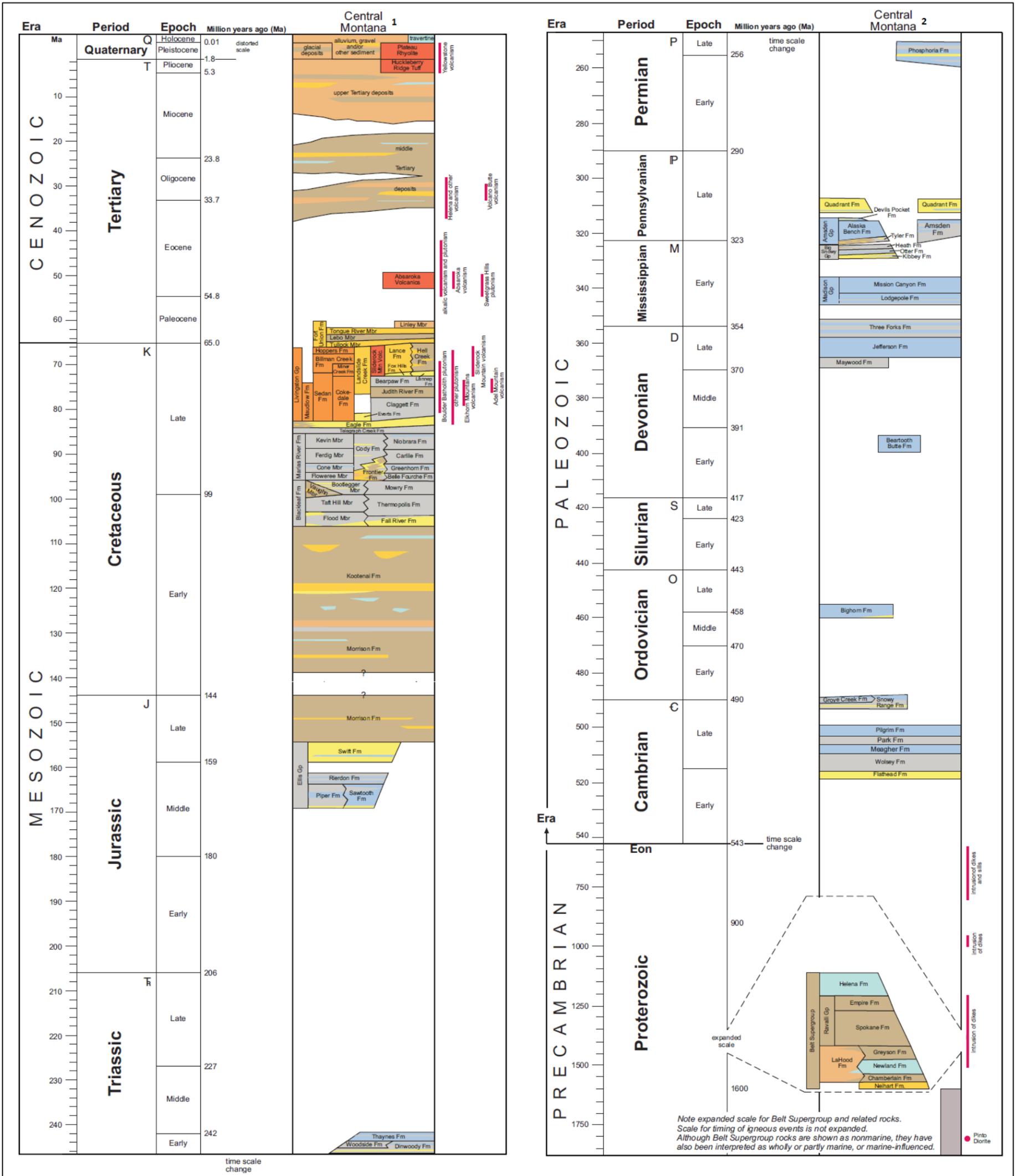


APPENDIX A

STRATIGRAPHIC COLUMN OF CENTRAL MONTANA



APPENDIX B

Dominant Soil Map Units in the Planning Area

Map Unit Name	Acres
Pylon-Dutton-Cargill-Abor (s3987)	16,517
Work-Sinnigam-Borky-Absarokee (s3990)	118,306
Marvan-Benz-Absher (s3994)	72,585
Courville-Bata (s4016)	5,592
Vida-Bearpaw (s4019)	393,913
Scravo-Binna (s4031)	11,544
Yawdim-Castner-Bitton (s4033)	182,135
Ipano-Castner-Bitton (s4034)	83,017
Wayden-Macar-Dimyaw-Cabba (s4064)	101,813
Wayden-Timberg-Cabba (s4067)	4,422
Neldore-Cabbart-Badland (s4069)	118
Rock outcrop-Rentsac-Cabbart (s4079)	18,337
Yamac-Rock outcrop-Delpoint-Cabbart (s4084)	117,755
Regent-Chama-Castner-Big Timber (s4091)	5,948
Darret-Castner (s4094)	124,850
Reeder-Castner (s4097)	37,609
Timberg-Castner-Borky-Absarokee (s4099)	152,395
Yetull-Chinook-Assinniboine (s4108)	13,502
Chinook-Brockway-Assinniboine (s4110)	3,471
Tally-Chinook (s4111)	22,467
Chinook variant-Chinook (s4112)	10
Work-Wayden-Regent-Reeder-Len-Coben (s4113)	58,000
Stemple-Garlet-Evaro-Cowood (s4118)	170,207
Rubble land-Rock outcrop-Helmville-Garlet-Cowood-Cheadle (s4121)	4,848
Musselshell-Crago (s4124)	51,172
Musselshell-Fairfield-Crago (s4125)	92,941
Totelake-Stryker variant-Stady-Irim family-Fairway (s4130)	3,914
Fairfield-Danvers (s4133)	95,380
Delpoint-Cabbart (s4140)	203,288
Slickspots-Delpoint-Cabbart (s4141)	113,193
Yamac-Delpoint-Cabbart (s4142)	93,564
Marmarth-Delpoint (s4144)	83,379
Wayden-Reeder-Doney-Castner-Cabba (s4152)	11,803
Winifred-Doney (s4154)	139,061
Sipple-Regent-Judith-Doughty (s4157)	95,752
Pylon-Dutton-Cargill (s4161)	19,724
Terrad-Maginnis-Eltsac-Big Timber-Alder (s4162)	66,814
Lambeth-Kobar-Ethridge (s4163)	15,783
Marias-Kobar-Ethridge (s4164)	147,447
