procedures to assure compliance with regulations. |
| **BLM-administered public land sites contaminated with hazardous wastes will be reported, secured, and cleaned up according to applicable federal and state regulations and contingency plans.** Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed in federal and state regulations. | Yes | Protection of water quality | Review procedures to assure compliance with regulations. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Certain wastes generated by the oil and gas industry are exempt from regulation as hazardous wastes. These exemptions are too complex in detail to be listed here but are on file in BLM offices. Pits containing produced water or drilling fluids at well sites or other locations may be tested for TCLP constituents if nonexempt, hazardous wastes are indicated. Costs for testing and proper disposal will be borne by the operator if analysis confirms the presence of a nonexempt waste. | Yes/No | State Issue.<br><br>Changing regulations and state responsibility for water quality mean that there will most likely be changes in what is needed for compliance during the life of this document Frac fluids are of particular interest. | Comply with state regulations at a minimum.. |
| **Lands will be provided to government entities for solid waste disposal through sale, exchange, or Recreation and Public Purposes (R&PP) patent.** Government entities will be encouraged to purchase unused portions of sanitary landfills currently authorized under Recreation and Public Purposes leases. The BLM will aid in finding suitable landfill sites on public land (see the Hazardous Materials Management section). | Yes | Groundwater, protection litter reduction, reduction in public land dumping. | Expand to consider recycling efforts. Improve recycling at BLM facilities |
| Public lands will be made available throughout the Planning Area for rights-of-way, permits, and leases. | Yes | Hydrologic review of potential surface disturbance locations. | |
| **The Planning Area, with the exception of defined exclusion and avoidance areas, will be open to the consideration of granting rights-of-way**. | Yes/No | Protection of avoidance areas from surface disturbance. | Review existing exclusion and avoidance areas with relation to resource needs. Maintain or expand buffers as needed |
| **Right-of-way corridors will not be designated due to the predominate checkerboard private land pattern in the Planning Area.** | Yes/No | Protection of avoidance areas from surface disturbance. | Work with checkerboard owners to create ROW corridors if this would reduce total surface disturbance. |
| **Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts.** | Yes | Protection of avoidance areas from surface disturbance. | Review existing avoidance areas and determine if they are adequate. |
| **An avoidance area for major utility lines will be located along I-80 between Point of Rocks and Green River.** Due to topography, congestion in the concentration area, and surface mining, this area will be restricted to local distribution service lines. All other utilities will be located, if possible, in the northern or southern east-west windows. | Yes | Protection of avoidance areas from surface disturbance. | Review existing avoidance areas and determine if they are adequate. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Areas designated as utility windows, rights-of-way concentration areas, and existing communication sites will be preferred locations for future grants.** Five windows have been identified: 2 east-west, 3 north-south. Other areas will be considered for rights-of-way on a case-by-case basis. | Yes | Protection of avoidance areas from surface disturbance. | Review existing utility windows and determine if they are adequate. |
| Windows 1/2 mile in width have been identified for the placement of utilities. The northern east-west window will be for underground facilities only, and the southern east-west window will be for both above and below ground facilities. A 1/2 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities. | Yes | Protection of avoidance areas from surface disturbance. | Review existing utility windows and determine if they are adequate. Expand windows if needed for resource protection. |
| **Programmatic policies and Interagency Operation Procedures (IOPs) for the designation of the preferred energy transport corridors will be adopted (applies only to BLM -administered lands).** Avoidance of surface disturbance, controlled surface use, special management areas, and other planning decisions outlined in the Green River RMP (1997) still apply. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to the preferred energy transport corridors. | Yes/No | Protection of avoidance areas from surface disturbance | Pursue cooperation with adjacent private land owners to allow for the most efficient use of land and reduce overall surface disturbance. |
| The Aspen Mountain Communications Site Plan will govern development of sites at this location. Sites at other locations will be approved on a case-by-case basis. Sharing of sites will be advocated, where possible | Yes | Protection of avoidance areas from surface disturbance. | |
| **Public Water Reserves will be terminated where no longer needed, and acquired where the need exists**. | Yes/No | Protection of public water reserves. | Require a reason for termination beyond non use Protections involved with Public water reserves may provide additional benefits |
| **The Multiple Use Management Classification as it affects public lands in the Planning Area** (200 acres) **will be revoked.** | | (COMMENTARY: Depending on where these 200 acres are and what they may be used for. Needs to be reconnected to context for this table.) | ID team review. This statement became separated from context in the table. Removing multiple use suggests increased protection but it cannot be told from this. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **No BLM-administered public lands within the Planning Area are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources.** | Yes | Complies with laws and protects resources. | Ecological function for function on land exchange. |
| Access to public lands will be provided throughout the Planning Area. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values (see ORV Management discussion). Easements will be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres). | Yes/No | Protection of sensitive areas from surface disturbance. | Increase ORV restrictions.<br><br>Increase efforts to locate and complete reclamation efforts on existing disturbances. |
| (COMMENTARY Most every aspect of livestock grazing can affect water through surface disturbance or vegetation management.) | Yes/No | Grazing causes surface disturbance (even though it is not considered a surface disturbing activity). This can affect vegetation and runoff, which can affect water quality/volumes/timing. | Interdisciplinary review of grazing activities. |
| **All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses.** | No | Fences have not been built in all areas other fences need maintenance. | Review all campground exclosures for function to improve maintenance efficiency. Determine if creation or maintaining such fencing is practical. |
| Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. | Yes | If the land is negatively impacted by grazing, the grazing should be adjusted. | Promote use of modeling to create proactive erosion control efforts. Change, “and poor range condition,” to “and/or poor range condition.” |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments.** AMPs will be written or modified for I category allotments. AMPs for M category allotments will not be modified unless monitoring and evaluation indicate a change in management is needed or riparian objectives need to be included. Riparian objectives will also be developed for C category allotments where riparian values exist. | Yes | Vegetation is a prime indicator of land health and function. Healthy land produces healthy water. | |
| Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas. | Yes | Livestock distribution improves with mineral distribution, potentially reducing impacts to the soil sponge and water quality, quantity, and timing. | Increase distance on a case by case basis. 500 foot minimum in all cases. Increase or create buffer around sensitive plant species areas. |
| **Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover** (see Vegetation section). New range improvements may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy. | Yes/No | | Consider range improvements in, "C," category allotments if they would improve conditions. |
| Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. | Yes | | Review existing developed water sources and determine if they meet this criteria. |
| Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution. | Yes | | Placement of such facilities needs to be considered with regards to proximity to riparian and other resources. |
| **Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur.** Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement. | Yes | | Regular maintenance needs to be considered in the design of these projects. See BLM fence manual 1741 |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means.** BLM will cooperate and coordinate with County weed and pest districts. | Yes/No | Staffing dependent | Review of weed management program by ID team. |
| Fluid Leasing<br><br>(Comment: The act of leasing in and of itself does not affect water quality. However, given that once a lease is issued, the lease holder has a right to develop, the leasing process does affect the amount of surface disturbance, and thus soil, water, and air.) | Yes/No | | Improve tracking of mineral extraction related disturbance through GIS analysis. |
| **BLM-administered public lands not specifically closed are open to consideration of oil and gas leasing. Public lands closed to leasing include lands within the Red Creek ACEC and portions of the Wind River Front**. | Yes/No | | Update to include additions such as sage-grouse and wildlands. |
| **The remainder of the public lands in the Planning Area are open to consideration for oil and gas leasing with appropriate mitigation measures.** | Yes/No | | Update to include additions such as sage-grouse and wildlands. |
| **Where maximum protection of resources is necessary, a No Surface Occupancy requirement will be imposed.** Additional areas may be identified through site specific environmental analysis and activity planning. | Yes | | Identify NSO areas where leasing would be impractical. Communicate these areas to State Office so that the parcels proposed for leasing in NSOs and other avoidance areas are noted at both the Field Office and State Office levels. |
| **Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources.** Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas. Exceptions to seasonal restrictions may be granted if the criteria apply. | Yes | | Maintaining existing timing limitations would be the preferred default on all actions. Exceptions to seasonal restrictions would require specific reasons for consideration and actions to compensate for the additional stress. Such actions would be approved on a limited time scale, automatically reverting to existing |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| | | | seasonal restrictions after a set time unless a review of the effectiveness of the compensating actions indicates that the mitigations are effective. |
| **Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources.** These restrictions will be placed on areas where resources could be avoided or adverse effects could be mitigated. | Yes | | Review of mitigation effectiveness required as part of operation. |
| **Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development.** Limitations on the amount, sequence, timing, or level of development may occur. This may result in transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses. | Yes | | Review of mitigation effectiveness required as part of operation. |
| **To the extent that laws and regulations allow, the areas closed to oil and gas leasing will remain closed to leasing of oil and gas unless drainage results in a loss of Federal minerals through production on adjacent private or State lands (drainage).** At such time, the no lease prescription will be re-evaluated. Actions such as drainage agreements will also be considered. | Yes | | Review no lease areas. Consider expanding. |
| Geothermal resources are open to leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing. | Yes | | Review surface disturbance requirements for all types of energy development. At present all items are being considered in relation to Oil and Gas production. An acre of disturbance/energy comparison would be useful.<br><br>Modeling of surface disturbance in relation to runoff predictions and follow-up to determine accuracy |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| | | | of the model would also be helpful. |
| Wetland and riparian areas on Federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements:<br><br>Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of ancillary facilities, roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required. | Yes | | Require hydrologic isolation of surface mining areas during mineral extraction and initial reclamation.<br><br>Groundwater modeling required as part of analysis for mines. |
| **The North Fork Vermillion Creek drainage and the City of Rock Springs Expansion Area are closed to further consideration for Federal coal leasing and development**. | Yes | | Consider expansion to match population and development changes. |
| **In general, cultural sites on Federal coal lands are avoidance areas for surface disturbing activities. As avoidance areas, cultural sites are open to consideration for coal leasing and development with appropriate measures to protect these resources.** Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction and location of ancillary facilities, roads and other types of rights-of-way, etc., will be avoided, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities (primarily excavation and other data recovery measures) will be emphasized. If necessary, appropriate buffer zones will be established to protect sites that are listed or eligible for listing on the NRHP. Data recovery measures will be implemented in the context of an NRHP district, if appropriate, to maximize efficiency of data recovery efforts. | | | Review with cultural folks. Consider full recovery and interpretation prior to disturbance. |
| Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements: | | | Update with Wyoming Greater Sage-Grouse RMP/LRMP Amendments and other related developments. |
| Grouse nesting areas (sage or sharptail grouse) are open to consideration for Federal coal leasing and development, with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement: | | | Update with Wyoming Greater Sage-Grouse RMP/LRMP Amendments and other related developments. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Wetland and riparian areas on Federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements: | Yes | | Review reclamation standards.<br><br>Area(s) of riparian within mine area prior to mining equal or less than area(s) of riparian after final reclamation in terms of function. |
| About 3,000 of these acres are closed to surface mining activities to protect cultural and geologic values. These will be no surface occupancy and very limited surface occupancy areas. | | | Review with cultural. |
| **Processing of competitive lease applications in the Beans Spring area will be considered, with special attention given to those sensitive value areas identified through the coal screening process.** | | | Review to see if Beans Springs is still a viable coal area. |
| **The remainder of the Planning Area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities** (areas closed to drilling, off-road vehicle use, and explosive charges). | | | Are highly developed gas fields still open for sodium leasing? (solution vs. solid mining) |
| **Most of the Planning Area is open to consideration of mineral material sales and activity except for areas where such activity would cause unacceptable impacts.** | Yes | | ID team, look at area designation and determine if adequate to protect other values (sage-grouse expansion watershed protection). |
| **As sale areas, community pits, and localized common use areas become established to provide for sales of mineral materials, such as moss rock and sand, their use and management will be in conformance with other resource objectives.** Adequate mine and reclamation plans for use areas will be developed. Requests from users for mineral material will be evaluated on a case-by-case basis. | | | ID team, look at area designation and determine if adequate to protect other values (sage-grouse expansion watershed protection). |
| **No topsoil sale areas will be established.** | Yes | Reduced surface disturbance. Topsoil is generally not present in minable quantities. Removal of existing top soil would reduce land functions. | |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Geophysical activities will generally be required to conform to the ORV designations and ORV management prescriptions** for the Planning Area (see Off-Road Vehicle Management). However, geophysical exploration has been and will continue to be routinely granted site specific authorization for off-road vehicle use subject to appropriate limitations to protect various resources identified during analysis of proposed actions. Geophysical Notices of Intent will continue to be evaluated on a case-by-case basis, and all authorizations will be issued with appropriate analysis and mitigation requirements. | Yes | Reduced surface disturbance. | Review of damage and reclamation efforts. |
| With the exception of lands withdrawn from mineral location, the Planning Area is open to filing of mining claims and exploration for and development of locatable minerals. | | | If laws allow expand reclamation requirements. |
| Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved. | Yes | State Regulations | State requires SWPPP for 1 acre or greater. Match state regulations. Follow-up review and maintenance of erosion prevention activities to determine success and compliance. |
| **Most of the Planning Area is open to consideration of geophysical activities except where off-road vehicle use or explosive charges would cause unacceptable impacts.** | Yes/No | | Include groundwater recharge areas as avoidance areas. |
| **Generally, shotholes and vibroseis activity will be restricted or disallowed within 300 feet of historic and recreational trails; however, exceptions may be allowed if supported by a site specific analysis.** | | | Review with cultural.<br><br>Expand shot-hole avoidance areas to include groundwater infiltration areas, 500 foot of riparian areas and 100 foot of ephemeral channels at a minimum. |
| Offroad vehicle use will be managed according to the ORV designations. | Yes/No | | ID team review and update ORV designation. |
| Areas for ORV rallies, cross-country races, and outings may be provided on a permit basis. | Yes | | ID team review and update ORV designation. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Approximately 170,000 acres are closed to off-road vehicle use to protect naturalness and outstanding opportunities for solitude, or primitive and unconfined recreation.** | Yes | | ID team review and update ORV designation. Consider expanding. |
| In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the authorized officer. This limitation applies to all activities involving motorized vehicles. Except for areas that are closed to off-road vehicle travel, some types of off-road motor vehicle use may be allowed by the authorized officer provided resource damage does not occur. | Yes | | ID team review and update ORV designation. |
| In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the authorized officer. This limitation applies to all activities involving motorized vehicles. Except for areas that are closed to off-road vehicle travel, some types of off-road motor vehicle use may be allowed by the authorized officer provided resource damage does not occur. | Yes | | ID team review and update ORV designation |
| **Vehicular travel is restricted to designated roads in sensitive watersheds and in cultural site management areas.** | Yes | | ID team review and update ORV designation. Consider expanding areas of protection. |
| Developed recreation sites will be managed to assure public health and safety. | Yes | | Add the criteria for undeveloped recreation sites to this.<br><br>**Undeveloped recreation sites and other recreation use areas will be managed with priority consideration for air quality, cultural resources, watershed protection, wildlife values, and public health and safety.** |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Dispersed camping is prohibited near water sources in designated areas where it is necessary to protect water quality and wildlife and livestock watering areas. Camping in other riparian areas is allowed within 200 feet of water. Areas will be closed to camping if resource damage occurs.** | Yes | | 200 feet could be considered as the minimum distance, with a greater distance being applied if needed. |
| **The 14-Mile Recreation Area is closed to surface disturbing and development activities, except for those specifically associated with construction and development of recreation facilities for the site. The public water reserve and the recreational withdrawal which closes the area to mineral location and disposal will be retained.**<br><br>(Note: 14 Mile Ranch has a water right associated with 14 mile pond) | Yes | | Work to obtain water right for pond. |
| Additional travel routes that meet the criteria will be considered for designation as backcountry byways on a case-by-case basis. | | | Review with recreation folks. |
| **Cutting of trees and firewood for camping purposes in developed recreation sites is limited to designated areas.** | | | Review with recreation folks and forestry folks as the bark beetle invasion may have changed things |
| **Recreation site development projects and access routes along intensively used streams and reservoirs will be managed to maintain or improve wetland habitat conditions.** | Yes | | Review with recreation folks |
| **Development of permanent recreation sites and facilities in undeveloped recreation use areas will be considered, provided proper mitigation and exceptions to Executive Order 11988 apply. The area within 500 feet of riparian areas and floodplains is an avoidance area for recreation site facilities.** Exceptions may be considered following a site specific analysis. Adverse impacts to riparian areas and water quality is prohibited. Water sources at undeveloped recreation sites will be monitored. If the water is not potable, signs will be posted. | Yes | | Consider 500 feet as a minimum. Expand if required to protect resource values. |
| **Vegetation buffer strips will be maintained between developed recreational facilities and surface water.** | Yes | | Review past efforts and improve where needed. |
| The management objective emphasis **for this unit** of the SRMA is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources; and to provide protection to the Class I airshed in the Bridger Wilderness. | Yes | | Work with state to improve pollution from Trona mines and other AQ issues. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The 500 acres associated with the **Arabis pusilla** portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, off-road vehicle (ORV) use is limited to designated roads and trails. | Yes | | Review SSP ACECs and consider expanding if needed. |
| **The integrity of the Continental Divide Snowmobile Trail, the Continental Divide National Scenic Trail, and the South Pass Cross Country Ski Trail will be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within 1/4 mile of the trails.** The only exceptions will be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety. | Yes | | Expand buffer if needed. |
| **The public lands along about 1.5 miles of the Big Sandy River, adjacent to the Bridger-Teton Forest boundary, will be managed to retain their inherent pristine character. Actions that would alter these characteristics in this area are prohibited. Along this segment of the Big Sandy River, and within a 1/2 mile of either bank of the river, the public lands are closed to surface disturbing activities.** A no surface occupancy requirement will be imposed on the area including the river and within 1/2 mile of either bank of the river. | Yes | | Expand buffer if needed. |
| **Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met.** An exception may be granted if the operator/individual and surface management agency could arrive at an acceptable mitigation plan for anticipated impacts. Options in the mitigation plans may include consideration of development in one portion of the area coupled with no development in other areas. Other considerations may include placement of multiple facilities in a specific area (e.g., multiple wells and production facilities on one drill pad) and using remote control operations (e.g., remote well head and production facility control) to limit trips into locations or other areas. | Yes | | Consider human health and safety. |
| **Surface disturbing activities are prohibited in the Dry Sandy Swales and the area within 1 mile of Dry Sandy Swales.** A no surface occupancy requirement will be imposed in the area including the Dry Sandy Swales and within 1 mile of Dry Sandy Swales. | Yes | | Expand buffer if needed. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Any management actions on potential habitat of special status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) will require searches for the plant species prior to project or activity implementation to determine the locations of special status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat. Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants. | Yes | Reduction of surface disturbance. | Review special status plant species locations. Expand if needed. |
| **Known locations of special status plant species communities will be protected and closed to:**<br>1. Surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat;<br>2. The location of new mining claims (withdrawal from mineral location and entry under the land laws will be pursued);<br>3. Mineral material sales;<br>4. All off-road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and<br>5. The use of explosives and blasting.<br>(See the discussion in Lands and Realty Management and Minerals Management.) | Yes | Reduction of surface disturbance | Review special status plant species locations. Expand if needed. |
| **BLM will pursue acquisition of approximately 1,920 acres of additional Descurania torulosa habitat on Pine Butte**. | Yes | Reduction of surface disturbance. | Determine if this has been done and pursue if still valid. |
| **Known locations of special status species will be evaluated on a case-by-case basis to determine if they meet the relevance and importance criteria to be considered for ACEC designation.** If appropriate, such locations will be proposed for ACEC designation and the Green River RMP will be amended, as necessary (see the section on Special Designation Management Areas). | Yes | Reduction of surface disturbance. | Review special status plant species locations, expand if needed. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Vegetation Management | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | Review vegetation management with ID team. |
| **Riparian habitat will be maintained, improved, or restored to provide wildlife and fish habitat, improve water quality, and enhance forage conditions. Where possible, acquisition of additional riparian area acreage will be pursued to enhance riparian area management**. | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | Like function for land exchange if the BLM is requested to give up riparian areas. Upland for riparian may be considered. |
| **The minimum management goal for riparian areas is to achieve proper functioning condition. This is considered the first priority for vegetation management. Desired plant communities must meet the criteria for proper functioning condition.** | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | Expand to have goals of DPC and PNC. These goals already exist but to focus on the minimum physical condition of PFC may give people the wrong idea. |
| **Desired plant community objectives for upland and riparian areas will be established for the Planning Area through individual site specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans will incorporate desired plant community objectives.** Native plant communities are the preferred species identified when establishing desired plant community objectives (EO-11098, BLM Manual 1745) (see Riparian Vegetation Guidelines for additional guidance). | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | |
| Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species. Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities. | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | |
| Approximately 26,700 acres of vegetative treatment will be designed to increase forage, while about 41,000 acres will primarily be designed to improve wildlife habitat. Treatment methods available include mechanical, biological, chemical, and prescribed fire. | Yes | | Review and revise considering, WUI goals, climate change, bark beetles, and other factors that may affect forests. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops. | Yes | | Review with fire folks. Expand if needed. |
| Vegetation treatments will be designed to be compatible with special status plant species. For example, spraying, burning, mechanical disturbances, etc. will not be allowed to adversely affect these plant species. | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | |
| **Vegetation treatment projects will be designed to protect water quality and dissipate erosion.** This generally means accomplishing vegetation treatments in a mosaic pattern and leaving sufficient untreated vegetation to buffer riparian areas and intermittent and ephemeral drainages from erosion. Specific treatment designs for erosion control will be determined on a case-by-case basis. | Yes | All vegetation management actions have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | Review and improve practices if needed. |
| COMMENT: All Riparian Vegetation Management Decisions have the potential to affect water quality | | | |
| **Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Green River Resource Area** (see Glossary). **Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition.** | | All Riparian Vegetation Management Decisions have the potential to affect water quality | Revise PFC so that PFC is minimum and goals are working towards DPC. |
| The Green River Resource Area uses BLM Technical Reports on Proper Functioning Condition TR 1737-9 and TR 1737-11 to guide the effort in classifying or rating all lotic (moving water) and lentic (still water) riparian areas | Yes | All riparian vegetation management decisions have the potential to affect water quality. | Update to TR 1737-15 and TR 1737-16 1737-15 may change during the time that this document is being written. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Site specific activity and implementation plans will be used to identify methods to achieve or maintain proper functioning condition in riparian areas. | Yes | All riparian vegetation management decisions have the potential to affect water quality. | Write document to achieve and maintain PFC at a minimum and improve vegetative communities to DPC. |
| Methods applied where grazing occurs include (but are not limited to) fencing, establishment of pastures and exclosures, off-site water development, off-site salt or mineral supplement placement, timing and seasons of use, establishment of allowable use levels for key riparian species, herding, grazing systems, etc. Methods applied where surface disturbing activities occur include (but are not limited to) distance restrictions, timing constraints, sediment containment and control design, and reclamation practices. | Yes | All vegetation management actions, including grazing, have the potential to affect the water resource. In general, any action that improves vegetation improves water quality, quantity, and timing. | Leave open the possibility of developing Reserve Common Allotments (RCA) and design their operations so that they are preferred forage sources.<br><br>RCAs should be places ranchers want to place their cows. This would improve cooperation.<br><br>Consider obtaining RCA either by purchase or cooperation with individuals or other agencies. |
| **Visual resource classes will be retained or modified to enhance other resource objectives such as those for cultural resource and recreation management, wild horse viewing, and special management areas.** | Yes | Visual resource protection generally results in less surface disturbance. Less surface disturbance generally results in improved air, land, and water quality. | Review with visual resource folks. |
| **Land uses and surface disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to pre-disturbance conditions.** Practices to carry out these actions may include ensuring that construction of stream crossings occurs during normal stream flows, not during high or peak flows when additional sediment from construction could be swept in the stream; and ensuring water discharges meet appropriate standards. Streambank erosion and channel incision are of particular concern as either would result in unacceptable losses of riparian habitat. Accelerated surface erosion will impact riparian habitat adversely and reduce productivity in uplands. | Yes | Healthy land = Healthy water. | |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Management in the Planning Area will emphasize:<br><br>**Reduction of sediment, phosphate, and salinity load in drainages where possible.** Measures listed will be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations will also be applied, as necessary (Wyoming 1989);<br><br>Maintaining and improving drainage channel stability; and **Restoring damaged wetland areas.** Exclosures will be designed to allow ample water for livestock and allow minimum impediments to big game migration. | Yes | Healthy land = Healthy water. | |
| **Areas where the soils are highly erodible or difficult to reclaim will receive increased attention, and are avoidance areas for surface disturbing activities.** Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation will not occur and that water quality will not be adversely affected. When applicable, an erosion control plan (such as an ERRP) will be prepared as part of the site specific analysis process for activity and implementation planning. Rehabilitation plans will be developed and implemented for disturbed areas, as needed. | Yes | Healthy land = Healthy water. | Monitoring and maintenance of surface disturbance with reports (standard forms) as part of stipulations. |
| **Activity and implementation plans will be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River**. | Yes | Healthy land = Healthy water. | Estimates of total savings from models funded by those doing the disturbance. |
| BLM will participate with federal and local government agencies and the Colorado River Salinity Control Forum to develop and implement salinity control plans. | Yes | Healthy land = Healthy water. | Estimates of total salt savings from models funded by those doing the disturbance. |
| BLM will participate with federal and local government agencies to develop and implement phosphate reduction plans in tributaries to Fontenelle Reservoir and Flaming Gorge Reservoir. | Yes | Healthy land = Healthy water. | Estimates of total savings from models funded by those doing the disturbance. |
| **Site specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) will be prepared for areas where needed**. These areas include but are not limited to Cedar Mountain and Sage Creek/Currant Creek. The Red Creek watershed plan will continue to be implemented, as appropriate. | Yes/No | Healthy land = Healthy water. | The areas of concern are still there but specific watershed plans have not been written. Depending on the findings of the ID team, this or another approach may be taken. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objectives.** | Yes/No | Healthy land = Healthy water. | The areas of concern are still there but specific watershed plans have not been written. Depending on the findings of the ID team, this or another approach may be taken. Priority areas may have changed. |
| The 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g., storage tanks, structure pits, etc.). Proposals for linear crossings in these areas will be considered on a case-by-case basis. | Yes | | Consider potential removal or relocation of existing facilities within 100 year floodplain. |
| Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, powerlines, roads, recreation sites, fences, wells, etc...) that could adversely affect water quality, and wetland and riparian habitat, will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages. Proposals for linear crossings in these areas will be considered on a case-by-case basis. Activities could be allowed if a site specific analysis determines that no adverse impacts will occur to floodplains, wetlands, perennial streams, or water quality, and a plan to mitigate impacts to water quality is approved. | Yes/No | | Review site specific condition and use 500 feet. as a minimum distance with potential expansion to a greater distance if needed. |
| Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination. Such practices could include lining of reserve, production, and other types of pits and will include alternate locations for plants, mill sites, ponds, and sewage lagoons where soils are highly permeable. | Yes | | Review standard practices and determine if some actions need to become standard. |
| **Aquifer recharge areas will be managed to protect groundwater quality and to ensure continued ability for recharging aquifers.** Protection will be provided by limiting road density and surface occupancy to maintain a healthy recharge area. Vegetative cover and geologic soil condition that are conducive to groundwater recharge will be maintained. | Yes | | Refine mapping of recharge areas based on improved mapping capabilities. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Activities within the water recharge area for the Town of Superior water supply will be designed to protect groundwater quality and will be allowed only if groundwater quality will be protected | Yes | | Refine mapping of recharge areas based on improved mapping capabilities. |
| **BLM will cooperate with the State of Wyoming on the Wyoming State 208 water quality plan, and will coordinate the development of water quality plans consistent with BLM programs and RMP recommendations and decisions.** | Yes | | The concept is there but this will need to be reworded to reflect the primacy of the State of Wyoming with regards to water issues. |
| Water quality will be monitored as needed to determine pollution and land health conditions. An area wide monitoring plan to determine sources of water pollution will continue. | Yes | | The monitoring of water quality, while a tool that can be used to answer specific questions, is not the primary monitoring method being applied. The State of Wyoming has primacy with regards to water quality and monitoring through the Clean Water Act and other legislation.<br><br>Water quality may not be the preferred method of determining land management success. The area wide monitoring program has not been continued and should be reflected in the document. |
| Areas may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of watershed resources. BLM will not use powers of condemnation to acquire lands. | Yes | | Consider long term effort to create Reserve Common Allotments (RCAs) through acquisition and cooperation. Emphasis should be placed in areas where Wyoming Rangeland Standards are not being met. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Discretionary uses within or adjacent to WSAs will be reviewed to ensure they do not create conflicts with management and preservation of wilderness values. | Yes | | ID team review needed to determine how WSAs will be handled. |
| **High value wildlife habitats will be maintained or improved by reducing habitat loss or alteration and by applying appropriate distance and seasonal restrictions and rehabilitation standards to all appropriate activities.** These habitats include crucial winter habitat, parturition areas, sensitive fisheries habitat, etc. | Yes | Healthy land = Healthy water. | |
| **Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use.** | Yes/No | | Adjust AUMs based on range suitability.<br><br>Remove AUMs related to exclosures from base. |
| **Aquatic, wetland, and riparian habitat are not suitable for disposal unless opportunities exist for land exchange for lands of equal or better value.** BLM will consider acquiring additional lands along perennial waters and wetlands. Water rights for BLM water developments will be pursued as appropriate. | Yes/No | | Exchange would be based on equal biological function/value not dollar amount. |
| **Management toward proper functioning condition or desired future condition of riparian areas will be implemented** (see discussions in Livestock Grazing Management, in Vegetation Management). Executive Order 11990 for the protection of wetlands will apply. | Yes | Healthy land = Healthy water. | |
| Seasonal restrictions for surface disturbing activities to protect game fish and special status fish populations during spawning will be applied as necessary. | Yes | | Exceptions to seasonal restrictions would require approved compensations that would need to be reviewed in order for renewal and could be revoked at any time. |
| Vegetation will be managed to provide habitat for wildlife. | Yes | | Manage to provide and improve. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The Wyoming Standards for Healthy Rangelands (USDI 1997a) will apply to all resource uses on BLM-administered lands. These standards are the minimal acceptable conditions that address the health, productivity, and sustainability of the rangeland. The standards describe healthy rangelands rather than rangeland by products. Achievement of a standard is determined through observing, measuring, and monitoring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. The standards will direct the management of public lands and focus the implementation of this activity plan toward the maintenance or attainment of healthy rangelands. | Yes | Wyoming Rangeland Standards have been amended into the existing RMP. Standard #2, while not word for word, is very close to the desired minimal condition of stability and resiliency that is Proper Functioning Condition (PFC). | The RMP ROD was published in 1997, the same year as Wyoming Standards for Healthy Rangelands. Thus, the Standards are not mentioned in the RMP. However, there are the various IMs and other bits of paperwork that apply the Standards to all Wyoming BLM lands. This will need to be brought into the new RMP. |
| Riparian areas will be maintained, improved, or restored to enhance forage conditions, provide wildlife habitat, and improve stream and water quality. To achieve PFC, riparian areas will be managed to maintain dominance by species capable of stabilizing soils and stream banks. Riparian areas will be assessed as needed to determine existing condition and whether specific management actions are needed for improvement. Site-specific activity and implementation plans will be prepared where needed to identify methods to achieve or maintain proper functioning condition as a minimum. Plans could include measures to reduce erosion and sediment yield, promote ground cover, and enhance water quality. | Yes | | From JMH-CAP. Same idea as RMP perhaps different language. |
| Watershed health assessments will be initiated to determine the condition of riparian areas and will be prioritized based on levels of development, rangeland standards, PFC, and other available data. Watersheds with more sensitive baseline conditions will be the focus for increased monitoring efforts and mitigation. | Yes/No | | Specific watershed health assessments have not been undertaken in the past. Data has been gathered on stream and allotment basis but has not been organized in a watershed basis. Watershed assessments should not be ruled out but on the other hand should not be required if not needed. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objective | Yes | Acknowledge watershed values in land management plans. | This is unique to the JMH CAP but would be good to expand to the new RMP |
| Riparian exclosures can be maintained and/or modified based on site-specific analysis. Where site-specific analysis determines they no longer serve their purpose, they can also be removed. New exclosures can be developed if they will benefit in meeting the management objectives outlined. Riparian exclosures are used to protect degraded riparian areas from further impacts associated with livestock grazing and to ensure reclamation of vegetation communities and ecological processes. Most of the exclosures in the Planning Area were created for mitigation for converting sheep grazing to cattle grazing. Exclosures will remain closed to livestock grazing, and AUMs in these exclosures are not available for livestock use. | Yes | Riparian exclosures are one tool of many. | |
| Hydrogeologic investigations will be required where there is a reasonable expectation that surface water features are connected with geologic formations being de-watered. Such investigations will serve to determine the extent of the potential impact and provide information that could assist in mitigation of undesirable effects related to development. Attributes that could trigger a hydrogeologic investigation include, but are not limited to:<br>● Preexisting designation of an area as a recharge zone.<br>● Similar water chemistry between surface waters and proximity of a proposed project to ground water, shallow water tables, and springs and/or seeps.<br>● Wetlands, streams, or water courses.<br>● Underlying lithology that suggests surface/ground water communication, such as dipping geologic beds, fractures in the underlying rocks, and shallow producing zones. Mitigation requirements will also be implemented as needed to protect surface waters. Appropriate measures will be applied to protect ground water quality and prevent commingling of aquifers. | Yes | Protection of groundwater. | Map areas where hydrologic investigations would be required with the option of requiring a similar investigation outside of the mapped units if a site specific review suggests that it is warranted. |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Aquifer recharge areas will be managed to maintain or enhance recharge volume and ground water quality by limiting road density and surface occupancy to maintain a healthy recharge area. Studies will be conducted in relation to specific projects to better define aquifer recharge area boundaries.<br><br>See other resource management sections in this document (Implementation, Monitoring, and Evaluation Process; Surface Use Activities; Air Resources; Heritage Resources; Land and Water Resources; Minerals and Alternative Energy Resources; Recreation Resources; Travel, Access, and Realty; Visual Resources; and SMAs and Other Management Areas) for other prescriptions and guidance that apply to Water Resources Management. | Yes | Protecting recharge areas protects groundwater. | Map all recharge areas and allow for updates as new data becomes available. |
| Land uses and surface disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to predisturbance conditions. | Yes | Healthy land= Healthy water. | |
| Management in the Planning Area will emphasize:<br><br>● Reduction of sediment, phosphate, and salinity load in drainages where possible;<br><br>● Maintaining and improving drainage channel stability; and<br><br>● *Restoring damaged wetland areas.* | Yes | Healthy land= Healthy water. | |
| Areas where the soils are highly erodible or difficult to reclaim will receive increased attention, and are avoidance areas for surface disturbing activities. | Yes | Healthy land= Healthy water. | |
| Activity and implementation plans will be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River. | Yes | Healthy land= Healthy water.<br><br>Phosphate is often the limiting factor in eutrophication. Reduction in phosphate loading will help to maintain water quality. | |
| Site specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) will be prepared for areas where needed. | Yes | In JMH CAP. Same as RMP Healthy land= Healthy water. | |
| Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objectives. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water | |

| Planning Decision From Chapter 3 | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Wetlands and floodplains within the Planning Area will be managed in accordance with Executive Orders 11988 and 11990. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |
| The 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g., storage tanks, structure pits, etc.). Proposals for linear crossings in these areas will be considered on a case-by-case basis. | Yes | In JMH CAP. Same as RMP Healthy land= Healthy water. | |
| Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, powerlines, roads, recreation sites, fences, wells, etc.) that could adversely affect water quality, and wetland and riparian habitat, will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages. Proposals for linear crossings in these areas will be considered on a case-by-case basis. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | 500 and 100 foot buffers are minimum and could be expanded if needed for resource protection. |
| Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination. | Yes | In JMH CAP. Same as RMP Healthy land= Healthy water. | |
| Aquifer recharge areas will be managed to protect groundwater quality and to ensure continued ability for recharging aquifers. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |
| BLM will cooperate with the State of Wyoming on the Wyoming State 208 water quality plan, and will coordinate the development of water quality plans consistent with BLM programs and Green River RMP recommendations and decisions. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |
| Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |
| Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |
| Aquatic, wetland, and riparian habitat are not suitable for disposal unless opportunities exist for land exchange for lands of equal or better value. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | Exchange of equal ecological value. |
| Management toward proper functioning condition or desired future condition of riparian areas will be implemented. | Yes | In JMH CAP Same as RMP Healthy land= Healthy water. | |

## 4.1.5. Vegetative Communities

The revised RMP should establish more specific and measurable objectives for vegetation resources, based on desired vegetative condition, composition, cover, and seral stages

### 4.1.5.1. Riparian

**Table 4.4. Adequacy of Current Management Direction - Vegetation - Grasslands and Shrublands Including Riparian**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Prescribed burns may be conducted in crucial big game winter ranges if habitat values will be improved for these species. Prescribed fire is the preferred method of vegetation manipulation, and spring burns are preferred to regenerate shrubs. Chemical treatment will be used only where national guidelines can be exercised to prevent unwanted effects or harm to desirable fauna or flora and to prevent transportation of chemicals to other areas by water or air movement. | No | Need to check with new Vegetation EIS to see if anything needs updating. | |
| Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops. | No | Check with new sage-grouse guidelines. | |

## 4.1.6. Invasive Species and Pest Management

**Table 4.5. Adequacy of Current Management Direction for Invasive Species and Pest Management**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Prescribed burns may be conducted in crucial big game winter ranges if habitat values will be improved for these species. Prescribed fire is the preferred method of vegetation manipulation, and spring burns are preferred to regenerate shrubs. Chemical treatment | No | Need to update to take in account new Vegetation Treatment EIS and District EA also, if needed. | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| will be used only where national guidelines can be exercised to prevent unwanted effects or harm to desirable fauna or flora and to prevent transportation of chemicals to other areas by water or air movement. | | | |
| Approximately 26,700 acres of vegetative treatment will be designed to increase forage, while about 41,000 acres will primarily be designed to improve wildlife habitat. Treatment methods available include mechanical, biological, chemical, and prescribed fire. | Yes | Uses all integrated pest management techniques for weeds. See how it fits in with fire and wildlife though. | |