Yawdim-Rothiemay-Evanston-Abor (s4166)	7,633

APPENDIX B

Dominant Soil Map Units in the Planning Area

Map Unit Name	Acres
Evanston-Ethridge (s4167)	828
Martinsdale-Fairfield-Cabba (s4169)	27,825
Villy variant-Villy-Truchot-Tetonview-Meadowcreek-Hagga family-Fairway family (s4171)	49,870
Twin Creek-Gerber-Fergus (s4178)	10,561
Lonna-Kremlin-Floweree (s4184)	53,313
Rubble land-Rock outcrop-Garlet-Cowood (s4194)	27,260
Worock-Swifton-Mord-Loberg-Helmville-Garlet (s4197)	18,859
Sieben-Niart-Geohrock-Crago (s4199)	3,322
Lawther-Gerber (s4200)	50,164
Gerdrum-Creed-Absher (s4201)	17,164
Harlem-Gerdrum-Ethridge (s4203)	166,374
Tibson-Raynesford-Hanson-Babb (s4216)	14,070
Straw-Ryell-Rivra-Korent-Havre-Harlem (s4223)	80,858
Vanda-Marvan-Harlem-Ethridge (s4224)	15,415
Yamac-Havre-Harlem-Glendive (s4233)	15,305
Ryell-Rivra-Havre-Glendive (s4239)	34,857
Whitore-Swifton-Helmville-Garlet (s4248)	64,235
Whitore-Helmville (s4249)	372,003
Work-Hilger-Castner (s4251)	23,452
Holloway-Evaro (s4257)	647
Windham-Holter-Hilger-Castner (s4260)	15,462
Tomty-Hughesville-Castle (s4261)	33,371
Judith-Danvers (s4270)	181,202
Windham-Kiev-Judith (s4272)	106,409
Thebo-Neldore-Julien-Gerdrum (s4273)	154,683
Roundor-Kiev-Cabba-Amor (s4278)	61,584
Winspect-Kiev-Fairfield (s4279)	144,057
Winspect-Kiev (s4280)	34,779
Yamac-Rivra-Kobar-Havre-Binna (s4286)	14,751
Yetull-Rivra-Lihen-Korent (s4287)	10,822
Kremlin-Delpoint-Cabbart (s4288)	19,897
Lambeth-Hillon-Havre-Glendive (s4296)	34
Yourame-Perma-Hilger-Farnuf (s4306)	1,206
Monad-Libeg-Hanson (s4310)	265,998
Loberg-Eltsac-Castner-Borky-Blythe-Absarokee (s4317)	28,737
Rock outcrop-Mord-Loberg-Helmville-Garlet (s4320)	16,769
Swifton-Mord-Mikesell family-Loberg-Helmville-Garlet (s4321)	5,774
Whitore variant-Mord-Loberg (s4322)	15,649