# 4.1.7. Wildlife and Fisheries Habitat

## 4.1.7.1. Wildlife

### Table 4.6. Adequacy of Current Management Direction for Wildlife

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The Wind River Front is a restricted forest management area where forest resources will be managed for commercial forest values, to improve the health, vigor, and diversity of forest stands, and still give full consideration to other resource values such as watershed, wildlife, minerals, recreation, and scenic values. | Yes | | The Wind River Front is home to three threatened or endangered species and one candidate species. |
| **The major consideration for timber harvesting in the Wind River Front is to improve the condition of the forest stand with emphasis on meeting wildlife habitat needs. The major consideration for harvesting in other areas is to provide watershed stability and habitat for wildlife needs.** Soil, watershed, and wildlife cover are important considerations. Timber stand conditions and management considerations will dictate | No | Need to address retainment of snags for nesting habitat. | with emphasis on meeting wildlife habitat needs (insert) "with an emphasis on retaining snags and den trees where feasible." |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| harvest methods and size and shape of units. | | | |
| Cutting methods include, but are not limited to, clearcutting, individual tree marking, shelter wood, thinning, and group selection. Individual clearcut units will not exceed 25 acres in size unless a site specific analysis indicates RMP resource objectives will be met with a larger clearcut unit size. All clearcut design and planning will consider other resource values such as escape cover for wildlife. Clearcut unit size and shape will be designed to maximize natural regeneration and edge effect or contiguous habitat depending on the wildlife species needs. | No | Does not address species needing large contiguous blocks of habitat. | Add …"or contiguous habitat depending on the wildlife species needs".<br><br>Delete …"for wildlife". |
| **Timber harvesting activities will be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse (sage, sharptail, etc.) strutting and nesting, and raptor nesting activity.** | No | Sharptail grouse do not occur in this habitat. Blue grouse and Greater Sage-Grouse do occur. | Remove "sharptail" and add "blue grouse." |
| **Access to public lands will be provided throughout the Planning Area. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values** (see ORV Management discussion). Easements will be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres). | No | Need greater protection to wildlife and important seasonal habitat. | Identify additional areas to limit access to seasonally important areas, such as crucial winter ranges, to protect wildlife on associated important wildlife habitat. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The authorized active livestock use and existing forage reservations for wildlife and wild horses will be maintained. Historic levels and types of rangeland monitoring will continue and additional levels and types of monitoring or evaluation may be initiated, as necessary, to determine any need for forage allocation adjustment.<br><br>**Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine if vegetation objectives will be met for all affected resource values and uses (livestock grazing, wild horses, wildlife, watershed, etc.)**.<br><br>Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses.<br><br>Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions.<br><br>**Site specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities.** A site specific plan that considers wildlife needs will be developed for the Pine Canyon, Long Canyon, Cedar Canyon, and | No | Is a site specific plan that considers wildlife needs will be developed for the Pine Canyon, Long Canyon, Cedar Canyon, and Table Mountain area to alleviate conflicts between oil and gas production and exploration, wildlife needs, and livestock grazing still sufficient<br><br>Little Mountain<br><br>Allotments within sage-grouse core areas<br><br>NPL, Hiawatha and other areas of oil and gas development | Need a broader list.<br><br>Allow new options for AUM management: voluntary retiring AUMs from livestock and reallocating to watershed and wildlife.<br><br>Flexible operator allotment (grassbank)<br><br>Mandatory two growing season rest after wildfire, prescribed fire> |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Table Mountain area to alleviate conflicts between oil and gas production and exploration, wildlife needs, and livestock grazing. | | | |
| Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis.<br><br>Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas | No | Need additional sage-grouse lek protections. | No salt or mineral supplements allowed within 0.6 mile of a sage-grouse lek.<br><br>Allow new options for AUM management: voluntary retiring AUMs from livestock and reallocating to watershed and wildlife.<br><br>Flexible operator allotment (grassbank). |
| **Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur.** Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement. | Yes | Need additional protection for sage-grouse and other avian species. | Fence construction may require methods to create a more visible fence in order to reduce impacts to avian species. It may also require follow-up surveys/inspections to insure the appropriate methods are in place to prevent wildlife impacts. See BLM fence manual 1741 |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This will be accomplished through controlled timing and sequencing of Federal coal leasing and development in these areas.** For example: satisfactory abandonment and adequate reclamation of mined lands in big game crucial winter ranges and birthing areas will be required before additional Federal coal leasing and development is initiated in the same crucial winter ranges and birthing areas. | No | Address/define other important/key wildlife habitats. | Add: sage-grouse leks, core areas and winter concentration areas, raptor nesting habitat, and other Threatened and Endangered or BLM sensitive species habitat. |
| **The greater Cooper Ridge and Elk Butte areas are open to further consideration for Federal coal leasing and development, pending further study** (about 25,368 acres). This study is for the purpose of defining the extent of any deer and antelope crucial winter range in the area, and for determining if certain methods of coal mining can occur in the area without having a significant long-term impact on the deer and antelope herds. | | Has this study been completed?<br><br>Are other areas in need of further consideration? | |
| Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements:<br><br>● Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of | No | RMP maintenance actions and Wyoming Greater Sage-Grouse RMP/LRMP Amendments changes. | ¼ mile NSO of lek outside of core areas.<br><br>0.6 mile NSO inside core areas.<br><br>Avoidance area inside sage-grouse core areas.<br><br>6 pm – 8 am. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized.<br><br>● Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., are prohibited in these areas.<br><br>● During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks (i.e., those leks occupied by mating birds). | | | |
| Grouse nesting areas (sage or sharptail grouse) are open to consideration for Federal coal leasing and development, with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement:<br><br>If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed. | No | Need greater protection for sage-grouse core areas. | No surface coal leasing in sage-grouse Core Areas. Subsurface leasing that will not result in subsidence may be allowed in Core Areas.<br><br>Avoidance area within sage-grouse core areas. |
| **BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, grouse leks, cultural values, geologic features, and rights-of-way** (about 28,000 acres). | No | Need greater protection for sage-grouse core areas and winter and other important/key wildlife habitats.<br><br>Address/define other important/key wildlife habitats concentration areas. | Add sage-grouse core areas and winter concentration areas.<br><br>Add: sage-grouse leks, core areas and winter concentration areas, raptor nesting habitat, and other Threatened and Endangered or BLM sensitive species habitat. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats.** Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing and development proposals by the state or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc.), special interest groups, and with industry will occur as needed or required. | | | |
| **Vehicular travel in crucial and important wildlife habitats and during crucial and important periods will be restricted seasonally, as necessary** (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.). | No | Re-identify/confirm critical areas and concerns. | Adjust table as needed. |
| ***Western Unit*** **(approximately 172,630 acres)**<br><br>**The management objective emphasis for this unit of the SRMA is for dispersed recreation uses such as camping, hunting, and fishing, with full consideration given to wildlife, cultural, vegetation, watershed values, and mineral development activity.** | No | Need greater protection for sage-grouse core areas and other important resource values | Consider ACEC development or other special designation. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **This unit of the SRMA is open to mineral leasing.** Daily vehicle use and access may not be feasible for this entire area. Access, particularly proposed roads, may be limited and a road density analysis may be required. To prevent conflicts with recreation users, alternative access may be needed.<br><br>**Surface disturbing activities in this unit will be limited through controlled surface use requirements or closing areas where maximum resource protection is necessary.**<br><br>**Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met.** | | | |
| Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops. | No | Greater protection needed for sage-grouse core areas. | Refer to WGFD protocols for treating sagebrush to benefit sage-grouse 11/29/2010. |
| **Water developments on crucial winter ranges could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial winter range.** | No | Do we need greater protection? | Crucial winter range, sage-grouse core areas, winter concentration areas could be considered as an avoidance area for water developments unless there is a benefit to wildlife species occupying those habitats. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| BLM will cooperate with the Wyoming Game and Fish Department (WGFD) in preparation of studies for the introduction and re-introduction of native and non-native wildlife and fish species. | Yes | | |
| **Grouse breeding and nesting areas will be protected.** | No | Additional protection needed for sage-grouse | Add: core areas, leks, winter concentration areas, connectivity areas. |
| Above ground facilities (power lines, storage tanks fences, etc.) are prohibited on or within 1/4 mile of grouse breeding grounds (leks). Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/4 mile of leks, in certain circumstances. | No | Additional protection needed for sage-grouse core areas. | 0.6 mile NSO of leks within sage-grouse core areas. |
| **To protect breeding grouse, disruptive activities will avoid occupied grouse leks from 8:00 p.m. to 8:00 a.m. daily. The actual area to be avoided and appropriate time frame (usually from March 1 through May 15) will be determined on a case-by-case basis** . The avoidance area size (usually within 1/4 to 1/2 mile of the lek) may vary depending on natural topographic barriers, terrain, line of sight distance, etc. | No | Incorporate plan changes. | Plan Change No. 24-1<br><br>1/19/2005<br><br>WY-IM 2004-057 (Statewide standardization of Sage-Grouse Stipulations)<br><br>and<br><br>Wyoming Greater Sage-Grouse RMP/LRMP Amendments changes:<br><br>6 pm to 8 am |
| **To protect grouse nesting habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 15 through July 15) will be determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria can be met.** | No | Incorporate plan changes. | Plan Change No. 24-2<br><br>1/19/2005<br><br>**WY-IM 2004-057 (Statewide standardization of Sage-Grouse Stipulations)** |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur.** Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wildlife and wild horse movement. | No | Additional protection may be needed for sage-grouse. | Recommend surveys of fences to locate areas impacting sage-grouse and mark problem areas or modify fence to prevent impacts. Fence removal would only be entertained if the fence no longer serves a practical use, or is needed for protection of wildlife resources. |
| **Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use.** | No | Additional plans for continued maintenance are needed. | Maintenance agreements with the associated livestock permittee may be needed for exclosures to protect important wildlife habitat from livestock use. |
| **Habitat management plans will be developed, where needed, particularly for highly developed and disturbed areas to mitigate wildlife habitat losses.** Plans could include habitat expansion efforts, Threatened and Endangered species reintroduction, and population goals and objectives. Such actions as preparing transportation plans and reclaiming roads, seeding, and vegetation enhancement (vegetation treatments, fencing), water developments, and reclamation actions to reduce the amount of disturbance, will be considered. Areas identified for consideration of such plans include but are not limited to the Little Colorado Desert (including the Fontenelle II and Blue Forest units), Nitchie Gulch, Wamsutter Arch, Patrick Draw, and Cedar Canyon areas. | Yes | Do we have any additions? | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **SPECIAL DESIGNATION MANAGEMENT AREAS** MANAGEMENT ACTIONS: **The BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values**. | No | Additional protection needed for sage-grouse core areas. | Possible additional ACEC areas.<br><br>Greater restrictions within sage-grouse core areas. |
| **SPECIAL DESIGNATION MANAGEMENT AREAS** **Motorized vehicle travel in the ACEC (including over-the-snow vehicles) is limited to designated roads and trails.** All off-road vehicle travel in the area is restricted during the winter and spring to protect wildlife during high stress periods of severely cold temperatures, heavy snow cover, and short food supply. | No | Additional protection needed for wildlife. | Limit vehicle use in identified crucial winter range, winter concentration areas and parturition areas. |
| **Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area**<br><br>Road construction and new access may not be feasible for much of the entire eastern portion. To prevent conflicts with big game, recreation users, and other resource and land use activities, alternative access methods may be needed (use of existing or designated roads or pads, seasonal travel requirements or restrictions, use of helicopters, etc.). | Yes | | |
| **Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area**<br><br>**Surface disturbing activities, geophysical activities, and oil and gas exploration and development activities are restricted seasonally on crucial big game winter ranges and big game birthing areas**. Exceptions to this restriction may be approved for activities such as oil and gas development, | No | Additional protection needed for other important wildlife resources. | Raptor nesting, sage-grouse lek/ nesting/ brood/rearing/ winter concentration areas and others. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| rights-of-way, construction, and range improvement development, if conditions apply. Once an operation starts (such as oil and gas drilling/completion), it would be allowed to be completed into or through the winter. Decision points for shutdown due to unacceptable winter conditions occur between exploration or development stages, such as pad construction and drilling startup, and between drilling/completion and production facility installation. | | | |
| **Natural Corrals ACEC Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods** (see Wildlife section). | No | Additional protection needed for other important wildlife resources. | Raptor nesting, sage-grouse lek/ nesting/ brood/rearing/ winter concentration areas and others. |
| **The Steamboat Mountain area Motorized vehicle travel is limited to designated roads and trails. Seasonal road and trail closures may be implemented as necessary to protect elk and deer during critical winter and birthing periods.** Transportation planning will be completed to identify the designated roads and trails. The May 10-July 1 seasonal closure for vehicular travel in the area remains in effect to protect big game calving and fawning activity. | Yes | This may need to be applied to other areas as well. | Identify other important areas in need of limiting vehicle travel. |
| **Pine Mountain Management Area Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply** (see Wildlife section). Exceptions to these restrictions may be approved if conditions and criteria apply. | No | Additional protection needed for other important wildlife resources. | Greater Sage-Grouse lek/ nesting/ brood rearing/ winter concentration areas/ connectivity area and other Core area restrictions. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Red Desert Watershed Management Area Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply**. Exceptions to these restrictions may be approved if conditions and criteria apply. | No | Additional protections for other important wildlife resources. | Greater Sage-Grouse lek/ nesting/ brood rearing/ winter concentration areas/ connectivity area and other core area restrictions, mountain plover, etc... |
| **Sugarloaf Basin Management Area Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply**. Exceptions to this restriction may be approved if conditions and criteria apply. | No | Additional protections for other important wildlife resources | Greater Sage-Grouse lek/ nesting/ brood rearing/ winter concentration areas/ connectivity area and other core area restrictions, mountain plover, etc. |
| JMH-CAP **An implementation, monitoring, and evaluation process, including an interdisciplinary monitoring plan, will evaluate the overall effectiveness of implementing the management decisions for the Planning Area and will be used as a basis for making management adjustments.** The implementation, monitoring, and evaluation process will apply to all land and resource programs in the Approved JMH CAP. | No | Do we need a similar process for other important areas? | |
| JMH-CAP Three management areas defined by the relative resource value within the Planning Area. Area 1, Area 2, and Area 3 have been identified to guide management analysis and decisions. Identification of these areas combines many factors (e.g., wildlife usage, presence of crucial habitat, plant species distribution, historic or cultural importance, and general sensitivity to the impact of surface activities) into a single quantity. The area designations provide a general guide to reviewing proposed surface use activities in the Planning Area. For example, Area 3 has the highest relative ranking and so proposed surface use activities located here will be subject to the most stringent mitigation. | No | Do we need a similar process for other important areas? | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| JMH-CAPSensitive Resources<br><br>1. Integrity of the core area wildlife habitat (8.)<br><br>2. Key habitat (e.g., escape cover and birthing areas) (6.)<br><br>3. Connectivity area (migratory corridor) (8.)<br><br>4. Inaccessible areas (overlapping resource concerns, i.e., sensitive resources 1 to 8 above) (9.)<br><br>5. Special status plant and animal species' habitats (10.) | No | Other important habitats and resources. | Add: sage-grouse core areas |
| JMH-CAP Portions of crucial habitats and other areas of sensitive or important resources will be open to further consideration for various multiple-use activities so long as<br><br>1. The activity is beneficial to the resource, or<br><br>2. Crucial habitats and other sensitive or important resources will be protected from significant or irreversible adverse effects, and<br><br>3. The activity meets resource management objectives.<br><br>Other portions are closed to some multiple-use activities. | No | Update | Update sensitive and important resources for the entire Planning Area. |
| JMH-CAPSurface Disturbance/Disruptive Activity Limitation Area 1<br><br>**NO SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES 2**<br><br>Raptor nest sites (active)<br><br>Other sensitive resource values<br><br>**SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS** | No | Update | Add sage-grouse core requirements including 0.6 mile buffer of leks and expand list to entire Planning Area. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Greater Sage-Grouse leks + ¼-mile buffer<br><br>Greater Sage-Grouse winter concentration area 3<br><br>Potential Greater Sage-Grouse nesting habitat 4<br><br>SEASONAL SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS<br><br>Elk crucial winter habitat November 15 – April 30<br><br>Deer crucial winter habitat November 15 – April 30<br><br>Antelope crucial winter habitat November 15 – April 30<br><br>Elk birthing areas May 1 – June 30<br><br>Deer birthing areas May 1 – June 30<br><br>Raptor nest sites + ½- to 1-mile buffer February 1 – July 31<br><br>Greater Sage-Grouse leks + ¼-mile buffer March 1 – May 15<br><br>Greater Sage-Grouse winter concentration area 3 November 15 – March 14<br><br>Greater Sage-Grouse potential nesting habitat 4 March 15 – July 15<br><br>Mountain plover aggregation areas + ¼-mile buffer April 10 – July 10 | | | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Surface disturbing and disruptive activities will be subject to extensive review and mitigation that will allow appropriate levels of activity while meeting objectives and safeguarding sensitive resources in the following areas: portions of Steamboat Mountain ACEC, Greater Sand Dunes ACEC, the White Mountain and Split Rock areas, the core and connectivity areas, and other areas of sensitive resource values. Monitoring and evaluation will determine the effectiveness of the management prescriptions and mitigation measures.<br><br>Adjustments can be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects. This determination will be based on the effects on elk and their movement patterns and use of habitat, other wildlife species and habitats, public health and safety, watershed condition, and other sensitive resources. | No | Update | Add sage-grouse core requirements and expand list to entire Planning Area including all existing and proposed ACECs. |
| Application of restrictions and mitigation measures will be accomplished through an implementation strategy that will include case-by-case review of all proposals including evaluation of the 12 sensitive resources.<br><br>Management prescriptions and mitigation measures, including controlled location and timing of the various activities and related reclamation, may also be considered to meet area objectives. For example, satisfactory reclamation of surface disturbance may be required before additional surface disturbing activities are allowed in big game crucial ranges, migration routes, and birthing areas. | No | Update | Add sage-grouse core requirements and expand list to entire Planning Area. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Where documented wildlife conflicts with fencing on public lands occur, fences will be modified, reconstructed, or, if necessary, removed. Herding control of livestock will be encouraged as an alternative to fencing. Fence construction will be in accordance with BLM design standards and located so as not to overly impede wildlife movement. Consideration will also be given to special status species and wild horse movement. | No | Additional protection may be needed for sage-grouse. | Recommend surveys of fences to locate areas impacting sage-grouse and mark problem areas or modify fence to increase visibility and prevent impacts. |
| BLM will consult or conference (for proposed species) with USFWS to determine whether its actions may affect any listed or proposed species and to document its determinations in a Biological Assessment as directed by the Endangered Species Act. Land use decisions will be implemented with appropriate conservation measures and/or reasonable and prudent alternatives to avoid jeopardizing any species, causing the need to list a species, or destroying or adversely modifying designated or proposed critical habitat. | Yes | Species on the RSFO list. | |
| Crucial winter range or sensitive habitats (such as birthing areas, the connectivity area (migration corridor), nesting sites, Greater Sage-Grouse breeding habitats and winter concentration areas, and sensitive fisheries habitats) will be managed by maintaining habitat or reducing habitat loss or alteration, improving habitat where possible, and applying appropriate mitigation requirements (e.g., distance and seasonal limitations and rehabilitation) to all appropriate activities.<br><br>Exceptions can be provided on a case-by-case basis should exception criteria be met. See also the Surface Use Activities section of the JMH CAP for actions relating to surface | No | JMH language that should be applied to RSFO. | Expand to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| disturbing and disruptive activities. | | | |
| In Greater Sage-Grouse habitats, surface disturbing maintenance and/or operational activities will require mitigation measures or development plans.<br><br>These mitigation measures and/or development plans will be based on local situations on a case-by-case basis. | No | JMH language that should be applied to RSFO. | Expand to all RSFO. |
| The management practices in Greater Sage-Grouse sensitive habitats will be designed to limit direct loss of habitat and prevent habitat degradation. Surface disturbing and disruptive activities will avoid these habitats.<br><br>**. Measures will be taken to improve habitat character as needed in conformance with BLM Manual 6840 policy and, to the extent possible, with the Wyoming Greater Sage-Grouse Conservation Plan (WGSGCP).** See also the<br><br>Surface Use Activities and Fluid Minerals Management sections of this document. | No | JMH language that should be applied to RSFO. | Expand to all RSFO and add sage-grouse core area requirements. |
| Site-specific field reviews will be conducted, as needed, prior to approval of any surface disturbing or disruptive activities (including prior to issuing an oil and gas lease) in Greater Sage-Grouse breeding (leks, nesting, and early brood-rearing) and winter concentration areas. Activities in these habitats will be restricted or prohibited.<br><br>New oil and gas leases that contain these habitats will be given a controlled surface use stipulation and timing limitations as appropriate. See the Leasable Fluid Minerals Management section for related information on oil and gas lease stipulations and practices. | No | JMH language that should be applied to RSFO | Expand to all RSFO and add sage-grouse core area requirements. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Before surface disturbing or disruptive activities are approved, site-specific evaluations will be conducted for breeding habitat (leks, nesting, and early broodrearing) as expeditiously as possible after receiving a completed application/proposal for an activity. Field searches conducted as part of these evaluations will determine if the site has the scientifically accepted habitat variables (i.e., vegetation composition, height, cover, etc...) necessary to support Greater Sage-Grouse breeding activities . These variables may change as new information becomes available. | No | JMH language that should be applied to RSFO. | Expand to all RSFO and add sage-grouse core area requirements. |
| Surface occupancy (long-term or permanent above ground facilities) will be prohibited within ¼ mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated. Distances will be subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis. | No | Need greater protection for sage-grouse. | Add sage-grouse core area requirements including 0.6 mile prohibited area for surface occupancy inside core areas. |
| Disruptive activities will also avoid occupied Greater Sage-Grouse leks during appropriate evening and early morning hours, 8 p.m. – 8 a.m. daily. The actual area to be avoided and appropriate time frame (typically March 1 to May 15) will be determined and applied on a case-by-case basis. | No | Need greater protection for sage-grouse. | Add sage-grouse core area requirements including 6pm – 8am. |
| No disruptive activities are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis. In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality within the areas identified. | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Disruptive activities will be prohibited in Greater Sage-Grouse winter concentration areas typically from November 15 to March 14. These areas and/or dates are subject to change based on new data and scientific information. | Yes | | Should be applied to all RSFO. |
| Disruptive activities will be prohibited in big game crucial winter range between November 15 and April 30. Seasonal limitations may be excepted, provided criteria can be met and appropriate mitigation can be implemented (as determined by BLM). Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | Yes | | Should be applied to all RSFO. |
| Surface disturbing and disruptive activities are prohibited in big game birthing areas from May 1 to June 30. To meet management objectives, the amount of habitat disturbed in these areas will also be limited (see Sensitive Habitat discussion). Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | Yes | | Should be applied to all RSFO. |
| Surveys for black-footed ferrets will be completed according to current USFWS protocol within 1 year prior to conducting any surface disturbing or disruptive activities in all or portions of potential ferret habitat areas (prairie dog colonies 200 acres or greater in size) because of the close association of the two species. White-tailed prairie dog towns that have been block cleared by the USFWS may not require surveys. The USFWS has established survey protocols for the black-footed ferret (listed as endangered under the Endangered Species Act). At any time a ferret is found, all disruptive activities will be halted until protective measures developed with the USFWS are implemented. Surface disturbing | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| activities can proceed provided the surveys' result indicates no presence of black-footed ferrets. | | | |
| BLM will cooperate with USFWS and WGFD on any black-footed ferret reintroduction within the JMH CAP Planning Area. | Yes | | Should be applied to all RSFO. |
| Measures will be taken, as appropriate, to reduce potential raptor perches in and around prairie dog towns and colonies, such as constructing anti-perch devices on power poles. | Yes | | Should be applied to all RSFO. |
| Mountain plover surveys will be required prior to authorizing any surface disturbing or disruptive activities in potential plover habitat. Surveys will be conducted within suitable mountain plover habitat by a qualified biologist using protocol determined by the Rock Springs BLM biologist. Active mountain plover nesting aggregation areas will be avoidance areas for surface disturbing and disruptive activities within ¼ mile of the area from April 10 to July 10. | Yes | | Should be applied to all RSFO. |
| Traffic speeds on BLM roads during the brood-rearing period (June and July) will be limited within ¼ mile of nesting aggregation areas as necessary to avoid nesting birds. Exceptions or other mitigation measures could be applied on a case-by-case basis, as determined by BLM. Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | Yes | | Should be applied to all RSFO. |
| Measures (e.g., avoidance, burying power lines, installation of anti-perch devices, and exclusion for artificial nest structures) will be taken to limit hunting perches or artificial nest sites for avian predators within ¼ mile of nesting aggregation areas. | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Seasonal limitations for surface disturbing activities to protect game and special status fish species during spawning will be applied. | Yes | | Should be applied to all RSFO. |
| Active and historic raptor nesting siteswill be protected and managed (e.g., through distance restrictions) for continued nesting activities. Different species of raptors may require different types of protective measures. Permanent or high-profile structures (e.g., power lines or other structures that may negatively impact raptors) will be prohibited within a specified distance of active raptor nests.<br><br>Distance will be determined on a case-by-case basis and will depend on the raptor species involved, natural topographic barriers, line-of-sight distances, and other such factors. Temporary disturbances associated with placement of facilities such as pipelines and other actions such as seismic activities can be allowed within ½ to 1 mile of active raptor nests. | No | Need greater raptor protections related to wind farms. | Should be applied to all RSFO and add language specific to wind farm and wind power structures. |
| Disruptive activities will be seasonally restricted within a ½- to 1-mile radius of occupied raptor nesting sites. Raptor nest surveys will be conducted within a 1-mile radius or linear distance of proposed surface uses or activities during raptor nesting season (dates vary by species). Seasonal limitations may be excepted, provided criteria can be met and appropriate mitigation can be implemented (as determined by BLM).<br><br>Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis. | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| BLM will continue to coordinate with Animal and Plant Health Inspection Service - Wildlife Services (APHIS-WS) and review its annual management plan for animal damage control activities on public lands. **Proposed animal damage control activities not compatible with BLM planning and management prescriptions or objectives for other resource activities and uses will be identified on a case by-case basis.** BLM will determine appropriate planning strategies with input from APHIS-WS. | Yes | | Should be applied to all RSFO. |
| **The JMH CAP Planning Area will be designated as a "restricted control area" for animal control in coordination with APHIS-WS.** Restricted control areas are public land areas where animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives.<br><br>Emphasis will be placed on non-lethal methods. Control techniques and methods will be discussed at the annual management meeting between BLM and APHIS-WS. | No | Review for what areas that this restriction should be applied to within all RSFO. | |
| BLM will cooperate with the WGFD in studies for the introduction and reintroduction of native and nonnative (game) wildlife and fish species. | Yes | | Should be applied to all RSFO. |
| BLM will cooperate with the USFWS in studies for, and reintroduction of, special status species. | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| GENERAL JMH CAP Planning Area<br><br>NO LEASE 3<br><br>**NO SURFACE OCCUPANCY** 5,6<br><br>**CONTROLLED SURFACE USE** 5,6<br><br>**SEASONAL LIMITATIONS** 5,6<br><br>JMH CAP CORE AREA<br><br>NO LEASE 3<br><br>**NO SURFACE OCCUPANCY** 5,6<br><br>**CONTROLLED SURFACE USE** 5,6<br><br>**SEASONAL LIMITATIONS** 5,6 | No | JMH language that should be applied to RSFO.<br><br>Possible no wind areas added. | Update and Expand to all RSFO |
| The remainder of Area 3 is closed to oil and gas leasing (about 92,000 acres). This closure is established to meet the resource goals and objectives for the Planning Area.<br><br>**These objectives include providing adequate habitat as well as opportunity for the use of crucial winter range, calving/fawning areas, migration corridors, etc. and protection of sensitive resources and public health and safety. Area 3 includes portions of the Steamboat Mountain ACEC, Greater Sand Dunes ACEC, White Mountain Petroglyphs ACEC, Oregon Buttes ACEC, South Pass Historic Landscape ACEC, the White Mountain and Split Rock areas, and the core and connectivity areas.** | No | JMH language that should be applied to RSFO.<br><br>Possible no wind areas added (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC).<br><br>Add additional sage-grouse core area restrictions. | Update and Expand to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The lease stipulations will notify the leaseholder that development activities may be limited, prohibited, or implemented with mitigation measures to protect specific resources. The stipulations will allow the leaseholder's development activities while providing BLM with the authority for substantial delay or site changes or the denial of operations with the terms of the lease contract. The types of lease stipulations include CSU through limitation on the amount and type of surface disturbance, CSU through avoidance of other resources, timing limitations (TL) on development activity, and NSO. Standard lease terms and conditions may also apply. | Yes | | Should be applied to all RSFO. |
| An interdisciplinary BLM team, in coordination with the working group, stakeholders, and other members of the public, will evaluate monitoring data and determine changes in management. The lease stipulations may be adjusted or clarified based on these data. Twelve basic sensitive resources and uses will be used to evaluate these lands and ensure that the appropriate mitigation is provided.<br><br>**These sensitive resources and uses may change or be added to in the future based on the implementation, monitoring, and evaluation strategy. If an evaluation concludes that Planning Area management objectives are not being met, the analysis of actions will include application of strategies that ensure continuity between activities and the land use plan. Any changes to the lease stipulations identified will be applied to new leases only.** | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Monitoring of sensitive resource indicators will determine the effectiveness of lease stipulations and COAs and provide guidance for adopting new or modified stipulations, exception criteria, or COAs needed to meet resource objectives.<br><br>Indicators could include, but are not limited to, wildlife population trends, reproduction rates, observed ranges, and habitat integrity. Development levels may be adjusted or new stipulations may be applied to new leases when offered. COAs may be applied to proposed activities as appropriate and necessary to protect resource values.<br><br>Adjustments could be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects. Proposed changes will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) in accordance with law and policy.<br><br>Changes will be based on several factors including the following:<br><br>● Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts from other causes such as disease, drought, hunting pressure, introduction of nonnative species, and recreation activities.<br><br>● Fragmentation of habitat and migration pathways due to development activities.<br><br>● Net amount of surface disturbance, including | No | New information and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| approved development activities that will be implemented in nearby areas and planned reclamation of existing surface disturbances. | | | |
| Raptor nest sites (active)<br><br>Greater Sage-Grouse leks + ¼-mile buffer. | No | New sage-grouse protections. | 0.6 mile buffer within core areas<br><br>New timing, density and disturbance restrictions. |
| Lands within the Coal Occurrence and Development Potential Area have been identified as having a known or assumed potential for coal development. These lands were reviewed against 20 criteria to determine whether they were suitable for development (43 CFR 3461). These criteria considered existing resource values, such as heritage resources, scenic values, wildlife, threatened and endangered species, natural landmarks, and watersheds. The coal planning decisions made in the Green River RMP apply. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed. | Should be applied to all RSFO. |
| Open to federal coal leasing consideration for subsurface mining with controls on surface activities and facilities<br><br>Raptor nest sites + ½- to 1-mile buffer | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |
| Important geological, ecological, and historic resources will be open to consideration for coal leasing and development by subsurface mining methods only. Areas acceptable for coal leasing and development by subsurface mining methods only with no surface operations include Boars Tusk and Crookston Ranch. Areas acceptable for coal development by subsurface mining methods only and controls on placement of surface facilities include Steamboat Mountain ACEC, the eastern part of Greater Sand Dunes ACEC, Tri-Territory Marker, and raptor nest sites with a ½- to 1-mile buffer. The portions of the Steamboat | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Mountain Management area within the Coal Occurrence and Development Potential Area will also be acceptable for leasing and development by subsurface mining methods with appropriate mitigation to protect these resources (similar to CSU). Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development and adequate crucial winter range and birthing area habitats. | | | |
| **Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the Steamboat Mountain ACEC, and the Pinnacles Geologic Feature.** Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC).<br><br>Add additional sage-grouse core area restrictions. | Should be applied to all RSFO. |
| Elk birthing areas (northern) 5,228<br><br>withdrawn from non-metallic mineral location 345,740. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |
| Surface disturbing exploration activities of 5 acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than 5 acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain | No | Add sage-grouse core areas | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| federally proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | | | |
| Raptor nest sites (active)<br><br>Greater Sage-Grouse leks + ¼-mile buffer<br><br>Potential Greater Sage-Grouse nesting habitat 3 | No | New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |
| **Other areas closed to mineral materials disposals will include the lava rock portion of Steamboat Mountain ACEC, the Pinnacles Geologic Feature, and Greater Sage-Grouse leks and ¼ mile around the lek perimeter.** | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |
| **Greater Sage-Grouse nesting habitat will be open to mineral material disposals only if related disturbance and reclamation can occur during one field season (August 1 to November 15) and the site could be returned (through reclamation efforts) to a condition usable by Greater Sage-Grouse prior to the next strutting season.** Nesting habitat reclamation would require stockpiling and redistribution of top soil and planting of containerized stock (sagebrush, grass, forbs) of sufficient size and density to meet the nesting requirements of the birds (see Table 2.18). | Yes | JMH language that should be applied to RSFO. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Withdrawals will be pursued for the Steamboat Mountain diamond potential area, the western portion of the Greater Sand Dunes ACEC, South Pass Summit, Tri-Territory Marker, Crookston Ranch, Pinnacles Geologic Feature, Public Water Reserves, special status plant species locations, and the northern elk birthing areas. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| In conjunction with the overall transportation planning for JMH, travel management plans will be developed for the two northern calving areas and the Steamboat Mountain, White Mountain, and Essex Mountain areas to control access in these areas. | No | Consider crucial winter range and winter concentration areas for addition. | Should be applied to all RSFO. |
| Greater Sage-Grouse potential nesting habitat 1<br><br>Connectivity area | No | New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |
| **The extent of right-of-way exclusion and avoidance areas, based on the location of specific sensitive resources**.<br><br>Development levels may be adjusted and/or additional mitigation may be applied to proposed activities as appropriate and necessary to protect resource values. Adjustments could be made to ensure that additional rights-of-way will not cause fragmentation and abandonment of wildlife habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects.<br><br>Proposals will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) | No | JMH language that should be applied to RSFO with updating of information. | Expand to all RSFO and add sage-grouse core area requirements. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| in accordance with law and policy. Changes will be based on consideration of several factors including:<br><br>● Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts on indicators from other causes such as disease, drought, or hunting.<br><br>● Fragmentation of habitat and migration pathways due to surface disturbance.<br><br>● Net amount of surface disturbance, including approved development activities or rights-of-way that will be implemented in nearby areas, and planned reclamation of existing surface disturbances.<br><br>● Amount and location of actual land use activity. | | | |
| LIMITED TO SEASONAL ACCESS 1<br><br>476,750<br><br>Elk crucial habitat<br><br>Deer crucial habitat<br><br>Antelope crucial habitat<br><br>Elk birthing areas<br><br>Mule deer birthing areas<br><br>Raptor nest sites + ½- to 1-mile buffer<br><br>Greater Sage-Grouse winter concentration area 2<br><br>Greater Sage-Grouse leks + ¼-mile buffer<br><br>Greater Sage-Grouse potential nesting habitat 3<br><br>Mountain plover aggregation areas + ¼-mile buffer | No | JMH language that should be applied to RSFO with updating of information. New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Steamboat Mountain | | | |
| Land withdrawals identified in the Green River RMP will be pursued. **New withdrawals in addition to those identified in the Green River RMP include the top of Steamboat Mountain, the Pinnacles Geologic Feature, and two northern elk calving areas.** | No | Review areas and its potential for oil and gas and wind development to consider sage-grouse core area and determine if changes are needed.<br><br>Consider adding for no wind development (areas within 4 miles of leks) and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). Withdrawals for oil and gas leasing would include proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| Exchanges will be considered to acquire state or private lands that hold high cultural and historical value; that hold important resource values, such as habitat for threatened and endangered species; and that will facilitate resource management objectives, such as preventing habitat fragmentation. | Yes | | Should be applied to all RSFO. |
| **Greater Sand Dunes ACEC**<br>Management Actions: **Portions of crucial habitats and other areas of sensitive or important resources will be open to further consideration for various multiple-use activities, so long as crucial habitats and other sensitive or important resources will be protected from irreversible adverse effects and the objectives for the ACEC can be met. Portions of the ACEC will also be closed to some activities if they will result in irreversible adverse effects** . | No | Consider adding existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Locatable Minerals: **Withdrawal from mineral location will be pursued for the northern elk calving areas in part of the South Pass Historic Landscape ACEC.** Withdrawal from mineral location will also be pursued on South Pass Summit as identified in the Green River RMP. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| **The area is not designated as an ACEC, but will be maintained as a geographic management unit.** The Steamboat Mountain Management Area (88,290 acres of BLM-administered public lands) is a geographic area which includes the Steamboat Mountain ACEC including the Steamboat Mountain ACEC expansion, and additional area containing other important Native American cultural values, Indian Gap, important watershed values, unique wildlife habitat features, and crucial and overlapping big game habitat. Specific management prescriptions for the Steamboat Mountain ACEC may be found in that section of this document. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |

## 4.1.7.2. Fisheries and Fish Habitat

### Table 4.7. Adequacy of Current Management Direction for Fisheries

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values will not be adversely affected.** | Yes | Protection zone is not adequate in size in some situations. | Create policy and management direction for Streamside/Wetland Management Zones (SMZ's) or Riparian Management Zones (RMZ's) to protect fish and amphibian habitats. |
| A 500 foot buffer from standing or flowing | No | Avoidance zone is not adequate in size in some | Create policy and management direction |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| water, floodplains, and/or riparian/wetland areas will be applied to surface disturbing activities (e.g., roads), unless impacts to soils, watershed, water quality, and fisheries can be mitigated. No surface disturbance is allowed within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages, without an approved plan to mitigate impacts to water quality. Linear crossings will be considered on a case-by-case basis. | | situations (e.g., steep topography - >25%, lower precipitation areas with inherently less vegetation for a buffer, waters with sensitive species). As written currently, this does not say the area is an avoidance zone. | for Streamside/Wetland Management Zones (SMZ's) or Riparian Management Zones (RMZ's) to protect fish and amphibian habitats.<br><br>Steeper topography and areas with less vegetation component will need larger distances. Areas with less precipitation should be out to 750'. Areas around the Green River and other, more sensitive water systems (i.e., those with sensitive species, in SMA's, or have special designations) possibly should be 750' to 1000'. |
| **Acquisition of lands will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between parties involved.** Lands considered will include private/State lands along upper stream reaches of the Big Sandy River; State inholdings in WSAs; other lands with important resource values. Consideration will be given to exchanges for state lands in special management areas such as ACECs. In those instances where a purchase or exchange is not feasible, attempts will be made to enter into cooperative agreements to protect cultural/historical sites; threatened and endangered species habitat; and riparian habitat. | Yes | | May need to update this list. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments.** AMPs will be written or modified for I category allotments. AMPs for M category allotments will not be modified unless monitoring and evaluation indicate a change in management is needed or riparian objectives need to be included. Riparian objectives will also be developed for C category allotments where riparian values exist. | No | Doesn't recognize the minimum standard of PFC as currently written. | Need to re-write to be compatible with PFC minimum standard and Wyoming Healthy Rangeland Standards. |
| **Dispersed camping is prohibited near water sources in designated areas where it is necessary to protect water quality and wildlife and livestock watering areas. Camping in other riparian areas is allowed within 200 feet of water. Areas will be closed to camping if resource damage occurs.** | Yes | | May need to be updated to designate specific waters where camping should be not allowed within 200' (if there are any). |
| **The minimum management goal for riparian areas is to achieve proper functioning condition. This is considered the first priority for vegetation management. Desired plant communities must meet the criteria for proper functioning condition.** Guidelines to aid in achieving this goal are described. | Yes | | May need updated wording to be more clear. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Green River Resource Area** (see Glossary). **Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition.** | No | | Wasn't being accomplished. Re-write? |
| Methods applied where grazing occurs include (but are not limited to) fencing, establishment of pastures and exclosures, off-site water development, off-site salt or mineral supplement placement, timing and seasons of use, establishment of allowable use levels for key riparian species, herding, grazing systems, etc.<br><br>Methods applied where surface disturbing activities occur include (but are not limited to) distance restrictions, timing constraints, sediment containment and control design, and reclamation practices. | No | | Consider re-write. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. Desired plant community objectives can be short and long term. Desired plant community objectives take into consideration all uses of the riparian area which can include livestock grazing, wildlife, recreation, fisheries, flood control, etc... | No | Not always implemented to staffing. | |
| While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area. | No | Wasn't done under the RMP. Not enough staffing. | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **Site specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) will be prepared for areas where needed**. These areas include but are not limited to Cedar Mountain and Sage Creek/Currant Creek. The Red Creek watershed plan will continue to be implemented, as appropriate. | Yes/No | Red Creek watershed continues to have surface disturbance and sediment contributions. | Re-write to close Red Creek watershed from surface disturbing activities that are not primarily for the purpose of reclaiming and enhancing the functionality of the watershed. |
| **High value wildlife habitats will be maintained or improved by reducing habitat loss or alteration and by applying appropriate distance and seasonal restrictions and rehabilitation standards to all appropriate activities.** These habitats include crucial winter habitat, parturition areas, sensitive fisheries habitat, etc. | No | Need a stipulation on fish passage and barriers (habitat fragmentation). | Need a stipulation on fish passage and barriers (habitat fragmentation) |
| Seasonal restrictions for surface disturbing activities to protect game fish and special status fish populations during spawning will be applied as necessary. | No | Does not include protections that are needed for post spawning life stages (hatching, fry stage, rearing to fingerling stage). | Re-write to include later stages and maybe list specific fish species and crucial dates (changes by stream and elevation). Need heavy WGFD input at this point. |
| All resource and land uses in the area will be managed in support of watershed stability and Colorado River cutthroat trout habitat management objectives. | Yes/No | Doesn't include reference to the current Conservation Agreements and Strategies for CRCT, BCT, and "Three Species." | Re-write to include reference and activities associated with the CAS's. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **The area will be open to consideration for such activities as fencing, interpretive signs, construction and placement of transportation barriers, sediment or erosion control, and fish habitat structures to meet resource management objectives.** | Yes | | But could be expanded to include reference to fish passage and barriers (habitat fragmentation). |
| Any activity that could preclude the achievement of proper functioning condition of uplands and riparian areas and achievement of other management objectives is prohibited. | Yes | Though PFC for uplands is undefined. | |
| **Herbicide loading sites must be located at least 500 feet from surface water or at least 500 feet from riparian areas (whichever is greater)**. Herbicide treatment of noxious weeds on BLM-administered public lands requires a site specific analysis to help determine whether or not such action will be authorized. | Yes/No | This should also refer to re-fueling of and maintenance of equipment. | This should also refer to re-fueling of and maintenance of equipment. |
| **Camping is allowed within 200 feet of surface water if damage to watershed, water quality, and wildlife values can be avoided. Areas will be closed to camping if resource damage occurs.** | Yes | | May need to be updated to designate specific waters where camping should be not allowed within 200' (if there are any). |
| **The rim areas within the Currant Creek watershed (tops of the watershed ridges) with slopes of less than 25 percent could be considered for surface disturbing activities if environmental analysis demonstrates that watershed, fisheries, wildlife, and scenic objectives could be met.** | Yes | | Should also include closure to 'occupancy' unless for the benefit of… |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **Within the Currant Creek watershed, slopes greater than 25 percent and areas in or within 500 feet of riparian areas and floodplains are closed to surface disturbance unless the action is designed specifically for the enhancement of watershed values and Colorado River cutthroat trout habitat.** | | | |
| **The Red Creek watershed will be managed to minimize accelerated erosion and increased sedimentation into the Green River/Colorado River system**. Activities such as the installation of structures designed to reduce sediment, siltation, or erosion; and the rerouting or maintenance of roads (including the instillation of culverts and similar structures), could be accomplished to meet the area objectives and provide needed or improved access.<br><br>Plan change 28-1<br><br>3/27/01 | Yes | Needs to better describe that the Red Creek watershed is closed to surface disturbing activities and surface occupancy except for those activities that are expressly for the benefit and enhancement of watershed values, Colorado River cutthroat trout habitat, Wild Land characteristics, erosion control, etc. | Re-write to firm up closure and exceptions. |
| **Herbicide loading sites must be located at least 500 feet from surface water or 500 feet from riparian areas (whichever is greater).** Herbicide treatment of noxious weeds on BLM-administered public lands will require a site specific analysis to help determine whether or not such actions will be authorized. | No | This should also refer to re-fueling of and maintenance of equipment. | This should also refer to re-fueling of and maintenance of equipment. |
| Avoiding construction of stream or riparian area crossings in sensitive areas and closing unnecessary crossings. | No | Need to clarify and expand upon the fish passage/fish barrier issue (i.e., habitat fragmentation). | Need to remove man-caused barriers to fish passage where appropriate. The need to place barriers to protect the genetic integrity |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Exceptions may be granted if crossings will reduce adverse effects, benefit area objectives, and reduce miles of road and/or frequency of use. Bridges (versus culverts) will be required for perennial stream crossings. | | | of key species will be allowed. |

# 4.1.8. Special Status Species

## 4.1.8.1. Special Status Species — Wildlife (Including SS Fish)

### Table 4.8. Adequacy of Current Management Direction for Special Status Species — Wildlife

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements:<br><br>Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized.<br><br>Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., are prohibited in these areas.<br><br>During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks | No | RMP maintenance actions and Wyoming Greater Sage-Grouse RMP/LRMP Amendments changes. | ¼ mile NSO of lek outside of core areas.<br><br>0.6 mile NSO inside core areas.<br><br>Avoidance area inside sage-grouse core areas.<br><br>6pm – 8 am. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| (i.e., those leks occupied by mating birds). | | | |
| Grouse nesting areas (sage or sharptail grouse) are open to consideration for Federal coal leasing and development, with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement:<br><br>If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed. | No | Need greater protection for sage-grouse core areas. | Outside of sage-grouse core areas.<br><br>Avoidance area within sage-grouse core areas. |
| Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops. | No | Greater protection needed for sage-grouse core areas. | Refer to WGFD protocols for treating sagebrush to benefit sage-grouse 11/29/2010. |
| ***Grouse breeding and nesting areas will be protected.*** | No | Additional protection needed for sage-grouse. | Add: core areas, leks, winter concentration areas, connectivity areas. |
| ***To protect breeding grouse, disruptive activities will avoid occupied grouse leks from 8:00 p.m. to 8:00 a.m. daily. The actual area to be avoided and appropriate time frame (usually from March 1 through May 15) will be determined on a case-by-case basis*** The avoidance area size (usually within 1/4 to 1/2 mile of the lek) may vary depending on natural topographic barriers, terrain, line of sight distance, etc. | No | Incorporate plan changes | Plan Change No. 24-1<br><br>1/19/2005<br><br>WY-IM 2004-057 (Statewide standardization of Sage-Grouse Stips)<br><br>and<br><br>Wyoming Greater Sage-Grouse RMP/LRMP Amendments changes:<br><br>6pm – 8am |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| ***Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur.*** Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wildlife and wild horse movement. | No | Additional protection may be needed for sage-grouse. | Recommend surveys of fences to locate areas impacting sage-grouse and mark problem areas or modify fence to prevent impacts. |
| ***SPECIAL DESIGNATION MANAGEMENT AREAS*** **MANAGEMENT ACTIONS:** ***The BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values***. | No | Additional protection needed for sage-grouse core areas. | Possible additional ACEC areas.<br><br>Greater restrictions within sage-grouse core areas. |
| ***Sugarloaf Basin Management Area Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply*** (see Wildlife section). Exceptions to this restriction may be approved if conditions and criteria apply. | No | Additional protections for other important wildlife resources. | sage-grouse lek/ nesting/ brood rearing/ winter concentration areas/ connectivity area and other Core area restrictions, mountain plover, etc. |
| Sensitive Resources<br><br>1. Integrity of the core area wildlife habitat<br><br>2. Key habitat (e.g., escape cover and birthing areas)<br><br>3. Connectivity area (migratory corridor)<br><br>4. Inaccessible areas (overlapping resource concerns, i.e., sensitive resources 1 to 8 above)<br><br>5. *Special status plant and animal species' habitats.* | No | Other important habitats and resources. | Add: sage-grouse core areas. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| *JMH-CAP*Surface Disturbance/Disruptive Activity Limitation Area 1<br><br>***NO SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES 2***<br><br>Raptor nest sites (active)<br><br>*Other sensitive resource values*<br><br>***SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS***<br>Greater Sage-Grouse leks + ¼-mile buffer<br><br>Greater Sage-Grouse winter concentration area 3<br><br>Potential Greater Sage-Grouse nesting habitat 4<br><br>SEASONAL SURFACE DISTURBANCE OR DISRUPTIVE ACTIVITIES LIMITATIONS<br><br>Elk crucial winter habitat November 15 – April 30<br><br>Deer crucial winter habitat November 15 – April 30<br><br>Antelope crucial winter habitat November 15 – April 30<br><br>Elk birthing areas May 1 – June 30<br><br>Deer birthing areas May 1 – June 30<br><br>Raptor nest sites + ½- to 1-mile buffer February 1 – July 31<br><br>Greater Sage-Grouse leks + ¼-mile buffer March 1 – May 15<br><br>Greater Sage-Grouse winter concentration area 3 November 15 – March 14<br><br>Greater Sage-Grouse potential nesting habitat 4 March 15 – July 15 | No | Update. | Add sage-grouse core requirements including 0.6 mile buffer of leks and expand list to entire Planning Area. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| *Mountain plover aggregation areas + ¼-mile buffer April 10 – July 10* | | | |
| Surface disturbing and disruptive activities will be subject to extensive review and mitigation that will allow appropriate levels of activity while meeting objectives and safeguarding sensitive resources in the following areas: portions of Steamboat Mountain ACEC, Greater Sand Dunes ACEC, the White Mountain and Split Rock areas, the core and connectivity areas, and other areas of sensitive resource values.<br><br>Monitoring and evaluation will determine the effectiveness of the management prescriptions and mitigation measures.<br><br>*Adjustments can be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects. This determination will be based on the effects on elk and their movement patterns and use of habitat, other wildlife species and habitats, public health and safety, watershed condition, and other sensitive resources.* | No | Update | Add sage-grouse core requirements and expand list to entire Planning Area including all existing and proposed ACECs. |
| Application of restrictions and mitigation measures will be accomplished through an implementation strategy that will include case-by-case review of all proposals including evaluation of the 12 sensitive resources.<br><br>Management prescriptions and mitigation measures, including controlled location and timing of the various activities and related reclamation, may also be considered to meet area objectives. For example, | No | Update | Add sage-grouse core requirements and expand list to entire Planning Area. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| satisfactory reclamation of surface disturbance may be required before additional surface disturbing activities are allowed in big game crucial ranges, migration routes, and birthing areas. | | | |
| Vegetation treatments will be used to abate, alter, or transform vegetation communities in an effort to achieve Desired Plant Community objectives, protect water quality, dissipate erosion, and conform to requirements to protect or enhance special status plant and/or wildlife species and associated habitats. | Yes | | |
| *Where documented wildlife conflicts with fencing on public lands occur, fences will be modified, reconstructed, or, if necessary, removed. Herding control of livestock will be encouraged as an alternative to fencing. Fence construction will be in accordance with BLM design standards and located so as not to overly impede wildlife movement. Consideration will also be given to special status species and wild horse movement.* | No | Additional protection may be needed for sage-grouse. | Recommend surveys of fences to locate areas impacting sage-grouse and mark problem areas or modify fence to increase visibility and prevent impacts. |
| Crucial winter range or sensitive habitats (such as birthing areas, the connectivity area (migration corridor), nesting sites, Greater Sage-Grouse breeding habitats and winter concentration areas, and sensitive fisheries habitats) will be managed by maintaining habitat or reducing habitat loss or alteration, improving habitat where possible, and applying appropriate mitigation requirements (e.g., distance and seasonal limitations and rehabilitation) to all appropriate activities.<br><br>*Exceptions can be provided on a case-by-case basis should exception criteria be met. See also the Surface Use Activities section of the JMH CAP for actions relating to surface* | No | JMH language that should be applied to RSFO. | Expand to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| *disturbing and disruptive activities.* | | | |
| In Greater Sage-Grouse habitats, surface disturbing maintenance and/or operational activities will require mitigation measures or development plans.<br><br>*These mitigation measures and/or development plans will be based on local situations on a case-by-case basis.* | No | JMH language that should be applied to RSFO. | Expand to all RSFO. |
| The management practices in Greater Sage-Grouse sensitive habitats will be designed to limit direct loss of habitat and prevent habitat degradation. Surface disturbing and disruptive activities will avoid these habitats.<br><br>***Measures will be taken to improve habitat character as needed in conformance with BLM Manual 6840 policy and, to the extent possible, with the Wyoming Greater Sage-Grouse Conservation Plan (WGSGCP).***<br><br>*See also the Surface Use Activities and Fluid Minerals Management sections of this document.* | No | JMH language that should be applied to RSFO. | Expand to all RSFO and add sage-grouse core area requirements. |
| Site-specific field reviews will be conducted, as needed, prior to approval of any surface disturbing or disruptive activities (including prior to issuing an oil and gas lease) in Greater Sage-Grouse breeding (leks, nesting, and early brood-rearing) and winter concentration areas. Activities in these habitats will be restricted or prohibited. New oil and gas leases that contain these habitats will be given a controlled surface use stipulation and timing limitations as appropriate.<br><br>*See the Leasable Fluid Minerals Management section for related information on oil and gas lease stipulations and practices.* | No | JMH language that should be applied to RSFO. | Expand to all RSFO and add sage-grouse core area requirements. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| *Before surface disturbing or disruptive activities are approved, site-specific evaluations will be conducted for breeding habitat (leks, nesting, and early broodrearing) as expeditiously as possible after receiving a completed application/proposal for an activity. Field searches conducted as part of these evaluations will determine if the site has the scientifically accepted habitat variables (i.e., vegetation composition, height, cover, etc.) necessary to support Greater Sage-Grouse breeding activities. These variables may change as new information becomes available.* | No | JMH language that should be applied to RSFO. | Expand to all RSFO and add sage-grouse core area requirements. |
| *Surface occupancy (long-term or permanent above ground facilities) will be prohibited within ¼ mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated. Distances will be subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis.* | No | Need greater protection for sage-grouse. | Add sage-grouse core area requirements including 0.6 mile prohibited area for surface occupancy inside core areas. |
| *Disruptive activities will also avoid occupied Greater Sage-Grouse leks during appropriate evening and early morning hours, 8 p.m. to 8 a.m. daily. The actual area to be avoided and appropriate time frame (typically March 1 to May 15) will be determined and applied on a case-by-case basis.* | No | Need greater protection for sage-grouse. | Add sage-grouse core area requirements including 6pm–8am. |
| No disruptive activities are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis.<br><br>In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality within the areas identified. | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Disruptive activities will be prohibited in Greater Sage-Grouse winter concentration areas typically from November 15 to March 14. *These areas and/or dates are subject to change based on new data and scientific information.* | Yes | | Should be applied to all RSFO. |
| *Surveys for black-footed ferrets will be completed according to current USFWS protocol within 1 year prior to conducting any surface disturbing or disruptive activities in all or portions of potential ferret habitat areas (prairie dog colonies 200 acres or greater in size) because of the close association of the two species. White-tailed prairie dog towns that have been blockcleared by the USFWS may not require surveys. The USFWS has established survey protocols for the black-footed ferret (listed as endangered under the Endangered Species Act). At any time a ferret is found, all disruptive activities will be halted until protective measures developed with the USFWS are implemented. Surface disturbing activities can proceed provided the surveys' result indicates no presence of black-footed ferrets.* | Yes | | Should be applied to all RSFO. |
| *BLM will cooperate with USFWS and WGFD on any black-footed ferret reintroduction within the JMH CAP Planning Area.* | Yes | | Should be applied to all RSFO. |
| *Measures will be taken, as appropriate, to reduce potential raptor perches in and around prairie dog towns and colonies, such as constructing anti-perch devices on power poles.* | Yes | | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| *Mountain plover surveys will be required prior to authorizing any surface disturbing or disruptive activities in potential plover habitat. Surveys will be conducted within suitable mountain plover habitat by a qualified biologist using protocol determined by the Rock Springs BLM biologist. Active mountain plover nesting aggregation areas will be avoidance areas for surface disturbing and disruptive activities within ¼ mile of the area from April 10 to July 10.* | Yes | | Should be applied to all RSFO. |
| *Traffic speeds on BLM roads during the brood-rearing period (June and July) will be limited within ¼ mile of nesting aggregation areas as necessary to avoid nesting birds. Exceptions or other mitigation measures could be applied on a case-by-case basis, as determined by BLM. Mitigation of adverse effects (e.g., noise and traffic) on all habitats will be determined and applied on a case-by-case basis.* | Yes | | Should be applied to all RSFO. |
| *Measures (e.g., avoidance, burying power lines, installation of anti-perch devices, and exclusion for artificial nest structures) will be taken to limit hunting perches or artificial nest sites for avian predators within ¼ mile of nesting aggregation areas.* | Yes | | Should be applied to all RSFO. |
| BLM will cooperate with the USFWS in studies for, and reintroduction of, special status species. | Yes | | Should be applied to all RSFO. |
| The remainder of Area 3 is closed to oil and gas leasing (about 92,000 acres). This closure is established to meet the resource goals and objectives for the Planning Area. ***These objectives include providing adequate habitat as well as opportunity for the use of crucial winter range, calving/fawning areas, migration corridors, etc. and protection of sensitive resources and public health and safety.*** | No | JMH language that should be applied to RSFO.<br><br>Possible no wind areas added (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC).<br><br>Add additional sage-grouse core area restrictions. | Update and expand to all RSFO |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| ***Area 3 includes portions of the Steamboat Mountain ACEC, Greater Sand Dunes ACEC, White Mountain Petroglyphs ACEC, Oregon Buttes ACEC, South Pass Historic Landscape ACEC, the White Mountain and Split Rock areas, and the core and connectivity areas.*** | | | |
| Monitoring of sensitive resource indicators will determine the effectiveness of lease stipulations and COAs and provide guidance for adopting new or modified stipulations, exception criteria, or COAs needed to meet resource objectives. Indicators could include, but are not limited to the following:<br>● Wildlife population trends,<br>● Reproduction rates,<br>● Observed ranges,<br>● Habitat integrity.<br>Development levels may be adjusted or new stipulations may be applied to new leases when offered.<br>COAs may be applied to proposed activities as appropriate and necessary to protect resource values. Adjustments could be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects.<br>Proposed changes will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) in accordance with law and policy. Changes will be based on several factors including the following: | No | New information and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| • Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts from other causes such as disease, drought, hunting pressure, introduction of nonnative species, and recreation activities.<br>• Fragmentation of habitat and migration pathways due to development activities.<br>• Net amount of surface disturbance, including approved development activities that will be implemented in nearby areas and planned reclamation of existing surface disturbances. | | | |
| Raptor nest sites (active)<br><br>Greater Sage-Grouse leks + ¼-mile buffer | No | New sage-grouse protections. | 0.6 mile buffer within core areas<br><br>New Timing, density and disturbance restrictions |
| Lands within the Coal Occurrence and Development Potential Area have been identified as having a known or assumed potential for coal development. These lands were reviewed against 20 criteria to determine whether they were suitable for development (43 CFR 3461). These criteria considered existing resource values, such as heritage resources, scenic values, wildlife, threatened and endangered species, natural landmarks, and watersheds. The coal planning decisions made in the Green River RMP apply. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed. | Should be applied to all RSFO. |
| Open to federal coal leasing consideration for subsurface mining with controls on surface activities and facilities<br><br>Raptor nest sites + ½- to 1-mile buffer | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Important geological, ecological, and historic resources will be open to consideration for coal leasing and development by subsurface mining methods only. Areas acceptable for coal leasing and development by subsurface mining methods only with no surface operations include Boars Tusk and Crookston Ranch. Areas acceptable for coal development by subsurface mining methods only and controls on placement of surface facilities include Steamboat Mountain ACEC, the eastern part of Greater Sand Dunes ACEC, Tri-Territory Marker, and raptor nest sites with a ½- to 1-mile buffer. The portions of the Steamboat Mountain Management area within the Coal Occurrence and Development Potential Area will also be acceptable for leasing and development by subsurface mining methods with appropriate mitigation to protect these resources (similar to CSU). Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development and adequate crucial winter range and birthing area habitats. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |
| ***Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the Steamboat Mountain ACEC, and the Pinnacles Geologic Feature.***<br><br>Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC).<br><br>Add additional sage-grouse core area restrictions. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Elk birthing areas (northern) 5,228<br><br>withdrawn from non-metallic mineral location 345,740 | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |
| Surface disturbing exploration activities of 5 acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than 5 acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain federally proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | No | Add sage-grouse core areas. | Should be applied to all RSFO. |
| Raptor nest sites (active)<br><br>Greater Sage-Grouse leks + ¼-mile buffer<br><br>Potential Greater Sage-Grouse nesting habitat | No | New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |
| ***Other areas closed to mineral materials disposals will include the lava rock portion of Steamboat Mountain ACEC, the Pinnacles Geologic Feature, and Greater Sage-Grouse leks and ¼ mile around the lek perimeter.*** | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding new sage-grouse restrictions. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| ***Greater Sage-Grouse nesting habitat will be open to mineral material disposals only if related disturbance and reclamation can occur during one field season (August 1 to November 15) and the site could be returned (through reclamation efforts) to a condition usable by Greater Sage-Grouse prior to the next strutting season.*** Nesting habitat reclamation would require stockpiling and redistribution of top soil and planting of containerized stock (sagebrush, grass, forbs) of sufficient size and density to meet the nesting requirements of the birds. | Yes | JMH language that should be applied to RSFO. | Should be applied to all RSFO. |
| Withdrawals will be pursued for the Steamboat Mountain diamond potential area, the western portion of the Greater Sand Dunes ACEC, South Pass Summit, Tri-Territory Marker, Crookston Ranch, Pinnacles Geologic Feature, Public Water Reserves, special status plant species locations, and the northern elk birthing areas. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| Greater Sage-Grouse potential nesting habitat 1<br><br>Connectivity area | No | New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |
| LIMITED TO SEASONAL ACCESS<br><br>476,750<br><br>Elk crucial habitat<br><br>Deer crucial habitat<br><br>Antelope crucial habitat<br><br>Elk birthing areas<br><br>Mule deer birthing areas<br><br>Raptor nest sites + ½- to 1-mile buffer<br><br>Greater Sage-Grouse winter concentration area | No | JMH language that should be applied to RSFO with updating of information. New information (timing, density and disturbance requirements) and regulations added relating to the Wyoming Greater Sage-Grouse RMP/LRMP Amendments. | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Greater Sage-Grouse leks + ¼-mile buffer<br><br>Greater Sage-Grouse potential nesting habitat<br><br>Mountain plover aggregation areas + ¼-mile buffer<br><br>Steamboat Mountain | | | |
| Land withdrawals identified in the Green River RMP will be pursued. ***New withdrawals in addition to those identified in the Green River RMP include the top of Steamboat Mountain, the Pinnacles Geologic Feature, and two northern elk calving areas.*** | No | Review areas and its potential for oil and gas and Wind development to consider sage-grouse core area and determine if changes are needed.<br><br>Consider adding for no wind development (areas within 4 miles of leks) and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). Withdrawals for oil and gas leasing would include proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| Locatable Minerals: ***Withdrawal from mineral location will be pursued for the northern elk calving areas in part of the South Pass Historic Landscape ACEC.*** Withdrawal from mineral location will also be pursued on South Pass Summit as identified in the Green River RMP. | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |
| ***The area is not designated as an ACEC, but will be maintained as a geographic management unit.***<br><br>The Steamboat Mountain Management Area (88,290 acres of BLM-administered public lands) is a geographic area which includes the Steamboat Mountain ACEC including the Steamboat Mountain ACEC expansion, and additional area containing other important Native American cultural values, Indian Gap, important watershed values, unique wildlife habitat features, | No | Review areas to consider sage-grouse core area and its potential to determine if changes are needed.<br><br>Consider adding (areas within 4 miles of leks), existing and proposed ACECs (South Wind River Proposed ACEC, Salt Wells Proposed ACEC). | Should be applied to all RSFO. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| and crucial and overlapping big game habitat. Specific management prescriptions for the Steamboat Mountain ACEC may be found in that section of this document. | | | |