APPENDIX B

Dominant Soil Map Units in the Planning Area

Map Unit Name	Acres
Whitore-Loberg-Hanson (s4323)	49,880
Maginnis-Absarokee (s4340)	57,801
Marcott-Harlem-Frazer (s4343)	72,447
Marias-Kobar-Abor (s4344)	30,805
Marias-Kobar (s4346)	113,102
Pendroy-Marias (s4347)	93,575
Reeder-Martinsdale-Fairfield-Beaverton (s4350)	186,413
Zatoville-Vanda-Marvan-Havre-Harlem-Gerdrum (s4359)	6,200
Vaeda-Marvan-Marias-Lohler family (s4361)	12,569
Villy variant-Villy-Soapcreek-Meadowcreek-Hagga family-Fairway (s4370)	19,113
Monad-Loggert-Libeg (s4381)	48,922
Trudau-Rivra-Neen (s4388)	8,915
Volborg-Rock outcrop-Neldore-Amherst-Abor (s4390)	118,725
Neldore-Hillon-Badland (s4392)	19,200
Neldore-Bascovy (s4395)	37,481
Rock outcrop-Neldore-Marvan (s4400)	69,019
Yawdim-Thebo-Rock outcrop-Neldore-Delpoint (s4401)	281,175
Rock outcrop-Neldore-Bascovy (s4404)	163,816
Scravo-Nippt-Binna-Attewan-Ashlo (s4405)	14,715
Winifred-Norbert-Eltsac (s4406)	197,225
Owen Creek-Cheadle-Bynum-Bridger (s4413)	248,572
Pendroy-Linnet-Ethridge variant (s4417)	32,379
Yawdim-Reeder-Fairfield-Castner (s4438)	34,631
Regent-Reeder (s4440)	237,228
Regent-Reeder-Castner-Cabba (s4443)	96,521
Rock outcrop-Phillcher-Coerock (s4457)	8,771
Whitore-Tropal-Rubble land-Rock outcrop-Dryadine (s4458)	39,381
Rock outcrop-Garlet (s4459)	4,723
Rock outcrop-Holloway-Coerock (s4461)	806
Rothiemay-Crago-Binna (s4472)	9,819
Rothiemay-Niart-Crago (s4473)	253,090
Slickspots-Saypo-Rothiemay-Kremlin (s4474)	37,803
Roy (s4477)	83,180
Ustic Torrifluvents-Ryell-Rivra-Korchea-Havrelon family-Hagga family (s4483)	26,707
Sagedale-Macar (s4484)	9,238
Vanda-Sagedale-Marvan (s4485)	17,334
Straw-Savage-Judith-Fairway (s4491)	83,892
Work-Sweetgrass-Savage-Roy-Chama (s4492)	795
Truchot-Tetonview-Saypo (s4494)	12,192

APPENDIX B

Dominant Soil Map Units in the Planning Area

Map Unit Name	Acres
Scobey-Kevin-Hillon (s4496)	483,304
Scobey-Kevin (s4497)	144,229
Starley-Skaggs-Raynesford (s4506)	95,933
Whitore-Swifton-Starley-Rubble land-Rock outcrop-Garlet (s4509)	170,516
Whitore-Swifton-Starley-Rubble land-Rock outcrop-Garlet (s4510)	132,592
Starley-Skaggs-Kildor (s4511)	58,178
Tigeron-Stemple-Mocmont-Helmville (s4514)	170,807
Tigeron-Stemple-Shadow-Garlet (s4515)	439,365
Sweetgrass-Martinsdale-Hilger-Fairfield (s4518)	946
Tally-Lihen-Ervide-Azaar (s4522)	47,253
Windham-Tamaneen-Judith (s4523)	214,870
Tanna-Marmarth (s4524)	28,965
Yawdim-Yamac-Tanna-Marmarth-Delpoint (s4525)	129,159
Tanna-Pylon-Megonot (s4526)	56,573
Welter-Volborg-Teigen-Rock outcrop-Neldore (s4528)	4,792
Telstad-Joplin-Chinook (s4531)	475
Telstad-Joplin-Hillon (s4532)	38,164
Thebo-Neldore (s4536)	436,824
Tibson-Babb-Adel (s4539)	24,428
Worock-Tigeron-Libeg-Garlet-Cowood (s4540)	3,869
Timberg-Castner-Bitton (s4541)	63,348
Tolex-Rock outcrop-Mocmont-Holter-Castner (s4544)	295,723
Yourame-Winfall-Totelake-Rumblecreek (s4547)	285
Whitore-Tropal-Swifton-Rock outcrop (s4549)	47,480
Whitore-Tropal-Swifton-Rock outcrop-Helmville (s4550)	203,135
Truchot-Tetonview-Saypo (s4551)	22,129
Twilight-Marmarth-Delpoint-Busby-Blackhall (s4558)	46,911
Vanda-Marcott family-Absher (s4563)	7,166
Waldbillig-Rock outcrop-Phillcher-Holloway-Coerock (s4577)	12
Weingart-Neldore-Gerdrum-Cabbart-Bascovy (s4584)	24,188
Winifred-Werner-Wayden (s4585)	21,888
Whitecow-Mocmont-Hughesville (s4586)	278,339
Whitore-Whitecow-Trapps-Rock outcrop (s4587)	74,896
Whitore-Whitecow-Rock outcrop-Hanson (s4591)	4,825
Whitore-Tibson-Adel (s4592)	19,771
Whitore-Tropal-Swifton-Rock outcrop-Loberg (s4593)	78,472
Whitore-Whitecow-Trapps (s4594)	302,447
Zahill-Williams (s4602)	3,891
Windham-Utica (s4605)	6,986

APPENDIX B

Dominant Soil Map Units in the Planning Area

Map Unit Name	Acres
Winifred-Linwell-Gerber (s4608)	39,840
Winifred-Utica-Maginnis-Danvers (s4614)	164,136
Winspect-Kiev (s4615)	95,365
Work-Turner-Shawmut-Farnuf (s4619)	44,292
Worock-Swifton-Stemple-Mikesell-Helmville-Garlet-Cowood (s4623)	44,711
Worock-Garlet-Danaher (s4625)	5,649
Yourame-Worock (s4627)	27,833
Yawdim-Megonot-Abor (s4635)	24,653
Yawdim-Orinoco-Delpoint-Cabbart (s4637)	20,210
Yawdim-Orinoco-Gerdrum-Amherst (s4643)	254,238
Water (s8369)	46,802