## 4.1.8.2. Special Status Species- Plants

### Table 4.9. Adequacy of Current Management Direction for Special Status Species- Plants

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Any management actions on potential habitat of special status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) will require searches for the plant species prior to project or activity implementation to determine the locations of special status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat.** Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants. | No | Protects actual locations of the plants well because of initial inventory and then protection if found.<br><br>Difficult in winter as new APDs come in. How do we want to ensure this happens? | Clarify how much of a buffer, if any, needs to surround the population to avoid the confusion that companies have on what the area of protection really is. These may need to be various alternatives.<br><br>Need to discuss as ID team how this can be done. |
| **Known locations of special status plant species communities will be protected and closed to the following:**<br><br>1. Surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat;<br><br>2. The location of new mining claims (withdrawal from mineral location and entry | No | Protects all the special status plant species well | Clarify how much of a buffer, if any, needs to surround the population to avoid confusions companies have on what the area of protections really is. These may need to be various Alternatives. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| under the land laws will be pursued);<br><br>3. Mineral material sales;<br><br>4. All off-road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and<br><br>5. The use of explosives and blasting.<br><br>(See the discussion in Lands and Realty Management and Minerals Management.) | | | |
| **BLM will pursue acquisition of approximately 1,920 acres of additional *Descurania torulosa* habitat on Pine Butte**. | No | Wind farms proposed in area. | See about moving this up in priority. |
| **Should new special status plant species be identified, they will be managed under the same prescriptions described above for the known species.**<br><br>This may result as new information about vegetation types and communities is acquired. | No | Need to clarify process to get this done. | |
| Special status plants are those species federally listed as threatened or endangered, proposed for listing, or candidates for listing under the Endangered Species Act. They also include species designated by each BLM State Director as sensitive and any species designated by a state agency in a category implying potential endangerment or extinction. The State of Wyoming does not have an official list of designated sensitive, threatened, or endangered plant species. Surveys will be conducted of potential habitat for federally listed, proposed, or candidate threatened and endangered plant species before any surface is disturbed. Should any such species be found, all disruptive activities will be halted until species-specific protective measures are developed and | No | Protects all special status plant species well when it happens. Difficult in winter as new APDs come in. How do we want to ensure this happens? | Need to discuss as ID team how this can be done. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| implemented. For listed species, protective measures will be coordinated with the USFWS. | | | |
| Specific management actions related to known locations of special status species habitat include closing locations to surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat and closing locations of special status species to location of new mining claims, mineral material sales, OHV use including vehicles used for geophysical exploration activities and surveying, and use of explosives and blasting. Known locations of special status plant species will be open to consideration for fluid mineral leasing with a no surface occupancy stipulation. | No | Protects actual locations of the plants well because of initial inventory and then protection if found. | Clarify how much of a buffer, if any, needs to surround the population to avoid the confusion that companies have on what the area of protection really is. |
| Special status plant species potential habitat areas will be areas of controlled surface use (CSU) for surface disturbing activities related to oil and gas activities. Surface disturbing activities for other uses or projects may also be restricted or prohibited based on site-specific analysis as outlined. | Yes | Protects actual locations of the plants habitat well. May need to define "Potential Habitat" as compared to "Essential Habitat." | |
| Surveys will be conducted of potential habitat for federally listed, proposed, or candidate threatened and endangered plant species before any surface is disturbed or water sources are depleted. If such a species is located, formal consultation with USFWS will occur. Management prescriptions to provide, maintain, or improve habitat will be developed on a case-by-case basis. | No | Protects all special status plant species well when it happens. Difficult in winter as new APDs come in. How do we want to ensure this happens? | Need to discuss as ID team how this can be done. |

# 4.1.9. Wild Horse and Burro

### Table 4.10. Adequacy of Current Management Direction for Wild Horse and Burros

| Planning Decision<br><br>Green River Resource Management Plan | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Wild horses will be managed within five Wild Horse Herd Management Areas**. These are the White Mountain, Divide Basin, Adobe Town, Salt Wells, and Little Colorado Desert Wild Horse Herd Management Areas. | No | Large tracts of private lands intermixed with public in four of the five HMAs. | Boundary changes or elimination of HMAs due to the difficulty of keeping wild horses off of private lands. |
| **An appropriate management level of 1,105 to 1,600 wild horses will be maintained among the five herd management areas**. | Yes/No | Yes, the decision complies with laws and court orders and agreements.<br><br>No, it is very difficult to manage an HMA within the current AML range. | A wider range of AML is needed in order to have more flexibility between wild horse gathers. The NEPA process along with national guidelines, logistics in coordinating and scheduling gathers puts the BLM out of compliance for long periods of time. |
| **The site specific activity plans for the five wild horse herd management areas in the Planning Area will be maintained to conform with RMP objectives for vegetation management and implemented.**<br><br>A monitoring program will be developed to provide information to support wild horse management decisions. | No | The HMAs are very large and the BLM cannot solely monitor vegetation resources for just wild horses. | Monitor key areas that the wild horses utilize. Combined range monitoring from livestock grazing, vegetation management and any other monitoring source to support wild horse management decisions. |
| **Specific habitat objectives for herd management areas will be developed.**<br><br>Consideration will be given to desired plant communities, wildlife, watershed, livestock grazing, and other resource needs. | No | These objectives need to be incorporated with all activity uses within the HMAs. | Consider any changes in forage allocations along with livestock, wildlife vegetation site specific range evaluations.<br><br>The current Adobe Town AML for the Rock Springs Field Office of 165-235 is too high for resource conditions. Options may include: lowering the AML for that portion of the Adobe Town HMA, change HMA boundaries on |

| Planning Decision<br><br>Green River Resource Management Plan | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| | | | the Salt Wells HMA to include the Adobe Town HMA portion in the Rock Springs Field Office, while slightly increasing the AML in the Salt Wells Creek HMA from 251-365 to 200-400. |
| **Water developments will be provided if necessary, to improve herd distribution and manage forage utilization.**<br><br>The feasibility of water development on the checkerboard land portion of the herd areas, to better distribute wild horses will be determined. Any water developments proposed in the Rock Springs Allotment would primarily enhance management of wild horses. | No | The private land owners are currently requesting that all wild horses be removed from private lands. | Coordinate all range improvements with livestock, wildlife uses in the Rock Springs Allotment. Wild horses tend to concentrate on certain private water sources. |
| Wild horse herd management will be directed to ensure that adequate forage (about 17,400 AUMs) will be available to support appropriate management levels in the herd units and that herds maintain appropriate age, sex, and color ratios. | No | Current AMLs of 1,474 times 12 months equals 17,688 AUMs. | |
| **Selective gathering programs will be implemented in each of the wild horse herd management areas. Gathering plans will be prepared for removal of excess horses from inside and outside the wild horse herd management areas.**<br><br>Gathering cycles will vary by plan objectives, resource conditions, and needs. Fertility control will be initiated only if necessary. These actions will aid in stabilizing populations, managing for conditions and special characteristics, and supply an adoptable population (young horses). | No | Wild horse populations have increased more than anticipated without any natural decrease. | Consider non-reproducing herds and supplement wild horses form other HMAs as necessary to maintain AML. |
| Opportunity for public education and enjoyment of wild horse herds will be provided by placing interpretive signs, providing interpretive sites, and providing | No | The area identified needs to be coordinated with private land owners that have lands within the current HMAs. | |

| Planning Decision<br><br>Green River Resource Management Plan | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| access to the herd areas. Signs providing information on wild horses will be placed in strategic locations such as the rest area east of Rock Springs along Interstate 80, on the Bar X Road at the junction with I–80, and at the entrance to the Oregon Buttes and Continental Peak areas on Highway 28. See the Recreation and Visual Resource Management sections for direction on wild horse herd viewing areas. | | | |

# 4.1.10. Wildland Fire Ecology and Management

### Table 4.11. Adequacy of Current Management Direction for Wildland Fire Ecology and Management

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Habitat fragmentation will be prevented if it has a negative ecological effect. | No | Fragmentation is impossible to prevent. | Avoided may be more realistic. |
| **Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine if vegetation objectives will be met for all affected resource values and uses (livestock grazing, wild horses, wildlife, watershed, etc.)**. | No | Not enough staff or time to actually put into practice. | Qualify with "in high priority grazing allotments." |
| Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover | No | Some improvements are being/have been authorized whose primary beneficiary is the grazing permittee. | Greater compliance with the RMP decision. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Desired plant community objectives for upland and riparian areas will be established for the Planning Area through individual site specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans will incorporate desired plant community objectives.**<br><br>Native plant communities are the preferred species identified when establishing desired plant community objectives (EO-11098, BLM Manual 1745) (see Riparian Vegetation Guidelines for additional guidance). | No | Desired plant communities are not being established in all activity and implementation plans. | Comply with decision. |
| Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species. Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities. | Yes/No | Increased emphasis on WUI treatments in the hazardous fuels program and sage-grouse habitat may limit the use of prescribed fire as a vegetation treatment option. | I still like the original decision. |
| Vegetation treatment projects will be designed to protect water quality and dissipate erosion. | Yes | | |
| Land uses and surface disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to pre-disturbance conditions. | No | Pre-disturbance conditions may not have been desirable | Change to: “to PFC or desired plant community.” |
| Aquifer recharge areas will be managed to protect groundwater quality and to ensure continued ability for recharging aquifers. | Yes/No | Some threats sue to oil and gas leasing in Little Mountain area | Leasing plan. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **To the extent possible, suitable wildlife habitat and forage will be provided to support the Wyoming Game and Fish Department 1989 Strategic Plan objectives. Changes within Wyoming Game and Fish Department planning objective levels will be considered based on habitat capability and availability and site specific analysis.** | Yes/No | Strategic plan numbers particularly for elk south of Rock Springs are being exceeded. | Commitment from Game and Fish to manage population numbers at or below strategic objectives. |
| **Big game crucial winter ranges and parturition areas will be protected to ensure continued usability by limiting activities during critical seasons of use and by limiting the amount of habitat disturbed.**<br><br>(See Glossary for surface disturbance factor for wildlife and surface disturbance activity.) | No | Seasonal restrictions are a red herring they only protect for one year. | |
| Nesting raptors will be protected by restricting disruptive activities seasonally within 1/2 to 1 mile radius of occupied raptor nesting sites. | No | Seasonal restriction is too long (opinion). | |
| Habitat management plans will be developed, where needed, particularly for highly developed and disturbed areas to mitigate wildlife habitat losses. | No | None have been prepared. | |
| Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities. | No | May allow for Heavy equipment where not desired. | "Use of heavy equipment is prohibited." |
| **Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods.**<br><br>(see Wildlife section). | Yes | But you can chase mountain lions with hounds! Just an example, but we allow a myriad of disruptive activities. | Say it, mean it, or list exceptions eg., herding of sheep. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Motorized vehicle travel is limited to designated roads and trails. Seasonal road and trail closures may be implemented as necessary to protect elk and deer during critical winter and birthing periods. | No | No roads have been designated the area is really being managed as limited to existing roads and trails. | Say it do it. |
| Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities.<br><br>**Fire management, suppression needs, and prescribed burning in timber stands will be determined on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snow fence effect" is preserved. Fire management in other areas will be determined on a case-by-case basis to ensure that area objectives are met.** | No | | No use of heavy equipment. |
| Low-intensity burns during periods of high soil moisture will be the preferred method/times in mountain shrub communities. | Yes | | |
| Native vegetation will be managed to allow natural plant succession to continue, with emphasis on mountain shrub, basin big sagebrush/lemon scurfpea, aspen, and other unique or important vegetation types as appropriate to meet desired plant community objectives. | No | | |
| Fire management in the Planning Area will be implemented through the “Fire Management Plan Southwestern Zone Wyoming BLM” (2004). | No | New plan | Reference new HDD FMP 2011 |
| **In Greater Sage-Grouse habitats, surface disturbing maintenance and/or operational activities will require mitigation measures or development plans.** | No | RMP Amendment | New Decisions |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The management practices in Greater Sage-Grouse sensitive habitats will be designed to limit direct loss of habitat and prevent habitat degradation.<br><br>Surface disturbing and disruptive activities will avoid these habitats. Measures will be taken to improve habitat character as needed in conformance with BLM Manual 6840 policy and, to the extent possible, with the Wyoming Greater Sage-Grouse Conservation Plan (WGSGCP). | No | | |
| Disruptive activities will also avoid occupied Greater Sage-Grouse leks during appropriate evening and early morning hours, 8 p.m. to 8 a.m. daily. The actual area to be avoided and appropriate time frame (typically March 1 to May 15) will be determined and applied on a case-by-case basis. | No | | |
| No disruptive activities are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis. In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality. | No | | |

# 4.1.11. Cultural and Heritage Resources

### Table 4.12. Adequacy of Current Management Direction for Cultural and Heritage Resources

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Sites eligible for or listed on the National Register of Historic Places (NRHP) will be managed for their local, regional, and national significance, under the guidelines of the National Historic Preservation Act | Yes | Some of the wording is unclear. | The land use planning handbook (Appendix C) says that all cultural resources will be allocated to the use categories designated in the appendix. This |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| (especially sections 106 and 110) and the Archeological Resources Protection Act (ARPA). These sites will be managed to ensure against adverse effects through proper mitigation, if disturbance or destruction is not avoidable. Management prescriptions for sites that are not eligible for the NRHP will be determined on a case-by-case basis according to values involved. | | | is also stated in BLM manual 8100.4. |
| Heritage resources will be managed pursuant to the National Historic Preservation Act (NHPA); the Archeological Resources Protection Act (ARPA); and other pertinent laws, regulations, and policies. The Wyoming State Historic Preservation Office must be consulted concerning eligibility of resources for the National Register of Historic Places (NRHP) and concerning any potential effects that could result from BLM supported, authorized, or assisted undertakings. Sites that are not eligible for the NRHP will be managed on a case-by-case basis according to their values. Sites that are listed or eligible for listing on the NRHP will be managed for their local, regional, and national significance in accordance with the NHPA and the ARPA. Sites will be managed to ensure against adverse effects through proper mitigation if disturbance or destruction is not avoidable. Mitigation may include scientific information retrieval as well as other measures such as interpretation and improved public appreciation of the heritage resource. | Yes | | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Management of historic roads and trails that are eligible for the NRHP but are not Congressionally designated will generally be the same as for designated trails including a 1/4 mile protective setback on either side of the trails. These trails may be recommended for listing to the National Register of Historic Places. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road. | Yes | Reword for clarity. | What does "generally" mean? Also, there are eligible historic roads in the field office where the ¼ mile may not be appropriate. Possibly categorize trails and roads into management groupings?<br><br>The last sentence has caused some disagreement in the past. This needs to be clarified as to what "include" means and whether or not this is a complete list.<br><br>There is also confusion because a historic road in this decision can also be an expansion era wagon road noted in other decision. Which decision do we use in these cases? |
| LaClede Stage Station and Dug Springs Stage Station on the Overland Trail will be protected as exclusion areas and will be closed to surface disturbing activities that could adversely affect the sites. These sites will be closed to exploration and development of locatable minerals and entry under the land laws, and withdrawals will be pursued. Cultural resource management plans may be written for these sites and interpretive and visitor management efforts would be allowed as necessary (see discussions in Lands and Realty Management and Minerals Management). | Yes | Reword. | Due to new investigations the Laclede Stage Station is actually the Boyer Ranch house. Does it warrant the same protection as when we thought it was a stage station? |
| The Dry Sandy Stage Station and Fort LaClede may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of important historic resources. The BLM will not use powers of condemnation to acquire these parcels. | Yes | Add to this list. | There may be others to add to the willing buyer situation. (Crookston Stage station – private land, and Pine Canyon Petroglyphs- state land).<br><br>Also, Fort LaClede is now thought to be the LaClede stage station. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Various Expansion Era (i.e., 1870-1940) roads will be managed according to their historical context. Expansion Era roads are those routes developed after establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan will be applied, although the 1/4 mile protective setback might not always be applied. Management actions will include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify. | Yes | Needs clarity. Phrases like "…might not always be applied." are too vague. | Maybe consider grouping known expansion era roads into management categories since not all may deserve the same amount of protection.<br><br>Also, look at the NPS Management and Use Plan for the California, Oregon, Mormon Pioneer, and Pony Express Historic Trails. |
| The Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain rock art sites are exclusion areas, and are closed to surface disturbing activities that could adversely affect rock art resources. These sites are closed to: 1) the location of mining claims and entry under the land laws (withdrawals will be pursued as necessary and the existing Sugarloaf and White Mountain withdrawals will be retained; 2) mineral material sales for sand, gravel, or other types of construction or building materials; 3) the use of explosives and blasting; and 4) the use of fire retardant chemicals containing dyes. Off-road vehicular use, including vehicles used for geophysical exploration activities, are limited to designated roads and trails (See the discussions in Lands and Realty Management, Minerals Management, and Off-Road Vehicle Management). | Yes | Could use a bit of clarity. | Clarify that the designated roads and trails applies to the ½ mile viewshed? |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The Tri-Territory Marker will be an exclusion area for rights-of way and will continue to be closed to surface disturbing activities. The Tri-Territory Marker will be withdrawn from mineral location and closed to coal and sodium exploration. The Tri-Territory Marker will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area. | Yes | Needs a bit of clarity. | How many acres is an exclusion area? |
| Archeological data will be synthesized in the Little Colorado Desert, Greater Nitchie Gulch, and Wamsutter Arch concentrated oil and gas development areas and the areas will be managed with the objective of facilitating surface disturbing or disrupting activities without sacrificing significant archeological values. These areas may be eligible for listing on the NRHP because of their scientific information content (e.g., Criterion D). A programmatic memorandum of agreement would be negotiated with the SHPO and ACHP to achieve this objective. Historic resources that could be eligible for listing for reasons other than their scientific information content (e.g., Criteria A, B, or C) may not be managed according to this prescription. | Yes | This may no longer be relevant. | The names and boundaries for these have changed and thus the need for a data synthesis in these areas may have changed also. |
| The Pine Springs ACEC (6,030 acres) is closed to surface disturbing activities. About 2,000 acres in the area will be closed to exploration and development of locatable minerals and entry under the land laws. Withdrawal from these activities will be pursued. The existing 90-acre withdrawal will be retained. Cultural resource management plans may be written for the site and interpretive and visitor management efforts may be allowed as necessary. (See also Pine Springs ACEC, Lands and Realty Management | Yes | Need to look at area and stipulations in light of recent investigations. | This site is also part of a Traditional Cultural Landscape important to Native American Tribes. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| and Minerals Management discussions). (Surface disturbing activities may include activities associated with mineral exploration and development; construction of roads, pipelines, power lines; mineral material sales; etc.). | | | |
| The Eden-Farson, Finley, Krmpotich, and Morgan archaeological sites, and similar sites identified in the future, will be managed to protect their important scientific values. No public interpretive efforts will be initiated at these sites. These sites will be managed according to Sections 106 and 110 of the NHPA and their locations will be kept confidential pursuant to NHPA regulations. Periodic law enforcement patrol and other efforts will be instituted to ensure that the ARPA is enforced and that these sites are protected. | Yes | Needs to be updated. | The Finley site was listed on the National Register in 2010. |
| Exchanges for acquisition and cooperative agreements will be pursued to enhance management of cultural resources. | Yes | This needs review to see if the appendix list needs updating. | |
| The 6,030 acres of BLM-administered public lands in the Pine Springs area are designated the Pine Springs ACEC. The Pine Springs ACEC is expanded from 90 acres to 6,030 acres. | Yes | We may want to revisit the acres in light of recent investigations. | |
| The South Pass Historic Landscape encompasses the viewshed along the Oregon, Mormon Pioneer, California, and Pony Express trails and the Lander Cutoff (about 16.42 miles of trail with a 6-mile wide corridor along the Oregon, Mormon Pioneer, and California trails, and a 2-mile wide corridor along the Lander Cutoff). | Yes | | It is unclear why the 2 mile wide corridor is on the Lander Cutoff instead of the 6 mile corridor along the rest of the NHT. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Monument Valley Management Area (69,940 acres of BLM-administered public lands. Designation of the area as an ACEC will be deferred until a determination can be made that specific resources meet the ACEC relevance and importance criteria. Although the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. The area is open to the following:<br>1. Consideration for mineral leasing, exploration, and development provided mitigation can be applied to retain the resource values;<br>2. Consideration for mineral material sales with the appropriate constraints applied to all surface disturbing activities; and<br>3. Development and public use with necessary consideration for wildlife, raptors, cultural, watershed, and scientific values. | Yes | Has the determination been made yet? | |
| The Finley site will be nominated to the NRHP under the Register's History of American Archaeology context and the Earliest Americans context. | Yes | | This has been completed. |
| Expansion Era roads will be managed in a manner similar to that of the historic trails covered in the Oregon/Mormon Pioneer National Historic Trails Management Plan (BLM 1986), with prescriptions from that plan applied, although the ¼-mile protective setback might not always be applicable. Management actions will include development of activity plans with the objective of preserving the historical integrity of | Yes | Consider rewording to remove phrases such as "in a manner similar to…" or "…might not always be applicable." | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| significant NRHP contributing segments of the historic roads. Activity plans may include NRHP nomination of those Expansion Era roads that qualify. | | | |
| | | | Include discussion of cultural and renewable energy. |
| | | | Cultural resources will be managed in accordance with guidance for Cultural Resource Use Allocations found in the Land use planning handbook and BLM manual 8100.4. |
| Salt or nutritional supplements will be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources would not be adversely affected. | Yes | | This should be applied throughout the Field Office, not just JMH. |

# 4.1.12. Paleontological Resources

### Table 4.13. Adequacy of Current Management Direction for Paleontological Resources

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Collecting of vertebrate fossils may be allowed with written authorization which may be issued only to an academic, scientific, governmental, or other qualified institution or individual. Collection of common invertebrate fossils and petrified wood for hobby purposes is allowed on public lands and is regulated under 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365.** A site protection plan may be written and implemented for the Farson Fossil Fish Beds and the Eden Fish Beds. | Yes | Site protection plan for the Farson and Eden Fish Beds are necessary to abate theft and vandalism of these sites, due to large scale theft and vandalism in the past. | |

# 4.1.13. Land with Wilderness Characteristics

### Table 4.14. Adequacy of Current Management Direction for Lands with Wilderness Characteristics

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| N/A | | All Wilderness Characteristics inventories were completed. | Management of all lands which meet wilderness characteristics will be determined as part of this RMP effort |

# 4.1.14. Visual Resources Management

### Table 4.15. Adequacy of Current Management Direction for Visual Resources

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| All activities in the unit will conform with the requirements of the Class II visual resource management classification and all management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer.<br><br>**Eastern Unit** (approximately 88,510 acres)<br><br>**The Wind River Front is Designated a Special Recreation Management Area (SRMA).**<br><br>**The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests.**<br><br>All activities in the unit will conform with the requirements of the Class II visual resource management classification and all management actions will be designed and located to blend into the natural landscape and to | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| not be visually apparent to the casual viewer.<br><br>**Location of long linear facilities will be avoided the unit. If avoidance is not possible, such facilities will be required to meet the Class II visual resource management classification standards.** | | | |
| ***Western Unit*** **(approximately 172,630 acres)**<br><br>**The Wind River Front is Designated a Special Recreation Management Area (SRMA).**<br><br>**The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests.**<br><br>**All activities in the unit will conform with the requirements of Class III and Class IV visual resource management classifications and all management actions will be designed and located to remain subordinate to the characteristic landscape or to repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape**. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **The scenic values along Highway 28 within Fremont County will be protected. All proposed lands actions and other activities within view of the highway will be evaluated for impacts and will require mitigation to protect the scenic and historic values of this area. Class II visual resource management classifications on public lands will be retained.** | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The public lands along all other major highways in the Planning Area will be managed under their respective visual resource management classifications. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| All activities that could be viewed from the Fontenelle Reservoir will be designed to be subordinate to the landscape. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a 1/2 mile distance surrounding them will be closed to long-term or permanent intrusions and surface disturbing activities that could interfere with opportunities to view horses** (e.g., structures, mineral activities, powerlines, roads, etc.). **Short-term intrusions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis.** The Wild Horse Loop Tour on White Mountain will be managed as a wild horse viewing area. The Wild Horse Loop Tour on White Mountain will be managed as the Wild Horse Scenic Loop Byway (see Environmental Assessment, WY-040-03-054). The Scenic Loop Byway on White Mountain offers the public a unique opportunity to view wild horses while also offering views of other sights having social, geologic, or historical importance. In order to clarify the management of the Byway, the intent is to provide an opportunity to view wild horses while recognizing valid existing and future rights for surface and sub-surface use. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to wild horse management activities. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Cedar Canyon ACEC (2,550 acres of BLM-administered public lands)**<br><br>**The ACEC will be managed consistent with the Class II, Class III, and Class IV visual resource management classifications to protect, maintain, and enhance the visual resource values. All future facilities will be designed to blend with the landscape, including painting where necessary, and disturbed areas will be revegetated to keep visual resource impacts to a minimum.**<br><br>**The vista area will be managed consistent with a Class II visual resource management classification.** | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Greater Red Creek ACEC (131,890 acres of BLM-administered public lands)**<br><br>**Actions Unique to the Sage Creek Watershed**<br><br>**The watershed (about 52,270 acres) will be managed consistent with the Class III visual resource management classification.** | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Greater Red Creek ACEC (131,890 acres of BLM-administered public lands)**<br><br>**Actions Unique to the Currant Creek Watershed**<br><br>**The area will be managed consistent with the Class II visual resource management classification.** Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| Greater Red Creek ACEC (131,890 acres of BLM-administered public lands)<br><br>Actions Unique to the Red Creek Watershed<br><br>**The area will be managed consistent with the Class II visual resource management classification.** Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **The Pine Springs ACEC is expanded from 90 acres to 6,030 acres.**<br><br>**The ACEC will be managed consistent with the Class II visual resource management classification.** Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Steamboat Mountain ACEC (43,270 acres of BLM-administered public lands)** not including expansion….3980<br><br>**All activities in the ACEC will be managed consistent with the Class II and Class III visual resource management classifications.** All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Monument Valley Management Area (69,940 acres of BLM-administered public lands)**<br><br>**The entire area will be managed consistent with the Class II visual resource management classification.** All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Pine Mountain Management Area (64,200 acres of BLM-administered public lands)**<br><br>**The entire area will be managed consistent with the Class III visual resource management classification.** | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Red Desert Watershed Management Area (341,060 acres of BLM-administered public lands)**<br><br>**The Red Desert Watershed Area will be managed to ensure developments and activities conform with the concepts of open space.**<br>**The area will be managed consistent with the Class II and Class III visual resource management classifications.** Site specific visual resource reviews (inventories) will be conducted prior to allowing activities that may affect these values. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| Management Actions for Visual Resources Management<br><br>Projects will be designed, sited, screened, or painted to reduce visual impacts regardless of the VRM classification. The VRM classes provide the design standards for all surface disturbing projects.<br><br>Visual resource classes will be retained or modified to enhance other resource objectives such | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| as heritage resources, recreation uses, wild horse viewing, and special management areas. Projects will be designed to meet established visual classifications objectives, and appropriate mitigation will be applied.<br><br>The four VRM classes (I, II, III, IV) set standards for planning, designing, and evaluating projects by identifying various permissible levels of landscape alteration while protecting overall regional scenic quality.<br><br>The approved VRM class objectives provide the visual management standards for the design and development of future projects and rehabilitation of existing projects. Visual design considerations are incorporated into all surface disturbing projects regardless of size or potential impact.<br><br>The VRM class objectives range from very limited management activity (Class I) to activity allowing major landscape modifications (Class IV). Refer to the Glossary for a full description of the objective of each VRM class. | | | |
| VRM Class I Areas<br><br>The WSAs are managed as VRM Class I areas to preserve the natural setting and existing character of the landscape. As a result, the Oregon Buttes ACEC and the western portion of the Greater Sand Dunes ACEC are managed as VRM Class I areas. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| VRM Class II Areas<br><br>Management actions on lands classified as VRM Class II will be designed to retain the existing character of the landscape.<br><br>A visual transition area of 1 mile adjacent to each Class I area (WSA) will be managed as Class II to retain the existing character of the Class I areas (WSA) and surrounding landscapes.<br><br>A low level of change will be acceptable to the characteristic landscapes of the ACECs, thus the eastern portion of the Greater Sand Dunes ACEC, South Pass Historic Landscape ACEC, and White Mountain Petroglyphs ACEC will be managed as VRM Class II areas. Steamboat Mountain ACEC, Steamboat Mountain Management Area (includes Split Rock), and unique geological features and landforms, including portions of White Mountain, Pinnacles Geological Feature, and the West Sand Dunes Archaeological District, will also be managed as VRM Class II areas. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| VRM Class III Areas<br><br>Eden Valley, portions of White Mountain, a portion of the Red Desert Watershed within the Planning Area (not already designated as Class I or II), and Joe Hay Rim will be managed as VRM Class III. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| VRM Class IV Areas<br><br>All areas not managed as VRM Class I, II, or III will be managed as VRM Class IV. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **ACEC — Greater Sand Dunes ACEC** VRM: The western portion of the ACEC will be managed consistent with a Class I VRM classification. VRM Class I objectives are to maintain a landscape setting that appears unaltered by humans. VRM: The eastern portion of the ACEC will be managed consistent with a Class II VRM classification. The VRM Class II objective is to retain the existing character of the landscape. Facilities (either in place or new), including linear rights-of-way, will be screened, painted, or designed to blend with the surrounding landscape. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **ACEC — Oregon Buttes ACEC** VRM: The ACEC will be managed as a VRM Class I area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **ACEC — South Pass Historic Landscape ACEC** VRM: The entire ACEC will be managed as a VRM Class II area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **ACEC — Steamboat Mountain ACEC** VRM: The entire ACEC will be managed as a VRM Class II area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **ACEC — White Mountain Petroglyphs ACEC** VRM: The ACEC is a VRM Class II area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| Red Desert Watershed Management Area VRM: The area will be managed consistent with the Class I, Class II, and Class I The portions of the Red Desert Watershed Management Area not managed as VRM Class I or II will be managed as a VRM Class III area. VRM Class I objectives are to maintain a landscape setting that appears unaltered by humans.<br><br>The VRM Class II objective is to retain the existing character of the landscape. Facilities (either in place or new), including linear rights-of-way, etc., would be screened, painted, or designed to blend with the surrounding landscape. VRM Class III objectives are to design proposed | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| alterations so as to partially retain the existing character of the landscape. | | | |
| **Pinnacles Geographic Area** VRM: The area will be managed as a VRM Class II area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |
| **Steamboat Mountain Management Area** VRM: The Steamboat Mountain Management Area will be managed as a VRM Class II area. | No | A re-evaluation of the entire Field Office was completed by an independent contractor. | Visual resources will be completely revisited in this RMP effort |

# 4.2. Resources Uses

# 4.2.1. Energy and Minerals

## 4.2.1.1. Leasable Fluid Minerals

Leasable minerals are those minerals on public lands where the land is leased to individuals for their exploration and development. Leasable minerals are subdivided into two classes, fluid and solid.

Fluid minerals include oil and gas; geothermal resources and associated by-products; and oil shale, native asphalt, oil impregnated sands, and any other material in which oil is recoverable only by special treatment after the deposit is mined or quarried.

All minerals on acquired lands are considered to be leasable minerals. Leasable minerals are associated with the following laws: Mineral Leasing Act of 1920, as amended and supplemented, Mineral Leasing Act for Acquired Lands of 1947, as amended, and the Geothermal Steam Act of 1970, as amended.

### 4.2.1.1.1. Geothermal

**Table 4.16. Adequacy of Current Management Direction for Leasable Geothermal**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Geothermal resources are open to leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing. | Yes | This is the current policy based on existing laws and regulations. There are no known geothermal resources that exist within the RSFO area. No expressions of interest for the exploration and development of geothermal | No changes are necessary at this time. |

| | | | |
|---|---|---|---|
| | | resources have been received to date. | |
| Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and other activities in the same manner as they are applied to oil and gas exploration and development activities. | Yes | This is the current policy based on existing laws and regulations. There are no known geothermal resources that exist within the RSFO area. No expressions of interest for the exploration and development of geothermal resources have been received to date. | No changes are necessary at this time. |

## 4.2.1.1.2. Oil and Gas

### Table 4.17. Adequacy of Current Management Direction for Leasable Oil and Gas

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **BLM-administered public lands not specifically closed are open to consideration of oil and gas leasing. Public lands closed to leasing include lands within the Red Creek ACEC and portions of the Wind River Front**. | No | State Director required Master Leasing Plan (MLP) for Greater Little Mountain Area. Also need to incorporate decisions of JMH CAP in RMP Revision. The Wyoming Greater Sage-Grouse RMP/LRMP Amendments will also need to be included. | Inclusion of MLP in Greater Little Mountain Area with possible No Leasing Areas added.<br><br>Inclusion of Area 3 from JMH as No Leasing area.<br><br>Add MMTA as No Leasing.<br><br>Should mention the checkerboard specifically here. |
| **The remainder of the public lands in the Planning Area are open to consideration for oil and gas leasing with appropriate mitigation measures.** | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP | Inclusion of MLP in Greater Little Mountain Area with possible No Leasing Areas added.<br><br>Inclusion of Area 3 from JMH as No Leasing area.<br><br>Add MMTA as No Leasing.<br><br>Should mention the checkerboard specifically here. |
| **Where maximum protection of resources is necessary, a No Surface Occupancy requirement will be imposed.** Additional areas may be identified through site specific environmental analysis and activity planning. | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP | Inclusion of MLP in Greater Little Mountain Area with possible NSO<br><br>Identified throughout RMP Process |

| | | | |
|---|---|---|---|
| **Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources.** Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas. Exceptions to seasonal restrictions may be granted if the criteria apply. | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP | Possible Inclusion of timing limitation stipulations (TLS) in the Greater Little Mountain MLP Area with TLS for hunting season.<br><br>Possible Inclusion TLS of Area 1-3 from JMH for hunting season.<br><br>Will be based on wildlife resources analysis. |
| *Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources.* These restrictions will be placed on areas where resources could be avoided or adverse effects could be mitigated. | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP. | Possible Inclusion of additional CSU in the Greater Little Mountain MLP Area.<br><br>Possible Inclusion of additional CSU of Area 1-3 from JMH.<br><br>Will be based on wildlife resources analysis.<br><br>List of CSU may include required field development plans and transportation plan requirements. |
| *Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development.* Limitations on the amount, sequence, timing, or level of development may occur. This may result in transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses. | No | Current mitigation measures for actions in all areas need to be discussed especially for MLP, sage-grouse and JMH CAP Areas. | Add BMP list, list of COAs and Goldbook references.<br><br>Inclusion of MLP decisions. |
| Prior to issuing Federal mineral leases in areas around or adjacent to local communities or occupied dwellings, community and county governments will be consulted to obtain input and direction to protect public health and safety. Unleased lands in such areas may be offered for lease with an NSO stipulation or, if the areas are too large for directional drilling, they may remain unleased. | No | Current mitigation probably should be changed since map has changed | With the expansion of the City of Rock Springs (Sage School and the are there) additional buffers to the NSO for City of Rock Springs may need to be added.<br><br>Also near the Fire building north of town?<br><br>Any other areas of expanded city (Superior, McKinnon, Farson, Green River, Rock Springs, etc.) development since 1997. |

| | | | |
|---|---|---|---|
| *Leases may also be issued with other appropriate mitigation requirements necessary to protect public health and safety and to allow for urban expansion.* These NSO areas may only be accessed through directional drilling. The NSO stipulation will be used to facilitate drainage problems or needs, under the assumption that industry is the best judge of whether technology will enable access to the oil and gas resources under the terms of the lease. | No | Current mitigation probably should be changed since map has changed | With the expansion of the City of Rock Springs (Sage School and the are there) additional buffers to the NSO for City of Rock Springs may need to be added.<br><br>Also near the Fire building north of town?<br><br>Any other areas of expanded city (Superior, McKinnon, Farson, Green River, Rock Springs, etc...) development since 1997. |
| Leasing with an NSO stipulation could become necessary for several reasons. For example, if the area is characterized by occupied dwellings and the potential for additional urban expansion; if the area is surrounded by the scenic steep slopes of White Mountain, Wilkins Peak, and other similar topographic features. Any disturbance in the expanding urban areas or on the steep slopes, can affect the potential for expansion, public health and safety, watershed values, and the scenic resources. Likelihood of success in producing gas varies from low to high, which means that some development will likely occur and production facilities will be necessary along with year-round access. Any requests for relief from these requirements will require an environmental analysis on the action being considered and the RMP may have to be amended. | No | Current mitigation probably should be changed since map has changed. | With the expansion of the City of Rock Springs (Sage School and the are there) additional buffers to the NSO for City of Rock Springs may need to be added.<br><br>Also near the Fire building north of town?<br><br>Any other areas of expanded city (Superior, McKinnon, Farson, Green River, Rock Springs, etc...) development since 1997. |

| | | | |
|---|---|---|---|
| *To the extent that laws and regulations allow, the areas closed to oil and gas leasing will remain closed to leasing of oil and gas unless drainage results in a loss of Federal minerals through production on adjacent private or State lands (drainage).* At such time, the no lease prescription will be re-evaluated. Actions such as drainage agreements will also be considered | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP. | Areas closed to leasing will change with inclusion of several recent decisions:<br>• JMH CAP<br>• WSA status<br>• MLP plans in GLM<br>• Wyoming Greater Sage-Grouse RMP/LRMP Amendments<br>Should mention the checkerboard specifically here. |
| Fluid mineral leasing, exploration, and development will be allowed in portions of the Planning Area with necessary mitigation. | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP | Should mention the checkerboard specifically here. |
| The JMH CAP area is divided into three implementation management areas. Area 1 is open to fluid mineral leasing with appropriate stipulations applied to protect sensitive resources in Area 1. | No | Current mitigation measures need to be reevaluated for sage-grouse. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br>Add additional species for concern. |
| As leases expire within Area 1, they will be considered for subsequent lease offerings. Stipulations for subsequent lease offerings identified, those identified through monitoring and the Lease Stipulations paragraphs will be applied if deemed necessary. | No | Current mitigation measures need to be reevaluated for sage-grouse. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br>Add additional species for concern. |
| Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential. | No | Current mitigation measures need to be reevaluated based on updated RFD. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br>Add additional species for concern. |
| Area 2 is open to leasing considering such factors as operational need, resource recovery, geology, and ability to mitigate impacts and with stipulations applied to protect sensitive resources in Area 2. BLM may request potential lessees to share data (such as reservoir data or geologic data) or plans related to the development of the potential oil and gas resource prior to leasing; sharing of these data is voluntary. | No | Current mitigation measures need to be reevaluated for sage-grouse. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br>Add additional species for concern. |

| | | | |
|---|---|---|---|
| As leases expire within Area 2, they will be considered for subsequent lease offerings. Stipulations identified through monitoring as described in the implementation, monitoring, and evaluation management strategy and the Lease stipulations paragraphs will be applied to new leases if deemed necessary. | No | Current mitigation measures need to be reevaluated for sage-grouse and additional species. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br><br>Add additional species for concern. |
| Approximately 35,500 acres along the perimeter of Area 3 are available for leasing with an NSO stipulation. This acreage represents a distance of ½ mile within portions of the boundary of Area 3. Although current technologies suggest that the ½-mile distance is adequate at this time, these NSO areas may be expanded to include additional adjacent acreage provided the Planning Area resource objectives can be met. | No | Directional drilling is capable of reaching up to 2 miles – suggest removing buffer. | Technology has advanced, buffer no longer necessary. |
| The remainder of Area 3 is closed to oil and gas leasing (about 92,000 acres). This closure is established to meet the resource goals and objectives for the Planning Area.<br><br>These objectives include providing adequate habitat as well as opportunity for the use of crucial winter range, calving/fawning areas, migration corridors, etc. and protection of sensitive resources and public health and safety. Area 3 includes portions of the Steamboat Mountain ACEC, Greater Sand Dunes ACEC, White Mountain Petroglyphs ACEC, Oregon Buttes ACEC, South Pass Historic Landscape ACEC, the White Mountain and Split Rock areas, and the core and connectivity areas. | No | Current mitigation measures need to be reevaluated for sage-grouse and additional species. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br><br>Add additional species for concern. |
| As existing leases expire in Area 3, they will not be re-offered for lease (approximately 88,200 acres) unless they are within the 35,500 acres along the perimeter of Area 3 identified above. | No(only for 35,500 acres) | Current mitigation measures need to be reevaluated for sage-grouse and additional species. | Add Wyoming Greater Sage-Grouse RMP/LRMP Amendments decisions.<br><br>Add additional species for concern. |

| | | | |
|---|---|---|---|
| Oil and gas leases within the Planning Area that were suspended during preparation of the JMH CAP will be reinstated within 3 years of signing the Record of Decision or earlier with an approved development plan.<br><br>Should new lease suspensions become necessary, they will be considered on a case-by-case basis. | Yes | No change in decision is required. | This was already completed in July 2009 and rest is just restating the facts. |
| The lease stipulations will notify the leaseholder that development activities may be limited, prohibited, or implemented with mitigation measures to protect specific resources. The stipulations will allow the leaseholder's development activities while providing BLM with the authority for substantial delay or site changes or the denial of operations with the terms of the lease contract. The types of lease stipulations include CSU through limitation on the amount and type of surface disturbance, CSU through avoidance of other resources, timing limitations (TL) on development activity, and NSO. Standard lease terms and conditions may also apply. | No | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP. | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP.<br><br>Additional changes for new species will come from wildlife. |
| An interdisciplinary BLM team, in coordination with the working group, stakeholders, and other members of the public, will evaluate monitoring data and determine changes in management. The lease stipulations in may be adjusted or clarified based on these data. Twelve basic sensitive resources and uses will be used to evaluate these lands and ensure that the appropriate mitigation is provided. These sensitive resources and uses may change or be added to in the future based on the implementation, monitoring, and evaluation strategy. If an evaluation concludes that Planning Area management objectives are not being met, the analysis of actions will | Yes and No | Team is formed and meeting quarterly.<br><br>Current mitigation measures for new leases need to be reevaluated for MLP, sage-grouse and JMH CAP. | Current mitigation measures need to be reevaluated for MLP, sage-grouse and JMH CAP.<br><br>Additional changes for new species will come from wildlife. |

| | | | |
|---|---|---|---|
| include application of strategies that ensure continuity between activities and the land use plan. Any changes to the lease stipulations identified will be applied to new leases only. | | | |
| Monitoring of sensitive resource indicators will determine the effectiveness of lease stipulations and COAs and provide guidance for adopting new or modified stipulations, exception criteria, or COAs needed to meet resource objectives. Indicators could include, but are not limited to, wildlife population trends, reproduction rates, observed ranges, and habitat integrity. Development levels may be adjusted or new stipulations may be applied to new leases when offered. COAs may be applied to proposed activities as appropriate and necessary to protect resource values. Adjustments could be made to ensure that further activity will not cause fragmentation and abandonment of habitat and will still meet stated management objectives, safeguard sensitive resources, and not result in significant or irreversible adverse effects. Proposed changes will be analyzed in subsequent NEPA or other documents (such as site-specific NEPA analysis for well sites) in accordance with law and policy. Changes will be based on several factors including the following:<br>● Data trends for indicators on the viability of potentially impacted wildlife and other sensitive resources, including impacts from other causes such as disease, drought, hunting pressure, introduction of nonnative species, and recreation activities.<br>● Fragmentation of habitat and migration pathways due to development activities. | | This is a wildlife thing. | Ass COAs, BMPs and such for mitigation. |

| | | | |
|---|---|---|---|
| • Net amount of surface disturbance, including approved development activities that will be implemented in nearby areas and planned reclamation of existing surface disturbances.<br><br>• Amount and location of actual land use activity. | | | |
| Any surface disturbing and disruptive activities involved with development of existing leases will be subject to extensive review and mitigation that will allow appropriate levels of activity while meeting resource objectives and protecting sensitive resources in the area. BLM specialists will review sensitive resources with lease operators to develop and implement measures to allow for effective development operations where impacts could be avoided or mitigated. BLM has and will continue to apply and enforce necessary COAs identified through a site-specific NEPA or other analysis. | No | Updated best management Practices will need to be listed and applied to new applications (APDs). | Updated best management Practices will need to be listed and applied to new applications (APDs). |
| COAs attached to an Application for Permit to Drill (APD) will be based on site specific NEPA or other analysis and will establish specific, necessary mitigation measures not covered by stipulations for resource and environmental protection.<br><br>Some areas will need more intensive mitigation measures to protect sensitive resources and provide for public health and safety. These intensive mitigation measures or COAs will mostly apply to areas with overlapping sensitive resources (e.g., Areas 2 and 3). Examples of intensive mitigation that can apply to all activities based on site-specific analysis include offsite placement of facilities, remote control monitoring, restricted or prohibited surface use including road construction, multiple wells from a single pad, | No | Updated best management Practices will need to be listed and applied to new applications (APDs). | Updated best management Practices will need to be listed and applied to new applications (APDs). |

| | | | |
|---|---|---|---|
| central tank batteries/facilities, and pipelines and power lines concentrated in specific areas. | | | |
| Exceptions to lease stipulations and COAs will be allowed when site-specific analyses shows impacts to sensitive resources are within acceptable limits. Timing of activities will be considered where consistent with lease rights. | No | Updated best management Practices will need to be listed and applied to new applications (APDs). | Updated best management Practices will need to be listed and applied to new applications (APDs). |