APPENDIX C
IMPAIRED STREAMS IN THE LEWISTOWN PLANNING AREA

4th Level Hydrologic Unit	Impairment Class	Feature Name	Impairment	Cause(s) of Stream Impairment	Total Stream Miles	BLM Miles	% Stream BLM	Functional Rating Miles	% PFC Rating
Fort Peck Reservoir	5	Armells Creek	Cadmium [CFL 1992], pH [CFL 1992], Mercury [CFL 1992], Copper [CFL 1992], Zinc [CFL 1992]	Impacts from Abandoned Mine Lands (Inactive)	80.6	1.60	2.0%	0.73 Not Assessed, 0.87 FAR	45.6 % Not Assessed, 54.4% FAR
Arrow	5, 2B	Arrow Creek	Iron [CFL 2006]	Natural Sources	42.3	0.74	1.7%	Not Assessed	100% Not Assessed
Upper Missouri	5	Battle Creek*	Sedimentation/Siltation [CFL 1990], Temperature, water [CFL 2006], Phosphorus (Total) [CFL 2006], Low flow alterations, Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones, Irrigated Crop Production	22.8	0.42	1.9%	0.42 PFC	100% PFC
Belt	5	Belt Creek*	Sedimentation/Siltation [CFL 1988], Chromium (total) [CFL 1988], Copper [CFL 1988], Alteration in stream-side or littoral vegetative covers, Other anthropogenic substrate alterations	Acid Mine Drainage, Impacts from Abandoned Mine Lands (Inactive), Grazing in Riparian or Shoreline Zones, Highways, Roads, Bridges, Infrastructure (New Construction), Channelization	90.3	0.20	0.2%	Not Assessed	100% Not Assessed
Belt	5	Big Otter Creek*	Sedimentation/Siltation [CFL 1996], Nitrates [CFL 2000], Alteration in stream-side or littoral vegetative covers, Physical substrate habitat alterations	Channelization, Highways, Roads, Bridges, Infrastructure (New Construction), Grazing in Riparian or Shoreline Zones	33.5	0.00	0.0%	Not Assessed	100% Not Assessed
Lower Musselshell	4C	Blood Creek*	Alteration in stream-side or littoral vegetative covers	Grazing in Riparian or Shoreline Zones, Natural Sources	57.4	20.88	36.4%	0.85 Not Assessed, 13.03 PFC, 3.36 FAR, 3.63 NF	4.1% Not Assessed, 62.4% PFC, 16.1% FAR, 17.4% NF
Box Elder	5	Chicago Gulch	pH [CFL 1992], Lead [CFL 1992], Zinc [CFL 1992]	Acid Mine Drainage, Impacts from Abandoned Mine Lands (Inactive)	156.4	1.33	0.9%	1.33 PFC	100% PFC
Arrow	5	Coffee Creek	Selenium [CFL 2006], Total Dissolved Solids [CFL 2006], Nitrate/Nitrite (Nitrite + Nitrate as N) [CFL 1990]	Natural Sources, Crop Production (Crop Land or Dry Land), Animal Feeding Operations (NPS)	33.0	1.15	3.5%	0.50 Not Assessed, 0.65 FAR	43.5% Not Assessed, 56.5% FAR
Box Elder	5	Collar Gulch	pH [CFL 1992], Lead [CFL 1992], Zinc [CFL 1992]	Acid Mine Drainage, Impacts from Abandoned Mine Lands (Inactive)	6.4	2.50	39.1%	2.16 PFC, 0.34 NF	86.3% PFC, 13.7% NF
Bullwhacker-Dog	5	Dog Creek	Nitrate/Nitrite (Nitrite + Nitrate as N) [CFL 2004], Sedimentation/Siltation [CFL 2004]	Grazing in Riparian or Shoreline Zones	81.6	12.31	15.1%	8.92 PFC, 3.38 FAR	72.4% PFC, 27.6% FAR

APPENDIX C
IMPAIRED STREAMS IN THE LEWISTOWN PLANNING AREA

4th Level Hydrologic Unit	Impairment Class	Feature Name	Impairment	Cause(s) of Stream Impairment	Total Stream Miles	BLM Miles	% Stream BLM	Functional Rating Miles	% PFC Rating
Smith	5	Elk Creek*	Sedimentation/Siltation [CFL 1990], Phosphorus (Total) [CFL 2006], Nitrogen (Total) [CFL 2006], Temperature, water [CFL 1988], Low flow alterations	Irrigated Crop Production, Livestock (Grazing or Feeding Operations)	10.4	0.26	2.5%	0.20 PFC	100% PFC
Fort Peck Reservoir	5	Fargo Coulee*	Iron [CFL 2006], Phosphorus (Total) [CFL 2006], Aluminum [CFL 2006], Lead [CFL 2006], Nitrogen (Total) [CFL 2006], Alteration in stream-side or littoral vegetative covers	Natural Sources, Source Unknown	4.3	0.12	2.9%	0.03 PFC, 0.09 NF	25.0% PFC, 75.0% NF
Judith	4C	Judith River*	Alteration in stream-side or littoral vegetative covers, Physical substrate habitat alterations	Agriculture, Grazing in Riparian or Shoreline Zones, Loss of Riparian Habitat, Rangeland Grazing	74.7	6.96	9.3%	Not Assessed	100% Not Assessed
Judith	5	Last Chance Creek	Cyanide [CFL 2004], Thallium [CFL 2004], Selenium [CFL 2004], Iron [CFL 2004]	Acid Mine Drainage, Impacts from Abandoned Mine Lands (Inactive), Mine Tailings	6.2	0.14	2.3%	Not Assessed	100% Not Assessed
Box Elder	5	McDonald Creek*	Total Dissolved Solids [CFL 2006], Sedimentation/Siltation [CFL 1988], Specific Conductance [CFL 2006], Alteration in stream-side or littoral vegetative covers	Managed Pasture Grazing, Source Unknown, Agriculture	89.2	0.04	0.0%	Not Assessed	100% Not Assessed
Upper Missouri- Dearborn	5	Missouri River	Sedimentation/Siltation [CFL 1988]	Agriculture, Natural Sources, Dam Construction (Other than Upstream Flood Control Projects), Streambank Modifications/destablization, Highway/Road/Bridge Runoff (Non-construction Related), Impacts from Hydrostructure Flow Regulation/modification	118.7	0.11	0.1%	Not Assessed	100% Not Assessed
Lower Musselshell	4C	Musselshell River*	Alteration in stream-side or littoral vegetative covers, Low flow alterations	Grazing in Riparian or Shoreline Zones, Flow Alterations from Water Diversions, Impacts from Resort Areas (Winter and Non-winter Resorts), Agriculture, Impacts from Hydrostructure Flow Regulation/modification, Streambank Modifications/destablization	39.6	3.03	7.7%	0.27 Not Assessed, 2.18 PFC, 0.43 FAR	8.9% Not Assessed, 72.0% PFC, 14.1% FAR