## 4.2.1.2. Leasable Solids Minerals

## 4.2.1.2.1. Coal

### Table 4.18. Adequacy of Current Management Direction for Leasable Minerals — Coal

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and federal coal lands in the Green River Planning Area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential. | Yes | This is an ongoing process that is applied on a case-by-case basis, normally through the issuance of coal exploration licenses. | No changes necessary at this time. |
| The North Fork Vermillion Creek drainage and the City of Rock Springs Expansion Area are closed to further consideration for federal coal leasing and development. | Yes | There have been no expressions of interest to lease federal coal within these areas to date. | No changes necessary at this time. |

| | | | |
|---|---|---|---|
| **Federal coal lands within the Coal Occurrence and Development Potential area** (about 422,000 acres) **are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses**. | Yes | This is the area in which all current federal coal leasing is taking place. Lease applications are processed and evaluated for adequacy on a case-by-case basis as they are received. | No changes necessary at this time. |
| **The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats.** | Yes | This is an ongoing process that is normally applied on a site-specific basis in response to various types of applications received for the exploration and development of federal coal resources. | No changes necessary at this time. |
| **Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant** | Yes | This is an ongoing process that is applied on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources. Under certain circumstances, it may be deemed that some mining methods may be unacceptable if they are found to significantly impact the big game herds in the immediate area. | No changes necessary at this time. |

| | | | |
|---|---|---|---|
| **adverse impacts to important big game species. This will be accomplished through controlled timing and sequencing of federal coal leasing and development in these areas.** | | | |
| For the protection of important rock art sites, other important cultural resource values, and important geologic and ecologic features, federal coal lands with these important values are open to consideration for further leasing and development by subsurface mining methods only. In general, cultural sites on federal coal lands are avoidance areas for surface disturbing activities. As avoidance areas, **cultural sites are open to consideration for coal leasing and development with appropriate measures to protect these resources.** | Yes | This is an ongoing process that is applied on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources. It can be stipulated that these sites are completely avoided or the impacts mitigated by other means during exploration and development activities for federal coal. | **No changes necessary at this time.** |
| Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements:<br>• Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling,<br>• construction of roads and other types of rights-of-way, etc., will be avoided | Yes? | These issues will be evaluated on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources using criteria currently being developed jointly by the BLM and the State of Wyoming. | Changes to how this planning decision is applied may occur as new criteria are developed through the ongoing Wyoming Greater Sage-Grouse RMP/LRMP Amendments process. |

| | | | |
|---|---|---|---|
| in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized.<br><br>Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., are prohibited in these areas.<br><br>*During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks (i.e., those leks occupied by mating birds).* | | | |
| **Grouse nesting areas (sage or sharptail grouse) are open to consideration for federal coal leasing and development, with certain requirements.** | Yes? | These issues will be evaluated on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources using criteria currently being developed jointly by the BLM and the State of Wyoming. | Changes to how this planning decision is applied may occur as new criteria are developed through the ongoing Wyoming Greater Sage-Grouse RMP/LRMP Amendments process. |
| Exploration activities and ancillary facilities will be allowed with the following requirement:<br><br>*If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed.* | | These issues will be evaluated on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources using criteria currently being developed jointly by the BLM and the State of Wyoming. | |

| | | | |
|---|---|---|---|
| **Wetland and riparian areas on federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements:**<br><br>*Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of ancillary facilities, roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required.* | Yes | These issues will be evaluated on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources. | No changes necessary at this time. |
| **BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, grouse leks, cultural values, geologic features, and rights-of-way (about 28,000 acres).** These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on | | These issues will be evaluated on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources. | No changes necessary at this time. |

| | | | |
|---|---|---|---|
| wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats. **About 3,000 of these acres are closed to surface mining activities to protect cultural and geologic values:** *These will be no surface occupancy and very limited surface occupancy areas.* | | | |
| Most of the Planning Area will be open to coal exploration activities, with avoidance and mitigation requirements needed to protect the resources. Areas currently closed to coal exploration activities (i.e., WSAs and Steamboat Mountain ACEC outside the area of coal occurrence and development potential) will remain closed. In addition, Steamboat Mountain Management Area (outside the area of coal occurrence and development potential) will also be closed. | Yes | This is the current policy based on existing laws and regulations and is applied on a case-by-case basis as applications are received.<br><br>There have been no expressions of interest to date to explore for or to lease federal coal within the closed areas that are detailed on the left. | No changes are necessary at this time. |
| Important geological, ecological, and historic resources will be open to consideration for coal leasing and development by subsurface mining methods only. **Areas acceptable for coal leasing and development by subsurface mining methods only with no surface operations include Boars Tusk and Crookston Ranch. Areas acceptable for coal development by subsurface mining methods only and controls on placement of surface facilities include Steamboat** | Yes | **This is an ongoing process that is applied on a case-by-case basis in response to various types of applications received for the exploration and development of federal coal resources. It can be stipulated that these sites are completely avoided or the impacts mitigated by other means during exploration and development activities for federal coal.** | No changes are necessary at this time.<br><br>Note: The wording of the planning decision needs to be changed to read:<br><br>***"Areas containing important geological, ……."*** |

| | | | |
|---|---|---|---|
| **Mountain ACEC, the eastern part of Greater Sand Dunes ACEC, Tri-Territory Marker, and raptor nest sites with a ½- to 1-mile buffer. The portions of the Steamboat Mountain Management area within the Coal Occurrence and Development Potential Area will also be acceptable for leasing and development by subsurface mining methods with appropriate mitigation to protect these resources.** | | | |
| Areas outside the Coal Occurrence and Development Potential Area but within the Planning Area may also be considered for leasing for coal development, but will have to be reviewed through the site-specific application of the coal screening process and will have to meet the suitability criteria for coal leasing. Restrictions on mining activity, such as no surface facilities or subsurface mining with controls on surface facilities, will be required on coal leases where needed for resource protection. | Yes | This is the current policy based on existing laws and regulations and is applied on a case-by-case basis as expressions of interest or applications for coal leasing are received.<br><br>Note: This specific decision will be applied if US Synfuels follows through with either an expression of interest or an LBA for a potential in-situ coal gasification project on lands outside of the current CO&DPA. | No changes are necessary at this time. |

## 4.2.1.2.2. Oil Shale

### Table 4.19. Adequacy of Current Management Direction for Oil Shale

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Identify the most geologically prospective oil shale areas within the planning unit. | Yes | This process has been completed. | No changes are necessary until such time that additional oil shale data is received. |

| | | | |
|---|---|---|---|
| Specify that while the PEIS refers to "application for leasing for commercial oil shale development," the BLM could publish in the *Federal Register*one or more additional requests for expressions of interest in RD&D leasing within one or more of the states of Colorado, Utah, and Wyoming. Any new RD&D lease would have to be consistent with the applicable BLM land use plans. | Yes | Round One of the oil shale RD&D process was completed in 2007 with the issuance of six leases in CO and UT. The Round Two process was initiated in November of 2009 with a call for nomination of lease parcels. | No changes are necessary at this time as no nominations for RD&D leases were received for the Planning Area. No additional calls for new RD&D lease nominations are currently being planned after Round Two. |
| Specify that commercial leasing will occur utilizing a lease by application process described. The process will require that additional NEPA analysis be conducted prior to lease issuance. Information collected as part of the lease application process will be incorporated into the NEPA analysis. | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |
| Specify that approval of the project-specific plan of operation will require NEPA review to consider site-specific and project-specific factors. The NEPA review for the plan of operations may be incorporated into NEPA for the lease application if adequate operational data are provided by the applicant(s). | Yes | NEPA documentation is required by various laws for all projects that disturb or otherwise involve the use of federal lands. | No changes necessary at this time. |
| Specify that the BLM will consider and give priority to the use of land exchanges, where appropriate and feasible, to consolidate land ownership and mineral interests within the oil shale basins. | Yes | Land exchanges are currently authorized by federal law and may be used under certain conditions and circumstances. | No changes necessary at this time. |
| Designate 788,230 acres of land within the most geologically prospective oil shale area as available for application for leasing for commercial oil shale development in accordance with applicable federal and state regulations and BLM policies. | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |

| | | | |
|---|---|---|---|
| Specify that applications for commercial leases using surface mining technologies will only be accepted within an area of 248,000 acres within the most geologically prospective oil shale area where the overburden is 0 to 500 ft. thick. Applications for commercial leasing using surface mining technologies will not be accepted in any other areas. | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009 | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |
| Commercial leasing is excluded from all currently designated Wilderness Areas, WSAs, and other areas that are part of the National Landscape Conservation System (NLCS) administered by the BLM (e.g., National Monuments, National Conservation Areas (NCAs), Wild and Scenic Rivers (WSRs), and National Historic and Scenic Trails), existing Areas of Critical Environmental Concerns (ACECs) that are currently closed to mineral development, and lands within incorporated town and city limits. | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale |
| **Additional areas would be closed and would not be available for future opportunity to lease for commercial development of oil shale resources under both programmatic alternatives. These additional areas include, but are not limited to:** | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |
| **Mechanically Mineable Trona Area (MMTA).** This area, which is located in the Green River Basin in Wyoming, falls within a portion of the Known Sodium Leasing Area (KSLA) that encompasses the world's largest known trona deposits. Trona leases were issued within this area, and production occurs from a number of underground mines. The MMTA would be excluded from oil shale leasing until technology or other factors exist to allow development of the oil shale resource without | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |

| | | | |
|---|---|---|---|
| jeopardizing the safe operation of underground trona mines.<br><br>**Segments of rivers that the BLM has determined to be potentially eligible for WSR status by virtue of a WSR inventory.** These river segments and a corridor extending at least 0.25 mi from the high water mark on either side of these segments would be excluded from commercial leasing.<br><br>*Historic trails. Historic trails identified by the BLM Wyoming State Office and a corridor extending at least 0.25 mi on either side of the trail will be excluded from commercial leasing.* | | | |
| **Monument Valley Management Area**. *Oil shale development within this management area, which is located in the Rock Springs Field Office area, is prohibited in the Green River RMP (BLM 1997a). Specifically, the RMP directs that these lands remain withdrawn from oil shale development until a comprehensive study of the area has been conducted, including an assessment of the potential designation of this area as an ACEC on the basis of the need to protect cultural and paleontological resources.* | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |
| **Management Area 3, Jack Morrow Hills Planning Area.** *In accordance with the Jack Morrow Hills Coordinated Activity Plan (BLM 2006a), extensive restrictions on surface disturbing activities have been established for Area 3 within the Jack Morrow Hills Planning Area because of the presence of sensitive natural and cultural resources. The portion of Area 3 that overlaps with the most geologically prospective oil shale resources in the Green River Basin is restricted to No Surface Occupancy (NSO) and has been excluded from future* | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |

| | | | |
|---|---|---|---|
| *leasing on the basis of input from the field office.* | | | |
| **Expansion Areas around Rock Springs and Green River, Wyoming.**<br><br>The BLM will not issue leases within the "expansion areas" agreed upon with the cities of Rock Springs and Green River, Wyoming. | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming |
| **Policies and BMPs in the Oil Shale and Tar Sands Resources ROD will be adopted.**<br><br>*In accordance with applicable federal and state regulations and BLM policies, an estimated 788,230 acres of land within the most geologically prospective oil shale area (Green River formation basin) is available for application for leasing for commercial oil shale development. Avoidance of surface disturbance, controlled surface use, special management areas, and other planning decisions still apply. See other resource management prescriptions in this document for other prescriptions and guidance that may apply to commercial oil shale development.* | Unknown | The BLM does not have an active oil shale leasing program for commercial development at this time. A major policy review is currently being conducted by the DOI as the result of the settlement of two lawsuits filed in 2009. | No changes are necessary until such time that the DOI review of the oil shale leasing program is completed. There are no federal oil shale leases in Wyoming. |

## 4.2.1.2.3. Sodium (Trona)

### Table 4.20. Adequacy of Current Management Direction for Sodium (Trona)

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Leasing of other solid leasable minerals will be considered on a case-by-case basis and is subject to appropriate mitigation.. | Yes | This is the current policy based on existing laws and regulations and is applied as applications are received. | |
| The Known Sodium (trona) Leasing Area (KSLA) is open to exploration and consideration for leasing and development, but is closed to prospecting permits. | Yes | This is the current policy based on existing laws and regulations and is applied as applications are received. | |
| The remainder of the Planning Area is open to sodium prospecting | Yes | This is the current policy based on existing laws | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities (areas closed to drilling, off-road vehicle use, and explosive charges). | | and regulations and is applied as applications are received. | |

## 4.2.1.3. Locatable Minerals

### Table 4.21. Adequacy of Current Management Direction for Locatable Minerals

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| With the exception of lands withdrawn from mineral location, the Planning Area is open to filing of mining claims and exploration for and development of locatable minerals. | Yes | This is the current policy based on existing laws and regulations. | No changes are necessary at this time. |
| *The mineral classification withdrawals in the RMP Planning Area (phosphate, coal, oil shale) will be revoked. In some areas, these classification withdrawals will remain in effect until replaced with an appropriate withdrawal for other, appropriate purposes (see Special Management Area section). Other withdrawals from mineral location will be pursued to provide protection to important resource values.* | Yes? | The Oil Shale Withdrawal was revoked by PLO No. 7726 effective February 9, 2009, but the affected lands remain closed to the location of mining claims.<br><br>To our knowledge, the other mineral classification withdrawals currently remain in effect in regard to the location of mining claims. | We do not know when or if the other remaining withdrawals will be revoked or if any additional withdrawals will be put into effect to replace them. Until such time, these lands will remain withdrawn from the location of mining claims under the 1872 Mining Law. |
| Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved. | Yes | This is the current policy based on existing laws and regulations and will be applied on a case-by-case basis as notices and plans of operation are received. | No changes are necessary at this time. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the | Unknown | At this time, we are not aware if these withdrawals have been put in place or not. If this goal has been accomplished, then this planning decision is no longer valid. | If the stated goals of this decision have been accomplished, then it should be removed. If the goals are still outstanding, then the decision should be carried forward. |
| Steamboat Mountain ACEC, and the Pinnacles Geologic Feature. Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | | | |
| *Withdrawals will be revoked for lands classified as prospectively valuable for oil shale (oil shale is a leasable mineral). Upon revocation, the area will be open to the filing of mining claims, exploration, and development of locatable minerals. The White Mountain Petroglyphs ACEC, located in the oil shale classification lands, will be withdrawn from mineral location prior to the revocation Other areas that will be withdrawn from.* | No? | The Oil Shale Withdrawal was revoked by PLO No. 7726 effective February 9, 2009, but the affected lands remain closed to the location of mining claims.<br><br>At this time, we are not aware if these other withdrawals have been put in place or not. If this goal has been accomplished, then this part of the planning decision is no longer valid. | The Oil Shale Withdrawal was revoked, but the lands were *not* opened to the location of mining claims, therefore, that portion of the planning decision was not accomplished. We are not aware if the other withdrawals outlined in this decision have been put in place or not, or if such action is even being considered at this time. If these withdrawals are currently in effect, then that portion of the decision should be removed. |
| *Mineral location prior to the revocation of the coal classification include:* Greater Sand Dunes ACEC (western portion), special status plant sites, Crookston Ranch, public water reserves, Tri-Territory Marker, and South Pass Summit. | | | |
| Valid existing rights to develop locatable mineral claims under the Mining Act of 1872 will be recognized. | Yes | This is the current policy based on existing laws and regulations. | No changes are necessary at this time. |
| Surface disturbing exploration activities of 5 acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than 5 acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain federally | Yes | This is the current policy based on existing laws and regulations and will be applied on a case-by-case basis as notices and plans of operation are received. | No changes are necessary at this time. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | | | |

## 4.2.1.4. Salable Minerals

### Table 4.22. Adequacy of Current Management Direction for Salable Minerals

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| With the exception of lands withdrawn from mineral location, the Planning Area is open to filing of mining claims and exploration for and development of locatable minerals. | Yes | This is the current policy based on existing laws and regulations. | No changes are necessary at this time. |
| *The mineral classification withdrawals in the RMP Planning Area (phosphate, coal, oil shale) will be revoked. In some areas, these classification withdrawals will remain in effect until replaced with an appropriate withdrawal for other, appropriate purposes (see Special Management Area section). Other withdrawals from mineral location will be pursued to provide protection to important resource values.* | Yes? | The Oil Shale Withdrawal was revoked by PLO No. 7726 effective February 9, 2009, but the affected lands remain closed to the location of mining claims.<br><br>To our knowledge, the other mineral classification withdrawals currently remain in effect in regard to the location of mining claims. | We do not know when or if the other remaining withdrawals will be revoked or if any additional withdrawals will be put into effect to replace them. Until such time, these lands will remain withdrawn from the location of mining claims under the 1872 Mining Law. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved. | Yes | This is the current policy based on existing laws and regulations and will be applied on a case-by-case basis as notices and plans of operation are received. | No changes are necessary at this time. |
| Withdrawals from mineral location will be pursued in the northern elk calving areas (aspen stands plus adjacent, potential aspen habitat), the potential diamond development area of the | Unknown | At this time, we are not aware if these withdrawals have been put in place or not. If this goal has been accomplished, then this planning decision is no longer valid. | If the stated goals of this decision have been accomplished, then it should be removed. If the goals are still outstanding, then the decision should be carried forward. |
| *Steamboat Mountain ACEC, and the Pinnacles Geologic Feature.* Proposed withdrawals from locatable minerals identified in the Green River RMP will be pursued. Other withdrawals could be pursued as necessary. | | | |
| *Withdrawals will be revoked for lands classified as prospectively valuable for oil shale (oil shale is a leasable mineral). Upon revocation, the area will be open to the filing of mining claims, exploration, and development of locatable minerals. The White Mountain Petroglyphs ACEC, located in the oil shale classification lands, will be withdrawn from mineral location prior to the revocation Other areas that will be withdrawn from.* | No? | The Oil Shale Withdrawal was revoked by PLO No. 7726 effective February 9, 2009, but the affected lands remain closed to the location of mining claims.<br><br>At this time, we are not aware if these other withdrawals have been put in place or not. If this goal has been accomplished, then this part of the planning decision is no longer valid. | The Oil Shale Withdrawal was revoked, but the lands were *not* opened to the location of mining claims, therefore, that portion of the planning decision was not accomplished. We are not aware if the other withdrawals outlined in this decision have been put in place or not, or if such action is even being considered at this time. If these withdrawals are currently in effect, then that portion of the decision should be removed. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Valid existing rights to develop locatable mineral claims under the Mining Act of 1872 will be recognized. | Yes | This is the current policy based on existing laws and regulations. | No changes are necessary at this time. |
| Surface disturbing exploration activities of 5 acres or less on mining claims will require a notice to BLM. A plan of operations will be required for exploration-related surface disturbances greater than 5 acres; all mining-related surface disturbances greater than casual use; and disturbances of any size in ACECs, WSAs, areas closed to OHV use, and any lands or waters known to contain federally proposed or listed threatened or endangered species or their proposed or designated critical habitat. A plan of operations will specify how the operator intends to manage the mining operation and location of surface disturbing activities, including pits, adits or shafts, placement of waste rock and mine tailings, mills, conveyors, and surface impoundments (43 CFR 3809). | Yes | This is the current policy based on existing laws and regulations and will be applied on a case-by-case basis as notices and plans of operation are received. | No changes are necessary at this time. |

# 4.2.2. Livestock Grazing Management

### Table 4.23. Livestock Grazing Management

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Authorized grazing use will not exceed the recognized permitted active AUMs (318,647 AUMs). Public lands will be made available for livestock grazing while considering the needs of other resources | No | Outdated information. Since 1997 there have been adjustments to stock rates. | Use updated information listed in Chap 2 |

| | | | |
|---|---|---|---|
| The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met. | No | This is required under 43 CFR 4110 and 4120. | The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing, standards for rangeland health and other management objectives are being met. |
| Allotments are placed in one of three selective management categories identified as improve (I), maintain (M), or custodial (C). Livestock grazing will be managed on 31 I category allotments, 18 M category, and 29 C category Allotments, and one allotment may not be categorized. | | Adequately protects resources only when sufficient monitoring is conducted to evaluate compliance with standards. | Update the allotment category list from Chapter 2 |
| | | Allotment changes have been made as part of the 1997 RMP and the list of the management categories would need updating. The management categories do not address resource concerns for monitoring and | |
| The authorized active livestock use and existing forage reservations for wildlife and wild horses will be maintained. Historic levels and types of rangeland monitoring will continue and additional levels and types of monitoring or evaluation may be initiated, as necessary, to determine any need for forage allocation adjustment. | No | A rangeland health evaluation may need to change wildlife or wildhorse allocations and livestock active use. | Incorporate rangeland health requirement language into this decision. |
| The Palmer Draw area (970 acres) and special management exclosures are closed to livestock grazing. AUMs currently authorized in these areas will be suspended. | No | | Some exclosure would remain closed, however, some could be grazed only by prescription to benefit resources. |
| All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses. | Yes | | |

| | | | |
|---|---|---|---|
| Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. | Yes | Rangeland Health Evaluation may require this change. | Incorporate rangeland health requirement language into this decision. |
| Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions. | Yes | | |
| All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments. AMPs will be written or modified for I category allotments. AMPs for M category allotments will not be modified unless monitoring and evaluation indicate a change in management is needed or riparian objectives need to be included. Riparian objectives will also be developed for C category allotments where riparian values exist. | Yes | | Incorporate Rangeland Health Standards |
| Management actions identified in the Rangeland Program Summary Update (1990) will continue to be implemented, as appropriate, through site specific activity planning. | No | The actions identified are not in conformance with the updated policies. | AMPs and or grazing agreements will be developed on allotments as needed and will incorporate standards for rangeland health. |
| Cooperative allotment management plans prepared in coordination with other agencies, such as the Forest Service and Natural Resource Conservation Service, will be consistent with this land use plan. | Yes | | |

| | | | |
|---|---|---|---|
| Site specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. A site specific plan that considers wildlife needs will be developed for the Pine Canyon, Long Canyon, Cedar Canyon, and Table Mountain area to alleviate conflicts between oil and gas production and exploration, wildlife needs, and livestock grazing. | No | Many areas have oil and gas conflicts. Do not restrict management to specific areas. | Site specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. |
| Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis. | Yes | | |
| Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas. | No | sage-grouse update | Salt and nutritional supplements (e.g. salt, protein, cobalt, and sulfur blocks etc.) for livestock are prohibited within ¼ mile from aspen stands, water wells, water troughs, wetlands, riparian areas or, other water sources unless approved by the Authorized Officer. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas. |
| Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover (see Vegetation section). New range improvements may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy. | No | Rangeland Health Evaluation may require changes in “C” allotments. | Projects would be prioritized in areas not meeting Standards for Rangeland Health |

| | | | |
|---|---|---|---|
| Proposed animal damage control activities not compatible with BLM planning and management prescriptions or objectives for other resource activities and uses will be identified on a case-by-case basis in JMH. The JMH CAP Planning Area will be designated as a "restricted control area" for animal control in coordination with APHIS-WS. | Yes | | Combine JMH and GRRMP |
| Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution. | Yes | | |
| Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement. | Yes? | Wyoming Greater Sage-Grouse RMP/LRMP Amendments, | Need to update information regarding fence marking requirements. Constructed fences will be designed not to impede wildlife movement. See BLM fence manual 1741 |

| | | | |
|---|---|---|---|
| Combining and splitting allotments will be considered when such action will help meet RMP objectives (e.g., the Henrys Fork allotment could be split into 3 allotments and managed under the guidelines of revised AMPs). The Cottonwood Creek and Antelope Wash allotments could be consolidated into one two-pasture allotment and managed under the guidelines of a new AMP. | No | More flexibility to combine or split other allotments and to readjust boundaries as needed. | Combining and splitting allotments will be considered when such action will help meet RMP objectives. Allotment boundaries could be readjusted to meet RMP objectives. |
| Requests for conversions of kinds of livestock and changes in seasons of grazing use will be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with wildlife, wild horse, watershed, and riparian objectives. Special status plant species and vegetation objectives must be considered before allowing livestock conversions, and all conversions will be consistent with available forage. | Yes | | |
| Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means. BLM will cooperate and coordinate with County weed and pest districts. | No | Update to allow goat or sheep in reclamation. | Any vegetation treatment for weeds (introduced, noxious, or invasive) may be controlled with livestock, mechanical, chemical, or other biological method. BLM will cooperate and coordinate with County weed and pest districts. |
| Stock driveway withdrawals numbers 4, 21, and 23 will be revoked. | Yes | These will remain revoked. | |
| See other resource management prescriptions in this document for other prescriptions and guidance that may apply to livestock grazing management activities. | Yes | | |
| Vegetation manipulation projects will be conducted to reach multiple use objectives and will involve site specific environmental analysis and coordination. Funds for vegetation manipulation in I category allotments will be provided by the BLM, other state or federal agencies, and private sources. | Yes | | |

| | | | |
|---|---|---|---|
| All vegetation manipulation projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed. | No | Coordination needs to occur with more the livestock operators and WGFD. | Need to include state agencies, interested public. |
| Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Green River Resource Area (see Glossary). Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition. | Yes? | Other methodologies may be appropriate to determine health of the riparian areas in addition to PFC | |
| The Green River Resource Area uses BLM Technical Reports on Proper Functioning Condition (TR 1737-9 and TR 1737-11) to guide the effort in classifying or rating all lotic (moving water) and lentic (still water) riparian areas. | Yes? | Use the current TR numbers. | |
| Site specific activity and implementation plans will be used to identify methods to achieve or maintain proper functioning condition in riparian areas. | Yes | | |
| Methods applied where grazing occurs include (but are not limited to) fencing, establishment of pastures and exclosures, off-site water development, off-site salt or mineral supplement placement, timing and seasons of use, establishment of allowable use levels for key riparian species, herding, grazing systems, etc. Methods applied where surface disturbing activities occur include (but are not limited to) distance restrictions, timing constraints, sediment containment and control design, and reclamation practices | Yes | | |

| | | | |
|---|---|---|---|
| The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. Desired plant community objectives can be short and long term. Desired plant community objectives take into consideration all uses of the riparian area which can include livestock grazing, wildlife, recreation, fisheries, flood control, etc. | Yes | | |
| While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area. | Yes | | |
| Exclosures will be designed to allow ample water for livestock and allow minimum impediments to big game migration. | Yes | | |
| Fencing in wild horse herd management areas will be restricted to those situations where multiple-use values will be enhanced. All fences will be constructed to minimize restriction of wild horse movement. | Yes | | |

| | | | |
|---|---|---|---|
| Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wildlife and wild horse movement. | Yes? | Site specific analysis would need to occur for the modification. | |
| Livestock and wild horse water developments in crucial habitat could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial habitat. | Yes | | |
| The cooperative management agreement with the WGFD for annual monitoring, maintenance, and the development of additional waters will continue as needed. Livestock water developments will be modified or protected where possible to enhance wildlife habitat and to maintain or enhance water quality. Water developments within sensitive wildlife habitats will be considered only if wildlife habitat and resource conditions will be improved or maintained. Compatibility with special status plant species will be required. | Yes | | |
| Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use. | Yes | Needs to be consistent with livestock grazing section | Some exclosure would remain closed, however, some could be grazed only be prescription to benefit resources. |

| | | | |
|---|---|---|---|
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |
| Livestock grazing objectives would be evaluated, and as needed, modified to be consistent with the management objectives for the area. | Yes | | |
| Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). Maintenance and use of existing rangeland improvements on the BLM-administered public lands is allowed. Proposed rangeland improvements must be part of an allotment management plan, and be consistent with the management objectives for the area. Environmental analyses of such improvements will be conducted to consider the effects on resource values from rangeland improvement construction and maintenance activities and equipment used for these activities. | Yes | | |
| Materials used for improvements must be compatible with the natural character of the area to reduce intrusive visual effects on the natural environment. | Yes | | |
| Special Designation Management Areas | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). Prescribed management actions for livestock grazing include continuous monitoring, establishing objectives for livestock use in riparian areas, and encouraging cooperative management. | | | |
| Greater Red Creek ACEC | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Greater Sand Dunes ACEC | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Pine Springs ACEC | Yes | | |
| The ACEC is open to consideration of such actions as fencing, interpretive signs, or construction of barriers to ensure protection to the area; to maintenance of the spring development; and to additional spring developments if these actions will not impact cultural values. | | | |
| Pine Springs ACEC | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Natural Corrals ACEC | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Oregon Buttes ACEC | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Special Status Plant Species ACEC Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |
| South Pass Historic Landscape ACEC | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Steamboat Mountain ACEC | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| White Mountain Petroglyphs ACEC | Yes | | |
| Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Pine Mountain Management Area | Yes | | |
| Livestock grazing will be managed to allow for optimum vegetation recovery in the long term and for uplands and riparian areas to reach proper functioning condition as a minimum. If necessary, forage will be reserved for watershed purposes. Full consideration will be given to maintaining and protecting important wildlife habitat. | | | |
| Red Desert Watershed Management | Yes | | |
| The coal and stock driveway withdrawals will be revoked. | | | |
| Sugarloaf Basin Management Area | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives will be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | | | |
| Wild and Scenic River - Recreation | Yes | | |
| The public lands are closed to surface disturbing activities such as construction of recreational developments (e.g., campgrounds, put-in or take-out areas, or other such facilities), wildlife habitat improvements, range improvements, rights-of-way, mineral development, etc. Hiking trails may be built, "by hand labor", if there is a demand for them and they conform with the management objective for these lands. | | | |
| Wild and Scenic River - Scenic | Yes | | |
| The public lands are closed to most surface disturbing activities such as construction of rights-of-way, mineral development, most types of recreation site development, and wildlife habitat and range improvements. Some recreation developments (such as put in or take out areas), and wildlife and range improvements may be allowed on the public lands so long as there is no substantial adverse effect to the natural-like appearance of the lands within the river corridor and their immediate environment. | | | |
| Wild and Scenic River - Scenic | Yes | | |
| Increases in active grazing preference on the public lands are prohibited. Range improvements will only be allowed if they are compatible with objectives for the scenic river classification. | | | |

| | | | |
|---|---|---|---|
| Wild and Scenic River - Recreation | Yes | | |
| Increases in active grazing preference are prohibited. Range improvements will only be allowed if they are compatible with the objectives for recreational river classification. | | | |
| Public lands will be made available for livestock grazing while considering the needs of other resources. | Yes | JMH same comment as GRRMP | |
| Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses. | Yes | JMH same comment as GRRMP | |
| All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments. | Yes | JMH same comment as GRRMP | |
| Allotments have been placed in one of three selective management categories, identified as improve (I), maintain (M), or custodial (C). | Yes | JMH same comment as GRRMP | |
| AMPs will be developed or existing AMPs will be modified. Priority for AMP development and modification is I, M, and then C category allotments. All AMPs would incorporate riparian and desired plant community objectives. Riparian objectives would be developed for C category allotments where riparian values exist. | Yes | JMH same comment as GRRMP | |
| Site-specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. | Yes | JMH same comment as GRRMP | |

# 4.2.3. Recreation and Visitor Services

### Table 4.24. Adequacy of Current Management Direction for Recreation and Visitor Services

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a 1/2 mile distance surrounding them are closed to long-term or permanent intrusions and surface disturbing activities that could interfere with opportunities to view horses** (e.g., structures, mineral activities, powerlines, roads, etc.). **Short-term intrusions within the 1/2 mile distance and actions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis. The Wild Horse Loop Tour on White Mountain will be managed as a wild horse viewing area.** The Wild Horse Loop Tour on White Mountain will be managed as the Wild Horse Scenic Loop Byway (see Environmental Assessment WY-040-03-054). The Scenic Loop Byway on White Mountain offers the public a unique opportunity to view wild horses while also offering views of other sights having social, geologic, or historical importance. In order to clarify the management of the Byway, the intent is to provide an opportunity to view wild horses while recognizing valid existing and future rights for surface and sub-surface use. See other resource | No | Decision has been used to limit opportunities and artificially narrow the scope of protection for the Wild Horse Loop Tour | Clarify what is meant by the word 'Area'. In this case, Area can be a single location, and area or a linear feature set aside for the viewing of wild horses in their free-roaming state. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| management prescriptions in this document for other prescriptions and guidance that may apply to wild horse management activities. | | | |
| **The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, and the Wind River Front are designated special recreation management areas (SRMAs) to place management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses. The former SRMA designations (Killpecker Sand Dunes and Oregon and Mormon Pioneer National Historic Trails) are retained**. The management plan for the Oregon and Mormon Pioneer Trails will be implemented. Management plans for the Green River, Wind River Front, the Sand Dunes, and the Continental Divide National Scenic Trail and Snowmobile Trail will be developed. | No | Need to add Little Mountain, Cedar Mountain, Teepee Mountain and the Wild Horse Loop Tour to the SRMA designation. | High profile areas that the public has recommended for more intensive management. |
| **The remainder of the Planning Area will be managed as an extensive recreation management area (ERMA).** | No | New guidance indicates there will be ERMAs and another designation not yet identified. | Areas in current ERMAs will need to be reclassified under revised guidance. |
| Recreation project plans and an interpretive prospectus will be developed for the 14-Mile recreation site, Sweetwater Campgrounds, Boars Tusk, Leucite Hills, and the Continental Divide Snowmobile Trail. | No | Need to remove 14 mile from the list and add Little Mountain, Cedar Mountain, Teepee Mountain and the Wild Horse Loop Tour. | |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **The 14-Mile Recreation Area is closed to surface disturbing and development activities, except for those specifically associated with construction and development of recreation facilities for the site. The public water reserve and the recreational withdrawal which closes the area to mineral location and disposal will be retained.** | No | The site is closed as a recreation facility. | Need to remove it from the recreation monitoring and management. May wish to keep it under riparian and water resources areas. |
| **The integrity of the Continental Divide Snowmobile Trail will be maintained to allow for continued snowmachine use. The trail system may be expanded by adding loop trails.** Maintaining trail integrity will be accomplished by limiting surface disturbing activities, structures, or facilities that block or hinder trail use on or within 1/4 mile of the trail. The only exceptions will be facilities that support trail visitor use and experiences along the trail or to protect the health and safety of trail users. | No | ¼ mile is not sufficient to protect the integrity of the trail system. | New guidance indicates we should manage the scenic trails as recommended for Historic trail using the same settings which provide the experience users are seeking on the trail. |
| **Mountain bike trail opportunities will be explored. Specific areas include but are not limited to the Little Mountain-Firehole Canyon-Flaming Gorge area and the Wyoming Continental Divide Snowmobile Trail. Other mountain bike trails may be developed on a case-by-case basis.** Partnerships with local citizens and Chambers of Commerce, Forest Service, and the State of Wyoming will be pursued. Trails will be signed, and brochures | No | Additional areas have been added through the planning process. | Need to add Wilkins Peak and Current Creek areas. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| will be developed. Implementation plans will consider mountain bike and other mechanized vehicle needs. | | | |
| **Five backcountry byways are designated and will include consideration for mountain bike use. They are Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop.** Brochures and interpretive signs will be prepared to inform users.<br><br>Additional travel routes that meet the criteria will be considered for designation as backcountry byways on a case-by-case basis. | No | Other areas have been developed and added through the planning process. | Add Wild Horse Loop Tour to the list. |
| **Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit** (approximately 88,510 acres)<br><br>The Sweetwater Bridge and Guard Station campgrounds are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued. | No | Additional developments have been identified and added in the planning process. | Blucher Creek, and Squaw Creek camping areas have been added. |
| **Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit** (approximately 88,510 acres)<br><br>**Additional withdrawals may be pursued in the unit to meet unit management objectives, if necessary.** | No | Additional developments have been identified and added in the planning process. | Blucher Creek, and Squaw Creek camping areas have been added. |

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| **Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit** (approximately 88,510 acres)<br><br>The Sweetwater Bridge and Guard Station Campgrounds will be upgraded to better provide for public health and safety, reduce natural resource degradation, and to meet Bureau accessibility standards. | No | Additional developments have been identified and added in the planning process. | Blucher Creek, and Squaw Creek camping areas have been added. |
| **Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands): Eastern Unit** (approximately 88,510 acres) **The integrity of the Continental Divide Snowmobile Trail, the Continental Divide National Scenic Trail, and the South Pass Cross Country Ski Trail will be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within 1/4 mile of the trails.** The only exceptions will be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety. | No | ¼ mile is not sufficient to protect the values associated with the trails. | New guidance suggests managing the setting of scenic trails as with Historic trails, to protect the setting that users are seeking when they visit. |
| **Red Desert Watershed Management Area (341,060 acres of BLM-administered public lands).**<br><br>Recreational activities, opportunities, and uses will be maintained. | No | Additional areas have been determined to have some wilderness characteristics. | Specific protections to Teepee Mountain to protect wilderness characteristics. |

## 4.2.4. Comprehensive Trails and Travel Management

**Table 4.25. Adequacy of Current Management Direction for Travel Management**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for change |
|---|---|---|---|
| The existing GRRMP did not specifically address transportation Management decisions. | No | Transportation management is a critical part of responsible resource management. | A Transportation Management Plan will be developed in conjunction with this RMP effort. |

## 4.2.5. Lands and Realty

The objectives for the Lands and Realty program are to manage public lands to support the goals and objectives of other resources programs, respond to public demand of land use authorizations and to acquire administrative and public access where necessary. Land use authorizations, such as rights-of-way, leases and permits are non-discretionary actions with a high priority placed on actions associated with mineral development. Land tenure actions, such as sales, exchanges and purchases are discretionary and are processed on a case-by-case basis. Due to funding and staffing levels, discretionary actions are lower priority within in the Planning Area.

Processing lands actions will follow the following criteria:

1. Lands for retention (43 CFR 2400), proposed disposal, or acquisition (based on acquisition criteria identified in the land use plan; FLPMA Section 205(b)) Lands are to be retained in Federal ownership, unless it is determined that disposal of a particular parcel will serve the national interest (FLPMA Section 102(a)(1)). Land use plans should avoid prescribing the method of disposal, acquisition, or property interest to be acquired.

2. Lands or interest in lands that are available for disposal under a variety of disposal authorities, provided they meet the criteria outlined in FLPMA (Sales, Section 203, 43 USC 1713(a); Exchanges, Section 206, 43 USC 1716(a); and Reservation and Conveyance of Minerals, Section 209, 43 USC 1719(a)) or other statutes and regulations. Lands available for disposal must be identified by parcel or by specific areas (on a map or by legal description).

3. Proposed withdrawal areas including existing withdrawals to be continued, modified, or revoked (including how the lands would be managed if the withdrawal were relinquished and an opening order issued) (see 43 CFR 2300).

4. Land Classifications under Section 7 of the Taylor Grazing Act of 1934, as amended (43 USC 315f). The procedures applicable to Section 7 outlined in 43 CFR 2400 must be followed. The following actions require classification: Recreation and Public Purposes Act sales (see 43 CFR 2740) and leases (see 43 CFR 2912); agricultural entries (see 43 CFR 2520, 2530, 2610); and state grants (see 43 CFR 2620). To the extent that the land use planning procedures pursuant to 43 CFR 1600 differ from applicable classification procedures under 43 CFR 2400, the latter procedures shall be followed and applied. The analysis that supports classification decisions is normally the same analysis utilized in the land use planning/NEPA process to make decisions concerning the disposal or retention of public lands. For any classification decision made through the land use plan, initiate the

classification decision requirements (i.e., proposed and initial decisions required under 43 CFR 2400) at the time the decision document is issued for the land use plan.

5. Where and under what circumstances authorizations for use, occupancy, and development (such as major leases and land use permits) may be granted (see 43 CFR 2740, 2912, 2911, and 2920, respectively).

6. Existing and potential right-of-way corridors (potential corridors include existing right-of-way routes with the potential for at least one additional facility and thus can be considered a corridor if not already designated) to minimize adverse environmental impacts and the proliferation of separate right-of-ways (see 43 CFR 2806).

7. Existing and potential development areas for communication sites, and other uses.

8. Right-of-way avoidance or exclusion areas (areas to be avoided but may be available for location of right-of-ways with special stipulations and areas which are not available for location of right-of-ways under any conditions).

9. Terms and conditions that may apply to right-of-way corridors or development areas, including best management practices to minimize environmental impacts and limitations on other uses which would be necessary to maintain the corridor and right-of-way values.

## 4.2.5.1. Land Use Authorizations

**Table 4.26. Adequacy of Current Management Direction for Land Use Authorizations**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Public lands will be made available throughout the Planning Area for rights-of-way, permits and leases. | Yes | This is an ongoing activity regulated by existing laws and regulations and process accordingly. . | Add a minimum 10–day open trench stipulation for pipeline rights-of-way.<br><br>Add relinquished pipelines in the sand dunes will be removed when wells are no longer producing. |
| Right-of-way corridors will not be designated due to the predominate checkerboard private land pattern in the Planning Area. | Yes | BLM lacks authority to make decisions on private land. | Recognize the PEIS WWEC amendment as a “designated corridor.” |
| Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts. | Yes | This is an ongoing activity that is applied on a case-by-case basis. | Review avoidance/exclusion areas to ensure they are adequate to protect sensitive resources (Red Creek/Richards Gap), or are no longer needed. |
| An avoidance area for major utility lines will be located along I-80 between Point of Rocks and Green River. | | This is an ongoing activity that is applied on a case-by-case basis. | No change needed at this time. |

| | | | |
|---|---|---|---|
| Areas designated as utility windows, rights-of-way concentration areas, and existing communication sites will be preferred locations for future grants. | Yes | Identified windows only recommend preferred location of new actions. . | Need to revisit windows S of I-80. Also evaluate designated corridors for adjacent Field Offices for compatibility. |
| Identify the most geologically prospective areas within the planning unit for carbon sequestration. | No | The BLM does not currently have regulations for commercial development at this time. | |
| Unauthorized uses within the Planning Area will be resolved. | Yes | On-going activity with discovery of trespasses. | Need to identify known trespasses that may be resolved via a direct sale with a legal description and add to an appendix. |

## 4.2.5.2. Utility Corridors and Communication Sites

### Table 4.27. Adequacy of Current Management Direction for Utility Transportation Systems

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Access to public lands will be provided throughout the Planning Area. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values | Yes | This is an ongoing activity regulated by existing laws and regulations and processed accordingly. | No change needed at this time. |
| Windows 1/2 mile in width have been identified for the placement of utilities. The northern east-west window will be for underground facilities only, and the southern east-west window will be for both above and below ground facilities. A 1/2 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities. | Yes | Identified windows only recommend preferred location of new actions. | Need to consider if windows are still needed since WWEC adopted these windows as designated corridors. |

| | | | |
|---|---|---|---|
| Programmatic policies and Interagency Operation Procedures (IOPs) for the designation of the preferred energy transport corridors will be adopted (applies only to BLM-administered lands). | Yes | | Recognize the PEIS WWEC amendment as a "designated corridor". |
| The Aspen Mountain Communications Site Plan will govern development of sites at this location. Sites at other locations will be approved on a case-by-case basis. | Yes | This is an ongoing activity. All proposals will be handled on an case-by-case basis. | Aspen Mountain Communication Plan currently being updated. |

## 4.2.5.3. Withdrawals and Classifications

### Table 4.28. Adequacy of Current Management Direction for Withdrawals

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Withdrawals and classifications will be processed to protect important resource values | Yes | This is an ongoing activity. All proposals will be handled on an case-by-case basis. | Need to review current and proposed withdrawals to determine if they are still appropriate. |
| Withdrawals which no longer serve the purpose for which they were established will be revoked. Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection. | Yes | Reclamation will likely submit revocation for lands not developed as projects lands for Seedskadee/Farson/Eden withdrawals. | Need to review current withdrawals and follow-up with appropriate agency to determine is lands are still needed for approved purpose. |

## 4.2.5.4. Land Tenure Adjustments

### Table 4.29. Adequacy of Current Management Direction for Land Tenure Adjustments

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Public lands will be retained in federal ownership with the exception of those lands which have potential for disposal criteria are described in. The preferred method of disposal will be by land exchanges. Other lands will be considered for disposal on a case-by-case basis. | Yes | This is an ongoing activity, with all disposal actions processed according to FLPMA criteria. | No change needed at this time. |

| | | | |
|---|---|---|---|
| Lands will be provided to government entities for solid waste disposal through sale, exchange, or Recreation and Public Purposes (R&PP) patent. | Yes | This is an ongoing activity, with these actions being processed upon demand. | Need to involve local communities/industries on lands needed for expansion. |
| Acquisition of lands will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between parties involved. | Yes | This is an ongoing activity regulated by existing laws and regulations and processed accordingly. | Review lands identified. |

# 4.2.6. Renewable Energy

## 4.2.6.1. Wind Energy

Wind Energy is the primary renewable energy for the RSFO. Wind Energy is a Lands and Realty action under Utility/Transportaions Systems of the Amended Green River RMP.

Solar Energy was not addressed in any of the current planning documents for the Planning Area. While it is not anticipated that commercial solar energy projects would occur in the Planning Area, the potential should be addressed in the planning revision.

**Table 4.30. Adequacy of Current Management Direction for Renewable Energy**

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Planning decisions based on Wind Energy Development Program and Associated Land Use Plan Amendments, December 2005 | Yes | The programmatic policies and BMPs in the Wind Energy EIS (2005) are appropriate for wind energy development activities in the Planning Area. | |

# 4.3. Special Designations

## 4.3.1. Areas of Critical Environmental Concern

### Table 4.31. Adequacy of Current Management Direction for Areas of Critical Environmental Concern

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| **The Greater Red Creek ACEC** | | | |
| The Greater Red Creek ACEC will, in general, be managed as an avoidance area for rights-of-way and surface disturbing activities | No | The uses permitted as an avoidance area have caused resource damage | Consider closing the area to surface disturbing activities |
| Most of the area is open to mineral leasing and related exploration and development activities with appropriate mitigation requirements applied to protect the other important resource values. | Yes/No | Permitted uses under avoidance have caused resource damage | Determine through public process where activities could be allowed and protect areas where surface disturbing activities are causing resource damage |
| The area will be open to consideration for such activities as fencing, interpretive signs, construction and placement of transportation barriers, sediment or erosion control, and fish habitat structures to meet resource management objectives. | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) | Yes | | |
| Any activity that could preclude the achievement of proper functioning condition of uplands and riparian areas and achievement of other management objectives is prohibited. | Yes | | |
| Forested areas will be managed primarily toward meeting the watershed, riparian, fisheries, and recreation objectives for the ACEC. | Yes | | |
| Any increase in vegetative production will be reserved for watershed stabilization and improvement purposes. | Yes | | |

| | | | |
|---|---|---|---|
| Re-introduction of Colorado River cutthroat trout and other native species will be considered if consistent with watershed and riparian objectives. | Yes | | |
| Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities. | Yes | | |
| Fire management, suppression needs, and prescribed burning in timber stands will be evaluated on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snowfence effect" is preserved. Fire management in other areas will be evaluated on a case-by-case basis to ensure that area objectives are met. | | Yes | |
| Aquifer recharge zones in the area will be managed to protect groundwater quality. | Yes | | |
| Vegetation treatments will be designed to help meet and be consistent with all management objectives for the area | Yes | | |
| Herbicide loading sites must be located at least 500 feet from surface water or at least 500 feet from riparian areas (whichever is greater | Yes | | |
| Recreation development will be kept to a minimum | Yes | | |
| Camping is allowed within 200 feet of surface water if damage to watershed, water quality, and wildlife values can be avoided. Areas will be closed to camping if resource damage occurs. | Yes | | |
| Off-road vehicle travel on BLM-administered public lands within the area is limited to designated roads and trails. | Yes | | |
| **Greater Sand Dunes ACEC** | | | |
| The BLM-administered public lands in the ACEC will be managed consistent with the Class II visual resource management classification | Yes | | |
| The BLM-administered public lands in the Greater Sand Dunes area and those within 1 mile or the visual horizon (whichever is closer) of the area are avoidance areas for new rights-of-way | Yes | | |
| The BLM-administered public lands in the area are closed to mineral material sales. | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives would be evaluated, and as needed, modified to be consistent with the management objectives for the area. | Yes | | |
| Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |
| Wild horse use in the area will be consistent with the Great Divide Basin Wild Horse Herd Management Plan and the management objectives for the area. No wild horse traps will be constructed within the area. | Yes | | |
| To support and improve the diversity of wildlife species within the area, wildlife habitat on the BLM-administered public lands will be protected, maintained, or enhanced. Crucial elk winter range in the area will be maintained as an essential component of the Steamboat Mountain-Sands elk habitat. | Yes | | |
| Native vegetation will be maintained and protected on the BLM-administered public lands to allow natural plant succession to continue. | Yes | | |
| A diversity of non-motorized recreation uses, including hiking, bird watching, photography, sightseeing, and hunting, will be encouraged. | Yes | | |
| Two roads that pass through or adjacent to the area will be designated as part of the Tri-Territory backcountry byway. | Yes | | |
| Camping is restricted to the BLM 14-day limit, and subject to "Pack In-Pack Out" requirements for trash, etc... | Yes | | |
| **Crookston Ranch** | | | |
| The Crookston Ranch site will be managed to preserve its historic features and for the interpretation of ranching history in the area. About 500 acres of BLM-administered public lands surrounding the site (the area within a 1/2 mile radius) will be managed to preserve the setting of the historic ranch. The Crookston Ranch and surrounding 500-acre area are closed to surface mining activities such as coal mining, and to the placement of related surface facilities. The Crookston Ranch site (about 40 acres) is closed to: | | | |

| | | | |
|---|---|---|---|
| 1) surface disturbing activities; 2) mineral material sales; and 3) use of explosives and blasting<br><br>The Crookston Ranch area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the sites. Facilities are prohibited from being developed on site. Either a protective right-of-way or withdrawal for the Crookston Ranch will be pursued to accomplish this.<br><br>Fires in the Crookston Ranch area will be immediately suppressed if there is any potential of the structures being burned.<br><br>Off-road vehicle use is limited to designated roads and trails in this area. | | | |
| **The Boar's Tusk** | | | |
| The Boars Tusk area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the site. Facilities are prohibited from being developed on the actual geologic feature.<br><br>Off-road vehicle use is limited to designated roads and trails in this area. The road around the Boars Tusk is closed.<br><br>The Boars Tusk and about 1,400 acres of BLM-administered public lands in the surrounding area will be managed to retain natural and geologic values. The area is closed to any surface mining activity such as coal mining and any related surface facilities. The area is open to consideration of coal leasing by subsurface mining methods only. Any activities or ancillary facilities related to subsurface mining are prohibited. | Yes | | |
| **Natural Corrals** | | | |
| The entire ACEC is open to consideration of oil and gas leasing with a No Surface Occupancy stipulation. | Yes | | |
| Any surface disturbing activities that could adversely affect the relevant and important resources in the ACEC are prohibited | Yes | | |

| | | | |
|---|---|---|---|
| The ACEC is closed to surface coal mining activity and related facilities and to mineral material sales. The ACEC is open to consideration of further leasing and development by subsurface mining methods only. Any related ancillary facilities and surface disturbing activities are prohibited. | Yes | | |
| The 357-acre of mineral location withdrawal in the area will be retained. The public water reserve withdrawal in section 12 will be revoked, since these lands are now privately owned. | Yes | | |
| The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of transportation barriers or barriers to other types of uses, to meet resource management objectives. | Yes | | |
| Cultural resource values on BLM-administered public lands will be protected. | Yes | | |
| Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods. | Yes | | |
| The ACEC will be managed consistent with the Class III visual resource management classification. | Yes | | |
| The road/trail from the spring located in the SE1/4NW1/4, NE1/4SW1/4 of Section 18 and the National Register of Historic Places (NRHP) site are closed to off-road vehicle use. This 20-acre NRHP site is also closed to vehicle use for geophysical activities and by over-the-snow vehicles, and to the use of explosives and to blasting. The remainder of the ACEC is open to over-the-snow vehicles; all other off-road vehicle travel is limited to designated roads and trails. | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |

| | | | |
|---|---|---|---|
| The wild horse herd use will continue and will be monitored to ensure resources are protected. No wild horse traps will be constructed in the ACEC. | Yes | | |
| In conformance with the management objectives, the opportunities for various recreational activities such as camping, picnicking, winter sports, and hunting, will be developed, maintained, preserved, or enhanced to provide for an optimum and satisfying visitor experience. | Yes | | |
| **The Oregon Buttes ACEC** | | | |
| The Oregon Buttes ACEC will be managed consistent with the Class II visual resource management classification. | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian).<br><br>The wild horse herd use will continue and will be monitored to ensure resources are protected. No wild horse traps will be constructed in the ACEC.<br><br>In conformance with the management objectives, the opportunities for various recreational activities such as camping, picnicking, winter sports, and hunting, will be developed, maintained, preserved, or enhanced to provide for an optimum and satisfying visitor experience. | Yes | | |
| will be managed consistent with the Class II visual resource management classification. | Yes | | |

| | | | |
|---|---|---|---|
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian).<br><br>The wild horse herd use will continue and will be monitored to ensure resources are protected. No wild horse traps will be constructed in the ACEC.<br><br>In conformance with the management objectives, the opportunities for various recreational activities such as camping, picnicking, winter sports, and hunting, will be developed, maintained, preserved, or enhanced to provide for an optimum and satisfying visitor experience. | Yes | | |
| **Pine Spring** | | | |
| The Pine Springs ACEC is expanded from 90 acres to 6,030 acres. | Yes | | |
| The ACEC is closed to:<br><br>1. surface disturbing activities that could adversely affect resource values or preclude meeting ACEC management objectives;<br><br>2. mineral location and entry under the land laws (an additional withdrawal of about 2,000 acres will be pursued;<br><br>3. mineral material sales for sand, gravel, or other types of construction or building materials; and<br><br>4. off-road vehicle travel, with the exception of about 820 acres. | Yes | | |
| Motorized vehicle travel and some non-motorized vehicle travel along the east edge of the ACEC (about 730 acres) and the Pine Springs 90-acre site is limited to existing roads and trails. | Yes | | |

| | | | |
|---|---|---|---|
| The Pine Springs site (90 acres) is closed to all geophysical operations and to the use of explosives and blasting. | Yes | | |
| The ACEC is open to consideration of such actions as fencing, interpretive signs, or construction of barriers to ensure protection to the area; to maintenance of the spring development; and to additional spring developments if these actions will not impact cultural values. | Yes | | |
| The ACEC will be managed consistent with the Class II visual resource management classification. | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |
| **South Pass Historic Landscape** | | | |
| The South Pass Historic Landscape encompasses the viewshed along the Oregon, Mormon Pioneer, California, and Pony Express trails and the Lander Cutoff (about 16.42 miles of trail with a 6-mile wide corridor along the Oregon, Mormon Pioneer, and California trails, and a 2-mile wide corridor along the Lander Cutoff). | Yes | | |
| The landscape is open to consideration of mineral leasing and mineral material sales, provided that effects to the visual and cultural resource values could be mitigated. | Yes | | |
| Most of the ACEC is also open to exploration and development of locatable minerals. A plan of operations is required to address measures to mitigate affects to the viewshed before any mining claim activity is allowed. A withdrawal of about 5,260 acres from mineral location and entry under public land laws will be pursued, if necessary. | Yes | | |
| About 33,700 acres surrounding the trails and visible from the trails are closed to surface disturbing activities that could adversely affect the viewshed. This is an exclusion area for all rights-of-way. | Yes | | |

| | | | |
|---|---|---|---|
| Off-road vehicle travel is limited to designated roads and trails in the areas that are visible from the historic trails. | Yes | | |
| About 20,080 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails, and provided that environmental analysis indicates that the visual integrity of the area can be maintained. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities. | Yes | | |
| About 20,080 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails, and provided that environmental analysis indicates that the visual integrity of the area can be maintained. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities. | Yes | | |
| All activities for the ACEC will be managed consistent with the Class II visual resource management classification. | Yes | | |
| Generally, vibroseis activity and shot hole activity is prohibited on and within 300 feet of the historic trails. Other geophysical operations may be allowed within the historic trails corridors (about 16.42 miles) if site specific analysis determines that no effects adverse to the visual and historical integrity of the trails will occur. | Yes | | |
| The entire ACEC is open to consideration of such activities that meet the objectives for the area. | Yes | | |
| Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian). | Yes | | |

| | | | |
|---|---|---|---|
| Wild horse management in the area will be consistent with the Great Divide Basin Wild Horse Herd Management Plan and the management objectives for the area. No wild horse traps will be constructed within areas that are visible from the trails. | Yes | | |
| **Steamboat Mountain:** | | | |
| Steamboat Mountain ACEC will be expanded to include the highest concentration and overlap of unique habitat features, natural systems, and cultural values. These include a portion of the sand dunes stabilized by the basin big sagebrush/lemon scurfpea plant community, the Native American respected places of Indian Gap, and portions of the Indian Gap Trail. The basin big sagebrush/lemon scurfpea plant community area will be closed to surface disturbing activities unless the activity is beneficial to the resource and meets resource management objectives.<br><br>Portions of the ACEC will be closed to some activities if these activities will result in irreversible adverse effects. Portions of crucial habitats and other areas of sensitive or important resources will be open to further consideration for various multiple-use activities as long as crucial habitats and other sensitive or important resources will be protected from irreversible adverse effects and the objectives for the ACEC can be met.<br>*Heritage/Cultural:* See the Heritage Resources Management section of this document for management of heritage and cultural resources that apply to the ACEC.<br><br>*Indian Gap Trail:* The Indian Gap Trail will be researched, and a trail interpretive plan will be developed. Objectives for management of the Indian Gap Trail: The objective is to continue to investigate and interpret the historical record associated with the Indian Gap Trail and to document, preserve, and protect the physical integrity of extant portions of the Trail. | Yes | | |

| | | | |
|---|---|---|---|
| A portion of Indian Gap will be closed to surface disturbing and disruptive activities. The remainder of Indian Gap will be open to consideration of surface disturbing and disruptive activities with mitigation to protect resource values.<br><br>*Leasable Fluid Minerals:* The ACEC lies within Area 2 and Area 3. Area 2 (about 4,105 acres) is open to leasing considering such factors as operational need, resource recovery, geology, and ability to mitigate impacts and with stipulations applied to protect sensitive resources in Area 2. BLM may request potential lessees to share data (such as reservoir data or geologic data) or plans related to the development of the potential oil and gas resource prior to leasing; sharing of these data is voluntary. The information will be used to ensure that impacts resulting from development remain within the acceptable level of impacts analyzed. As leases expire within Area 2, they will be considered for subsequent lease offerings on a case-by-case basis based on such factors as operational need, resource recovery, geology, and ability to mitigate impacts. those identified through monitoring as described in the implementation, monitoring, and evaluation management strategy will be applied to new leases as deemed necessary. Stipulations can include but are not limited to NSO and CSU requirements and timing of development activity. Approximately 15,855 acres along the perimeter of Area 3 are available for leasing with an NSO stipulation. This acreage represents a distance of ½ mile along and within portions of the perimeter boundary of Area 3.<br><br>Approved CAP<br><br>Jack Morrow Hills Coordinated Activity Plan 97 Although current technologies suggest that the ½-mile distance is adequate at this time, this NSO area may be expanded to include additional adjacent acreage provided the Planning Area | | | |

| | | | |
|---|---|---|---|
| resource objectives can be met. The remainder of Area 3 (about 28,250 acres) within the Steamboat Mountain ACEC is closed to future oil and gas leasing. As leases expire in the 28,250 acres of Area 3 that are closed to future leasing, they will not be considered for subsequent lease offerings. For oil and gas projects, mitigation actions could include surface disturbance conditional requirements; transportation planning before initiating any activity with the objective of managing travel in areas of crucial access; remote control and monitoring of fluid mineral production facilities to limit travel; multiple-well pads to limit surface disturbances; limiting the number of pads per section in sensitive areas; use of directional drilling to minimize disturbance of sensitive areas; clustering or centrally locating ancillary facilities; shrub reclamation (e.g., containerized stock and transplanting) to restore, rehabilitate, or replace habitat; application of geotechnical material for construction; and potential unitization prior to exploration and development.<br><br>*Leasable Solid Minerals:* The portions of Steamboat Mountain ACEC within the coal occurrence and development potential area will be open to leasable solid minerals exploration and leasing by subsurface mining methods only and with controls of surface facilities.<br><br>Those portions outside the coal occurrence and development potential area will be closed to leasable solid minerals exploration and leasing.<br><br>*Saleable Minerals:* The lava portion of the ACEC will be closed to mineral material disposals. The remainder of the ACEC will be open only when required to meet other objectives within the JMH CAP Planning Area. The objectives for the Steamboat Mountain ACEC must also be met. | | | |

| | | | |
|---|---|---|---|
| Sale of materials in conjunction with project development such as road construction or upgrading of existing roads could be considered if it is in accordance with transportation planning. These actions will be included in the development of travel management plans and overall transportation planning. The area is not open for such things as large material sites or community pits. Some maintenance and construction of facilities may become necessary to meet the ACEC objectives, including providing material for roads in conformance with the transportation plan and watershed stabilization.<br><br>*Locatable Minerals:* Withdrawal from mineral location will be pursued in the potential diamond development area of the Steamboat Mountain ACEC.<br><br>*OHV Use*: OHV use (motorized vehicles) will be limited to designated roads and trails.<br><br>Recreation: Location of interpretive and directional signs along backcountry byways will be coordinated with state and local governments and other interested parties for Steamboat Mountain and the ACEC.<br><br>*Rights-of-Way:* The ACEC will be managed as a right-of-way avoidance area. The basin big sagebrush/lemon scurfpea plant community area will remain an avoidance area for rights-of-way. Future linear projects and the associated surface disturbance will be analyzed and, if found to be necessary and acceptable, will follow an existing right-of-way and be kept to the minimum disturbance necessary with appropriate mitigation. Rights-of-way applications will be examined for necessity. Paralleling, consolidation, or rerouting may be necessary to minimize cumulative surface disturbance and to meet transportation planning objectives | | | |

| | | | |
|---|---|---|---|
| *Communication Sites:* Communication sites are prohibited in Steamboat Mountain ACEC.<br><br>*Surface Use Activities:* Because the ACEC contains a high concentration of sensitive resource values, proposals for all surface activity will be closely examined. Users requiring approval are charged with showing that resource development activities are needed and will result in acceptable impacts. This action may mean proposing novel methods, systems, and technologies for BLM consideration. APDs and other use applications may require stringent conditions-of-approval and mitigation measures to address specific issues related to impacts. Other surface use proposals and projects (e.g., rangeland improvement, grazing, access, and recreation) can expect to undergo an in-depth, comprehensive review. Field data and observations, cumulative impacts of likely and foreseeable competing uses, understanding of impacts, conditions within the ACEC, and management goals will be employed during the decision-making process.<br><br>Wherever sensitive values exist, the review and approval process will consider mitigation measures commensurate with the anticipated impacts, the resource values of the area, and any substantive comments or information gathered through public participation. Resource projects or proposals can expect a similar in-depth consideration of mitigation measures to safeguard the affected resource values as described for leasable fluid minerals above.<br><br>*Vegetation Management:* Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain will be provided protection by controlling surface use (closed or limited) or by implementing other intense mitigation to preserve the character of vegetation communities. | | | |

| | | | |
|---|---|---|---|
| Full fire suppression for basin big sagebrush/lemon scurfpea plant communities will be applied.<br><br>VRM: The entire ACEC will be managed as a VRM Class II area.<br><br>See other resource management sections in this document (Implementation, Monitoring, and Evaluation Process; Surface Use Activities; Air Resources; Heritage Resources; Land and Water Resources; Minerals and Alternative Energy Resources; Recreation Resources; Travel, Access, and Realty; Visual Resources; and SMAs and Other Management Areas) for other prescriptions and guidance that apply to management of the Steamboat Mountain ACEC. | | | |
| A recreation activity plan and interpretive prospectus will be prepared and implemented for Steamboat Mountain. | No | Not completed … competing projects | |
| **White Mountain Petroglyphs ACEC** | | | |
| The White Mountain Petroglyphs ACEC designation and boundaries will remain unchanged.<br><br>OHV Use: The ACEC is closed to motorized vehicle (OHV) use outside of identified access and designated parking areas.<br><br>Leasable Fluid Minerals: The ACEC, which is within Area 3, is closed to fluid minerals leasing consideration.<br><br>Leasable Solid Minerals: White Mountain Petroglyphs Vista (the area within a ½-mile radius of the rock art site) is closed to coal and sodium exploration.<br><br>Locatable Minerals: The ACEC is closed to the location of mining claims and entry under the land laws (the existing withdrawal will be retained).<br><br>Saleable Minerals: The ACEC is closed to mineral material sales for sand, gravel, or other types of construction or building materials. | Yes | | |

| | | | |
|---|---|---|---|
| Surface Use Activities: The ACEC is closed to surface disturbing activities that could adversely affect resource values in the area, as well as to explosives and blasting.<br><br>Recreation: A recreation project plan and interpretive prospectus will be prepared and implemented.<br><br>Rights-of-Way: The ACEC is managed as a right-of-way exclusion area. VRM: The ACEC is a VRM Class II area. | | | |

## 4.3.2. National Historic Landmarks

### Table 4.32. Adequacy of Current Management Direction for Back County Byways

| Planning Decision | Is decision responsive to current issues? (Yes/No) | Remarks (rational) | Options for change |
|---|---|---|---|
| | | | Until an official boundary for the South Pass Historic Landmark is determined, the BLM will continue to use the South Pass Historic Lanscape ACEC as the Landmakr boundary for management purposes. We are currently doing this under unofficial agreement with the SHPO. |

## 4.3.3. Backcounty Byways

### Table 4.33. Adequacy of Current Management Direction for Back County Byways

| Planning Decision | Is decision responsive to current issues? (Yes/No) | Remarks (rational) | Options for change |
|---|---|---|---|
| *Five backcountry byways are designated and will include consideration for mountain bike use. They are Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop.* Brochures and interpretive signs will be prepared to inform users. | No | Does not include Wild Horse Loop Tour. | Added as below |

# 4.3.4. National Historic Trails

### Table 4.34. Adequacy of Current Management Direction for change for National Trails

| Planning Decision | Is decision responsive to current issues? | Remarks (rationale) | Options for Change |
|---|---|---|---|
| Sites eligible for or listed on the National Register of Historic Places (NRHP) will be managed for their local, regional, and national significance, under the guidelines of the National Historic Preservation Act (especially sections 106 and 110) and the Archeological Resources Protection Act (ARPA). These sites will be managed to ensure against adverse effects through proper mitigation, if disturbance or destruction is not avoidable. Management prescriptions for sites that are not eligible for the NRHP will be determined on a case-by-case basis according to values involved. | Yes | Some of the wording is unclear. | The land use planning handbook says that all cultural resources WILL be allocated to the use categories designated in the appendix. This is also stated in BLM manual 8100.4.<br><br>Reword parts of this. The first sentence in particular. There are many sites that are eligible for listing on the NRHP that are eligible for reasons other than just important in local, regional or national significance (prehistoric sites for example), and all sites eligible under criteria b, c, and d., not just criterion a. |
| No blading will be allowed on any historic trail unless necessary to protect life or property. Historic trails are not available for use as industrial access roads (e.g., oil and gas drilling access roads, or as haul roads for heavy truck traffic). | Yes | Needs some rewording for clarification. | Maybe add wording about other types of disturbances/ modifications? |
| The BLM will cooperate with the National Park Service in implementing the Oregon/Mormon Pioneer National Historic Trails Management Plan. | Yes | | Need to revise this. Look at the NPS Management and Use Plan for the California, Oregon, Mormon Pioneer, and Pony Express Historic Trails. |
| Crossings may include additional disturbance of trail ruts in the areas where previous disturbances have occurred but the ruts themselves have not been disturbed. Development actions will be analyzed on a case-by-case basis through site specific analysis to identify mitigation needs and meet management objectives. | No | This is extremely vague and unclear and the intent of this is unknown. | Does this mean to authorize coming within ¼ mile of trail where the setting is not intact but the actual ruts are intact? Crossings of the trail in these areas would be an adverse effect to the physical trail ruts and would need to be mitigated. Wording seems to indicate that trail ruts can be disturbed in areas where setting is not a factor? |

| | | | |
|---|---|---|---|
| The area within 1/4 mile or the visual horizon (whichever is less) of any contributing trail segment will be an avoidance area for surface disturbing activities. Developments such as roads, pipelines, and powerlines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance. | Yes | This is working but needs to be reworded for clarity. | Needs to be clarified. Does it mean nothing visible at all? Or nothing visible that will be an adverse effect? Our current interpretation is that nothing visible at all will be allowed within ¼ mile.<br><br>This does not address trail setting which, under the current BLM/SHPO protocol, must be considered to a distance of up to 5 miles depending on the scope of proposed undertaking. |
| Geophysical activities such as shotholes, blasting, and vibroseis locations could, generally, be allowed, provided they are at least 300 feet from the trail, do not occur directly on the trail, and a site specific analysis determines that visual intrusions and adverse effects will not occur. | Yes | Needs some rewording. | The word "generally" is vague. |
| The Parting-of-the-Ways historical site will be protected by closing it to exploration and development of locatable and saleable minerals and pursuing a withdrawal from mineral location. An existing 40-acre mineral location withdrawal in the area will be retained. The site will be managed under the prescriptions for management in the Oregon/Mormon Pioneer National Historic Trails Management Plan. | Yes | This withdrawal was accomplished in 2010 so this needs to be updated. | Need to revise this. Look at the NPS Management and Use Plan for the California, Oregon, Mormon Pioneer, and Pony Express Historic Trails. May have to revise the management of this if we use the NPS document. |
| The area within 1/4 mile of either side of the Dry Sandy Swales trail segment will be managed in accordance with the Oregon/Mormon Pioneer National Historic Trails Management Plan. | Yes | | Need to revise this. Look at the NPS Management and Use Plan for the California, Oregon, Mormon Pioneer, and Pony Express Historic Trails and see if those management prescriptions are adequate or to keep the stated plan.<br><br>Also, this does not consider visual effects or state how |

| | | | |
|---|---|---|---|
| | | | far visual impacts will be looked at as far as setting. |

# 4.4. Social and Economic

## 4.4.1. Public Safety

### 4.4.1.1. Abandoned Mines

Please refer to Chapter 2: Area Profile for Management Opportunities for Abandoned Mines

## 4.4.2. Social Conditions

Please refer to Chapter 2: Area Profile for a discussion on Management Opportunities for Social and Economic Conditions

# 4.5. Areas of Relative Importance to Guide Land Uses and Management

- Sage-Grouse Management Areas
- Wilderness Study Areas
- Master Leasing Plans
- Special Status Species Habitat
- Wildlife Habitat
- Special Management Areas
- Fragile Soils

# Chapter 5. Consistency/Coordination with Other Plans

This page intentionally
left blank

# 5.1. Local, State, Federal Management Plans

According to guidance found in the Federal Land Policy Management Act (FLPMA) (43 Code of Federal Registration [CFR] 1610), BLM RMPs must be consistent, to the extent practical, with officially approved or adopted resource-related plans of other tribal, federal, state, and local governments so long as the plans are compatible. BLM RMPs must also be consistent with the purposes, policies, and programs of FLPMA and other federal laws and regulations related to public lands. If these other entities do not have officially approved or adopted resource-related plans, then BLM RMPs must, to the extent practical, be consistent with those entities' officially approved and adopted resource-related policies and programs. This consistency will be accomplished so long as BLM RMPs incorporate the policies, programs, and provisions of public land laws and regulations. Table 5.1 outlines the local, state, and federal management plans that may pertain to the Rock Springs Planning Area. There are no applicable tribal plans that will require coordination with the Rock Springs RMP revision.

**Table 5.1. Related Local, State, and Federal Management Plans**

| COUNTY PLANS | | |
|---|---|---|
| Agency | Name of Plan | Date |
| Sweetwater County | Land Use Plan | |
| Uinta County | Uinta County Comprehensive Plan | June 22, 2011 |
| Lincoln County | Need | |
| Sublette County | Sublette County Federal and State Land Use Policy | 2009 |
| Fremont County | Fremont County Wyoming Land Use Plan | September 7, 2004 |
| COUNTY CONSERVATION DISTRICTS | | |
| Sweetwater County CCD | Land & Resource Use Plan and Policy | February 3, 2011 |
| Uinta County CCD | Long Range Plan 2010–2015 (Draft) | |
| Lincoln County CCD | Public Lands Policy | Date Unknown |
| Sublette County CCD | Public Land Use Policies | August 25, 2008 |
| Popo Agie CCD (Fremont County) | | |
| STATE AGENCY PLANS | | |
| Wyoming Department of Agriculture | Strategic Plan | 2005 |
| Wyoming Game and Fish Department | Strategic Habitat Plan<br><br>Greater Sage-Grouse Conservation Plan Final Wyoming Gray Wolf Management Plan | 2007 |
| Wyoming | Water Plan Green River Basin 2003<br><br>Comprehensive Outdoor Recreation Plan (2003)<br><br>Statewide Trails Plan 2004 | 2003<br><br>2003<br><br>2004 |
| Wyoming State Historic Preservation Officer | Comprehensive Statewide Historic Preservation Plan 2007–2013 | |
| FEDERAL AGENCY PLANS | | |

| | | |
|---|---|---|
| U.S. National Park Service, National Trails Intermountain Region | • Comprehensive Management and Use Plan Final EIS, California National Historic Trail, Pony Express National Historic Trail, Final EIS<br>• Oregon National Historic Trail<br>• Mormon Pioneer National Historic Trail | |
| U.S. Forest Service, Ashley National Forest | Ashley National Forest Plan | |
| U.S. Bureau of Reclamation | | |
| U.S. Fish and Wildlife Service | Wyoming Plan | |
| U.S. Environmental Protection Agency Region 8 | Air Quality Implementation Plans | |
| FIRE MANAGEMENT PLANS | | |
| National Fire Plan | | |

## 5.1.1. Cooperating Agencies

The BLM plans to collaborate with other federal, state, and local agencies and governmental entities throughout the RMP process. Table 5.2 shows those agencies that were invited to participate as cooperating agencies in the Rock Springs RMP Revision, and those that accepted the invitation. Memoranda of Understanding (MOU) will be pursued with each of the agencies who accepted the invitation to participate.

**Table 5.2. Cooperating Agencies**

| Agency | Divisions (as applicable) | Accepted |
|---|---|---|
| Counties | | |
| Sweetwater County Board of Commissioners | | Yes |
| Sweetwater County Conservation District | | Yes |
| Sublette County Board of Commissioners | | Yes |
| Sublette County Conservation District | | Yes |
| Uinta County Board of Commissioners | | Yes |
| Uinta County Conservation District | | Yes |
| Lincoln County Board of Commissioners | | Yes |
| Lincoln County Conservation District | | Yes |
| Fremont County Board of Commissioners | | Yes |
| Fremont County, Popo Agie Conservation District | | No |
| State of Wyoming | | |
| Governor's Planning Office | | Yes |
| Department Of Agriculture | | Yes |

| Agency | Divisions (as applicable) | Accepted |
|---|---|---|
| State Lands & Investments | | No Response |
| State Historic Preservation Office (SHPO) | | Yes |
| Wyoming Game & Fish Department | | Yes |
| Department of Environmental Quality (WDEQ) | • Deq – Admin<br>• Air Quality Division<br>• Water Quality Division | Yes |
| Wyoming Geological Survey | | Yes |
| State of Wyoming Oil & Gas Conservation Commission | | No Response |
| State of Wyoming Engineer's Office | | No Response |
| Federal Agencies | | |
| Advisory Council on Historic Preservation | | Declined: Requested to be included as reviewer. |
| U.S. Environmental Protection Agency, Region 8 | | Yes/Air and Water Quality |
| U.S. Fish and Wildlife Service | Ecological Services, Cheyenne | Declined |
| U.S. Fish and Wildlife Service | Seedskadee National Wildlife Refuge | Yes |
| U.S. Natural Resource Conservation Service | State Office | No |
| U.S. Bureau of Reclamation | Upper Colorado Region, Provo Area Office | Yes |
| U.S. National Park Service | National Trails System | Yes |
| U.S. Forest Service | Ashley National Forest | No |
| Tribes | | |
| Eastern Shoshone | | No Reply |
| Northern Arapahoe | | No Reply |
| Ute | | No Reply |
| Shoshone Bannock | | No Reply |

A cooperating agency kickoff meeting and training was held on February 23, 2011. This kick-off meeting and training provided an opportunity to enhance coordination, share new information regarding the update to the 2005 Cooperating Agency Desk Guide, and gain expertise. The meeting was attended by several of the aforementioned agencies. Several areas discussed for coordination and consistency included:

- Travel Management and Access
- Greater Sage-Grouse/Sharp-Tail Grouse
- Fire Management
- Utility Corridors
- Visual Resources
- Wild Horses
- Oil and Gas Development
- Livestock Grazing

- Special Designations and Sensitive Areas
- Wildlife
- Aquatic and Fish Habitat
- Vegetation and Invasive Species Management
- Recreation and Off-Highway Vehicle (OHV) Use
- Air Quality
- Water Quality
- Wind Energy
- Checkerboard Lands

Additional opportunities for cooperation with other agencies will be sought throughout the RMP and environmental impact statement (EIS) development process. Project phases where state and local governments, other federal agencies, and tribal government involvement could prove to be most critical to ensure consistency include scoping, alternatives development, impacts analysis, and public and agency comment periods.

# Chapter 6. Specific Mandates and Authority

This page intentionally
left blank

The foundation of public lands management is in the mandates and authorities provided in laws, regulations, and executive orders. The Bureau of Land Management's (BLM) planning process (as described in 43 CFR 1600) is authorized and mandated through two important laws: the Federal Land Policy and Management Act of 1976 (FLPMA) and the National Environmental Policy Act of 1969 (NEPA). In addition to these acts, several other acts, Instruction Memoranda (IM), Instruction Bulletins (IB), manuals, and handbooks give direction and authority to the BLM. Following are some of the documents that direct the management of public lands and resources.

The FLPMA states that the BLM "shall, with public involvement; develop, maintain, and when appropriate, revise land use plans" (43 USC 35 Section 1712 (a)). In addition to federal direction for planning, FLPMA declares the policy of the United States concerning the management of federally owned land administered by BLM. Key to this management policy is the direction that the BLM "shall manage the public lands under principles of multiple use and sustained yield, in accordance with the [developed] land use plans" (43 USC 35 Section 1732 (a)). The commitment to multiple use will not mean that all land will be open for all uses. Some uses may be excluded on some land to protect specific resource values or uses, as directed by FLPMA (43 USC 35 Sections 1712 (c) (3)). Any such exclusion, however, will be based on laws or regulations or be determined through a planning process subject to public involvement. In writing and revising land use plans, FLPMA also directs the BLM to coordinate land use activities with the planning and management of other federal departments and agencies, state and local governments, and Indian tribes. This coordination, however, is limited "to the extent [the planning and management of other organizations remains] consistent with the laws governing the administration of the public lands" (43 USC 35 Section 1712 (c) (9)).

In NEPA, the Congress directs "all agencies of the Federal Government . . . [to] . . . utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment" (42 USC 55 Section 4332 (2A)). Because the development of a new Resource Management Plan (RMP) may cause impacts to the environment, NEPA regulations require the analysis and disclosure of potential environmental impacts in the form of an Environmental Impact Statement (EIS). The EIS will examine a range of alternatives, including a no–action alternative, to resolve the issues in question. Alternatives should represent complete, but alternate means of satisfying the identified purpose and need of the EIS and of resolving the issues. The Rock Springs RMP revision is being prepared using the best available information.

In addition to these acts, management of public land and resources is authorized and directed through several specific resource and resource use laws, regulations, and executive orders. The direction from these sources is refined and made department- and bureau-specific through agency documents such as IMs and IBs, and manuals and handbooks. Following are some of the documents that direct the management of public land and resources. Table 6.1 provides a fairly comprehensive list, by program, of the laws, regulations, and policies guiding each resource. This list is not exhaustive. IMs and IBs have not been included in this list

**Table 6.1. Federal Laws and Statutes**

| Federal Laws and Statutes | Date |
|---|---|
| American Indian Religious Freedom Act of 1978, as amended, (42 USC 1996 et seq.) | 1980 |
| Antiquities Act of 1906, as amended, (16 USC 431-433) June 8, 1906 | 1978 |
| Archeological and Historic Preservation Act of 1974, P.L. 86-523 (16 USC 469-469c-1; 74 Stat. 220, 88 Stat. 174) | 1906 |

| Federal Laws and Statutes | Date |
|---|---|
| Archaeological and Paleontological Salvage for Federal Highway Projects (23 USC 305; 72 Stat. 913 (1958), 74 Stat. 525 (1960)) | 1974 |
| Archeological Resources Protection Act (ARPA) of 1979, as amended, (42 USC 1996 et seq., 16 USC 470aa) | |
| Carlson-Foley Act of 1968 | 1979 |
| The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) | 1968 |
| Clean Air Act of 1990, as amended, (42 USC 7418 et seq.) | 1980 |
| Clean Water Act of 1987, as amended, (33 USC 1251, 1977) | 1990 |
| Endangered Species Act (ESA) of 1973, as amended, (16 USC 1531 et seq.) | 1987 |
| Energy Policy and Conservation Act Reauthorization of 2000, as amended, P.L. 106-469 | 1973 |
| Energy Policy and Conservation Act Report, P.L. 109-58 | 2000 |
| Federal Agriculture Improvement and Reform Act of 1996, P.L. 104-127 (Repealed Colorado River Basin Salinity Control Act) | 2005 |
| Federal Cave Resources Protection Act of 1988 | 1996 |
| Federal Coal Leasing Amendments Act of 1976, as amended, (30 USC 201 (a)(3)(A)(i).) | 1988 |
| Federal Food, Drug, and Cosmetic Act | 1976 |
| Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) of 1947 | 1938 |
| Federal Land Policy and Management Act of 1976 (FLPMA), as amended, P.L. 94-579 (43 USC 1701-1782; 90 Stat. 2743; Sec 102, 103, 201, 202(c)(3), 505, and 603(a)(b)(c)) | 1947 |
| Federal Land Recreation Enhancement Act, P.L. 108-447 | 1976 |
| Federal Noxious Weed Act of 1974 | 2004 |
| Federal Water Project Recreation Act (16 USC 4601-4612, et seq.) | 1974 |
| Federal Property Law of 1949 | 1965 |
| Federal Water Pollution Control Act of 1948, as amended, (33 USC 1323 et seq.) | 1949 |
| Fish and Wildlife Conservation Act of 1980 | 1948 |
| Food Quality Protection Act of 1996 | 1980 |
| General Mining Law of 1872, as amended, (30 USC 21 et seq.) | 1996 |
| Healthy Forest Restoration Act (HFRA) of 2003, P.L. 108-148 | 1872 |
| Historic Sites Act of 1935 (16 USC 461 et seq.; 49 Stat. 666) | 2003 |
| Land and Water Conservation Fund Act of 1965, as amended, P.L. 88-578 (16 USC 4601(1-6a)-4) | 1935 |
| Materials Act of July 31, 1947 and 1955 | 1965 |
| Migratory Bird Conservation Act of 1929, as amended, (16 USC 715 et seq.) | 1947, 1955 |
| Mineral Leasing Act of 1920, as amended, (30 USC 181 et seq.) | 1929 |
| Mining and Mineral Policy Act of 1970, as amended, (30 USC 21(a)) | 1920 |
| Mining Law of 1872 | 1970 |
| National Environmental Policy Act of 1969, P.L. 91-190 (42 USC 4321-47; 83 Stat. 852; Sec 101) | 1872 |
| National Historic Preservation Act (NHPA) of 1966, as amended, (16 USC 470 et seq.) | 1969 |
| National Parks and Recreation Act of 1978 (16 USC 1242-1243) | 1966 |
| National Trails System Act (16 USC 1241-1249) | 1978 |
| National Wild and Scenic Rivers Act of 1968, as amended, P.L. 90—542 (16 USC 1271-1287) | 1968 |
| Native American Graves Protection and Repatriation Act of 1990, as amended, (25 USC 3001 et seq.) | 1968 |
| Naval Petroleum Reserves Production Act of 1976 | 1990 |
| Noxious Weed Control Act of 2004 | 1976 |
| Onshore Oil and Gas Leasing Reform Act of 1987, (30 USC 181 et seq.) | 2004 |
| Oregon and California Grant Lands Act of 1937, P.L. 75—876 (43 USC 1181a, et seq.) | 1987 |
| Plant Protection Act of 2000, P.L. 106-224 (includes management of undesirable plants on federal lands) | 1937 |
| Public Rangelands Improvement Act of 1978, P.L. 95-514 (43 USC 1901 et seq.; 92 Stat. 1803) October 25, 1978. | 2000 |
| Recreation and Public Purposes Act of 1926, as amended, (43 USC 869 et seq.) | 1978 |
| Resource Conservation and Recovery Act (RCRA) | 1926 |
| Safe Drinking Water Act, as amended 1977, P.L. 95-190 (42 USC 201 et seq.) | 1976 |
| Sikes Act of 1974 (16 USC 1531 et seq.) | 1974, 1977 |

| Federal Laws and Statutes | Date |
|---|---|
| Standards Rivers and Harbors Act, (U.S.C 1899, Sec 10) | 1974 |
| Surface Mining Control and Reclamation Act of 1977, (30 USC 1201 et seq.) | 1899 |
| Taylor Grazing Act of 1934, as amended, P.L. 73-482 (43 USC 315; 48 Stat. 1269) June 28, 1934. | 1977 |
| Water Resources Planning Act of 1965, as amended, P.L. 89-80 (42 USC 1962 et seq.; 69 Stat. 244) July 22, 1965. | 1934 |
| Watershed Protection and Flood Control Act, as amended, P.L. 83-566 (16 USC 1001 et seq.; 68 Stat. 666) August 4, 1954. | 1965 |
| Wild Free-Roaming Horse and Burro Act of 1971, as amended, (16 USC 1331-1340) | 1954 |
| Wild and Scenic Rivers Act of 1968, as amended, (16 USC 1271 et seq.) | 1971 |
| Wilderness Act of 1964, as amended, P.L. 88-577 (16 USC 1131 et seq.; Sec 2(c)) | 1968 |

## Table 6.2. Executive Orders/Secretarial Orders

| Executive Orders/Secretarial Orders | Date |
|---|---|
| Executive Order: Public Water Reserve 107 signed by Calvin Coolidge in 1926, and having a priority date of April 17, 1926 springs and water holes. | 1926 |
| Executive Order 11514, March 5, 1970 as amended by Executive Order 11991, May 24, 1977. | 1977 |
| Executive Order 11644 (Off-Road Vehicles) | 1972 |
| Executive Order 11738, September 10, 1973. | 1973 |
| Executive Order 11988 (Floodplain Management; Use of Off-Road Vehicles on Public Lands (37 FR 2877)), February 9, 1977 | 1977 |
| Executive Order 11989 (Off-Road Vehicles on Public Lands (42 FR 26959)) May 25, 1977 | 1977 |
| Executive Order 11990 (Protection of Wetlands) | 1977 |
| Executive Order 12088 (Federal Compliance with Applicable Pollution Control) | 1978 |
| Executive Order 12144 (Environmental Effects Abroad of Major Federal Actions) | 1979 |
| Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) | 1994 |
| Executive Order 13007 (Indian Sacred Sites) | 1996 |
| Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks | 1997 |
| Executive Order 13084 (Consultation and Coordination with Indian Tribal Governments) | 1998 |
| Executive Order 13175, Consultation and Coordination with Indian Tribal Governments | 2000 |
| Executive Order 13112 (Invasive Species) | 1999 |
| Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) | 2001 |
| Executive Order 13212 (Actions to Expedite Energy Related Projects) | 2003 |
| Secretarial Order 3175 (Departmental Responsibilities for Indian Trust Resources (incorporated into the Departmental Manual at 512 DM 2) | |
| Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act) | |

## Table 6.3. Handbooks and Manuals

| BLM Handbooks and Manuals | | Year |
|---|---|---|
| BLM Handbook H843-1 | Visual Resource Contrast Rating, January 17, 1986 | 1986 |
| BLM Handbook H1283-1 | Data Administration and Management | 2006 |
| BLM Handbook H1601-1 | Land Use Planning Handbook | 2005 |
| BLM Handbook H1703-3 | Natural Resources Damage Assessment and Restoration | 2008 |
| BLM Handbook H1703-4 | Project Management Handbook (Hazmat) | 2008 |
| BLM Handbook H1703-5 | Environmental and Disposal Liabilities | 2010 |
| BLM Handbook H1740-2 | Integrated Vegetation Management | 2008 |
| BLM Handbook H1742-1 | Emergency Fire Rehabilitation Handbook | 2007 |
| BLM Handbook H-1790-1 | National Environmental Policy Act | 2008 |
| BLM Handbook H-2100-1 | Acquisitions | 2002 |
| BLM Handbook H-2101-4 | Pre-acquisition Environmental Site Assessments | 2000 |

| BLM Handbooks and Manuals | | Year |
|---|---|---|
| BLM Handbook H-2200-1 | Land Exchange Handbook | 2005 |
| BLM Handbook H-2930-1 | Recreation Permit Administration | 2006 |
| BLM Handbook H-3070-1 | Economic Evaluation of Coal Properties | |
| BLM Handbook H-3070-2 | Economic Evaluation of Oil and Gas Properties | |
| BLM Handbook H-3101-1 | Issuance of Leases | |
| BLM Handbook H-3107-1 | Continuation, Extension, or Renewal of Leases | |
| BLM Handbook H-3109-1 | Leasing Under Special Acts | |
| BLM Handbook H-3110-1 | Noncompetitive Leases | |
| BLM Handbook H-3150-1 | Onshore Oil and Gas Geophysical Exploration Surface Management Requirements | 2007 |
| BLM Handbook H-3203-1 | Leasing Terms | |
| BLM Handbook H-3600-1 | Mineral Materials Disposal Handbook | 2002 |
| BLM Handbook H-3720-1 | AML Program Policy Handbook | 2007 |
| BLM Handbook H-3860-1 | Mineral Patent Applications Processing | 1991 |
| BLM Handbook H-3870-1 | Adverse Claims, Protests, Contests, and Appeals | 1994 |
| BLM Handbook H-3890-3 | Validity Mineral Reports | 2003 |
| BLM Handbook H-4180-1 | Implementation of the Taylor Grazing Act, Federal Land Policy and Management Act, and the Public Rangelands Act | 2001 |
| BLM Handbook H-4700-1 | Wild Horses and Burros Management | 2010 |
| BLM Handbook H-4750-2 | Adoption of Wild Horses and Burros | 1998 |
| BLM Handbook H-4760-1 | Conducting Compliance Checks for BLM's Wild Horse and Burro Adoption Program | 2004 |
| BLM Handbook H-5400-2 | Timber Sale Information System | 1993 |
| BLM Handbook H-8120-1 | General Procedural Guidance for Native American Consultation | 2004 |
| BLM Handbook H-8362-1 | Working With Cooperating Associations | 2003 |
| BLM Handbook H-9102 | Metric Handbook | |
| BLM Handbook H-9113-1 | Roads Design | 2011 |
| BLM Handbook H-9235-1 | Mineral Material Trespass Prevention and Abatement | 2003 |
| BLM Handbook H-8410-1 | Visual Resource inventory, January 17, 1986 | 1986 |
| BLM Handbook H-8270-1 | General Procedural Guidance for Paleontological Resource Management | |
| BLM Handbook H-8550-1 | Interim Management Policy for Lands under Wilderness Review | |
| BLM Manual 1220 Appendix 3a | Subject Function Codes (alpha) | 2003 |
| BLM Manual 1220 Appendix 3n | Subject Function Codes (numeric) | 2003 |
| BLM Manual 1601 | Land Use Planning | 2005 |
| BLM Manual 1613 | Areas of Critical Environmental Concern | 1988 |
| BLM Manual 1616 | Prescribed Resource Management Planning Actions, April 6, 1984 | 1984 |
| BLM Manual 1620 | VRM Supplemental Program Guidance, November 14, 1986 | 1986 |
| BLM Manual 1621 | Supplemental Guidance for Environmental Resource, November 14, 1986 | 1986 |
| BLM Manual 1626 | Travel and Transportation Manual (Public) | 2011 |
| H-1703-4 Project Management | | |
| BLM Manual 1790 | National Environmental Policy Act | 2008 |
| BLM Manual 3031 | Energy and Mineral Resource Assessment | 1985 |
| BLM Manual 3060 | Mineral Reports Preparation and Review | 1994 |
| BLM Manual 3600 | Mineral Material Disposal | 2002 |
| BLM Manual 4180 | Rangeland Health Standards | 2001 |
| BLM Manual 4700 | Wild Free-Roaming Horse and Burro Management | |

| BLM Handbooks and Manuals | | Year |
|---|---|---|
| BLM Manual 4710 | Wild Horse and Burro Management Considerations | 1988 |
| BLM Manual 5000 | Forest Management–Public Domain | 2006 |
| BLM Manual 6840 | Special Status Species Management | 2001 |
| BLM Manual 7240 | Water Quality (USDI 1978) | 1978 |
| BLM Manual 7250 | Water Rights (USDI 1984) | 1984 |
| BLM Manual 8120 | Protecting Cultural Resources | 2004 |
| BLM Manual 8160 | Native American Coordination and Consultation | 1990 |
| BLM Manual 8270 | Paleontological Resource Management | 1998 |
| BLM Manual 8300 | Recreation Management | |
| BLM Manual 8351 | Wild and Scenic Rivers–Policy and Program Direction for Identification, Evaluation, and Management | 1993 |
| BLM Manual 8400 | Visual Resource Management, April 5, 1984 | 1984 |
| BLM Manual 8431 | Visual Resource Contrast Rating | 1986 |
| BLM Manual 9211 | Fire Planning | 2006 |
| BLM Manual 9400 | Visual Resource Management | 2008 |

Numerous IMs, IBs, Manual Sections, Handbooks, and Technical Notes supplement and provide guidance to the BLM. No attempt has been made to list these guidance documents. Many of them are referenced in the Area Profile section of the AMS.

This page intentionally
left blank

# Chapter 7. Scoping Report or Summary of Scoping Report

This page intentionally
left blank

A Final Scoping Report was prepared by Booz Allen Hamilton dated January 2012 and has been made available to the public. The scoping report has been summarized in the Analysis of the Management Situation (AMS). The reader should refer to the Bureau of Land Management (BLM) website to read the complete report.

This report documents the public scoping process for the BLM's Rock Springs Field Office Resource Management Plan (RSFO RMP) and Environmental Impact Statement (EIS). The report summarizes the comments provided by the public and identifies the issues that will be considered in the RMP development process.

The purpose of public scoping is to identify issues important to the future management of public lands and resources. These issues will guide the development of alternatives that will be evaluated in the EIS and will ultimately guide development of the RMP. Scoping also provides the public the opportunity to learn about the management of public land, and assists the BLM with identifying the public's concerns regarding the resources within the Planning Area.

Throughout the scoping period, the BLM RSFO fostered open communication and solicited input beyond the standard requirements. Public meetings were held in four locations within and in the vicinity of the RSFO, including Rock Springs, Lyman, Farson, and Lander, Wyoming. Comments were accepted in a variety of formats to ensure that those who wished to participate were able to do so effectively.

The planning process and scoping period began with the publication of the Notice of Intent (NOI) in the *Federal Register* on February 1, 2011. Although the 60-day scoping period ended on April 4, 2011, scoping comments were accepted through April 11, 2011, for consideration in the Draft RMP. A total of four public scoping meetings were conducted during the scoping period.

- Lander, WY February 28, 2011, 20 attendees
- Rock Springs, WY March 1, 2011, 48 attendees
- Lyman, WY March 2, 2011, 8 attendees
- Farson, WY March 3, 201,1 9 attendees.

Throughout the scoping period, 98 individuals, agencies, and groups provided comments concerning the future management of the Planning Area. Analysis of 666 unique comments resulted in the identification of issues to be addressed during development of the Rock Springs RMP. A majority of comments emphasized energy and minerals development, including renewable energy and oil and gas. Other high-interest issues included fish and wildlife management, Special Status Species management, and special designations, such as Areas of Critical Environmental Concern (ACEC). Throughout the scoping process, issues were raised dealing with the following resources and resource uses:

| | |
|---|---|
| • Air quality<br>• Climate change<br>• Cultural resources<br>• Fish and wildlife<br>• General comments<br>• Lands and realty<br>• Livestock grazing<br>• Minerals: Fluid<br>• Minerals: Solid<br>• Planning process<br>• Recreation<br>• Renewable energy | • Socioeconomics<br>• Soils<br>• Special designations<br>• Special Status Species<br>• Travel and transportation management<br>• Vegetation<br>• Visual resources<br>• Water resources<br>• Wild horses<br>• Wilderness, Wilderness Study Areas (WSA), and lands with wilderness characteristics<br>• Wildland fire management |

During the public scoping period, many individuals; federal, state, and local land management agencies; and public interest groups submitted comments, suggestions, and data and voiced concerns to the BLM regarding the Rock Springs RMP revision. The BLM offered various methods in which comments could be submitted. Comments were collected at the public meetings, delivered to the RSFO, and/or emailed to RockSpringsRMP_WY@blm.gov. A total of 98 comments were submitted during the scoping period. Table 7.1 lists the number of comments received via each method.

**Table 7.1. Scoping Comment Submittals**

| Method of Submittal | Comments Received |
|---|---|
| Public Scoping Meetings (oral and written) | 11 |
| Email* | 63 |
| Hardcopy Delivered or Mailed to the BLM | 24 |
| Total Submittals | 98 |
| * Some commenters provided their comments by email and hard copy. These comments were not counted twice; they were counted only as hard copies. | |

The meetings were conducted in an open house format from 4:00 to 7:00 p.m., allowing attendees to arrive and depart freely throughout the 3-hour period. Informational posters were displayed throughout the meeting room that provided specific project-related information. Additional informational handouts were provided. Hardcopy comment forms were provided on a separate table to allow attendees to draft written scoping comments, which could be submitted at the scoping meetings or mailed to the BLM RSFO. A court reporter was present at the meetings to provide an opportunity for attendees to submit oral comments, which were documented in written transcripts. For those who could not attend the public scoping meetings or preferred not to comment at the meetings, other methods of providing comments were provided during the scoping period (e.g., mailing, emailing, or hand-delivering written comments).

After the scoping period ended, the comment letters were entered into a database. Each comment letter was read in its entirety, and all distinct comments were recorded and analyzed. From among the 98 respondents, 666 substantive individual comments were identified.

Individual comments were categorized by primary topic, regardless of the position that the commenter took regarding the topic. Several comments addressed more than one comment category or topic. These comments were categorized by the primary topic. Comments categorized as "General" pertain to broad management concepts covering a range of resource areas. Comments that did not touch on a resource or resource use issue addressed by the RMP, but instead on planning or policy, were categorized as "Planning Process." The comment analysis process equally considered all comments, based on the issues raised and information provided. The outcome of these comments and subsequent analysis is the formulation of a list of planning issues that the RMP revision will seek to address.

To generate the issues from public comments, all public comments were analyzed and key points were summarized. Each issue was identified as a position-neutral statement or question that sets the groundwork for development of alternative solutions to be analyzed in the EIS. The following sections present a compilation of all scoping issues that were raised during the scoping period. Because the scoping process is dynamic and continual, scoping issues are subject to change throughout the planning process as new conditions and/or information are identified. Issues are organized by comment category. Similar issues were grouped where possible. The categories below are organized alphabetically and are not ordered based on the number of comments received or perceived importance of the issues. Duplicate issues were listed only once.

**Air Quality**

1. What are the air quality impacts from development?
2. Will air quality studies account for new technology that allows for more wells while studies are showing a decline in particulate emissions?
3. Are there locations where carbon dioxide ($CO_2$) could be stored?
4. How will air quality, including emissions standards, be addressed in the RMP/EIS, specifically as it relates to oil and gas development?
5. Does the RMP regulate air quality?
6. Will air quality modeling be conducted as part of the RMP process?
7. What air quality mitigation actions will be included in the RMP to address adverse impacts?