APPENDIX C
IMPAIRED STREAMS IN THE LEWISTOWN PLANNING AREA

4th Level Hydrologic Unit	Impairment Class	Feature Name	Impairment	Cause(s) of Stream Impairment	Total Stream Miles	BLM Miles	% Stream BLM	Functional Rating Miles	% PFC Rating
Middle Musselshell	4C	Musselshell River*	Alteration in stream-side or littoral vegetative covers, Low flow alterations, Physical substrate habitat alterations	Agriculture, Channelization, Streambank Modifications/destablization, Impacts from Hydrostructure Flow Regulation/modification	15.0	2.11	14.0%	0.62 PFC, 1.65 FAR	29.4% FAR, 78.6% NF
Flatwillow	5	North Fork Flatwillow Creek	Sedimentation/Siltation [CFL 2002]	Rangeland Grazing, Agriculture, Loss of Riparian Habitat	27.6	0.28	1.0%	0.01 Not Assessed, 0.27 FAR	3.6% Not Assessed, 96.4% NF
Upper Musselshell	4C	North Fork Musselshell River*	Chlorophyll-a	Grazing in Riparian or Shoreline Zones, Natural Sources	39.4	0.32	0.8%	0.32 PFC	100% PFC
Middle Musselshell	5	North Willow Creek	Iron [CFL 2006], Sulfates [CFL 2006], Phosphorus (Total) [CFL 2006], Sedimentation/Siltation [CFL 1994], Specific Conductance [CFL 2006], Solids (Suspended/Bedload) [CFL 1994], Nitrogen (Total) [CFL 2006]	Source Unknown, Natural Sources, Above Ground Storage Tank Leaks (Tank Farms)	12.8	2.03	15.9%	0.20 Not Assessed, 1.83 FAR	9.8% Not Assessed, 90.2% FAR
Judith	5	Wolf Creek	Selenium [CFL 2006], Iron [CFL 2006], Total Dissolved Solids [CFL 1992]	Crop Production (Crop Land or Dry Land), Natural Sources, Crop Production with Subsurface Drainage, Source Unknown	45.4	0.25	0.6%	Not Assessed	100% Not Assessed

*Non-pollutant related impairment

APPENDIX D

STANDARDS CONFORMANCE REVIEW DETERMINATIONS

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
# RANCH	04869	10/14/2006	All Standards Are Met
54 LIVESTOCK	14993	10/14/2006	All Standards Are Met
79 COULEE*	20012	7/4/2004	All Standards Are Met
79 TRAIL EAST	04960	1/16/2014	All Standards Are Met
ABN RANCH*	09649	7/1/2004	All Standards Are Met
ADAMS	02665	10/14/2006	All Standards Are Met
AIKENS	25012	10/14/2006	All Standards Are Met
AIKENS	04859	10/14/2006	All Standards Are Met
ALAN IND.	15119	10/14/2006	1,2,5 – Livestock Caused
ALFALFA ACRES	14988	10/14/2006	All Standards Are Met
ALKALI CREEK	02645	2/14/2008	1,5–Livestock Caused
ALKALI FLAT EAST	07615	1/18/2011	All Standards Are Met
ALKALI FLAT WEST	06295	1/18/2011	All Standards Are Met
ALPINE GULCH G.R.	02661	10/14/2006	1,2 - Nonnative Veg.
ALPINE GULCH J.R.	02525	10/14/2006	1,2,5–Livestock Caused
ANDERSON COULEE	10027	2/28/2008	1,2,3,5-Weeds
ANDERSON IND.	04861	8/18/2005	All Standards Are Met
ANTELOPE	02508	2/28/2008	All Standards Are Met
ANTELOPE COULEE	09668	2/28/2008	All Standards Are Met
ARMELLS	20037	NONE	Determination Not Complete
ARROW CREEK	09783	2/28/2008	All Standards Are Met
ARROW CREEK BENCH	09761	7/01/2004	All Standards Are Met
ARROW CREEK EAST	20040	7/01/2004	All Standards Are Met
ARROW CREEK WEST	09707	7/01/2004	All Standards Are Met
ATHERN CREEK	02814	2/14/2008	All Standards Are Met
ATHERTON CREEK	02622	2/14/2008	5 – Noxious Weeds
B LAZY M	09825	7/4/2004	All Standards Are Met
BAKER BAR	02521	7/4/2004	All Standards Are Met
BALD BUTTE	12806	2/14/2008	1,2,5–Livestock, Noxious Weeds, Nonnative Veg.
BAR DIAMOND	02825	2/14/2008	All Standards Are Met
BARBER	09862	2/28/2008	All Standards Are Met
BARNES RIDGE	02038	NONE	No Determination Complete
BASSETT PLACE	15043	10/14/2006	1,2,5-Livestock, Weeds
BATTLE CREEK	09814	1/18/2011	All Standards Are Met
BATTLE CREEK ONA	06307	1/18/2011	All Standards Are Met
BEAN LAKE	07605	1/18/2011	All Standards Are Met