**Climate Change**

1. Will climate change be considered in the RMP?

**Cultural Resources**

1. How will the RMP address historic trails?
2. Will historic trails eliminate multiple use management?
3. Are there areas in which cultural and heritage resources should be protected?
4. How will national historic trails be protected in the RMP, specifically the Oregon, California, Mormon Pioneer, Cherokee, Overland, and Pony Express trails?

5. Will concern for religious, Native American spiritual, and sacred places be considered in the RMP?

**Fish and Wildlife**

1. How will the RMP revision address habitat fragmentation?
2. What science will be used in determining impacts on sage-grouse from transmission lines?
3. How will big game winter range be protected?
4. How will the RMP consider fisheries and impacts from dams on fish migration and spawning?
5. Will restrictions be placed on fence construction?
6. How will elk habitat be maintained?
7. Will the RMP consider special protection for critical winter range?
8. How will fish and wildlife habitat be preserved and protected from energy development and other uses in the Little Mountain Area?
9. Will the RMP consider an outcome-based approach to habitat enhancement?
10. What role will monitoring play in the development of the RMP?
11. Will the RMP allow private industry to be included in mitigation and reclamation efforts, particularly offsite mitigation?

**General**

1. Will any national parks be affected by the Rock Springs RMP revision?
2. Will the RMP revision include adaptive management?
3. How will funding be addressed?
4. How will the RMP look at tracking and accountability of projects in the RMP?
5. How will coordination be addressed with other agencies and interested parties?
6. How will the public be engaged in RMP projects during and after planning?
7. Will cumulative impacts be considered?
8. How will science be incorporated in the plan?
9. Will comments submitted for the Wyoming Greater Sage-Grouse RMP/Land Resource Management Plan (LRMP)Amendments be considered in this plan?
10. What monitoring will take place?
11. How will surface disturbance be addressed?
12. Will the BLM restrict development near national wildlife refuges?

13. How will "checkerboard" lands be managed?
14. How will contractors be used in the planning effort?

**Lands and Realty**

1. How will the RMP revision address land sales and exchanges?
2. Will the RMP revision designate Section 368 ROW corridors?
3. Will the RMP emphasize identifying a small number of large ROW corridors versus managing a large number of smaller corridors?

**Livestock Grazing**

1. How will the RMP address livestock grazing?
2. How will the relationship with grazing associations be encouraged?
3. How will the RMP revision affect the amount of land available for grazing livestock?

**Minerals: Fluid and Solid**

1. Will special areas be off limits to mineral development?
2. Which practices will be used in developed areas to protect resources?
3. Will the RMP address impacts from oil shale and carbon sequestration?
4. How will suitability assessments be conducted for coal leasing?
5. How will the RMP revision address energy and minerals development?
6. Will the RMP revision recognize valid existing rights?
7. Will resource uses be given equal footing with conservation?
8. Will the RMP address Master Leasing and Development Plans?
9. Where should oil and gas development be allowed and prohibited?
10. Which stipulations will be used to guide oil and gas exploration and development?
11. What types of effects from mineral development will be addressed in the EIS?
12. How will the potential for occurrence of oil and gas resources be assessed in the RMP?
13. How will directional drilling be considered in the new plan, including the impact on new and existing leases?
14. What level of restrictions on oil and gas development will the new RMP contain?
15. How will the revised RMP address oil and gas reforms contained in Instruction Memorandum (IM) 2010-117; II.C.2, Plan Conformance and Adequacy, specifically as they relate to fish and wildlife management? Will current oil and gas leases be reviewed and new stipulations for management created?

16. What areas should be withdrawn from energy development?

**Planning Process**

1. How will the Jack Morrow Hills Coordinated Activity Plan (JMH–CAP) be incorporated into this planning process?
2. Will the public be part of alternatives development?
3. How will the RMP proceed with regard to collaboration?
4. Will existing plans be tiered and/or used as templates in the new plan?
5. How will the RMP process address ongoing National Environmental Policy Act (NEPA) activities, such as the Wyoming Greater Sage-Grouse RMP/LRMP Amendments and the visual resource inventory?

**Recreation**

1. How will the RMP address lost recreation opportunities as a result of development activities?
2. How will the RMP revision address recreation uses and impacts?
3. Will the RMP address cumulative impacts from recreation uses?
4. Will a soundscape analysis be conducted?
5. Will visitor use monitoring surveys be conducted?
6. How will Special Recreation Permit (SRP) standards be addressed?
7. How will Special Recreation Management Areas (SRMA) and extensive recreation management areas (ERMA) be managed?
8. How will unauthorized use of roads be addressed in the RMP?
9. Will the desire for solitude be considered?

**Renewable Energy**

1. How will the visual impacts of wind development be addressed?
2. Where should wind energy development be allowed and prohibited?
3. How will renewable energy be addressed in the RMP?

**Socioeconomics**

1. To what extent will socioeconomic values of mineral development be addressed in the RMP?
2. What are the socioeconomic impacts from decisions regarding oil and gas development?
3. What are the economic impacts of either developing or not developing mineral resources?
4. What is the economic cost to local residents of full-scale development?

5. What socioeconomic studies will be used to assess impacts to social and economic values?
6. Will user fees be used or changed in the new RMP?
7. Will oil and gas revenue and jobs creation be considered in the socioeconomic analysis?

**Soils**

1. How will impacts on soil resources be addressed in the RMP?

**Special Designations**

1. How will existing ACEC be managed, and will new ACECs be designated in the RMP?
2. Will any new areas be designated for special protection or management?
3. Will National Conservation Areas (NCA) be considered in the Red Desert?
4. Will Wild and Scenic River (WSR) designations be considered?
5. What streams will be considered for WSR designation?
6. Will the Sweetwater River be considered for WSR designation?
7. Will the Greater Red Desert be designated as an NCA?
8. Will the south Wind River Front be designated as a special designation?
9. What types of activities should be prohibited within ACECs?

**Special Status Species**

1. Will sage-grouse "core" habitat be maintained and preserved?
2. Will the RMP recognize the Wyoming strategy for Greater Sage-Grouse core area populations and the corresponding management directives?
3. How will migration corridors be managed?

**Travel and Transportation Management**

1. How will off-highway vehicle (OHV) traffic be managed?
2. How much area will be managed as open, closed, and limited to OHV use?

**Vegetation**

1. How will the RMP address the need to eradicate invasive vegetation species and reclaim affected habitats?

**Visual Resources**

1. Will a visual resource inventory be conducted for the RMP, and will new Visual Resource Management (VRM) classes be assigned?

1. How will VRM classes be presented on the maps?

**Water Resources**

1. What are the impacts on groundwater from carbon sequestration?
2. How will streams and water resources be protected?
3. How will the RMP clarify BLM's role in preserving water quality?
4. What will the impacts be on groundwater resources from energy development, and how will management actions protect these resources?
5. How will wetlands and riparian areas be managed, and which actions will the RMP contain to protect these areas?

**Wild Horses**

1. How will rangeland and wild horses be managed?
2. How will wild horse populations be managed?
3. How will the RMP control herd management area (HMA) herd numbers?

**Wilderness, Wilderness Study Areas, and Lands with Wilderness Characteristics**

1. Will the RMP evaluate wilderness characteristics?
2. How will existing Wilderness Study Areas (WSA) be managed?
3. What areas should be considered for WSAs and wilderness protection designations?
4. How will wilderness be analyzed in the RMP?

**Wildland Fire Management**

1. How will the RMP revision address wildland fire use?

Some of the issues raised during scoping were outside the scope of the RMP and therefore will not be considered in the planning process. The following are three justifications for removing these issues from consideration:

- BLM does not have authority to resolve the issue raised.
- The issue raised is not germane to the planning process.
- The issue raised is addressed through law, regulation, or other policy or administrative action.

Planning criteria are constraints or ground rules developed to guide and direct the planning effort. Planning criteria are based on laws and regulations; guidance that the BLM Wyoming State Director provides; results of consultation and coordination with the public, other agencies, governmental entities, and Indian tribes; and analysis of information pertinent to the Planning Area, public input, and professional judgment. The planning criteria focus on the development of management options and alternatives, analysis of the related effects, and selection of the Preferred Alternative and the Proposed RMP. Additional planning criteria may be identified as the planning process progresses. Preliminary planning criteria include the following:

- The proposed RMP will be in compliance with Federal Lane Policy Management Act (FLPMA) and all other applicable laws, regulations, and policies.
- Impacts from the management alternatives considered in the revised RMP will be analyzed in an EIS developed in accordance with land use planning regulations at 43 Code of Federal Regulations (CFR) 1610 and NEPA regulations at 40 CFR 1500.
- Lands covered in the RMP will consist of public land and split estate lands managed that the BLM manages. No decisions will be made relative to non-BLM-administered lands.
- For program-specific guidance of land use planning level decisions, the process will follow the Land Use Planning Manual 1601 and Handbook H-1601-1, Appendix C.
- Broad-based public participation will be an integral part of the planning and EIS process.
- If the other agencies, tribes, and/or governments have officially approved or adopted resource-related plans, then the land use plan must, to the maximum extent practical, be consistent with their officially approved and adopted resource-related policies and programs, so long as the land use plan is consistent with the policies, programs, and provisions of public land laws and regulations (see 43 CFR 1610.3-2 (b)).
- The RMP will recognize the state's responsibility and authority to manage wildlife. The BLM will consult with the WGFD.
- The RMP will recognize valid and existing rights.
- The RMP/EIS will incorporate management decisions brought forward from existing planning documents.
- The planning team will work cooperatively and collaboratively with cooperating agencies and all other interested groups, agencies, and individuals.
- The BLM and cooperating agencies will jointly develop alternatives for resolution of resource management issues and management concerns.
- The planning process will incorporate as goal statements the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for the Public Lands Administered by the BLM in the State of Wyoming.
- WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process.
- Forest management strategies will be consistent with the Healthy Forests Restoration Act.
- Geographic Information System (GIS) and metadata information will meet Federal Geographic Data Committee (FGDC) standards, as required by Executive Order 12906. All other applicable BLM data standards also will be followed.
- The planning process will involve American Indian tribal governments and will provide strategies for the protection of recognized traditional cultural uses.

- All proposed management actions will be based on current scientific information, research and technology, and existing inventory and monitoring information. Where practicable and timely for the planning effort, additional scientific information, research, and new technologies will be considered.
- A Mineral Potential Report, Cultural Resources Overview Report, Biological Assessment, and Socioeconomic Baseline Report will be completed and used during the RMP process.
- The RMP will include adaptive management criteria and protocols as appropriate to deal with future issues.
- A reasonable foreseeable development scenario for fluid minerals will be developed.
- Known areas in the Rock Springs Planning Area with coal development potential are located in Sweetwater County, Wyoming. Coal screening determinations were made on these areas and updated during planning efforts for the existing GRRMP. No additional coal screening determinations with associated coal planning decisions are planned, unless public submissions of coal resource information or surface resource issues indicate a need for such screening.

# Chapter 8. List of Preparers

This page intentionally
left blank

| Name | Title | Discipline |
|---|---|---|
| Vera-Lynn Harrison | RMP Lead/Project Manager | NEPA Compliance |
| Trisha Cartmell | Petroleum Engineer | Fluid Minerals Specialist |
| Steve Wiig | Geologist | Solids/Leasable Minerals/Oil Shale |
| Jeff Clawson | Mining Engineer | Coal; Trona |
| Patricia Hamilton | Realty Specialist | Lands/Realty; Acquisitions; Disposal Withdrawals; Access; Transmission |
| Kathy Miller | Archeologist | Native American Consultation; Renewable Energy |
| Scott Stadler | Supervisory Archeologist | Cultural Resources |
| Lorraine Keith | Wildlife Biologist | Wildlife, including Threatened and Endangered, Special Status Species, and Migratory Birds |
| Jeromy Caldwell | Supervisory Wildlife Biologist | Wildlife, including Threatened and Endangered, Special Status Species, and Migratory Birds |
| David Brock and Jonathan Sheeler | Rangeland Management Specialist | Livestock Grazing |
| Jay D'Ewart | Wild Horse Specialist | Wild Horse and Burro |
| Douglas Kile | GIS Specialist | GIS |
| Dennis Doncaster | Hydrologist | Water Quality/Surface and Groundwater |
| Thor Stephenson | Natural Resource Specialist | Fire Rehabilitation/Fuels/ Vegetation Treatment/Rangeland Management |
| Richard Putnam | Fire Management Officer | Fire Suppression |
| Joanna Nara-Kloepper | Field Manager, Minerals and Lands / Mining Engineer | Hazardous Materials |
| Georgia (Jo) Foster | Recreation Specialist | Recreation/Visual Resource Management/Special Designations/Travel Management |
| John Henderson | Fishery Biologist | Fish/Riparian Areas/Wetlands |
| Jim Glennon | Botanist | Threatened and Endangered Plants/Vegetation/Invasive Species/Noxious Weeds and Pest Management |
| Melissa Hovey | Air Quality Specialist | Air Quality |
| Angelina Pryich | Writer/Editor | Reviewer |
| Serena Baker | Public Affairs Officer | Public Participation |
| Dan Oles | Forester | Forestry |
| Joshua Sidon | Economist | Social and Economics |
| Brian Roberts | Soil Scientist | Soils |
| Daniel "Dan" Thomas | Geologist | Locatables/Saleables/ Paleontology/Abandoned Mine Lands |

This page intentionally
left blank

# Chapter 9. Glossary

This page intentionally
left blank

**Abandoned Mine:** An abandoned hardrock mine on or affecting public lands administered by the Bureau of Land Management (BLM), at which exploration, development, mining, reclamation, maintenance, and inspection of facilities and equipment, and other operations ceased as of January 1, 1981 (the effective date of the BLM's Surface Management regulations codified at 43 CFR 3809) with no evidence demonstrating that the miner intends to resume mining. For many abandoned mines, no current claimant of record or viable potentially responsible party exists. Abandoned mines generally include a range of mining impacts, or features that may pose a threat to water quality, public safety, and/or the environment.

**Abandoned Mine Land (AML) Program:** The BLM's program that focuses on reclaiming hardrock abandoned mine lands on or affecting public lands administered by the BLM. The primary goal of the program is to remediate, abate, and reduce actual or potential threats that pose physical safety risks and environmental degradation. The BLM applies risk-based criteria and uses the watershed approach to establish project priorities. The program also works to return lands affected by mines to productive use(s).

**Active Preference:** That portion of the total grazing preference for which grazing use may be authorized.

**Active Use:** The current authorized livestock grazing use. Active use may constitute a portion, or all, of permitted use. Active use does not include a temporary non-use or suspended use of forage within all or a portion of an allotment.

**Alfisols:** Moderately leached soils with a subsurface zone of clay accumulation and a low base status.

**Allotment:** An area of land where one or more livestock operators graze their livestock. Allotments are BLM lands, but may also include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

**Allotment Categorization:** The process of assigning grazing allotments and rangeland areas used for livestock grazing to an allotment category during resource management planning. Allotment categorization is used to establish priorities for distributing available funds and personnel during plan implementation to achieve cost-effective improvement of rangeland resources. Categorization is also used to organize allotments into similar groups for purposes of developing multiple–use prescriptions, analyzing site-specific and cumulative impacts, and determining trade offs.

**Allotment Management Plan (AMP):** A written program of livestock grazing management, including supportive measures if required, designed to attain specific management goals in a grazing allotment.

**Analysis Area:** Any lands, regardless of jurisdiction, for which the BLM synthesizes, analyzes, and interprets data for information that relates to planning for BLM-administered lands.

**Animal Unit Month (AUM):** A standardized measurement of the amount of forage necessary for the sustenance of one cow unit or its equivalent for 1 month (approximately 800 pounds of forage).

**Animal-Unit:** Considered to be one mature cow of approximately 1,000 pounds, either dry or with calf up to 6 months of age, or their equivalent, based on a standard amount of forage consumed (SRM 1989).

**Appropriate Management Levels (AML):** The number of wild horses and burros that can graze without causing damage to the range. "We interpret the term AML within the context of the statute to mean that "optimum number" of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range." (109 IBLA 119).

**Aquatic Invasive Species (AIS):** A non-indigenous species that threatens the diversity and abundance of native species or the ecological stability of infested waters, or commercial, agricultural, or recreational activities dependent on such waters.

**Aquatic Nuisance Species: See Aquatic Invasive Species.**

**Archaeology:** A method of the discovery, study, and reconstruction of past human cultures from material remains such as artifacts and sites.

**Archaeological Site:** A place which holds evidence of past human activity.

**Archaic:** Ancient, old, or surviving from an earlier people. Archaic can also mean relating to an earlier time.

**Area of Critical Environmental Concern (ACEC):** An area within the public lands designated for special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes, or to protect life and safety from natural hazards. According to 43 Code of Federal Regulations (CFR) 1601.0-5a, "The identification of...[an] ACEC shall not, of itself, change or prevent change of the management or use of public lands."

**Areas Administratively Unavailable to Leasing:** BLM H-1601-1, Land Use Planning Handbook (2005), Appendix C.4 uses the term "areas closed to oil and gas leasing." Areas administratively unavailable or closed to oil and gas leasing are areas where it has been determined that other land uses or resource values cannot be adequately protected with even the most restrictive oil and gas leasing stipulations; appropriate protection can be ensured only by making the areas administratively unavailable to oil and gas leasing for the life of the plan. Lands currently under lease would remain leased for the life of the leases. After expiration of these leases, no lands would be available for lease.

**Aridisols:** Soils developed in arid environments with subsurface development that contains calcium carbonate ($CaCO_3$).

**Arroyo:** A deep gully from the Spanish word riachuelo meaning stream, brook, small river or the dry bed of a waterway in the southwestern part of the United States.

**Arroyo Traps:** A dead end arroyo that was deep and broad enough to trap bison. Hunters drove a group of bison into one. When the stampeding bison reached the dead end, hunters armed with spears slaughtered the struggling animals.

**Artifact:** Any object made, modified, or used by humans usually, but not necessarily portable.

**Atlatl:** A spear thrower that extended the range of a thrown spear. Using it caused the spear to go faster and farther than when it was thrown without an atlatl.

**Back Country Byway:**

**Back Country Byway Type I**: Byways that are either paved or have an all-weather surface. Normal passenger cars can easily negotiate the roads. They are usually narrow, slow-speed, secondary roads. None of the byways follow the main highways.

**Back Country Byway Type II:** Roads that require high-clearance trucks or four-wheel-drive vehicles, although passenger cars may be able to negotiate them under good conditions. These roads are not paved but often have an improved gravel surface. They often cross dry, rocky arroyos; have rough rutted sections; and have occasional steep grades and sharp curves.

**Back Country Byway Type III:** Byways requiring four-wheel-drive vehicles and others such as dirt bikes and all-terrain vehicles (ATV). These roads are often unimproved dirt tracks. Expect steep grades, rocky and muddy sections, and possible route-finding. Do not attempt these byways in a two-wheel-drive vehicle; the consequences could be serious for operator/passenger and car.

**Back Country Byway Type IV**: Trails that are managed for snowmobile, dirt bike, mountain bike, or ATV use.

**Authorized/Authorized Use:** This is an activity (i.e., resource use) occurring on the public lands that is either explicitly or implicitly recognized and legalized by law or regulation. This term may refer to those activities occurring on the public lands for which the BLM, or other appropriate authority (e.g., Congress for RS 2477 rights-of-way [ROW], Federal Energy Regulatory Commission {FERC} for major, interstate ROWs), has issued a formal authorization document (e.g., livestock grazing lease/permit; ROW grant; coal lease; oil and gas permit to drill.). Formally authorized uses typically involve some type of commercial activity, facility placement, or event. These formally authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved land use plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting) require no formal BLM authorization (IB WY-2007-029).

**Aquifer:** An underground bed or layer of earth, gravel, or porous stone that yields usable quantities of water to a well or spring.

**Basin:** An extent of land where water from rain or snow melt drains downhill into a body of water, such as a river, lake, reservoir, estuary, wetland, sea or ocean. The basin includes both the streams and rivers that convey the water as well as the land surfaces from which water drains into those channels, and is separated from adjacent basins by a drainage divide.

**Best Management Practices (BMP):** A suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory. (BLM Manual Handbook H-1601-1)

**Big Game Crucial Winter Range:** Winter habitat on which a wildlife species depends for survival. Because of severe weather conditions or other limiting factors, no alternative habitat would be available.

**Borrow Pit:** A pit or excavation area used for gathering earth materials (borrow) such as sand or gravel.

**Borrow Material:** A term used in conjunction with construction. The term refers to unprocessed material excavated from a borrow pit for use as fill at another location.

**Browse**: Shrubs, trees, and herbs that provide food for wildlife.

**Bow and Arrow:** A bow is a weapon for shooting arrows. It is made of a flexible material, often wood, that is bent by a string that is fastened to each end. An arrow is a straight slender stick that has a projectile point at one end and feathers on the other.

**Buffer:** An area of protection usually in the form of an appropriate distance to minimize or prevent impacts from an action.

**C Category (Custodial):** The category for allotments where (1) present range condition is not in a downward trend, (2) the allotment has a low vegetative production potential and is producing near this level, (3) there may or may not be limited conflicts between livestock grazing and other resources, (4) present management is satisfactory or is the only logical management under existing conditions, and (5) opportunities for a positive economic return on public investments do not exist (BLM 1990).

**Carbon Dioxide Flood:** A carbon dioxide flood ($CO_2$) is an enhanced oil recovery technique that injects fluid into the reservoir. When carbon dioxide is injected, it mixes with the oil, and the two compounds dissolve into one another. The injected $CO_2$ acts as a solvent to overcome forces that trap oil in tiny rock pores and helps sweep the immobile oil left behind after the effectiveness of water injection decreases, resulting in increased oil production (EnCana 2005).

**Carrying Capacity:** The maximum stocking rate possible that is consistent with maintaining or improving vegetation or related resources. It may vary from year to year on the same area as a result of fluctuating forage production (SRM 1989).

**Casual Use:** Term varies depending on regulatory authority**.** Refer to 43 CFR 2741.3 (d); 2801.5 (a); 2920.0-5(k); and 3809.5; BLM Manual Handbook H-3150; Onshore Oil and Gas Order Number 1. (IB WY-2007-029)

**Category:** (1) The criteria used for the placement of the allotments into categories based on resource potential, resource use conflicts or controversy, opportunity of positive economic return on public investments, and the present management situation (BLM 1990).

**Cattleguard:** A device or structure, at points where roads or railroads cross a fence line, that is so designed that vehicular travel is uninterrupted, but crossing by all kinds of livestock is restricted (SRM 1989).

**Cheatgrass:** Cheatgrass (*Bromus tectorum*) is an annual grass that forms tufts up to 2 feet tall. The leaves and sheaths are covered in short, soft hairs. The flowers occur as drooping, open, terminal clusters that can have a greenish, red, or purple hue. Flowering occurs in the early summer. These annual plants will germinate in fall or spring (fall is more common), and senescence usually occurs in summer. Cheatgrass invades rangelands, pastures, prairies, and other open areas. Cheatgrass has the potential to completely alter the ecosystems it invades. It can completely replace native vegetation and change fire regimes and is most problematic in areas of the western United States with lower precipitation levels.

**Checkerboard:** This term refers to a land ownership pattern of alternating sections of federally owned lands with private or state owned lands for 20 miles on either side of a land grant railroad

(e.g., Union Pacific, Northern Pacific). On land status maps this alternating ownership is either delineated by color coding or alphabetic code resulting in a "checkerboard" visual pattern (IB WY-2007-029).

**Class I Wells:** Injection wells that are:

1. Used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

2. Other industrial and municipal disposal wells that inject fluid beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

3. Radioactive waste disposal wells that inject fluid below the lowermost formation containing an underground source of drinking water within one quarter mile of the well bore.

**Class II Wells:** Injection wells that are:

1. Brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, and may be commingled with wastewaters from gas plants, which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection

2. For enhanced recovery of oil or natural gas.

3. For storage of hydrocarbons that are liquid at standard temperature and pressure.

**Closed:** Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

**Closed Area**: 43 CFR 8340.0-5(h) Closed area means an area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer. (IB WY-2007-029)

**Clovis Point:** Spear point made by early Paleo-Indians; characterized by a short, shallow channel on one or both faces; larger than a Folsom point.

**Commercial Forestland:** Capable of producing 20 cubic feet of wood fiber from commercial species per acre per year and has not been withdrawn from forest product harvest by law or statute.

**Code of Federal Regulations:** (CFR): a compilation of the general and permanent rules published in the *Federal Register* by the executive departments and agencies of the United States. It is divided into 50 titles that represent broad areas subject to federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis.

**Commodity:** An economic good, such as a product of agriculture or mining.

**Communal Hunt:** A hunt in which all the group's able people join. It may involve a number of groups and employ a technique that could kill many animals, such as bison (or buffalo) jump.

**Communication Site Management Plan:** A plan that provides for effective administration of a communications site. The site plan defines the principles and technical standards adopted in

the site designation. The site plan provides direction for the day-to-day operations of the site in connection with the lease. The site plan shall delineate the types of uses that are appropriate at this site and the technical and administrative requirements for management of the site. The site plan should reflect the complexity of the current situation and the anticipated demand for the site.

**Community:** (1) An assemblage of populations of plants and/or animals in a common spatial arrangement. (2) An assemblage of plants occurring together at any point in time, while denoting no particular ecological status. (3) A unit of vegetation (SRM 1989).

**Community Recreation-Tourism Market:** A community or communities dependent on public lands recreation or related tourism use, growth, or development. Major investments in facilities and visitor assistance are authorized within Special Recreation Management Areas (SRMA) where the BLM's strategy is to target demonstrated community recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand for specific activity, experience, and benefit opportunities. These opportunities are produced through maintenance of prescribed natural resource or community setting character and by structuring and implementing management, marketing, monitoring, and administrative actions accordingly.

**Comprehensive Weed Management Plan:** A plan for controlling invasive plant species that incorporates integrated weed management techniques and accounts for pertinent considerations, such as management actions and allocations affecting weeds.

**Continuous Grazing:** The grazing of a specific unit by livestock throughout a year or that part of the year during which grazing is feasible. The term is not necessarily synonymous with yearlong grazing, because seasonal grazing may be involved (SRM 1989).

**Cool-Season Plant:** A plant that generally makes the major portion of its growth during the late fall, winter, and early spring. Cool-season species generally exhibit the C3 photosynthetic pathway (SRM 1989).

**Contrast:** Opposition or unlikeness of different forms, lines, colors, or texture in a landscape.

**Controlled Surface Use (CSU):** Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. Identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the no surface occupancy (NSO) or timing limitation stipulations.

**Corridor:** A predetermined preferred path of connection. For example, an Energy Corridor is a preferred path of connection for pipelines and/or power–lines across the field office. A Wildlife Corridor is a preferred travel path for wildlife as part of their natural migration.

**Cordage:** Plant fibers twisted into cord, rope, or yarn.

**Cover:** (1) The plants or plant parts living or dead, on the surface of the ground. Vegetative cover or herbage cover is composed of living plants or litter cover of dead parts of plants. (2) The area of ground covered by plants of one or more species (SRM 1989).

**Critical Growing Season (Growth Period):** A specified period of time in which plants need to develop sufficient carbohydrate reservoir and produce seed. This period of time varies by growth

form. For example: Cool season bunchgrasses: May 1–July 15; Warm season perennial grasses: June 1–July 30; Riparian vegetation: July 1 through August 30.

**Critical Resource Value:** A resource value that if present should be assessed, monitored, and protected.

**Critical Habitat:** The specific area within the geographical area occupied by the species at the time it is listed as an endangered, threatened, or other special status species. The area in which physical or biological features essential to the conservation of the species are found. These areas may require special management of protection.

**Crucial Habitat:** Any particular range or habitat component (often winter or winter/yearlong range) that is the determining factor in a population's ability to maintain and reproduce itself at a certain level over the long term.

**Cultural Resource Inventory Levels:** A three-tiered process for discovering, recording, and evaluating cultural resources.

***Class I–***A review of existing literature and oral informant data combined with an analysis of a specific geographic region (e.g., an area of potential effect, drainage basin, resource area, etc.).

***Class II–***A sampling survey usually aimed at developing and testing a predictive model of cultural resource distribution.

***Class III–***An on-the-ground survey to discover, record, and evaluate cultural resources within a specific geographic area (e.g., usually an area of potential effect for a proposed undertaking).

**Culture:** The customs, beliefs, and ways of life of a group of people.

**Cultivate:** To raise crops; to water, loosen the soil, and weed around growing plants.

**Cultivation**: The process of preparing the land and caring for growing crops.

**Dark Zone Cave:** An environmental zone found in deep and extensive caves. This cave zone is typified by complete darkness, almost constant temperature and humidity, and a unique array of cave-adapted organisms.

**dB (decibel):** A unit of measurement of the loudness or strength of a signal. One decibel is considered the smallest difference in sound level that the human ear can discern. The decibel is a relative measurement derived from two signal levels: a reference input level and an observed output level. A decibel is the logarithm of the ratio of the two levels. One Bel is measured when the output signal is 10x that of the input, and one decibel is 1/10th of a Bel.

**Declared Pest:** Any animal or insect that the board and the Wyoming weed and pest council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district.

**Declared Weed:** Any plant that the board and the Wyoming weed and pest council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district).

**Deferment:** Delay of livestock grazing on an area for an adequate period of time to provide for plant reproduction, establishment of new plants, or restoration of vigor of existing plants (SRM 1989). Rest is not defined as deferment in the Cody Field Office.

**Deferred Grazing:** The use of deferment in grazing management of a management unit, but not in a systematic rotation including other units (SRM 1989). In the Cody Field Office, this is usually used to identify grazing use after the growing season, generally after August 15.

**Deferred-Rotation:** Any grazing system that provides for a systematic rotation of the deferment among pastures (SRM 1989).

**Dendrochronology:** The study of tree-ring dating. The science of dating events and weather patterns in former times by studying growth rings in trees. One can determine the age of a tree by counting its rings.

**Designated Noxious Weeds:** Weeds, seeds, or other plant parts that are considered detrimental, destructive, injurious, or poisonous, either by virtue of their direct effect or as carriers of diseases or parasites that exist within this state, and are on the designated list.

**Designated pests**: Animals or insects that are on the designated list considered detrimental to the general welfare of the state).

**Designated Roads and Trails:** Specific roads and trails on which some type of motorized vehicle use is allowed either seasonally or year-long.

**Desired Plant Community (DPC):** Of the several plant communities that may occupy a site, the community that has been identified through a management plan to best meet the plan's objectives for the site. At a minimum, it must protect the site.

**Destination Recreation-Tourism Market:** National or regional recreation-tourism visitors and other constituents who value public lands as recreation-tourism destinations. Major investments in facilities and visitor assistance are authorized within SRMAs where the BLM's strategy is to target demonstrated destination recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand for specific activity, experience, and benefit opportunities. These opportunities are produced through maintenance of prescribed natural resource setting character and by structuring and implementing management, marketing, monitoring, and administrative actions accordingly.

**Determination (Standards and Guidelines [S&G]):** Document recording the authorized officer's finding that existing grazing management practices or levels of grazing use on public lands grazing either are or are not significant factors in failing to achieve the standards and conform with the guidelines within a specified geographic area (preferably watershed or a group of contiguous watersheds) (BLM 2001a).

**Diet:** What people and living organisms eat. A diet is a combination of foods and liquids that provide the necessary nutrients for the body.

**Digging Stick:** A pointed, wooden stick used to dig and pry edible roots from the ground.

**Disruptive Activities:** Those public land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to existing animal or human populations occurring at a specific location and/or time. In this context, disruptive activity(ies) refers to those actions

that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected, or an individual's physiological ability to cope with environmental stress is compromised. This term does not apply to the physical disturbance of the land surface, vegetation, or features. Examples of disruptive activities may include noise, human foot or vehicle traffic, domestic livestock roundups, or other human presence regardless of the activity. When administered as a land use restriction (e.g., No Disruptive Activities), this term may prohibit or limit the physical presence of sound above ambient levels, light beyond background levels, and/or the nearness of people and their activities. The term is commonly used in conjunction with protecting wildlife during crucial life stages (e.g., breeding, nesting, birthing, etc.), although it could apply to any resource value on the public lands. The use of this land use restriction is not intended to prohibit all activity or authorized uses (IB WY-2007-029).

**Domestication:** The process of taming or making usable for humans.

**Drive Line:** Long lines of stone piles that marked a path used to channel the bison in the proper direction during a hunt. The drive lines caused the animals to move toward a jump-off or corral location.

**Driveway:** A strip of land specifically designated for the controlled movement of livestock (SRM 1989).

**Drought:** (1) A prolonged chronic shortage of water, as compared with the norm, often associated with high temperatures and winds during spring, summer, and fall. (2) A period without precipitation during which the soil water content is reduced to such an extent that plants suffer from lack of water (SRM 1989).

**Dung:** Animal manure. Solid waste material passed from the bowels of animals. Scientists study dung to learn what animals and humans ate in the past.

**Ecological Site:** A kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in that the site has the ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production.

**Ecological Site Inventory:** The basic inventory of present and potential vegetation on BLM rangelands. Ecological sites are differentiated on the basis of significant differences in kind, proportion, or amount of plant species present in the plant community. Ecological site inventory uses soils, the existing plant community, and ecological site data to determine the appropriate ecological site for a specific area of rangeland and to assign the appropriate ecological status.

**Ecological Status:** Ecological status is the present state of vegetation of a range site in relation to the potential natural community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the potential natural plant community for the site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax).

**Ecoregion:** A geographically distinct area of land that is characterized by a distinctive climate, ecological features, and plant and animal communities.

**Ecosystem:** A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

**Emergency Use*:*** These are activities occurring on the public lands outside the scope of normal resource use and operations, and that require immediate attention. Emergency use activities are typically driven by imminent concerns for human health and safety, or protection of property (e.g., wildfire suppression, Hazmat response, disease outbreaks, etc.). Emergency use is typically exempted from other land use restrictions, with the exercise of reasonable and prudent care (IB WY-2007-029).

**Endangered Species:** A plant or animal species whose prospects for survival and reproduction are in immediate jeopardy, as designated by the Secretary of the Interior, and as is further defined by the Endangered Species Act.

**Energy Policy Act of 2005 (EPAct):** A bill passed by the 109th Congress in August 2005 that includes various initiatives directed at securing the nation's energy future, which include authorizing the U.S. Department of Energy in collaboration with federal land management agencies to designate corridors for energy transmission on federal lands within the 11 contiguous western states. (WWEC 2008).

**Enhanced Recovery**: The use of artificial means to increase the amount of hydrocarbons that can be recovered from a reservoir. A reservoir depleted by normal extraction usually can be restored by secondary or tertiary methods of enhanced recovery.

**Enhancement:** A management action designed to improve visual quality.

**Entisols:** Soils with little or no development.

**Environment:** The conditions around an area that affect it. These include geography, soil, climate, plants, and animals.

**Environmental Impact Statement:** A document required of federal agencies by the NEPA for major proposals or legislation that will or could significantly affect the environment.

**Ephemeral Stream:** A stream that flows only in direct response to precipitation, and whose channel is at all times above the water table. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "ephemeral" be arbitrarily restricted to streams that do not flow continuously for at least 30 days (Prichard et al. 1998). Ephemeral streams support riparian areas when streamside vegetation reflects the presence of permanent subsurface water.

**Epidemic:** An outbreak of a pest or disease in a high proportion of the individuals of a population in a geographic area. For example, outbreaks of bark beetles causing mortality in a large portion of pine trees in a forest.

**Evaluation (S&G):** An evaluation is conducted to arrive at two outcomes. Firstly, an evaluation conducts an analysis and interpretation of the findings resulting from the assessment, relative to land health standards, to evaluate the degree of achievement of land health standards. Secondly, an evaluation conducts an analysis and interpretation of information—be it observations or data from inventories and monitoring—on the causal factors for not achieving a land health standard. An evaluation of the causal factors provides the foundation for a determination (see definition for determination) (BLM 2001a).

**Evidence:** Data that are used to prove a point or that clearly indicate a situation.

**Excavation:** Carefully removing layers of dirt or sediment to find objects or features made by people from long ago.

**Exceedance:** An event in which measurements of ambient air quality are above the national ambient air quality standard (NAAQS) or Wyoming Department of Environmental Quality (WDEQ) standard set for a particular pollutant. For example, an annual average nitrogen dioxide value of 110 µg/m3 is an exceedance of both the NAAQS and WDEQ annual average standard for nitrogen dioxide of 100 µg/m3.

**Exclusion Areas:** An area on the public lands where a certain activity(ies) is prohibited to ensure protection of other resource values present on the site. The term is frequently used in reference to lands/realty actions and proposals (e.g., ROWs), but is not unique to lands and realty program activities. This restriction is functionally analogous to the phrase "no surface occupancy" used by the oil and gas program, and is applied as an absolute condition to those affected activities. The less restrictive analogous term is avoidance area (IB WY-2007-029).

**Extensive Recreation Management Areas (ERMA):** A public lands unit identified in land use plans containing all acreage not identified as a SRMA. Recreation management actions within an ERMA are limited to only those of a custodial nature and address visitor health and safety, resource protection and use, and user conflicts.

**Extinct:** No longer existing or active; died out.

**Extinction:** Bring to an end, wiping out, or destruction.

**Fault Line:** Line determined by the intersection of a geological fault and the Earth's surface.

**Fire Management Plan:** Identifies appropriate strategies to achieve resource objectives. Identifies fire policy, objectives, and prescribed actions; may include maps, charts, tables, and statistical data.

**Fire Regime Condition Class:** A classification of the amount of departure from the natural fire regime. The departure results in changes to one or more of the following ecological components: vegetation characteristics (e.g., species composition, structural stages, stand age, canopy closure, and mosaic pattern), fuel composition, fire frequency, severity, and pattern, and other associated disturbance (e.g., insect and disease mortality, grazing, and drought). The three condition classes are listed below:

**Condition Class 1**:

- The historic disturbance regime is largely intact and functioning (e.g., has not missed a fire return interval)
- Potential intensity and severity of fire within historic range
- Effects of disease and insects within historic range
- Hydrologic functions within normal historic range
- Vegetation composition and structure resilient to disturbances
- Nonnative species currently not present or to a limited extent

- Low risk of loss for key ecosystem components.

**Condition Class 2:**

- Moderate alterations to historic disturbance regime evident (e.g., missed one or more fire return intervals)
- Effects of disease and insects pose an increased risk of loss of key community components
- Riparian areas and associated hydrologic function show measurable signs of adverse departure from historic conditions
- Vegetation composition and structure shifted toward conditions less resilient to disturbances
- Populations of nonnative species may have increased, increasing the risk of further increases following disturbance.

**Condition Class 3:**

- Historic disturbance regime significantly altered; historic disturbance processes and impacts may be precluded (e.g., missed several fire return intervals)
- Effects of disturbance (fire, insects, and disease) may cause significant or complete loss of key community components
- Hydrologic functions may be adversely altered; high potential for increased sedimentation and reduced streamflows
- Invasive, nonnative species may be common and in some cases the dominant species on the landscape; disturbance will likely increase both the dominance and geographic extent of these invasive species
- Highly altered vegetation composition and structure predisposes community to disturbance events outside the range of historic availability; disturbance may have effects not observed or measured before.

**Fire Return Interval:** The number of years between two successive fire events at a specific site or area.

**Flaring/Venting:** The controlled burning (flare) or release (vent) of natural gas that cannot be processed for sale or use because of technical or economic reasons.

**Floodplain:** Land along a river or stream that may become submerged during floods, when the river or stream overflows its banks.

**Floodplain Connectivity:** Maintenance of lateral, longitudinal, and vertical pathways for biological and hydrological processes in the floodplain. Examples of failures to maintain connectivity could include culverts or levees that restrict flow in the floodplain and that focus overbank flow into the channel.

**Flushing Livestock:** Flushing livestock is the holding of livestock in an invasive, nonnative plant species (INPS) seed-free area where they are fed an INPS seed-free ration for 72 hours, thus flushing INPS seed from the animals' digestive systems.

**Fluvial:** Pertaining to river or stream-related features of processes. Fluvial sediments are deposited by rivers or streams.

**Folsom Point:** A spear or atlatl dart point made by later Paleo-Indians. Characterized by a long, shallow channel on one or both faces; smaller than a Clovis point.

**Foothill:** A low hill near the base of a mountain or range of mountains.

**Forage:** Browse and herbage that are available and may provide food for grazing animals or be harvested for feeding. To search for or consume forage (SRM 1989).

**Forage production:** The weight of forage that is produced within a designated period of time on a given area (e.g., pounds per acre). The weight may be expressed as either green, air-dry, or oven-dry. The term may also be modified based on time of production, such as annual, current years, or seasonal forage production (SRM 1989).

**Fugitive dust**: Particulate air pollution released to the ambient air from ground-disturbing activities related to construction, manufacturing, or transportation (i.e., the discharges are not released through a confined stream such as a stack, chimney, vent, or other functionally equivalent opening).

**Foreground-Middle Ground Zone:** An area that can be seen from a travel route for a distance of 3 miles (foreground) to 5 miles (middle ground) where management activities might be viewed. A distance from 5 to 15 miles is called the Background Zone, and the area beyond 15 miles is called the Seldom-Seen Zone.

**Forestland:** Capable of producing 20 cubic feet of wood fiber from commercial species per acre per year.

**Fossil**: The remains or traces of an organism preserved by natural processes in the Earth's crust. This includes plants and animals, their tracks, burrows, and other imprints, and is considered a non-renewable resource. It does not include minerals such as coal, oil and gas, and tar sands.

**Fundamentals of Rangeland Health:** Overarching principles of rangeland health, listed at 43 CFR § 4180.1, which establish BLM policy of managing for healthy rangelands (60 *Federal Register* (FR) at 9954). State or regional standards and guidelines must provide for conformance with the Fundamentals of Rangeland Health (43 CFR § 4180.2(b)) (BLM 2001a).

**Geographic information system (GIS):** A computer system capable of storing, analyzing, and displaying data and describing places on the Earth's surface.

**Geologic Resources:** Resources associated with the scientific study of the Earth, including its composition, structure, physical properties, and history. Geologic resources commonly include the study of minerals (mineralogy) and rocks (petrology); the structure of the Earth (structural geology) and volcanic phenomena (volcanology); and landforms and the processes that produce them (geomorphology and glaciology).

**Glacier:** A large mass of ice that moves slowly down a slope or valley.

**Goal:** A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

**Goal Interference:** Recreationist pursuing desired beneficial outcomes is not able to realize the positive aspects of a visit because of the behavior of someone else.

**Graze:** (1) The consumption of standing forage by livestock or wildlife. (2) To put livestock to feed on standing forage (SRM 1989).

**Grazing:** To graze (SRM 1989).

**Grazing License or Permit:** Official written permission to graze a specific number, kind, and class of livestock for a specified period on a defined allotment or management area (SRM 1989).

**Grazing Management:** The manipulation of grazing and browsing animals to accomplish a desired result (SRM 1989).

**Grazing Management Plan:** A program of action designed to secure the best practicable use of the forage resource with grazing or browsing animals (SRM 1989).

**Grazing Period:** The length of time that animals are allowed to graze on a specific area (SRM 1989).

**Grazing Preference:** (1) Selection of plants, or plant parts, over others by grazing animals. (2) In the administration of public lands, a basis upon which permits and licenses are issued for grazing use (SRM 1989).

**Grazing Season:** (1) On public lands, and established period for which grazing permits are issued. May be established on private land in a grazing management plan. (2) The time interval when animals are allowed to use a certain area (SRM 1989).

**Grazing System:** A specialization of grazing management that defines the periods of grazing and non-grazing (SRM 1989).

**Greenhouse Gas Emissions:** Gases that trap heat in the atmosphere. Greenhouse gases may include, carbon dioxide, methane, nitrous oxide, and fluorinated gases. They are grouped under the general category of emissions.

**Groundwater:** Subsurface water that is in the zone of saturation, usually in porous rocks, fractures of rocks, or underground caves.

**Growing Season:** In temperate climates, that portion of the year when temperature and moisture permit plant growth (SRM 1989).

**Guidelines:** Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory.

**Guzzler:** A water development for wildlife.

**Habitat:** The natural abode of a plant or animal, including all biotic, climatic, and edaphic factors affecting life (SRM 1989).

**HABS/HAER:** The Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) is an integral component of the federal government's commitment to historic

preservation. The program documents important architectural, engineering, and industrial sites throughout the United States and its territories. A complete set of HABS/HAER documentation, consisting of measured drawings, large-format photographs, and written history plays a key role in accomplishing the mission of creating an archive of American architecture and engineering and in better understanding what historic resources tell us about America's diverse ethnic and cultural heritage. To ensure that such evidence is not lost to future generations, the HABS/HAER Collections are archived at the Library of Congress, where they are made available to the public.

**Heavy Equipment Use:** This phrase is used in fire management and is relative to limiting fire suppression tactics. In this context it refers to not using dozers, skidders, or graders in areas where important resource values are in need of protection. Fire engines and water tenders used during suppression activities would be allowed.

**Held by Production:** Leases that become productive and do not terminate until all wells on the lease have ceased production.

**Herd Management Area (HMA):** Areas established for the maintenance of wild horse and burro herds. In delineating each HMA, the authorized officer considers the appropriate management level for the herd, the habitat requirements of the animals, the relationships with other uses of the public and adjacent private lands, and the constraints contained in CFR 4710.4.

**Historic:** Referring to the time after written records or after the Europeans first came and wrote about the people and events in America.

**Historic Property**: Any prehistoric or historic district, site, building, structure, or object (cultural resource) included in, or eligible for inclusion on, the *National Register of Historic Places,* including artifacts, records, and material remains related to such a property or resource. Legal definition in National Historic Preservation Act (NHPA) Section 301, 16 USC 470w.

**History:** The study of past events and times using written and recorded sources. In some cases, oral sources may also be available.

**House Pit:** A small dwelling that had a shallow excavated floor and a roof of poles covered with branches or hides.

**Homestead Act of 1862:** Law passed by the federal government setting liberal terms for the acquisition of land by people who agreed to settle on the land (WWEC 2008).

**Hunter-Gatherers:** People who depend on wild animals and plants for food to survive.

**Igneous Rock:** A rock that cooled and solidified from molten or partly molten material (magma). Igneous rock includes volcanic rock (rock solidified near the Earth's surface) and plutonic rock (rock solidified at considerable depth).

**I Category (Improve):** The category for allotments where (1) present range condition is unsatisfactory and where range condition is expected to decline further; (2) present grazing management is not adequate; (3) the allotment has potential for medium to high vegetative production but production is low to moderate; (4) resource conflicts/controversy with livestock grazing are evident; (5) there is potential for positive economic return on public investment (BLM 1990).

**Inactive Raptor Nests:** any nest site that has been monitored in 6 or the last 10 years and documented a being unoccupied each time it was monitored (WWEC 2008).

**Inceptisol:** A soil order in the United States Department of Agriculture (USDA) soil taxonomy characterized by young soils just starting to show horizon development.

**Increaser:** Plant species of the original vegetation that increase in relative amount, at least for a time, under continued disturbance to the norm (SRM 1989).

**Impact Analysis for Planning (IMPLAN 2000) Model:** Regional economic model that provides a mathematical accounting of the flow of money, goods, and services through a region's economy. The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the "ripple effect" (also called the "multiplier effect") of changes in economic sectors that may not be directly affected by management actions, but are linked to industries that are directly affected. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly affected) and induced impacts (for changes in household spending as household income increases or decreases as a result of the changes in production).

**Impoundments:** (1) Structures that remove land of the foreshore or seabed from the influence of tides; (2) human-engineered and dammed lakes, ponds, and reservoirs.

**Indicator:** A component of a system whose characteristics (for example, presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. An indicator can be evaluated at a site- or species-specific level. Monitoring of an indicator must be able to show change within time frames acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appropriate indicators to be observed, measured, or monitored in a particular allotment is a critical aspect of early communication among the interests involved on-the-ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement on the significance of the indicator is broad based.

**Indigenous:** Born, growing, or produced naturally (native) in an area, region, or county (SRM 1989).

**Infestation:** The inhabitation of a host by large numbers of pests, such as bark beetles on pine trees. Invasion by large numbers of parasites or pests (SRM 1989).

**Infrastructure:** The basic facilities, services, and utilities needed for the functions of an industrial facility or site.

**Infiltration:** The downward entry of water into the soil or other material.

**Integrated Weed Management:** The use of all appropriate weed control measures, including fire, as well as mechanical, chemical, biological, and cultural techniques, in an organized and coordinated manner on a site-specific basis.

**Intermittent Stream:** A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "intermittent" be arbitrarily restricted to streams that flow continuously for periods of at least 30 days (Prichard et al. 1998).

**Introduced Species**: A non-native species that was intentionally or unintentionally brought into an area by humans.

**Invasive Species:** According to Executive Order 13112, an invasive species is an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The executive summary of the National Invasive Species Management Plan further clarifies and defines an invasive species as a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

**Inventory:** Gathering of baseline information (including quantitative data, cultural knowledge, and qualitative observations) about condition of resources. Examples of inventory are the Ecological Site Inventory and the Population Counts of Threatened or Endangered Species (BLM 2001a).

**Karst Region:** Karst topography is a landscape shaped by the dissolution of a layer or layers of soluble bedrock, usually carbonate rock such as limestone or dolomite. As a result of subterranean drainage, there may be very limited surface water, even to point of the absence of all rivers and lakes. Many karst regions display distinctive surface features, with sinkholes or dolines being the most common. However, distinctive karst surface features may be completely absent where the soluble rock is mantled, such as by glacial debris, or confined by a superimposed non-soluble rock strata. Some karst regions include thousands of caves, even though evidence of caves that are big enough for human exploration is not a required characteristic of karst.

**Kinds of Livestock (Animal):** An animal species or species group such as sheep, cattle, goats, deer, horses, elk, pronghorn, etc (SRM 1989).

**Land:** The total natural and cultural environment within which production takes place; a broader term than soil. In addition to soil, its attributes include other physical conditions, such as mineral deposits, climate, and water supply; location in relation to centers of commerce, populations, and other land; the size of the individual tracts or holdings; and existing plant cover, works of improvement, and the like (SRM 1989).

**Land Health:** Degree to which the integrity of the soil and the ecological processes of ecosystems are sustained (BLM 2001a).

**Landscape character:** The arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, color, and texture. These factors give the area a distinctive quality that distinguishes it from its immediate surroundings.

**Land Locked:** Situation when any parcel of land (i.e., private, state, or federal) has no legal access without crossing another ownership because of the existing land ownership pattern (IB WY-2007-029).

**Land Tenure:** To improve the manageability of BLM lands and improve their usefulness to the public, the BLM has numerous authorities for "repositioning" lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land-pattern improvements are completed primarily through using land exchanges, but also through land sales, jurisdictional transfers to other agencies, and using cooperative management

agreements and leases. These ownership or jurisdictional changes are referred as "Land Tenure Adjustments."

**Leasable Minerals:** Those minerals or materials subject to lease by the federal government under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium, and sodium minerals; oil and gas, as well as geothermal resources.

**Lease:** (1) A legal document that conveys to an operator the right to drill for oil and gas; (2) the tract of land, on which a lease has been obtained, where producing wells and production equipment are located. Contractual instruments granting rights to use specific managed public lands, with certain conditions, for specific purposes such as livestock grazing, timber harvesting, and energy or mineral development.

**Lek:** A traditional courtship display area attended by male Greater Sage-Grouse in or adjacent to sagebrush-dominated habitat. Designation of the site as a lek requires the observation of two or more male sage-grouse engaged in courtship displays.

**Limited Area:** Means an area restricted, at certain times, in certain areas, and/or to certain vehicle use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Number of vehicles; type of vehicles; time of season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.

**Liquefaction:** Changing a solid into a liquid.

**Listed Species:** Any species of fish, wildlife, or plant that has been determined, through the full, formal endangered Species Act listing process, to be either threatened or endangered.

**Livestock:** Domestic animals (SRM 1989).

**Livestock Carrying Capacity:** The maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

**Livestock Management:** Application of technical principles and business methods to livestock production (SRM 1989).

**Livestock Operation:** The management of a ranch or farm so that a significant portion of the income is derived from the production of livestock.

**Livestock Production:** (1) The weight, number of animals, etc., that a particular range, seeded pasture, or management system produces. (2) The business of producing livestock (SRM 1989).

**Locatable Minerals:** Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of metallic minerals such as gold, silver, and other uncommon materials not subject to lease or sale.

**M Category (Maintain):** The category for allotments where (1) the present range condition an management are satisfactory with good to excellent condition and will be maintained under present management, or fair condition and improving with improvement expected to continue under present management or opportunities for BLM management are limited because percentage of public land is low or acreage of public lands is small; (2) the allotment has a potential for moderate or high vegetative production is producing at or near this potential; (3) there are no

significant land-use resource conflicts with livestock grazing; (4) land ownership status may or may not limit management opportunities; (5) opportunities for positive economic return from public investment may exist (BLM 1990).

**Management Plan:** A program of actions designed to reach a given set of objectives (SRM 1989).

**Mass Wasting:** Down–slope movement of soil or rock as a result of gravity.

**Medicine Wheel:** A stone structure that is shaped like a wheel with radiating spokes with a central pile of stones.

**Megafauna:** Large animals especially in the last Ice Age or Pleistocene. These animals are now extinct and include mammoths, mastodons, American lions, American camels, and saber-toothed cats.

**Metamorphic Rock:** Any rock derived from preexisting rocks by mineralogical, chemical, and/or structural changes in response to marked changes in temperature, stress, and chemical environment, generally occurring deep in the Earth's crust.

**Mineral Materials (Salables):** Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws, but can be acquired under the Mineral Materials Act of 1947, as amended.

**Mineral Withdrawal:** A formal order that withholds federal lands and minerals from entry under the Mining Law of 1872, as amended, and closes the area to mineral location (i.e., staking mining claims) and development.

**Migratory Bird Treaty Act of 1918 (MBTA):** Act that requires that the U.S. Fish and wildlife Service be consulted to determine the effects of a proposed activity on migratory birds and requires that opportunities to minimize the effects be considered.(WWEC 2008).

**Mitigation:**

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

**Mitigation measures:** Methods or procedures designed to reduce or lessen the adverse impacts caused by management activities.

**Mollisol:** Dark–colored grassland type soils with high base status.

**Monitoring:** The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives (SRM 1989).

**Multiple Use Reservoir:** A human-created lake or pond with a combination of balanced uses, including, but not limited to, recreation, livestock watering, watershed health, and wildlife and fish.

**National Ambient Air Quality Standards (NAAQS):** Air quality standards set by the Environmental Protection Agency (EPA) for the six criteria pollutants. Air quality standards specify maximum concentrations that would protect the public welfare from any known or anticipated adverse effects of a pollutant.

**National Environmental Policy Act of 1969 (NEPA):** NEPA [42 USC 4321 et seq.] was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

**National Historic Preservation Act of 1996, as Amended (NHPA):** This Act requires federal agencies to take into account the effects of their actions on historical and archaeological resources and consider opportunities to minimize their impacts.

**National Historic Trails (NHT):** A protected area designation containing historic trails and surrounding areas authorized under the National Trails System Act of 1968. NHTs may only be designated by an act of Congress.

**National Register of Historic Places (NRHP):** The official list of United States government's historic districts, sites, buildings, structures, and objects deemed worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the NRHP is a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

**National Wild and Scenic Rivers System:** A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams:

1. recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past;

2. scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and

3. wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

**Native American:** The first people living in North and South America. Many groups of people today are Native Americans and have ancestors who lived on these continents for thousands of years before Columbus came. They are also called American Indian, First American, Alaska Native, and Native People.

**Native Species:** A species that is a part of the original fauna or flora of a given area in question (SRM 1989).

**Native Species Status:** Native Species Status (NSS) refers to the population status of species native to the area in which their habitats occur. The NSSs are divided into the following categories:

- NSS1 **Native Species Status 1**—Populations are greatly restricted or declining and extirpation appears possible; or ongoing significant loss of habitat.
- NSS2 **Native Species Status 2**—Populations are declining and extirpation appears possible; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance, or populations are declining or restricted in numbers and (or) distribution and extirpation is not imminent; ongoing significant loss of habitat.
- NSS3 **Native Species Status 3**—Populations are greatly restricted or declining, extirpation appears possible; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance, or populations are declining or restricted in numbers and (or) distribution and extirpation is not imminent; habitat is restricted or vulnerable, but no recent or ongoing significant loss species may be sensitive to human disturbance, or species is widely distributed; population status or trends are unknown, but are suspected to be stable; ongoing significant loss of habitat.
- NSS4 **Native Species Status 4** — Populations are greatly restricted or declining, extirpation appears possible; habitat is stable and not restricted, or populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance, or species is widely distributed, population status or trends are unknown, but are suspected to be stable; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance, or populations that are stable or increasing and not restricted in numbers and (or) distribution; ongoing significant loss of habitat.

**Natural Fire Regime:** The general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995).

**Natural Processes:** The sum total of biological and physical activity that are not directly influenced by forethought and/or the result of actions taken by humans. Natural Processes may include, but are not limited tov vegetative growth, erosion, weather, climate, and/or actions taken by non-domesticated species.

**Necessary Tasks (Clause):** Work requiring the use of motor vehicles. Examples include using motor vehicles to repair range improvements, manage livestock, perform geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), and performing mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809.

**Noise:** Unwanted sound (WWEC 2008).

**Nomad:** A person who belongs to a group of people who have no permanent home, but wander from place to place searching for water, food, or grazing land.

**No Surface Occupancy (NSO) Stipulation:** A provision that prohibit the physical presence of oil and gas operations and associated facilities on the surface of public lands in a specified area to protect sensitive surface resource values. The NSO provision is reserved for use in fluid mineral land use planning allocation decisions and lease stipulations. Other terms, such as

restricted area, avoidance area, or exclusion area, are used with non-fluid mineral functions (IB WY-2007-029). The term "no surface occupancy" has no relationship or relevance to the presence of people in an area.

**Occupied Lek:** A lek that has been active during at least one strutting season within the last 10 years.

**Objective:** A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement.

**Oil Sand**: See tar sand.

**Oil Shale:** A fine-grained sedimentary rock that contains various inorganic minerals and the organic material kerogen, which, when subjected to heating, pyrolyzes to form raw shale oil that can be further processed into synthetic crude oil. Oil shale is classified as terrestrial, lacustrine, or marine, based on the type and location of the decaying organic matter from which it originated. Oil shale is often co–deposited with minerals such as nahcolite (sodium bicarbonate), alum, and dawsonite, and with metals such as copper, zinc, and uranium.

**Open:** Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs.

**Operator:** Any person who has taken formal responsibility for the operations conducted on the leased lands.

**Off-Highway Vehicle (OHV):** Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

**Off-Highway Vehicle (OHV) Management Designations:** All public lands are required to have OHV area designations. Areas must be classified as open, limited, or closed to motorized travel activities. Travel by over-snow vehicles is subject to the same requirements and limitations as all other vehicles unless specifically addressed otherwise in activity plans. The following lists the definitions of each of the designations

- **Closed:** Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is usually permitted. This designation is used if closure to all vehicular use is necessary to protect resources, to ensure visitor safety, or to reduce conflicts. Use of vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer.

- **Open:** Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause, significant undue damage to or disturbance of the soil, wildlife, wildlife habitats, improvements, cultural or vegetative resources, or other authorized uses of the public lands. These areas are used for intensive OHV use where there are no compelling resource needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

- **Limited:**

  (a) Vehicle travel is permitted only on roads and vehicle routes which were in existence prior to the date of publication in the *Federal Register*. Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and (or) widening of existing routes are not allowed without prior written agency approval.

  (b) Vehicle travel is permitted only on roads and vehicle routes designated by the BLM. Vehicle travel off of designated vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from designated vehicle routes is not allowed. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations may include, but are not limited to, the following:

  1. Vehicle route is open to vehicular travel.
  2. Vehicle route is closed to vehicular travel.
  3. Vehicle travel is limited by number or type of vehicle such as:
     - Vehicle route is limited to four-wheel drive vehicles only.
     - Vehicle route is limited to motorbikes only.
  4. Vehicle route is limited to OHVs only.
  5. Area is closed to over-snow vehicles.
  6. Vehicle travel is limited to licensed or permitted use.
  7. Vehicle travel is limited to time or season of use. Where specialized restrictions are necessary to meet resource management objectives, other limitations also may be developed. The BLM may place other limitations, as necessary, to protect other resources, particularly in areas that motorized OHV enthusiasts use intensely or where they participate in competitive or group events.

**One Hundred (100) Year Floodplain:** The one hundred year floodplain is the land that has a 1% chance of being flooded on any given year. The extent of this land is determined using data provided by FEMA.

**Outbreak:** The infestation of a relatively small and contained grouping of trees by bark beetles.

**Overgrazing:** Continued heavy grazing that exceeds the recovery capacity of the forage plants and creates deterioration of the grazing lands (Valentine 1990).

**Paleo-Climate:** Climatic conditions, along with their causes and effects, in the geologic past.

**Paleo-Indian:** The name given to the oldest known cultural group in North America.

**Paleontological Locality:** A geographic point or area where a fossil or associated fossils are found in a related geological context. A paleontological locality is confined to a discrete stratigraphic layer, structural feature, or physiographic area.

**Paleontology:** The study of plants and animal life that existed in former geologic times, particularly through the study of fossils.

**Particulate Matter:** fine particles of solids or liquids such as dust, smoke, mist, fumes, or smog. When released into the atmosphere, particulates can adversely impact human health or quality of life.

**Parturition Areas:** Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

**Pasture:** (1) A grazing area enclosed and separated from other areas by fencing or other barriers; the management unit for grazing land. (2) Forage plants used as food for grazing animals. (3) Any area devoted to the production of forage, native or introduced, and harvested by grazing. (4) A group of subunits grazed within a rotational grazing system (SRM 1989).

**Pemmican:** A mixture of dried meat mixed with crushed berries and fat. It was used as food on hunting trips and other journeys because it kept well without spoiling.

**Perennial Stream:** A stream that flows continuously. Perennial streams generally are associated with a water table in the localities through which they flow (Prichard et al. 1998).

**Permit:** Contractual instruments granting rights to use specific managed public lands, with certain conditions, for specific purposes such as livestock grazing, timber harvesting, and energy or mineral development.

**Permitted Use:** The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUMs.

**Permittee:** One who holds a permit to graze livestock on state, federal, or certain privately–owned lands (SRM 1989).

**Period of Use:** The time of livestock grazing on a range area based on type of vegetation or stage of vegetative growth.

**Pest:** With the exception of vascular plants classified as invasive nonnative plant species, a pest can be any biological life form that poses a threat to human or ecological health and welfare. For the purposes of this planning effort, an "animal pest" is any vertebrate or invertebrate animal subject to control by Animal and Plant Health Inspection Service (APHIS). APHIS is currently the BLM's authorized agent for controlling "animal pests." For this reason, "animal pests" are considered a subset of Pest. An annoying or troublesome animal or thing; nuisance.

**Pestle:** A tool used to mash or grind substances.

**Petroglyph:** Pictures created on rock faces by removing a portion of the rock by pecking, abrading, incising, or scratching.

**Pictograph:** Picture created on a rock face by applying pigment or charcoal.

**Planning Area:** A geographic area for which land use and resource management plans are developed and maintained.

**Pleistocene:** The Ice Age(s) and period in the world's history that began about 1.6 to 2 million years ago and lasted until about 10,000 years ago. During this time, much of the Earth was covered in ice.

**Playa/Playa Lake:** Playa is a dry, barren area in the lowest part of an undrained desert basin, underlain by clay, silt, or sand and commonly by soluble salts. A playa lake is a shallow, intermittent lake in an arid region, occupying a playa in the wet season but drying up in summer and leaving mineral deposits (evaporatents) behind.

**Policy**: This is a statement of guiding principles, or procedures, designed and intended to influence planning decisions, operating actions, or other affairs of the BLM. Policies are established interpretations of legislation, executive orders, regulations, or other presidential, secretarial, or management directives (IB WY-2007-029).

**Potential Fossil Yield Classification:** Geologic units are classified according to the Potential Fossil Yield Classification system, usually at the formation or member level, based on the relative abundance of significant fossils and their sensitivity to adverse impacts. The classification uses a ranking of 1 through 5, with Class 5 assigned to units with a very high potential for fossils. The classifications are described below.

- **Class 1–Very Low**. Igneous or metamorphic geologic units, or other units not likely to contain recognizable fossil remains. Management concern is negligible for Class 1 units and mitigation requirements are rarely necessary.

- **Class 2–Low.** Sedimentary geologic units that are not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is low for Class 2 units and mitigation requirements are not likely.

- **Class 3–Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential. Management concern may extend across the entire range of management. Ground–disturbing activities require sufficient assessment to determine whether significant resources occur in the area of the proposed action, and whether the action could affect the paleontological resources. Pre-disturbance surveys, monitoring, or avoidance procedures may be necessary.

- **Class 4–High.** Geologic units containing known occurrences of significant fossils, but these occurrences may vary in local abundance and predictability. Management concern is moderate to high, depending on the potential impacts of the proposed action and local geologic conditions. Pre-disturbance field surveys are often needed, and avoidance or onsite monitoring may often be necessary during project activities.

- **Class 5–Very High.** Highly fossiliferous geologic units that consistently and predictably produce significant fossils, and that are at risk of human-caused adverse impacts or natural degradation. Class 5 areas merit a high level of management focus. Mitigation of ground–disturbing activities, including pre-disturbance surveys, on-site monitoring, or avoidance procedures, are nearly always necessary. These units are often the focus of illegal collecting activities. Special management designations may be appropriate for protection or interpretation.

**Potential Natural Community (PNC):** The biotic community that would become established if all successional sequences were completed without interference by humans under the present environmental conditions. Natural disturbances are inherent in development. PNCs can include naturalized nonnative species.

**Pottery:** Earthenware or clayware pots, dishes, or vases. These cups, bowls, and other dishes or objects were made from clay and hardened by heat.

**Prairie Dog "Complex":** A cluster of two or more prairie dog towns within 3 kilometers of each other (Clark and Stromberg 1987; Luce 2003) and bounded by either natural or artificial barriers (Whicker and Detling 1998) that effectively isolate one cluster of colonies from interacting/interchanging with another. Prairie dogs may commonly move among colonies of a cluster, and thereby foster reproductive/genetic viability, but exhibit little emigration/immigration between clusters. A cluster may include some currently unoccupied, through physically suitable (i.e., vegetation, soils, topography, etc), land immediately adjacent to occupied colonies that support other prairie dog-associated (ecosystem function), obligate or facultative species (e.g., swift fox, mountain plover, burrowing owl, etc).

**Preference:** (1) Selection of plants, or plant parts, over others by grazing animals. (2) In the administration of public lands, a basis upon which permits and licenses are issued for grazing use (SRM 1989).

**Prehistory/Prehistoric:** Information about past events prior to the recording of events in writing. The period of prehistory differs around the world depending upon when written records became common in a region.

**Prescribed Burning:** Controlled application of fire to wildland fuels in either their natural or modified state under specified environmental conditions that allow the fire to be confined to a predetermined area and at the same time to produce the fire intensity and rate of spread required to attain planned resource management objectives.

**Prescribed Fire:** The introduction of fire to an area under regulated conditions for specific management purposes.

**Priority Fish Species:** Priority fish species are species considered to be sport fish and native species.

**Priority Species**: Big game and Special Status Species, as well as Wyoming National Diversity Database (WYNDD) Species of Concern, Wyoming Game and Fish Department (WGFD) Species of Special Concern, WGFD Species of Greatest Conservation Need, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and all others warranted federal protection.

**Produced Water:** Groundwater removed to facilitate the extraction of minerals, such as coal, oil, or gas.

**Projectile Point:** The stone point attached to the end of darts, spears, and arrows. Often called "arrowheads."

**Proper Functioning Condition (PFC)**: Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to:

1. Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality
2. Filter sediment, capture bedload, and aid floodplain development
3. Improve flood-water retention and groundwater recharge;
4. Develop root masses that stabilize stream banks against cutting action
5. Develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
6. Support greater biodiversity.

**Proper Grazing:** Proper grazing is the practice of managing forage use by grazing animals at a sustainable level that maintains rangeland health. Proper grazing maintains or increases plant cover, including residue, which acts to slow down or reduce runoff, increase water infiltration, and keep erosion and sedimentation at or above acceptable levels within the potential of ecological sites within a given geographic area (e.g., watershed, grazing allotment).

**Proposed for Listing:** Species that have been formally proposed for listing by the USFWS by a notice in the *Federal Register*.

**Public Land:** Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos.

**Range:** Any land supporting vegetation suitable for grazing, including rangeland, grazable woodland, and shrubland. Modifies resources, products, activities, practices, and phenomena pertaining to rangeland (SRM 1989).

**Range Condition:** (A) A generic term relating to the present status of a unit of range in terms of specific values or potentials. Specific values or potentials must be stated. (B) Some agencies define range condition as follows: The present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site (SRM 1989).

**Range Management:** A distinct discipline founded on ecological principles and dealing with the use of rangelands and range resources for a variety of purposes. These purposes include use as watersheds, wildlife habitat, grazing by livestock, recreation and aesthetics, as well as other associated uses (SRM 1989).

**Range Site:** Synonymous with ecological site when referring to rangeland. An area of rangeland that has the potential to produce and sustain distinctive kinds and amounts of vegetation to result in a characteristic plant community under its particular combination of environmental factors, particularly climate, soils, and associated native biota. Some agencies use range site based on the climax concept, not potential natural community (SRM 1989).

**Rangeland:** Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing. This includes lands re-vegetated naturally or artificially when routine management of that vegetation is accomplished mainly through

manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

**Rangeland Health:** The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained.

**Range Improvement Project:** A structural improvement requiring placement or construction to facilitate management or control distribution and movement of grazing or browsing animals. Such improvements may include, but are not limited to, fences, wells, troughs, reservoirs, water catchments, pipelines, and cattle guards. The project also may include a practice or treatment that improves rangeland condition and or resource production for multiple use. Nonstructural types of projects may include, but are not limited to, seeding and plant control through chemical, mechanical, and biological means or prescribed burning.

**Raptor:** Bird of prey with sharp talons and a strongly curved beak, such as hawks, falcons, owls, vultures, and eagles.

**Recharge**: The addition of water to an aquifer by natural infiltration (e.g., rainfall that seeps into the ground) or by artificial injection through wells. (WWEC 2008)

**Recreation experiences:** Psychological outcomes realized either by recreation-tourism participants as a direct result of their onsite leisure engagements and recreation-tourism activity participation, or by nonparticipating community residents as a result of their interaction with visitors and guests within their community or interaction with the BLM and other public and private recreation-tourism providers and their actions.

**Recreation Management Areas:** Recreation management areas are units within a Planning Area guiding recreation management on public lands having similar recreation–related issues and concerns. There are two types of recreation management areas, extensive and special (ERMAs and SRMAs):

**Extensive Recreation Management Areas (ERMA):** These are areas where dispersed recreation is encouraged and where visitors have a freedom of recreational choice with minimal regulatory constraint.

- **Special Recreation Management Areas (SRMA):** Areas where congressionally recognized recreation values exist or where significant public recreation issues or management concerns occur. Special or more intensive types of management are typically needed.

- **Recreation Management Zones:** Subunits within a SRMA managed for distinctly different recreation products. Recreation products are composed of recreation opportunities, the natural resource and community settings within which they occur, and the administrative and service environment created by all affecting recreation-tourism providers, within which recreation participation occurs.

**Recreation Niche:** The place or position within the strategically targeted recreation-tourism market for each SRMA that is most suitable (i.e., capable of producing certain specific kinds of recreation opportunities) and appropriate (i.e., most responsive to identified visitor or resident customers), given available supply and current demand, for the production of specific recreation opportunities and the sustainable maintenance of accompanying natural resource or community setting character.

**Recreation Opportunities:** Favorable circumstances enabling visitors' engagement in a leisure activity to realize immediate psychological experiences and attain more lasting, value-added beneficial outcomes.

**Recreation Opportunity Spectrums (ROS):** One of the existing tools for classifying recreation environments (existing and desired) along a continuum, ranging from primitive, low-use, and inconspicuous administration to urban, high-use, and a highly visible administrative presence. This continuum recognizes variation among various components of any landscape's physical, social, and administrative attributes. Resulting descriptions of existing conditions and prescriptions of desired future conditions define recreation setting character.

**Recreation Setting Character Conditions:** The distinguishing recreational qualities of any landscape, objectively defined along a continuum, ranging from primitive to urban landscapes, expressed in terms of the nature of the component parts of its physical, social, and administrative attributes. These recreational qualities can be both classified and mapped. This classification and mapping process should be based on variation that either exists (for example, setting descriptions) or is desired (for example, setting prescriptions) among component parts of the various physical, social, and administrative attributes of any landscape. The ROS is one of the tools for doing this.

**Recreation Settings:** The collective distinguishing attributes of landscapes that influence and sometimes actually determine what kinds of recreation opportunities are produced.

**Recreation-Tourism Market:** Recreation and tourism visitors and local residents who affect local governments and private sector businesses and the communities or other places where these customers originate (local, regional, national, or international). Based on analysis of supply and demand, land use plans strategically identify primary recreation-tourism markets for each special recreation management area—destination, community, or undeveloped.

**Renewable Energy:** Energy generated from renewable resources such as sunlight, wind, and biomass.

**Resource Management Plan (RMP):** A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land-use allocations, coordination guidelines for multiple–use, objectives, and actions to be achieved.

**Resource Uses:** Activities that use resources, such as minerals development, livestock grazing, forestry, OHV use, and recreation.

**Rest:** Leaving an area ungrazed, thereby foregoing grazing of one forage crop. Normally rest implies absence of grazing for a full growing season or during a critical portion of plant development; i.e., seed production (SRM 1989). In the RSFO, rest is defined as foregoing grazing for a full grazing year defined as starting on March 1 and ending on February 28.

**Rest-Rotation:** A grazing-management scheme in which rest periods, usually for a full growing season, for individual grazing units, are incorporated into a grazing rotation (SRM 1989).

**Restricted Disposal:** Parcels identified for restricted disposal may be disposed of under the Recreation and Public Purposes Act, by exchange, may limit the disposal to a particular type of entity capable of preserving the resource values, or may include the use of covenants in the deed or land sale patent to ensure the resource values are protected.

**Restriction/Restricted Use**: A limitation or constraint on public land uses and operations. Restrictions can be of any kind, but most commonly apply to certain types of vehicle use, temporal and/or spatial constraints, or certain authorizations (IB WY-2007-029).

**Riparian:** A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas (See BLM Manual 1737). Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

**Riparian/Wetland Functionality Classification:**

- **Functional-at-Risk:** Riparian/wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.
- **Proper Functioning Condition (PFC):** A riparian or wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to do the following:
    - Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality
    - Filter sediment, capture bedload, and aid floodplain development
    - Improve floodwater retention and groundwater recharge
    - Develop root masses that stabilize stream banks against cutting action
    - Develop diverse ponding and channel characteristics to provide the habitats and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
    - Support greater biodiversity.
- **Non-functional:** Riparian or wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, and so on, as listed above. The absence of certain physical attributes, such as a floodplain where one should be, are indicators of nonfunctioning conditions.
- **Unknown:** Riparian or wetland areas that the BLM lacks sufficient information on to make any form of determination.

**Rights-of-Way (ROW):** Public land authorized to be used or occupied pursuant to a ROW. A ROW grant is an authorization to use a specific piece of public land for a specific project, such as roads, pipelines, transmission lines, and communication sites. The grant authorizes rights and privileges for a specific use of the land for a specific period of time.

**Rip-Rap:** A combination of large stones, cobbles, and boulders used to line channels, stabilize banks, reduce runoff velocities, or filter out sediment.

**Roasting Pit:** A pit dug into the ground that was used for cooking. The pit contained fire-cracked rocks, charcoal, ash, and sometimes the remains of whatever was cooked.

**Rotation Grazing:** A grazing scheme in which animals are moved from one grazing unit in the same group of grazing units to another without regard to specific grazing rest periods or levels of plant defoliation.

**ROW Avoidance Areas:** Areas where negative routing factors exist. ROWs either will not be granted in these areas, or—if granted—will be subject to stringent terms and conditions. In other words, ROWs would be *restricted* (but not necessarily prohibited) in these avoidance areas.

**Salable Minerals:** Common variety of minerals on public lands, such as sand and gravel, used mainly for construction. Salable minerals are disposed of by sales to the public or free-use permits to government agencies or nonprofit organizations.

**Scenic Area:** An area whose landscape character exhibits a high degree of variety and harmony among the basic elements that results in a pleasant landscape to view.

**Scenic Quality:** The relative worth of a landscape from a visual perception point of view. Scenic quality is rated as Class A (high), Class B (medium), or Class C (low).

**Season-Long Use:** Grazing throughout the growing period, with little or no effort to control the amount of distribution of livestock use in area/pasture/allotments. Generally defined in the RSFO as starting on April 1 and ending September 30.

**Seasonal Grazing:** Grazing use throughout a specific season.

**Seasonal Ranges:** Various ranges identified by the WGFD for big game species. These ranges are defined as follows:

**Summer or Spring-Summer-Fall:** A range in which a population or portion of a population of animals uses the documented habitats annually from the end of previous winter to the onset of persistent winter conditions.

**Severe Winter Relief:** A documented survival range, that may or may not be considered a crucial range area. It is used to a great extent, but only in extremely severe winters. It may lack habitat characteristics that would make it attractive or capable of supporting major portions of the population during normal years, but is used by and allows at least a significant portion of the population to survive the occasional extremely severe winter.

**Winter:** A range containing documented suitable habitat sites that a population or portion of a population of animals use annually in substantial numbers during the winter period only.

**Winter/Yearlong:** A range containing documented suitable habitat sites that a population or a portion of a population of animals use generally on a year-round basis. During the winter months, there is a significant influx of additional animals into the area from other seasonal ranges.

**Yearlong:** A range containing documented suitable habitat sites that a population or substantial portion of a population of animals used generally on a year-round basis. On occasion, animals may leave the area under severe conditions.

**Section 106 of National Historic Preservation Act:** "The head of any Federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state

and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking" (16 USC 47 df).

**Seismic:** Pertaining to any ground vibration, especially that of an earthquake.

**Sensitive Wildlife Habitat:** Priority species habitat such as big game and sage-grouse crucial winter range, parturition areas, migration corridors, sage-grouse key habitat areas, Special Status Species nesting, brood rearing habitat, burrows, hibernacula, raptor nesting, escape cover, and unique habitats/vegetation and plant communities.

**Sensitive Resources:** (As defined in the Jack Morrow Hills CAP/EIS 2006)

1. Active (unstabilized) dunes
2. Slopes greater than 20 percent
3. Special management area values (visual, recreation opportunities, health and safety, cultural/historical, etc.)
4. Integrity of the core area wildlife habitat
5. Key habitat (unique vegetation and plant communities)
6. Key habitat (e.g., escape cover and birthing areas)
7. Cultural/Native American-respected places and historic values
8. Connectivity area (migratory corridor)
9. Inaccessible areas (overlapping resource concerns, i.e., sensitive resources 1 to 8 above)
10. Special status plant and animal species' habitats
11. Stabilized dunes
12. Visual values (VRM I and II areas).

**Sensitive Sites or Resources:** Significant cultural resources that are or may be eligible for nomination to the NRHP.

**Sensitive Species:** Species designated as sensitive by the BLM State Director that include species that are under status review, have small or declining populations, live in unique habitats, or require special management. BLM Manual 6840 provides policy and guidance for Special Status Species management. The BLM Wyoming Sensitive Species Policy and List are provided in a memorandum updated annually. Primary goals of the BLM Wyoming policy include maintaining vulnerable species and habitat components in functional BLM ecosystems and preventing a need for species listing under the Endangered Species Act.

**Seral Stage:** One of a series of plant communities that follows another in time on a specific ecological site.

**Setting:** The physical environment of a historic property and how the property evokes a sense of feeling and association with past events. Accordingly, setting refers to the character of the place in which the property played its historic role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space. These features and their relationships should be considered not only within the exact boundaries of the property, but also between the property and its surroundings.

**Shaman:** A medicine man or religious leader; a person who calls upon the spirits to cure the sick and to control events (weather or hunting).

**Significant Factor (S&G):** Principal causal factor in the failure to achieve the land health standard(s) and conform with the guidelines. A significant factor would typically be a use that, if modified, would enable an area to achieve or make significant progress toward achieving the land health standard(s). To be a significant factor, a use may be one of several causal factors contributing to less-than-healthy conditions; it need not be the sole causal factor inhibiting progress toward the standards.

**Significant Paleontological Resource (also Significant Fossil Resource):** Any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils. A significant paleontological resource is considered to be scientifically important because it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on Earth, or has identified educational or recreational value.

**Signage:** Visual graphics created to display information.

**Site:** A location, place. A term used by archaeologists for places that prehistoric and historic people lived in or used. Sites are places where humans left things behind.

**Slope:** A slant or incline of the land surface, measured in degrees from the horizontal, or in the percentage (defined as the number of feet or meters change in elevation per 100 of the same units of horizontal distance); may be further characterized by direction (exposure) (SRM 1989).

**Soil Moisture Regimes:** The categorization of the presence or absence of water in soils. Regimes include:

- ***Udic:*** The udic moisture regime implies that, in 6 or more of 10 years, the soil moisture control section is not dry in any part for as long as 90 cumulative days per year.
- ***Ustic:*** The ustic moisture regime implies that moisture is limited but is present at a time when conditions are suitable for plant growth.
- ***Xeric:*** The xeric moisture regime implies that, in 6 or more out of 10 years, the soil moisture control section is dry in all parts for 45 or more consecutive days in the 4 months following the winter solstice.

**Soil Write-Up Area (SWA):** The smallest geographical unit delineation to be used as a base for collecting vegetation data and resource information. It is the smallest mapped soil–vegetation

unit. For management purposes, SWA boundaries can be set on administrative boundaries such as allotments, pasture, wildlife habitat areas, or watersheds.

**Special Recreation Management Areas (SRMA):** A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). Both land use plan decisions and subsequent implementing actions for recreation in each SRMA are geared to a strategically identified primary recreation-tourism market–destination, community, or undeveloped, as well as a corresponding and distinguishing recreation management strategy. Recreation settings or natural resource settings are prescribed as part of the land-use allocation decision. Subsequent implementing actions, as identified in the activity planning framework, are proactive and address management, marketing and visitor information, and monitoring and administration.

**Special Status Species:** Species that include both plant and animal species that are proposed for listing, officially listed as threatened or endangered, or are candidates for listing as threatened or endangered under the provisions of the Endangered Species Act (ESA); those listed by a state in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by the State Director as sensitive (BLM 6840 Manual 2001).

**Species:** A taxon or rank species; in the hierarchy or biological classification, the category below genus (SRM 1989).

**Species Diversity:** The number, different kinds of, and relative abundances of species present in a given area.

**Split–Estate:** Land which the surface is owned by a different party than the minerals underlying the surface. Split estates may have any combination of surface/subsurface owners: federal/state; federal/private; state/private; or percentage ownerships. When referring to the split estate ownership on a particular parcel of land, it is generally necessary to describe the surface/subsurface ownership pattern of the parcel (IB WY-2007-029).

**Spring:** Flowing water originating from an underground source (SRM 1989).

**Stakeholders:** A person, group, or organization with an expressed interest in a project that would be influenced by the outcome of BLM actions.

**Stand Productivity:** Measured by comparison with the site index. If the site index is 75 feet at 100 years, but the stand averages 65 feet at 100 years, then a factor such as high basal area or mistletoe might be decreasing stand productivity.

**Stand Vigor:** General term that refers to the current growth and health of the stand. Live crown ratio is a measure of stand vigor. For example, most stands with an average live crown ratio of 50% or more have vigorous growth. Most stands with an average of less than 20% live crown ratio have poor vigor.

**Standard:** A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

**State-Listed Species:** Species proposed for listing or listed by a state in a category implying, but not limited to, potential endangerment or extinction. Listing is either by legislation or regulation.

**Stipulations:** Requirements that are part of the terms of a mineral lease. Some stipulations are standard on all federal leases. Other stipulations may be applied to the lease at the discretion of the surface management agency to protect valuable surface resources and uses.

**Stocking Rate:** The number of specific kinds and classes of animals grazing a unit of land for a specified time period. May be expressed as AUMs or animal unit days per acre, hectare, or section, or the reciprocal (area of land/AUM or day) (SRM 1989).

**Stock Trail:** A trail constructed across a natural barrier to permit movement of livestock to otherwise inaccessible areas (SRM 1989).

**Stratigraphy:** The science of studying layers of materials, as in rock layers in the Earth or deposits in archaeological sites. Cultural remains and dirt become buried over time and, usually, the layer on the bottom is the oldest, the layer on the top is the youngest. Dirt of different layers is often colored differently.

**Surface Disturbing Activities (or Surface Disturbance):** An action that alters the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Examples of surface disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; and the conduct of several types of vegetation treatments (e.g., prescribed fire). Surface disturbing activities may be either authorized or prohibited (IB WY-2007-029).

**Surface Use(s):** These are all the various activities that may be present on the surface or near-surface (e.g., pipelines), of the Public Lands. It does not refer to those subterranean activities (e.g., underground mining, etc.) occurring on the Public Lands or federal mineral estate. When administered as a use restriction (e.g., No Surface Use [NSU]), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study exclosure), and/or administrative sites (e.g., government ware-yard) where only authorized, agency personnel are admitted (IB WY-2007-029).

**Surface Water:** Water on the Earth's surface that is directly exposed to the atmosphere, as distinguished from water in the ground (groundwater).

**Surface Water Classes and Uses:** A hierarchical categorization of waters according to existing and designated uses. Except for Class 1 waters, each classification is protected for its specified uses plus all the uses contained in each lower classification. Class 1 designations are based on value determinations rather than use support and are protected for all uses in existence at the time of or after designation. There are four major classes of surface water in Wyoming with various subcategories within each class (see "Wyoming Surface Water Classification List" for current listing).

- **Class 1, Outstanding Waters.** Class 1 waters are those surface waters in which no further water quality degradation by point source discharges other than from dams will be allowed. Nonpoint sources of pollution shall be controlled through implementation of appropriate best management practices. Pursuant to Section 7 of these regulations, the water quality and physical and biological integrity that existed on the water at the time of designation will be maintained and protected. In designating Class 1 waters, the Environmental Quality Council shall consider water quality, aesthetic, scenic, recreational, ecological, agricultural,

botanical, zoological, municipal, industrial, historical, geological, cultural, archeological, fish and wildlife, the presence of substantial quantities of developable water, and other values of present and future benefit to the people.

- **Class 2, Fisheries and Drinking Water.** Class 2 waters are waters, other than those designated as Class 1, that are known to support fish or drinking water supplies or where those uses are attainable. Class 2 waters may be perennial, intermittent, or ephemeral and are protected for the uses indicated in each subcategory listed below. Five subcategories of Class 2 waters exist.

- **Class 3, Aquatic Life Other Than Fish.** Class 3 waters are waters, other than those designated as Class 1 that are intermittent, ephemeral, or isolated waters, and because of natural habitat conditions, do not support nor have the potential to support fish populations or spawning or certain perennial waters that lack the natural water quality to support fish (e.g., geothermal areas). Class 3 waters provide support for invertebrates, amphibians, or other flora and fauna that inhabit waters of the state at some stage of their life–cycles. Uses designated on Class 3 waters include aquatic life other than fish, recreation, wildlife, industry, agriculture, and scenic value. Generally, waters suitable for this classification have wetland characteristics; and such characteristics will be a primary indicator used in identifying Class 3 waters. There are four subcategories of Class 3 waters.

- **Class 4, Agriculture, Industry, Recreation, and Wildlife.** Class 4 waters are waters, other than those designated as Class 1, where it has been determined that aquatic life uses are not attainable pursuant to the provisions of Section 33 of these regulations. Uses designated on Class 4 waters include recreation, wildlife, industry, agriculture, and scenic value. (WDEQ, Wyoming Surface Water Quality Standards).

**Suspension:** The temporary withholding from active use, through a decision issued by the authorized officer or by agreement, of part or all of the permitted use in a grazing permit or lease.

**Sustainability:** The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

**Tank:** A reservoir of any construction for water storage (SRM 1989).

**Tanning:** The process that turns animal hides into leather.

**Tar Sand:** Also referred to as “oil sand” or “bituminous sand,” tar sand is a sedimentary material composed primarily of sand, clay, water in some deposits), and organic constituents known as bitumen, Processing of tar sand involves separating the bitumen fraction from the inorganic materials and subsequently upgrading the bitumen through a series of reactions to produce a synthetic crude oil feedstock that is suitable for further refining into distillate fuels in conventional refineries.

**Temporary/Temporary Use:** The opposite of the term permanent/permanent use. It is a relative term and has to be considered in the context of the resource values affected and the nature of the resource use(s)/activity(ies) taking place. Generally, a temporary activity is considered to be one that is not fixed in place and is of short duration (IB WY-2007-029).

**Threatened Species:** Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the *Federal Register*.

**Tipi:** A cone-shaped tent, used especially by Plains Indians, usually made of skins or bark spread over a frame of poles. Also spelled tepee or teepee.

**Torrifluvents:** Entisols formed in stream–deposited materials under limited moisture conditions.

**Torriorthents:** Entisols formed under very limited moisture conditions.

**Traditional Cultural Properties:** Traditional cultural properties are often hard to recognize. A traditional ceremonial location may look like merely a mountaintop, a lake, or a stretch of river; a culturally important neighborhood may look like any other aggregation of houses, and an area where culturally important economic or artistic activities have been carried out may look like any other building, field of grass, or piece of forest in the area. As a result, such places may not necessarily come to light through the conduct of archeological, historical, or architectural surveys. The existence and significance of such locations often can be ascertained only through interviews with knowledgeable users of the area, or through other forms of ethnographic research. The subtlety with which the significance of such locations may be expressed makes it easy to ignore them; on the other hand it makes it difficult to distinguish between properties having real significance and those whose putative significance is spurious.

**Travois:** A primitive device used by Plains Indians to move things. It consisted of two long poles with a platform or netting to carry objects. Originally pulled by dogs, it was later pulled by horses.

**Trend:** The direction of change in ecological status or resource value rating observed over time. Trend in ecological status should be described as toward, or away from the potential natural community, or as not apparent. Trend in resource value rating for a specific use should be described as up, down, or not apparent. Trends in resource value rating for several uses on the same site at a given time may be in different directions, and there is no necessary correlation between trends in resource value rating and trend in ecological status (SRM 1989).

**Undeveloped Recreation-Tourism Market:** National, regional, or local recreation-tourism visitors, communities, or other constituents who value public lands for the distinctive kinds of dispersed recreation produced by the vast size and largely open, undeveloped character of their recreation settings. Major investments in facilities are excluded within SRMAs where the BLM's strategy is to target demonstrated undeveloped recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand to sustain distinctive recreation setting characteristics; however, major investments in visitor services are authorized both to sustain those distinctive setting characteristics and to maintain visitor freedom to choose where to go and what to do—all in response to demonstrated demand for undeveloped recreation.

**Unique Habitats:** Aspen, mountain shrub, riparian woodlands, Basin big sagebrush, and other unique vegetation.

**Unique Woodland Community:** Aspen, mountain shrub, and riparian woodlands.

**Uplands:** Lands at higher elevations than alluvial plains or low stream terraces; all lands outside the riparian-wetland and aquatic zones.

**Use:** (1) The proportion of current years forage production that is consumed or destroyed by grazing animals. May refer either to a single species or to the vegetation as a whole. (2) Use of range for a purpose such as grazing, bedding, shelter, trailing, watering, watershed, recreation, or forestry (SRM 1989).

**Ustorthents:** Entisols formed under limited moisture conditions.

**Utilization (Rangeland):** The proportion of the current year's forage production that is consumed or destroyed by grazing animals. Utilization is usually expressed as a percentage.

**Vegetation:** Plants in general, or the sum total of the plant life above and below ground in an area (SRM 1989).

**Vegetative Diversity:** The variety of vegetative types in an area, including species, the genetic differences among species and populations, the communities and ecosystems in which vegetation types occur, and the structure and seral stage of these communities. Vegetative diversity includes rare as well as common vegetative types, and typically supports a diverse array of animal species and communities.

**Viewshed:** Viewshed is used in Visual Resource Management (VRM) to describe "…landscape that can be seen under favorable atmospheric conditions from a viewpoint (key observation point) or along a transportation corridor" (BLM 1984).

**Visual Resources:** The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

**Visual Resource Management (VRM) Classes:**

- **Class I.** The objective of this class is to maintain a landscape setting that appears unaltered by humans. It is applied to wilderness areas, some natural areas, wild portions of wild and scenic rivers, and other similar situations in which management activities are to be restricted.

- **Class II.** The objective of this class is to design proposed alterations so as to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

- **Class III.** The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape; however, the changes should remain subordinate to the existing characteristic landscape.

- **Class IV**. The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, changes should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape.

**Voluntary Non-Use:** When a grazing permittee voluntarily agrees not to use a portion of the allotted AUMs in an allotment.

**Watershed:** See "basin" above.

**Watershed Condition:** The state of the physical and biological characteristics and processes within a watershed that affect the soil and hydrologic functions supporting terrestrial and aquatic ecosystems.

**Watershed Improvement:** Changes in physical and biological characteristics that create increased water interception and prolonged retention through naturally occurring processes, including: native vegetation diversity, condition, and productivity; soil content and structure; and surface and subsurface flow paths. (http://www.fs.fed.us/publications/watershed/Watershed_Condition_Framework.pdf)

**Weed:** Any undesirable or troublesome plant, especially one that grows profusely where it is not wanted. Weeds can be native or non-native, invasive or non invasive, and noxious or not noxious.

**Wetlands:** Areas that are inundated or saturated by surface or groundwater often and long enough to support and, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Wild and Scenic River:** the National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 USC 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency.

**Wilderness:** A congressionally designated area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value. The definition contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891) (from H-6310-1, Wilderness Inventory and Study Procedures).

**Wilderness Characteristics:** Characteristics that include size, the appearance of naturalness, outstanding opportunities for solitude, or a primitive and unconfined type of recreation. They may also include ecological, geological, or other features of scientific, educational, scenic, or historical value. However Section 2(c) of the Wilderness Act of 1964 has been updated by IM-2003-195, dated June 20, 2003. Indicators of an area's naturalness include the extent of landscape modifications, the presence of native vegetation communities, and the connectivity of habitats. Outstanding opportunities for solitude or primitive and unconfined types of recreation may be experienced when the sights, sounds, and evidence of other people are rare or infrequent; in locations where visitors can be isolated, alone, or secluded from others; where the use of the area is through non-motorized, non-mechanical means; and where no or minimal developed recreation facilities are encountered.

**Wilderness Study Area (WSA):** A designation made through the land use planning process of a roadless area found to have wilderness characteristics, as described in Section 2(c) of the Wilderness Act of 1964 (from H-6310-1, Wilderness Inventory and Study Procedures).

**Wildfire:** Any natural fire ignition occurring on wildland that neither meets management objectives nor occurs within a prescribed fire area, thus requiring a suppression response.

**Wildland Fire Ecology:** The processes linking the natural incidence of fire in a wildland ecosystem and the ecological effects of these fires.

**Wildland Industrial Interface:** The area where industrial development meets or intermingles with undeveloped wildland.

**Wildland Urban Interface (WUI):** Defined by the Healthy Forest Recreation Act 2003 (section 101) as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, an area extending;, (1) one half mile from the boundary of an at risk community, or (2) one and a half miles when other criteria are met. (e.g., a sustained steep slope or a geographic feature aiding in creating an effective fire break or is condition class III land), or (3) is adjacent to an evacuation route.

**Wind Farm:** One or more wind turbines operating within a contiguous area for the purpose of generating electricity.

**Wind Rose:** A graphical representation of wind speed, direction, and frequency averaged over a specific time interval. Direction is represented by radial bars oriented from the center of the circular graph in each of the directions from which the wind has originated over the time interval being represented. The strengths of the winds are represented by the thickness of the radial bars and the lengths of each segment of different thickness; the frequency of occurrence of the wind in each direction is represented by the extent to which each bar extends from the center of the graph to concentric circles, which represent increasing frequencies as the circles expand from the center of the graph.

**Withdrawal:** Removal or withholding of public lands, by statute or Secretarial order, from operation of some or all of the public land laws. A mineral withdrawal includes public lands potentially valuable for leasable minerals, precluding the disposal of the lands except with a mineral reservation clause, unless the lands are found not to contain a valuable deposit of minerals. A mineral withdrawal is the closing of an area to mineral location and development activities.

**Woodlands:** Not capable of producing 20 cubic feet of wood fiber from commercial species per acre per year.

**Yearlong Grazing:** Continuous grazing for a calendar year (SRM 1989). In the RSFO, the year is defined at starting on March 1 and ending on February 28.

**Yellowcake:** The product of the uranium extraction (milling) process. Early production methods resulted in a bright yellow compound, hence the name yellowcake. The material is a mixture of uranium oxides that can vary in proportion and color from yellow to orange to dark green (blackish), depending at which temperature the material was dried (level of hydration and impurities). Higher drying temperatures produce a darker, less soluble material. Yellowcake is commonly referred to as U3O8 and is assayed as pounds U3O8 equivalent. This fine powder is packaged in drums and sent to a conversion plant that produces uranium hexafluoride as the next step in the manufacture of nuclear fuel.

# Chapter 10. References

This page intentionally
left blank

# Bibliography

Abell, R. et al. 2000. "*Freshwater Ecoregions of North America*", Washington, D.C: Island Press .

Agriculture Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

Andres, B.A. and Stone, K.L. 2009. May 2009 Conservation Plan for the Mountain Plover (*charadriusmontanus*).

Arizona State Land Department 2009. Arizona Land Resource Information System (ALRIS). http://www.land.state.az.us/alris/data.html.

Behnke, R.J. and Benson, D.E. 1983. "Endangered and Threatened Fishes of the Upper Colorado River Basin". Washington, DC: U.S. Fish and Wildlife Service.

BLM 1986. "BLM Handbook H-8410-1, Visual Resource Inventory." Release 8-28, dated 1/17/1986. Washington, DC: GPO.

BLM 1990. "Rock Springs Wilderness Final Environmental Impact Statement." Rock Springs District. Rock Springs, Wyoming.

BLM 1991. "Wyoming Statewide Wilderness Study Report, Wilderness Study Area Specific Recommendations." Wyoming State Office. Washington, DC: GPO.

BLM 1992. "BLM Manual 8351, Wild and Scenic Rivers-Policy and Program Direction for Identification, Evaluation, and Management," Release 8-61, dated 5/19/1992. Washington, DC: GPO.

BLM 1996. "Green River Resource Management Plan and Final Environmental Impact Statement," Volumes 1 and 2. Green River Resource Area, Rock Springs District, Wyoming. Washington, DC: GPO.

BLM 1997. "Record of Decision and Green River Resource Management Plan," Green River Resource Area, Rock Springs District, Wyoming. Washington, DC: GPO.

BLM 1998. "BLM Manual 8270, Paleontological Resource Management," Release 8-68, dated 7/13/1998. Washington, DC: GPO.