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
BEAR CREEK	14912	10/14/2006	1,5 – Livestock Caused
BEAR CRK HEADWATERS	02817	2/14/2008	All Standards Are Met
BEAVER BALL CK	02810	2/14/2008	5 – Noxious Weeds
BECKET	02518	2/14/2008	5 – Noxious Weeds
BEDROCK CREEK	06347	1/18/2011	1,2,3,5-Livestock Caused
BELT CREEK	09666	2/26/2008	1,3,5–Nonnative Veg.
BELT CREEK	09710	2/28/2008	1,5-Historic Logging, Nonnative Veg.
BENCH PASTURE	05143	10/12/2006	1,2,5 – Livestock Caused
BENDER CREEK	02813	10/14/2006	All Standards Are Met
BENDER CREEK	02824	10/14/2006	All Standards Are Met
BENDER CREEK/WINNETT	04891	10/12/2006	2,5 – Weeds
BENES	20008	NONE	Determination Not Complete
BERG LEASE	07601	1/18/2011	1,2,3,5–Livestock Caused
BIG COULEE	09764	2/26/2008	All Standards Are Met
BIG COULEE EAST	09656	2/28/2008	All Standards Are Met
BIG CROOKED	02503	2/21/2008	All Standards Are Met
BIG EDDY	06332	1/18/2011	All Standards Are Met
BIG JOE	02669	2/21/2008	1,5 - Livestock Caused
BIG LAKE	09833	2/26/2008	1,2,5–Crested Wheatgrass
BIG SPRING CREEK	09848	2/14/2008	All Standards Are Met
BIG VIEW	09664	7/1/2004	All Standards Are Met
BIRD COULEE	09755	7/1/2004	2–Livestock Caused
BIRD CREEK	09812	1/18/2011	All Standards Are Met
BIRD CREEK	11190	1/18/2011	All Standards Are Met
BLACK BUTTE	02680	10/11/2006	All Standards Are Met
BLACK BUTTE	09723	1/18/2011	1,5–Historic Logging/Nonnative Species
BLACK BUTTE RANCH	02624	11/22/2006	All Standards Are Met
BLACK CANYON	09849	1/18/2011	All Standards Are Met
BLACK COULEE	06313	1/18/2011	All Standards Are Met
BLACK REEF	07609	1/18/2011	All Standards Are Met
BLACK ROCK	09839	6/26/2002	All Standards Are Met
BLACKFEET GULCH	06335	1/18/2011	All Standards Are Met
BLACKTAIL CREEK	02811	2/14/2008	5–Noxious Weeds
BLACKTAIL HILLS	09834	2/14/2008	3–Not BLM Caused
BLIND CANYON AMP	20010	7/1/2004	All Standards Are Met
BLOOD CREEK	04896	8/18/2005	5 – Noxious Weeds/Natural Erosion
BLOOD CRK-MARTY	04849	8/18/2005	2,5–Livestock Caused
BOHEMIAN CORNER	02668	10/11/2006	All Standards Are Met
BOHEMIAN SOUTH	02656	10/14/2006	All Standards Are Met
BOHN EXCHNGE PASTURE	04866	8/18/2005	All Standards Are Met
BOX ELDER	02529	10/11/2006	1–Livestock Caused
BOX ELDER L&L IND.	04854	10/11/2006	1,5–Crested Wheatgrass