BLM 1998. "BLM Handbook 8270-1, "General Procedural Guidance for Paleontological Resource Management," Release 8-69, dated 7/13/1998. Washington, DC: GPO.

BLM 2000. "Use of Visual Resource Management Class I Designation in Wilderness Study Areas," Instruction Memorandum 2000-096, dated 3/21/2000. Washington, DC: GPO.

BLM 2001. "National Off-Highway Vehicle (OHV) Strategy," Instruction Memorandum 2001-110, dated 2/23/2011. Washington, DC: GPO.

BLM 2003, America's Priceless Heritage: Cultural and Fossil Resources on Public Lands. http://www.blm.gov/heritage/docum/APH/GENERAL.PDF.

BLM 2005. "BLM Handbook H-1601-1, Land Use Planning Handbook," Release 2-295, dated 8/7/2006. Washington, DC: GPO.

BLM 2006. "BLM Handbook H-2930-1, Recreation Permit Administration Handbook," Release 2-295, dated 8/7/2006. Washington, DC: GPO.

BLM 2007. "The BLM's Priorities for Recreation and Visitor Services. BLM Workplan Fiscal Years 2003–2007.".

BLM 2008. Approved Resource Management Plan Amendments/ROD for Oil Shale and Tar Sands Resources to Address Land Use Allocation in Colorado, Utah, and Wyoming and Final Programmatic EIS, November.

BLM 2009. Alaska State Office. "Spatial Data Management System" Land System. http://sdms.ak.blm.gov/sdms/download.html.

Bradley, W.H. 1964. "Geology of Green River Formation and Associated Eocene Rocks in Southwestern Wyoming and Adjacent Parts of Colorado and Utah".

Bureau of Economic Analysis, U.S. Department of Commerce, Regional Economic Information System. http://bea.gov/bea/regional/data.htm.

Bureau of Labor Statistics. U.S. Department of Labor, Local Area Unemployment Statistics. http://www.bls.gov/lau.

Census Bureau, U.S. Department of Commerce. County Business Patterns. http://www.census.gov/econ/cbp/index.html.

Census Bureau, U.S. Department of Commerce. TIGER/Line County Boundaries 2007. http://www.census.gov/cgi-bin/geo/shapefiles/national-files.

Census Bureau, U.S. Department of Commerce. 2000. Decennial U.S. Census. http://www.census.gov.

Conservation Biology Institute. Protected Areas Database. 2006 and 2008. http://www.consbio.org/what-we-do/protected-areas-database-pad-version-4.

Connelly, J.W., M. A. Schroeder, A.R. Sands, and C.E. Braun. 2000. "Guidelines to manage sage grouse populations and their habitats," *Wildlife Society Bulletin* 28:1.

Dauwalter, D.C., H.M. Neville, and J.E. Williams 2009. A Landscape-based Protocol to Identify Management Opportunities for Aquatic Habitats and Native Fishes on Public Lands, Phase I: Green River Basin, Wyoming; July 15, 2009. BLM Cooperative Agreement PAA-08-0008.

DEQ 2008 305b Report. http://deq.state.wy.us/wqd/watershed/Downloads/305b/2008/2008%20Integrated%20Report.pdf.

DEQ 2010 305b Report. http://deq.state.wy.us/wqd/watershed/Downloads/305b/2010/WY2010IR.pdf .

Driver B.L., Douglas, R.W., and Loomis, J.B. 2000. Outdoor Recreation and Wilderness in America: Benefits and History in *Outdoor Recreation in American Life*. 21/February..

Fenneman, N.M. 1931. *Physiography of Western United States*, McGraw-Hill Book Company, Inc., New York and London, pp. 92-150.

Freshwater Ecoregions of the World. http://www.feow.org/index.php.

Geo/Resource Consultants, Inc. 1984. Green River Basin Geologic Resources Inventory.

Grande, Lance 1980. "*Paleontology of the Green River Formation, with a Review of the Fish Fauna*." Geological Survey of Wyoming, Bulletin No. 63, 333 pages.

Green, Stewart, 1991. Bureau of land Management; Back country byways. Falcon Press. MT. pp 166-167.

Hansen, W.R. 1969. "The Geologic Story of the Uinta Mountains," U.S. Geological Survey Bulletin 1291, 144 pp..

Love, J.D. and Christiansen, A.C., 1985. Geologic Map of Wyoming, U.S. Geological Survey.

Lowham, H.W, Delong, L.L., Collier, K.R., Zimmerman, E.A., 1982. USGS/WRI 81-62 Hydrology of Salt Wells Creek–A Plains Stream in Southwestern Wyoming. U.S. Geological Survey and Bureau of Land Management, April.

Minckley, W.L., et al. 1986. "Geography of western North American freshwater fishes: Description and relationships to intracontinental tectonism," In Hocutt, C.H. (Ed.). *The Zoogeography of North American Freshwater Fishes.* New York NY: John Wiley.

Montana State Library 2008. Natural Heritage Program, Land Ownership 2008 http://nris.mt.gov/gis/gisdatalib/gisDataList.aspx.

National Food Security Act Fifth Ed. http://policy.nrcs.usda.gov/RollupViewer.aspx?hid=29340. Natural Resource Conservation Service USDA.

NPS, 2008. National Park Service Public Use Statistics Office http://www.nature.nps.gov/stats/state.cfm?st=wy.

Page, L.M., and Burr, B.M. 1991. "*A field guide to freshwater fishes: North America north of Mexico.*" New York, NY: Houghton Mifflin Co.

Pellant, M., Shaver, P., Pyke, D., and Herrick, J. 2005. Interpreting Indicators of Rangeland Health, Version 4. Technical Reference 1734-6. Website: ftp://ftp-fc.sc.egov.usda.gov/GLTI/technical/publications/IIRH_v4_8-15-05.pdf. Bureau of Land Management USDI, Denver, CO.

Pergams, O.R.W., Zaradi C., Patricia A., 2006. "Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, internet use, and oil prices," *Journal of Environmental Management* 80, 387–393.

Peterson, J.A. 1988. "Overview: Carbonate Reservoir Facies, Wyoming and Parts of Montana," in Goolsyb, S.M. and Longman, M.W. (eds.), *Occurrence and Petrophysical Properties of Carbonate Reservoirs in the Rocky Mountain Region*, pp. 75—96. The Rocky Mountain Association of Geologists, Denver, Colorado.

Potential Fossil Yield Classification (PFYC) GIS Coverage. In development.

Rosgen D.L. and Silvey, H.L. 1996. *Applied River Hydrology,* Library of Congress Cat. No. 96-60962. Self Published Rosgen & Silvey.

Sigler, J. W. and Sigler, W. F. 1994. "Fishes of the Great Basin and Colorado Plateau: Past and present forms." In Harper, K.T., St. Clair, L.L., Thornes, K.H., Hess, W.M. (Ed.). *Natural History of the Colorado Plateau and Great Basin Niwot*. University of Colorado Press.

Smith, H., Beauvais, G. and Keinath, D. 2005. Species Conservation Assessment for Mountain Plover (*Charadrius montanus*). Report prepared for the BLM by Wyoming Natural Diversity Database. Laramie, WY. 49 pp.

Smith, H. and Keinath, D. 2004. Species Assessment for Mountain Plover (Charadrius montanus). Wyoming Natural Diversity Database, University of Wyoming, Laramie, WY.

Sonoran Institute, Theodore Roosevelt Conservation Partnership 2006. Backcountry Bounty: Hunters, Anglers and Prosperity in the American West. United States Department of the Interior Bureau of Land Management, 2006.

The Recreation Roundtable, 1994. Roggenbuck, J.W., Watson, A.E., 1989. Wilderness Recreation Use: The Current Situation. Forest Service Rocky Mountain Research Institute.

USC (United States Code). Public Law 90-542, Wild and Scenic Rivers Act of 1968, as amended," (16 USC 1271-1287, et seq.).

USC (United States Code). Public Law 91-190, National Environmental Policy Act of 1969," (42 USC 4321 et seq.).

USC (United States Code). Public Law 94-579, Federal Land Policy and Management Act of 1976, as amended," dated 10/21/1976. (43 USC 1701 et seq.).

USDA NRCS, 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Carribean, and the Pacific Basin*. Agriculture Handbook No. 296. Website: http://soils.usda.gov/survey/geography/mlra/index.html. Natural Resource Conservation Service USDA, Washington DC.

USGS, 1960. Handbook of Instructions, Branch of Mineral Classification, July.

USGS, 2010. Mineral Commodity Summaries, January.

USGS, Professional Paper, 496-A. pp. A1-A86.

Williams, J.E., et al. 1985. "Endangered aquatic ecosystems in North American deserts with a list of vanishing fishes of the region" *Journal of the Arizona-Nevada Academy of Sciences*, 20:1-62.

Wyoming State Board of Outfitters and Professional Guides 2007. Board Annual Report. http://outfitters.state.wy.us/pdf/Annual%20Report%202007.pdf.

Wyoming Travel Industry, 2007. Wyoming Travel Industry 2006 Impact Report.

# Appendix A. ROCK SPRINGS FIELD OFFICE FIRE MANAGEMENT UNITS (FMU)

## RSFO 1, Big Sandy and Steamboat Mountain FMU

### Description

**Location** – This FMU is located in the central and northwestern portion of the RSFO. It includes the communities of Farson and Eden and that portion of the City of Rock Springs north of Interstate Highway 80. The FMU contains a total of 2,396,242 acres with 1,643,514 acres of BLM-managed land; 456,220 acres of private surface; 198,037 acres of Bureau of Reclamation; 13,981 of USFWS; 79,262 acres of State of Wyoming Trust Land; and 3,228 acres of water. The southern one-third of the FMU is characterized by a "checkerboard" land pattern where even numbered sections are public and odd numbered sections are private (see Appendix A for map).

**Characteristics** – Interstate 80 forms the southern boundary and the major drainage system in the FMU consists of the Green River and its tributaries. This FMU consists of rolling sagebrush-dominated areas to rocky ridges with aspen and juniper woodlands, active and stabilized sand dunes, playa lakes, geologic uplifts and deep canyons. Elevations range from approximately 6,600 to approximately 8,600 feet above sea-level. Vegetation within the FMU is dominated by sagebrush with smaller amounts of greasewood flats, mountain shrub, aspen, juniper, riparian and coniferous forest types. Major resource uses include livestock grazing, three wild horse management areas (Little Colorado, White Mountain, and Great Divide Basin), wildlife habitat, dispersed recreation, historical interpretation and protection, Bridger Power Plant, several communities, and oil and gas exploration and development. Two active coal mines, several abandoned coal mines, and open seams exist in this FMU. Several special management areas are included within the FMU. These are identified in Values at Risk and Fire Management Strategies. Steamboat Mountain lies within the FMU. It contains unique vegetative communities and high value wildlife habitat. The Steamboat Mountain vegetative communities include associations of sagebrush with Utah snowberry and basin wild rye, bluebunch wheatgrass, and lemon scurfpea. In these communities, the primary resource management objective is to protect wildlife habitat. Generally, wildland fire is not desirable in the Steamboat Mountain area, although there may be opportunities for the use of planned ignitions or other vegetative treatment methods.

**Fire History** – Although there has been limited fire activity in this FMU; lightning-caused fires account for the majority of ignitions. Human-caused fires are possible with ignitions coming from recreational users and industrial operations. Wildland fires typically occur between June 1 and October 30. From 1998 through 2008, approximately 59 fires have occurred within this FMU, accounting for 4330.5 total acres burned. This represents an average of 5.9 wild fires per year, an average of 73.4 acres per fire, and an average of 433.05 acres burned per year. Historical weather data indicates frost could occur in the higher elevations most months of the year. Maximum temperatures for the FMU rarely exceed 100 degrees during the fire season. Throughout the summer months, some lightning storms bring wetting rain.

Fire Regime (FR) / Condition Class (CC) Analysis Area

**Table A.1. RSFO-01, Big Sandy and Steamboat Mountain FMU**

| Biophysical Setting | Historic Fire Regime Group | Condition Class 1 (Acres) | Condition Class 2 (Acres) | Condition Class 3 (Acres) | Total Acres |
|---|---|---|---|---|---|
| 2210660 Saltbush Shrubland | V | 499,334 | 0 | 0 | 499,334 |
| 2210801 Basin Big Sagebrush | II | 10,700 | 103,433 | 4,756 | 118,889 |
| 2210802 Wyoming Big Sagebrush | II | 199,733 | 665,770 | 85,600 | 951,103 |
| 2210810 Desert Shrub | V | 63,487 | 0 | 7,846 | 71,333 |
| 2211060 Montane-Foothill Deciduous Shrubland | III | 5,231 | 18,546 | 0 | 23,777 |
| 2211260 Mountain Sagebrush | II | 10,700 | 57,066 | 3,567 | 71,333 |
| 2211270 Semi-Desert Shrub-Steppe | V | 243,248 | 0 | 18,308 | 261,556 |
| 2211530 Greasewood Flat | V | 338,834 | 0 | 17,833 | 356,667 |
| 2211590 Montane Riparian Systems | III | 17,357 | 0 | 6,420 | 23,777 |
| Total Acres by Condition Class | | 1,388,624 | 844,815 | 144,330 | 2,377,769 |

**Values at Risk** – This fire management area contain historic trails, SRMAs, and six ACECs: Steamboat Mountain, Natural Corrals, Cedar Canyon, White Mountain Petroglyphs, Greater Sand Dunes, and the South Pass Historic Landscape. Four WSAs are entirely or partially inside the areas. The WSAs are Whitehorse Creek, Oregon Buttes, Buffalo Hump, and Sand Dunes. There are also important scenic resources (Class II VRM areas). These areas will be managed in accordance with specific special management area objectives. This FMU contains portions of the checkerboard land pattern, urban interface, major utility rights-of-way, and oil and gas fields. In these areas, management response to unplanned ignitions will be practiced. Constraints applied to fire management activities include protection of watershed, ACEC, and other special management area values.

**Communities at Risk** – There are no Communities at Risk identified in the *Federal Register* in this FMU. Communities in the FMU include Rock Springs, Farson, Eden, Superior, Reliance, and Point of Rocks.

**Safety Considerations** –This FMU contains several communities associated with ingress/egress limitations as well as concern over smoke impacts on population areas and major roadways and. There are significant dispersed recreational activities within this FMU as well as a high occurrence of oil and gas development and other industrial interface.

# Fire Management Objectives

The primary resource management objectives for these areas – consisting largely of greasewood, desert shrub, sagebrush, riparian, and conifer vegetative communities – are to reduce conifer and sagebrush encroachment into aspen and mountain shrub communities, to promote healthy timber regeneration and improve habitat for big game and sage-grouse, and to maintain or enhance habitat for special status species (plant and animal). Other objectives are to improve forage for

livestock and wild horses, to protect range improvements, to protect public and private property by reducing hazardous fuels near urban and industrial interface areas, and to reduce fuels hazards in and around BLM-administered recreation areas.

In those areas of the FMU that are predominantly BLM-administered lands (north of the checkerboard area), management response to unplanned ignitions, planned ignitions or other types of vegetative treatment could be used to meet resource management objectives.

**Suppression Objectives** – No more than 20 percent of BLM-managed land could be burned or treated in the next 20 years. Provide for human health and safety first, while minimizing loss of property, threats to private land, and maximizing the ecological benefit of wildland fire. Minimum Impact Suppression Tactics will be utilized depending on resources at risk and to maintain wilderness values and visual integrity of the WSA. Retardant and foam is prohibited within 300 feet of riparian areas or other sensitive issues. This FMU contains portions of the checkerboard land pattern, urban interface, coal mines, major utility rights-of-way, and oil and gas fields.

Throughout the remainder of the FMU, case-by-case decisions regarding fire suppression will be made consistent with the overall management objectives for the affected areas. All fires occurring at Fire Intensity Levels (FILs) 1-3 will be suppressed at < 100 acres 95 percent of the time. All fires occurring at Fire Intensity Levels (FILs) 4-6 will be suppressed at < 150 acres 90 percent of the time. These areas will be managed in accordance with specific special management area objectives. MIST or light hand tactics listed above will be followed in these areas. In addition, landing aircraft of any type should be minimized and only used with resource advisor approval, except in life treating situations. Helipads may be used upon receiving permission of the RSFO Field Manager, but must be limited to the minimum necessary for suppression. Minimize cutting of live and burned trees and snags. In the event that a tree poses a safety hazard and needs to be cut, trees should be cut flush to the ground and naturalized, and limbs should be scattered. Refrain from making piles. Scatter limbs and burned material in a natural looking manner.

Other area specific measures include:

- Wildland fires will be suppressed to a size no larger than 15 acres in the Steamboat Mountain ACEC when possible. All fires occurring at Fire Intensity Levels (FILs) 1-6 will be suppressed at < 15 acres 90 percent of the time.

- In the South Pass Historic Landscape ACEC use natural barriers, or fuel breaks as possible, minimize visual impacts, and motorized vehicle should not be used on historic trails unless approved by the Field Manager.

- Any fires greater than 5 acres in the Steamboat Mountain, Monument Ridge, North Table Mountain, South Table Mountain, Boars Tusk, and White Mountain areas will require cultural resource advisor input.

**Planned and Unplanned Ignition Objectives** – Opportunities for treatment with planned ignitions exist in some portions of the FMU (Jack Morrow Hills Planning Area, Little Prospect Mountain, and Prospect Mountain). Planned ignitions fuels treatments to reduce hazardous fuel accumulation, protect resources at risk, and meet vegetation objectives of improving plant community health will be limited, but considered when planning and implementing treatments. The landscape objective for this FMU is to maintain fuel condition classes 1 and 2, to maintain and improve important wildlife habitat, to maintain the integrity of lemon scurfpea/big sagebrush

communities, to protect sensitive species and threatened or endangered species, and to prevent invasion by exotic species.

**Landscape Objectives for Specific Upland Plant Communities:**

- Mixed Conifer – Maintain or create a mosaic of species and age class structure and promote stand health. Limit conifer to appropriate sites in order to prevent expansion into aspen and sagebrush/mountain shrub types.

- Mountain Shrub – Mountain shrub communities may contain one or several of the following species: serviceberry, antelope bitterbrush, mountain mahogany, snowberry, chokecherry, and currants. Most mountain shrub types also contain a significant amount of sagebrush which provides competition with the mountain shrubs. The objectives for this type are to maintain and enhance areas of this type by reducing sagebrush competition, and to encourage species diversity and age class structure (25% young, 50% mature, 25% over-mature/decadent).

- Aspen – This type is very limited within the FMU. Previous attempts to encourage sprouting and reduce sagebrush competition in this type in the Steamboat mountain area were largely unsuccessful due to post-burn browsing by elk. The large stands and amount of area covered by this type necessary to successfully treat with fire do not exist in the FMU. The objectives for this type are to maintain existing aspen stands by limiting competition from conifer and sagebrush and use by ungulates and encourage a diversity of age classes in aspen stands to reflect an ideal composition of 30% saplings, 60% young to mature trees, and 10% over-mature.

- Sagebrush/grassland – Maintain healthy sagebrush stands on appropriate sites. Manage sagebrush stands to achieve an ideal cover composition of 0 to 15% canopy cover (25%), 16% to 30% cover (60%), and greater than 30% cover (15%) as measured by the line intercept method.

- Juniper – Maintain juniper stands on sites where juniper is the potential natural community (PNC) and limit expansion into non-suitable sites where sagebrush or mountain shrub is the PNC.

**Non-Fire Fuels Treatments Objectives** – The implementation of non-fire fuel treatments (mechanical and chemical) could be used to help reduce hazardous fuel accumulations, as well as treat vegetation to reach vegetative resource objectives.

**Emergency Stabilization and Rehabilitation Objectives** – Emergency stabilization and/or rehabilitation actions will promote the reestablishment of healthy native plant communities and restored watershed function will be evaluated on a site-by-site basis following wildland fires. The emphasis will be to reestablish healthy native plant communities and restore watershed function.

**Community Protection/Community Assistance Objectives** – Fuels treatments and management response to unplanned ignitions will be implemented in the wildland/urban interface to minimize threats to resources at risk. There are no Communities At Risk listed in the *Federal Register* for this FMU.

# RSFO 2, Sweetwater FMU

## Description

**Location** – The FMU is located in the extreme northeastern portion of the RSFO. It includes all lands north and east of the Sweetwater River, that are within the RSFO. The FMU is adjacent to the Shoshone National forest along its northern edge. The FMU contains a total of 88,433 acres with 64,791 acres administered by the BLM; 15,008 acres of private land; 201 acres of Forest Service; and 8,433 acres of State of Wyoming Trust Land. The area is drained by the Sweetwater River and its tributaries. There are scattered ranches throughout the area, but no communities are located within the FMU (see Appendix A for map).

**Characteristics** –This FMU consists of rolling sagebrush-dominated areas to rocky ridges with limber and Lodgepole pine stands. A majority of the FMU is comprised of the toe slopes of the Wind River Mountains. The Sweetwater River forms the southern boundary and is the major drainage in the FMU. Elevations range from approximately 6,600 to approximately 8,000 feet above sea-level.

Vegetation within the FMU is dominated by sagebrush with smaller amounts of mountain shrub, aspen, juniper, riparian and coniferous forest types. Major resource uses include livestock grazing, wildlife habitat, dispersed recreation, historical interpretation and protection, and limited oil and gas exploration and development.

Several special management areas are included within the FMU including the Wind River Front SRMA, the Sweetwater River Wild and Scenic river segment, the Lander Cut-off of the Oregon Trail system, and Special Status Plant Species ACEC.

**Fire History** – The area has a low to moderate fire frequency. From 1999 through 2008, approximately 9 fires have occurred within this FMU, accounting for 9.8 total acres burned. This represents an average of 0.9 wild fires per year, an average of 1.09 acres per fire, and an average of 0.98 acres burned per year. Wildland fires typically occur between June 1 and October 30 with the majority of ignitions being lightning-caused. Human-caused fires (typically inadvertently started by recreational users and industrial operations) are possible. Historical weather data indicates frost could occur in the higher elevations most months of the year. Maximum temperatures for the FMU rarely exceed 100 degrees during the fire season. Throughout the summer months some lightning storms bring wetting rain.

## Fire Regime (FR) / Condition Class (CC) Analysis Area

**Table A.2. RSFO-02, Sweetwater FMU**

| Biophysical Setting | Historic Fire Regime Group | Condition Class 1 (Acres) | Condition Class 2 (Acres) | Condition Class 3 (Acres) | Total Acres |
|---|---|---|---|---|---|
| 2210110 Aspen Forest Woodland | III | 7,505 | 0 | 1,325 | 8,830 |
| 2210500 Lodgepole Pine Forest | IV | 1,422 | 14,217 | 4,671 | 20,310 |
| 2210550 Mixed Conifer | V | 1,543 | 664 | 2,208 | 4,415 |
| 2211260 Mountain Sagebrush | II | 10,066 | 0 | 530 | 10,596 |
| 2210801 Basin Big Sagebrush | II | 1,589 | 0 | 177 | 1,766 |

| Biophysical Setting | Historic Fire Regime Group | Condition Class 1 (Acres) | Condition Class 2 (Acres) | Condition Class 3 (Acres) | Total Acres |
|---|---|---|---|---|---|
| 2210802 Wyoming Big Sagebrush | II | 26,227 | 0 | 2,914 | 29,141 |
| 2210861 Foothill Shrubland – No True Mountain | II | 839 | 0 | 44 | 883 |
| 2211060 Montane-Foothill Deciduous Shrubland | II | 795 | 0 | 88 | 883 |
| 2211600 Subalpine/ Upper Montane Riparian Systems | III | 4,415 | 0 | 0 | 4,415 |
| 2211660 Douglas Fir | I | 1,413 | 5,298 | 353 | 7,064 |
| Total Acres by Condition Class | | 55,814 | 20,179 | 12,310 | 88,303 |

**Values at Risk** – The area contains sensitive resources including one ACEC (special status plants), SRMAs (part of the Wind River Front SMA), and wild and scenic river values.

**Communities at Risk** – There are no Communities at Risk identified in the *Federal Register* in this FMU. There are several ranches within the FMU.

**Safety Considerations** – There is significant dispersed recreational activities. Smoke impacts on major roadways.

**Fire Management Objectives**

The primary resource management objectives for this areas – consisting largely of sagebrush, riparian, and conifer vegetative communities – are to reduce conifer and sagebrush encroachment into aspen and mountain shrub communities, to promote healthy timber regeneration, to improve habitat for big game and sage-grouse, and to maintain or enhance habitat for special status species (plant and animal). Other objectives are to improve forage for livestock, wildlife, to protect range improvements, to protect public and private property by reducing hazardous fuels near urban interface, and to reduce fuels hazards in and around BLM-administered recreation areas.

In those areas of the FMU that are predominantly BLM-administered lands, management response to unplanned ignitions, planned ignitions or other types of vegetative treatment could be used to meet resource management objectives.

**Suppression Objectives** – No more than 10 percent of BLM-administered land could be burned or treated in the next 20 years. Provide for human health and safety first, while minimizing loss of property, threats to private land, and maximizing the ecological benefit of wildland fire. Minimum Impact Suppression Tactics (MIST) will be followed depending on resources at risk. This FMU contains portions of the urban interface. Full suppression will be taken in these areas. Throughout the remainder of the FMU, case-by-case decisions regarding fire suppression will be made that are consistent with the overall management objectives for the affected areas. Overall, up to 20% of BLM-managed land could be burned or treated over the next 20 years to achieve resource management objectives. All fires occurring at Fire Intensity Levels (FILs) 1-3 will be suppressed at < 500 acres 90 percent of the time. All fires occurring at Fire Intensity Levels (FILs) 4-6 will be suppressed at < 150 acres 90 percent of the time.

This fire management unit contains the Lander Cutoff Historic Trail, Sweetwater Bridge, Sweetwater Guard Station and the Wind River Front SRMAs, Sweetwater Wild and Scenic River, and Special Status Plant Species ACEC. These areas will be managed in accordance with specific special management area objectives. MIST or light hand tactics listed above will be followed in these areas. Minimize cutting of live and burned trees and snags. In the event that a tree poses a safety hazard and needs to be cut, trees should be cut flush to the ground and naturalized, and limbs should be scattered. Refrain from making piles. Scatter limbs and burned material in a natural looking manner. Other area specific measures include:

- In the Special Status Plant Species ACEC, no retardant is allowed and vehicles are prohibited in the enclosure without Field Manager approval. Landing helicopters requires resource advisor approval unless a life threatening situation occurs.

- No vehicles or equipment are allowed on the unimproved portions of the Lander Cutoff Historic Trail, unless authorized by the Rock Springs Field Manager.

- Full suppression tactics will be used within ¼ mile of the Sweetwater Bridge and Sweetwater Guard Station campground areas.

**Planned and Unplanned Ignition Objectives** – Opportunities for treatment with planned ignitions are limited in this FMU. Planned ignitions treatments to meet vegetation objectives of improving plant community health will be limited, but considered, when planning and implementing treatments.

The landscape objective for this FMU is to maintain fuel conditions classes I and II, to maintain and improve important wildlife habitat, to protect sensitive species and threatened or endangered species, to maintain high quality view sheds and air sheds, to protect segments of historic trails and to prevent invasion by exotic species.

**Landscape objectives for specific upland Plant Communities:**

- Mixed Conifer – Maintain or create a mosaic of species and age class structure and promote stand health. Limit conifer to appropriate sites in order to prevent expansion into aspen and sagebrush/mountain shrub types.

- Mountain Shrub – Mountain shrub communities may contain one or several of the following species: serviceberry, antelope bitterbrush, mountain mahogany, snowberry, chokecherry, and currants. Most mountain shrub types also contain a significant amount of sagebrush which provides competition with the mountain shrubs. Maintain and enhance areas of mountain shrub by reducing sagebrush competition and encourage species diversity and age class structure (30% young, 50% mature, 20% over-mature/decadent).

- Aspen – There are large aspen stands throughout the FMU. Maintain existing aspen stands by limiting competition from conifer and sagebrush and use by ungulates and encourage a diversity of age classes in aspen stands to reflect an ideal composition of 30% saplings, 60% young to mature trees, and 10% over-mature.

- Sagebrush/grassland – Maintain healthy sagebrush stands on appropriate sites. Manage sagebrush stands to achieve an ideal cover composition of 0 to 15% canopy cover (25%), 16% to 30% cover (50%), and greater than 30% cover (25%).

- Juniper – Maintain juniper stands on sites where juniper is the potential natural community (PNC) and limit expansion into non-suitable sites where sagebrush or mountain shrub is the PNC.

**Non-Fire Fuels Treatments Objectives** – The implementation of non-fire fuel treatments (mechanical and chemical) could be used to reduce hazardous fuel accumulations, as well as treat vegetation to reach vegetative resource objectives.

**Emergency Stabilization and Rehabilitation Objectives** – Emergency stabilization and/or rehabilitation actions will promote the reestablishment of healthy native plant communities and will be evaluated on a site by site basis following wildland fires.

**Community Protection/Community Assistance Objectives** – Fuels treatments and management response to unplanned ignitions will be implemented in the wildland/urban interface to minimize threats to resources at risk. There are no Federal Register Communities At Risk in the FMU.

# RSFO 3, Red Desert FMU

### Description

**Location** – The FMU is located entirely within the closed Red Desert Basin. Boundaries of the FMU include the Rawlins FO boundary on the east, and the west branch of the Continental Divide on the north, west and south. The FMU contains a total of 644,490 acres with 479,855 acres administered by the BLM; 144,655 acres of private surface; and 19,980 acres of State of Wyoming Trust Land. There is no human habitation and no communities in the FMU. A small amount of natural gas development has occurred and more is expected in the future (see Appendix A for map).

**Characteristics** – The area includes some checkerboard lands, major utilities, oil and gas fields, and the Great Divide Basin wild horse herd management area. Five WSAs and one ACEC are located in the area: Honeycomb Buttes WSA, Oregon Buttes WSA, South Pinnacles WSA, Alkali Basin/East Sand Dunes WSA, Red Lake WSA, and the Oregon Buttes ACEC. Portions of the ACEC have significant wildlife habitat or cultural values that need to be protected from wildland fire. Vegetation in the FMU consists of sagebrush, greasewood, saltbush, and small amounts of juniper and aspen. There are several alkali lakes, playa lakes, sand dunes (active and stable), and special status species plants and animals including sage-grouse throughout the area.

**Fire History** – The area has a low to moderate fire frequency. From 1999 through 2008, approximately 5 fires have occurred within this FMU, accounting for 237.4 total acres burned. This represents an average of 0.5 wildfires per year, an average of 47.48 acres per fire, and an average of 23.74 acres burned per year. Wildland fires typically occur between June 1 and October 30 with the majority of ignitions being lightning-caused. Human-caused fires (typically inadvertently started by recreational users and industrial operations) are possible.

### Fire Regime (FR) / Condition Class (CC) Analysis Area

**Table A.3. RSFO-03, Red Desert FMU**

| Biophysical Setting | Historic Fire Regime Group | Condition Class 1 (Acres) | Condition Class 2 (Acres) | Condition Class 3 (Acres) | Total Acres |
|---|---|---|---|---|---|
| 2210110 Aspen Forest Woodland | III | 6,439 | 0 | 0 | 6,439 |
| 2210660 Saltbush Shrubland | V | 109,478 | 0 | 0 | 109,478 |
| 2210720 Dwarf Sagebrush | V | 32,199 | 0 | 0 | 32,199 |
| 2210801 Basin Big Sagebrush | II | 3,156 | 41,923 | 0 | 45,079 |
| 2210802 Wyoming Big Sagebrush | II | 118,815 | 145,219 | 0 | 264,034 |
| 2210810 Desert Shrub | V | 64,398 | 0 | 0 | 64,398 |
| 2210861 Foothill Shrubland – No True Mountain | IV | 12,880 | 0 | 0 | 12,880 |
| 2211060 Montane-Foothill Deciduous Shrubland | II | 2,254 | 4,186 | 0 | 6,440 |
| 2211270 Semi-Desert Shrub-Steppe | V | 38,639 | 0 | 0 | 38,639 |
| 2211530 Greasewood Flat | V | 59,891 | 0 | 4,507 | 64,398 |
| Total Acres by Condition Class | | 448,149 | 191,328 | 4,507 | 643,984 |

**Values at Risk** – The area includes gas fields, segments of historic trails, five WSAs, and one ACEC.

**Communities at Risk** – There are no Communities at Risk identified in the *Federal Register* in this FMU. No communities exist in the FMU.

**Safety Considerations** – There is significant dispersed recreational activities and a moderate occurrence of oil and gas development and other industrial interface.

**Fire Management Objectives**

The primary fire objectives are to provide cost-effective protection from wildfire to life, property and resource values, maintain or improve wildlife habitat and livestock forage, sustain aspen communities by reducing conifer and sagebrush encroachment and stimulate aspen regeneration, promote healthy timber regeneration, protect cultural resources, and limit hazardous fuels in and around the wildland urban interface.

**Suppression Objectives** – No more than 5 percent of this FMU would be burned or treated in the next 20 years. All fires occurring at Fire Intensity Levels (FILs) 1 – 6 will be suppressed at < 10 acres 90 percent of the time. Provide for human health and safety first, while minimizing loss of property, threats to private land, and maximizing the ecological benefit of wildland fire. Minimum Impact Suppression Tactics (MIST) will be followed depending on resources at risk through a management response to unplanned ignitions. Overall, up to 5% of the public land in this FMU would be burned or treated in the next 20 years. On all BLM-administered lands within the FMU Minimum Impact Suppression Tactics (MIST) will be used whenever property or firefighter safety is not threatened. Roads and natural fuel breaks should be used in association

with indirect tactics to stop the fire in place of new fire line construction whenever possible and tactically effective. At no time will bulldozers be used without the written consent of the Rock Springs Field Manager. Fire retardant drops are prohibited within 300 feet of riparian, wetland areas, and other sensitive resources. Fire retardant drops are prohibited within ¼ mile (1,320 feet) of rock art unless authorized by a RSFO resource advisor. Prevent surface disturbing activity and retardant drop on known special status species. Within the WSAs and ACEC, specific guidelines for suppression are referred to in the Minimum Impact Suppression Tactics Implementation Guidelines and BLM Manual H-8550-1 Interim Management Policy for Lands under Wilderness Review. The strategy is to provide for human health and safety first, while minimizing impacts to the WSA values. Surface disturbing activities, including temporary fire camps and other sites used for fire suppression activities, must be located out of the WSA. Travel is limited to existing roads and trails. Landing aircraft of any type should be avoided, except in life treating situations. Helipads may be used upon receiving permission of the resource advisor, but must be limited to the minimum necessary for suppression. Minimize cutting of live and burned trees and snags. In the event that a tree poses a safety hazard and needs to be cut, trees should be cut flush to the ground and naturalized, and limbs should be scattered. Refrain from making piles. Scatter limbs and burned material in a natural looking manner. On the Seedskadee National Wildlife Refuge, the BLM will follow the strategies and tactics as determined by the Refuge Manager unless or until they threaten other land ownership or policy.

Other specific site concerns are as follows:

Any fires greater than 5 acres in the Buffalo Hump area will require cultural resource advisor input.

**Planned and Unplanned Ignition Objectives** – Fire occurrence in the FMU has been low historically. Fire has not been a major factor in sagebrush and juniper fuel types in most of the FMU. Planned ignitions fuels treatments to reduce hazardous fuel accumulation, protect resources at risk, and meet vegetation objectives of improving plant community health will be limited, but considered, when planning and implementing treatments.

The landscape objective for this FMU is to maintain fuel conditions classes 1 and 2, to maintain and improve important wildlife habitat, to protect sensitive species and threatened or endangered species, to maintain high quality viewshed and airsheds, to protect segments of historic trails and to prevent invasion by exotic species.

**Landscape objectives for specific upland Plant Communities:**

- Aspen – This type is limited within the FMU. The large stands and amount of area covered by this type, which are necessary to successfully treat with fire, do not exist in the FMU. The objectives for this type are to maintain existing aspen stands by limiting competition from conifer and sagebrush and use by ungulates and to encourage a diversity of age classes in aspen stands to reflect an ideal composition of 30% saplings, 60% young to mature trees, and 10% over-mature.

- Sagebrush/grassland – Maintain healthy sagebrush stands on appropriate sites. Manage sagebrush stands to achieve an ideal cover composition of 0 to 15% canopy cover (30%), 16% to 30% cover (60%), and greater than 30% cover (20%).

- Juniper – Maintain juniper stands on sites where juniper is the potential natural community (PNC) and limit expansion into non-suitable sites where sagebrush or mountain shrub is the PNC.

**Non-Fire Fuels Treatments Objectives** – The implementation of non-fire fuel treatments (mechanical and chemical) could be used to reduce hazardous fuel accumulations, as well as treat to reach vegetative resource objectives.

**Emergency Stabilization and Rehabilitation Objectives** – Emergency stabilization and/or rehabilitation actions will promote the reestablishment of healthy native plant communities and will be evaluated on a site-by-site basis following wildland fires. All treatments will follow the guidelines established in the DOI Interagency Burned Area Emergency Stabilization and Rehabilitation Guidebook.

**Community Protection/Community Assistance Objectives** – Fuels treatments and management response to unplanned ignitions will be implemented in the industrial interface to minimize threats to resources at risk. There are no Federal Register Communities At Risk in the FMU.

# RSFO 4, Little Mountain FMU

### Description

**Location** – The Little Mountain FMU encompasses all of the RSFO that lies south of Interstate Highway 80. The area is very large, extending from Adobe Town on the east to Hickey Mountain on the west (approximately 120 miles). The FMU contains a total of 2,127,565 acres with 1,411,497 acres administered by the BLM; 6,236 acres administered by the USDA Forest Service; 631,441 acres of private surface; 77,724 acres of State of Wyoming Trust Land; and 758 acres of water (see Appendix A).

**Characteristics** – Because of the large area represented by the FMU, the character of the area is highly variable. Land types range from largely un-vegetated badland to lushly vegetated high mountains. Elevations range from approximately 6,000 feet above sea level to nearly 10,000 feet at the summit of Pine Mountain. Major vegetation types include sagebrush/grassland, grassland, juniper woodland, riparian, mountain shrub, salt desert shrub, aspen woodland, coniferous forest and greasewood.

Within the FMU are four subunits: Little Mountain, Pine Mountain, Aspen Mountain, and Pine Butte. These areas were segregated for increased management attention due to fuel types, critical resource values, high recreational use, Threatened and Endangered species, and high value communications concentration in the Wildland Urban Interface on Aspen Mountain. The predominant fuel type in the Pine Mountain, Little Mountain and Pine Butte areas is coniferous forest. The common species in this type are lodgepole and limber pine, sub-alpine fir and Douglas fir. In Aspen Mountain, the predominant fuel type is grassland with a minor component of sagebrush /grass and aspen woodland.

The area provides important habitat to a wide variety of wildlife species including pronghorn antelope, elk, mule deer, moose, sage-grouse, white-tailed prairie dogs, other rodents and mammalian predators, raptors and songbirds, amphibians, reptiles, and fish. The Colorado River cutthroat trout is well represented in streams in the Little Mountain and Pine Mountain areas. Existing land uses include dispersed recreation, livestock grazing, oil and gas exploration and development, and wildlife habitat.

**Fire History** – From 1999 through 2008, approximately 425 fires have occurred within this FMU, accounting for 93,591.6 total acres burned. This represents an average of 42.5 wild fires per year at an average of 220.22 acres per fire, and an average of 9,359.16 acres burned per year.

Wildland fires typically occur between June 1 and October 30 with the majority of ignitions being lightning-caused. Fire occurrence in this FMU is high, especially in and around the Little and Pine Mountain areas. The vast majority of natural ignitions in the southwest zone occur in this FMU. Human-caused fires (typically inadvertently started by recreational users and industrial operations) are possible. Historical weather data indicates frost could occur in the higher elevations most months of the year. Maximum temperatures for the FMU rarely exceed 100 degrees during the fire season. Throughout the summer months some lightning storms bring wetting rain.

**Fire Regime (FR) / Condition Class (CC) Analysis Area**

**Table A.4. RSFO-04, Little Mountain FMU**

| Biophysical Setting | Historic Fire Regime Group | Condition Class 1 (Acres) | Condition Class 2 (Acres) | Condition Class 3 (Acres) | Total Acres |
|---|---|---|---|---|---|
| 2210110 Aspen Forest Woodland | III | 3,860 | 36,027 | 3,002 | 42,889 |
| 2210500 Lodgepole Pine Forest | IV | 5,575 | 14,797 | 1,072 | 21,444 |
| 2210550 Mixed Conifer | III | 8,579 | 0 | 12,867 | 21,446 |
| 2210720 Dwarf Sagebrush | V | 21,445 | 0 | 0 | 21,445 |
| 2211260 Mountain Sagebrush | II | 260,551 | 0 | 61,117 | 321,668 |
| 2210801 Basin Big Sagebrush | II | 3,002 | 36,457 | 3,431 | 42,890 |
| 2210802 Wyoming Big Sagebrush | IV | 266,341 | 289,502 | 23,160 | 579,003 |
| 2210160 Pinyon-Juniper | III | 320,382 | 65,620 | 0 | 386,002 |
| 2210660 Saltbush Shrubland | V | 150,112 | 0 | 0 | 150,112 |
| 2210810 Desert Shrub | V | 85,778 | 0 | 0 | 85,778 |
| 2210861 Foothill Shrubland – No True Mountain | IV | 35,169 | 7,720 | 0 | 42,889 |
| 2210862 Foothill Shrubland – True Mountain Mahogany | IV | 18,872 | 2,573 | 0 | 21,445 |
| 2211060 Montane-Foothill Deciduous Shrubland | II | 113,227 | 0 | 15,440 | 128,667 |
| 2211270 Semi-Desert Shrub-Steppe | V | 171,556 | 0 | 0 | 171,556 |
| 2211530 Greasewood Flat | V | 64,334 | 0 | 0 | 64,334 |
| 2211600 Subalpine/ Upper Montane Riparian Systems | III | 8,578 | 12,867 | 0 | 21,445 |
| 2211590 Montane Riparian Systems | III | 16,728 | 0 | 4,717 | 21,445 |
| Total Acres by Condition Class | | 1,554,089 | 465,563 | 124,806 | 2,144,458 |

**Values at Risk** – The Flaming Gorge National Recreation Area, administered by the Forest Service, borders this fire management area along with the Wasatch-Cache and Ashley National

Forests. Seedskadee National Wildlife Refuge falls in this FMU. There are three WSAs within this fire management area: Devils Playground/Twin Buttes, Red Creek, and Adobe Town.

**There are three ACECs:** Pine Springs, Greater Red Creek, and a portion of the Special Status Plant Species ACEC. The objectives for the Pine Springs ACEC include maintaining or enhancing important cultural, historic, and prehistoric values (see page 4-5 in the GRRMP). Objectives for Greater Red Creek include maintaining or enhancing fragile soils, Colorado River cutthroat trout habitat, and water quality (see GRRMP page 34 for objectives). The objectives for the Special Status Plant Species ACEC include maintaining or enhancing plant species and their habitats. There are several gas and oil plants, pipelines, and associated facilities throughout the FMU.

**Three other special management areas also exist in this area:** Monument Valley, Pine Mountain, and Sugarloaf Basin. The primary objective for these special management areas is to protect wildlife, geologic, cultural, watershed, and scientific values.

**Communities at Risk** – This fire management area contains urban interface including the communities of Rock Springs and Green River and their surrounding residential areas, Table Rock, McKinnon, and Lonetree. None of these communities are listed in the *Federal Register*.

**Safety Considerations** – This FMU contains several scattered residences associated with ingress/egress limitations as well as concern over smoke impacts on population areas and major roadways and. There is significant dispersed recreational activity. High occurrence of oil and gas development and other industrial interface. In addition, beetle kill and previously burned timber pose specific hazards. The Sweetwater County-Rock Springs Airport is within this FMU.

**Fire Management Objectives**

The primary fire objectives are to provide cost-effective protection from wildfire to life, property and resource values, maintain or improve wildlife habitat and livestock forage, sustain aspen communities by reducing conifer and sagebrush encroachment and stimulate aspen regeneration, promote healthy timber regeneration, protect cultural resources, and limit hazardous fuels in and around the wildland urban interface.

**Suppression Objectives** – No more than 25 percent of this FMU would be burned or treated in the next 20 years. Provide for human health and safety first, while minimizing loss of property, threats to private land, and maximizing the ecological benefit of wildland fire. Minimum Impact Suppression Tactics (MIST) will be followed depending on resources at risk. On private lands, full suppression tactics will occur unless an agreement or MOU is in place with the landowner allowing other management responses to unplanned ignitions. On Seedskadee Wildlife Refuge, the BLM will follow the strategies and tactics as determined by the Refuge Manager unless or until they threaten other land ownership or policy. On all BLM-administered lands within the FMU, Minimum Impact Suppression Tactics (MIST) will be used whenever property or firefighter safety is not threatened. Roads and natural fuel breaks should be used in association with indirect tactics to stop the fire in place of new fire line construction whenever possible. At no time will bulldozers be used without the written consent of the Rock Springs Field Manager. Fire retardant drops are prohibited within 1/4 mile (1,320 feet) of rock art sites unless authorized by a RSFO resource advisor, and 300 feet of riparian, wetland areas, and other sensitive resources. Prevent surface disturbing activity and retardant drop on known special status species. Within the WSA specific guidelines for suppression are referred to in the Minimum Impact Suppression Tactics Implementation Guidelines and the BLM Manual H-8550-1 Interim Management Policy for Lands under Wilderness Review. The strategy is to provide for human health and safety first,

while minimizing impacts to the WSA values. Surface disturbing activities including temporary fire camps and other sites used for fire suppression activities must be located out of the WSA. Travel is limited to existing roads and trails. Landing aircraft of any type should be avoided, except in life treating situations. Helipads may be used upon receiving permission of the resource advisor, but must be limited to the minimum necessary for suppression. Minimize cutting of live and burned trees and snags. In the event that a tree poses a safety hazard and needs to be cut, trees should be cut flush to the ground and naturalized, and limbs should be scattered. Refrain from making piles. Scatter limbs and burned material in a natural looking manner. All fires occurring at Fire Intensity Levels (FILs) 1 – 6 will be suppressed at < 2500 acres 90 percent of the time.

Special suppression considerations are required in the following areas:

- In the Special Status Plant Species ACEC, within the McKinnon enclosure, no vehicles are allowed. In the remaining portions of the ACEC, vehicles are limited to existing roads and trails.
- Any fires greater than 5 acres in the Little Mountain, Teepee Mountain, and Aspen Mountain areas will require cultural resource advisor input.

The landscape objective for this FMU is to maintain or achieve fuel conditions classes I and II, to maintain and improve watershed condition and important wildlife habitat, to protect sensitive species and threatened or endangered species habitats, to maintain high quality viewshed and airsheds, to protect segments of historic trails and to prevent invasion by invasive species.

**Planned and Unplanned Ignition Objectives** – Planned ignitions and fuels treatments will be utilized in order to reduce hazardous fuel accumulation, to protect resources at risk, and to meet vegetation objectives of improving plant community health will be implemented.

**Landscape objectives for specific upland Plant Communities:**

- Mixed Conifer – Maintain or create a mosaic of species and age class structure and promote stand health. Limit conifer to appropriate sites to prevent expansion into aspen and sagebrush/mountain shrub types.
- Mountain Shrub – Mountain shrub communities may contain one or several of the following species: serviceberry, antelope bitterbrush, mountain mahogany, snowberry, chokecherry, and currants. Most mountain shrub types also contain a significant amount of sagebrush which provides competition with the mountain shrubs. The objectives for this type are to maintain and enhance areas of this type by reducing sagebrush competition and encourage species diversity and age class structure (30% young, 50% mature, 20% over-mature/decadent).
- Aspen – This type is abundant in the Little Mountain and Pine Mountain areas and the potential for increased acreage of this type with the use of fire exists. The large stands and amount of area covered by this type, which are necessary to successfully treat, do exist in the FMU. The objectives for this type are to maintain existing aspen stands by limiting competition from conifer and sagebrush and use by ungulates and encourage increased acreage of this type and a diversity of age classes in aspen stands to reflect an ideal composition of 30% saplings, 60% young to mature trees, and 10% over-mature.
- Sagebrush/grassland – Maintain healthy sagebrush stands on appropriate sites and manage sagebrush stands to achieve an ideal cover composition of 0 to 15% canopy cover (30%), 16% to 30% cover (50%), and greater than 30% cover (20%).

- Juniper – Maintain juniper stands on sites where juniper is the potential natural community (PNC) and limit expansion into non-suitable sites where sagebrush or mountain shrub is the PNC.

**Non-Fire Fuels Treatments Objectives** – The implementation of non-fire fuel treatments (mechanical and chemical) could be used to help reduce hazardous fuel accumulations, as well as treat vegetation to reach vegetative resource objectives.

**Emergency Stabilization and Rehabilitation Objectives** – Emergency stabilization and/or rehabilitation actions will promote the reestablishment of healthy native plant communities and will be evaluated on a site-by-site basis following wildland fires. All treatments will follow the guidelines established in the DOI Interagency Burned Area Emergency Stabilization and Rehabilitation Guidebook.

**Community Protection/Community Assistance Objectives** – Fuels treatments and management responses to unplanned ignitions will be implemented in the wildland/urban interface to minimize threats to resources at risk. Fuels treatments and management response to unplanned ignitions will be implemented it the wildland urban interface to minimize threats to resources at risk. Communities at risk identified in the *Federal Register* in this FMU consist of Rock Springs and Green River, Reliance, Superior, Jamestown, Table Rock, McKinnon, and Lonetree, and Point of Rocks.