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BOX ELDER RANCH	02674	10/11/2006	1,5--Livestock Caused
BOYCE C IND.	20015	2/28/2008	All Standards Are Met
BRANDING PASTURE	04877	10/11/2006	All Standards Are Met
BRASIER PLACE	02639	12/18/2006	All Standards Are Met
BREAKS	15016	8/18/2005	All Standards Are Met
BREEDING PASTURE	03162	10/14/2006	All Standards Are Met
BRICKYARD	02611	10/14/2006	1,2,5 – Livestock Caused
BRIGGS COULEE	02647	10/14/2006	1-Livestock, Weeds
BROWN COULEE	20014	2/28/2008	3-Non-BLM
BROWNS CANYON	09711	2/14/2008	All Standards Are Met
BRUSH CRK-GAVEL	15022	8/18/2005	1,2,5-Livestock
BUCK RIDGE	02619	2/14/2008	5-Weeds 2-Water Development
BUCKLER PLACE	02519	10/14/2006	1,5-Livestock, Clubmoss
BUFFALO	09790	2/14/2008	All Standards Are Met
BURN SHED COULEE	20028	NONE	Determination Not Complete
BURNSIDE	20018	2/28/2008	1,2,5-Crested Wheatgrass
BUTLER COULEE	02652	2/14/2008	All Standards Are Met
BUTTON BUTTE	02599	2/21/2008	1,5-Significan Progress Made
C & H	20098	2/14/2008	All Standards Are Met
C.K. CATTLE	15081	8/18/2005	5-Natural Erosion
CACHE CREEK	09750	2/14/2008	2-Livestock Caused
CALVERT	01166	1/18/2011	1,5--Livestock Caused
CARL'S SPRING	02657	2/14/2008	1,5-Crested Wheatgrass, Weeds
CARMICHAEL	10096	9/30/1998	All Standards Are Met
CARSON PLACE	03219	2/28/2008	1,5-Crested Wheatgrass
CARTER FERRY	09657	7/1/2004	All Standards Are Met
CASSIDY PLACE	09679	2/28/2008	All Standards Are Met
CASTLE REEF	07613	1/18/2011	All Standards Are Met
CAT CREEK	04844	8/18/2005	All Standards Are Met
CHERRY CREEK	09816	7/1/2004	All Standards Are Met
CHICKEN COULEE	06303	1/18/2011	All Standards Are Met
CHIMNEY CROSSING	12501	2/21/2008	All Standards Are Met
CHIMNEY ROCK AMP	05017	8/18/2005	All Standards Are Met
CHIMNEY ROCK IND.	15095	10/14/2006	All Standards Are Met
CHIMNEY ROCK SOUTH	05098	10/14/2006	1,5-Crested Wheatgrass
CHIPPEWA	02606	10/14/2006	All Standards Are Met
CHIPPEWA SCHOOL	02623	10/14/2006	All Standards Are Met
CHOTEAU MTN	06304	1/18/2011	All Standards Are Met
CHURCHILL BUTTE	19807	7/1/2004	All Standards Are Met
CIMRHAKL	02003	NONE	Determination Not Complete
CIRCLE BAR COULEE	04827	10/14/2006	2,3-Channel Incisement,Weeds
COFFEE CREEK	09683	7/1/2004	All Standards Are Met
COTTONWOOD CREEK	04840	8/18/2005	All Standards Are Met

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COTTONWOOD CREEK	07716	1/18/2011	All Standards Are Met
COUNTY LINE	12804	10/14/2006	All Standards Are Met
COWBOY CREEK	09831	2/28/2008	All Standards Are Met
COWBOY STEELE CREEK	19814	2/28/2008	All Standards Are Met
COWTRACK	06306	1/18/2011	All Standards Are Met
COYOTE CREEK	09663	1/18/2011	1,5-Livestock Caused
CROFT PLACE	12608	10/14/2006	All Standards Are Met
CROOKED CREEK	09688	1/18/2011	All Standards Are Met
CROWLEY DAM	15014	10/14/2006	1,5-Historical Livestock Use
CUT BANK COULEE	09700	6/26/2002	All Standards Are Met
CUTBANK CREEK	20007	2/28/2008	1,5-Crested Wheatgrass
D. IVERSON	04879	10/14/2006	All Standards Are Met
DAISY DEAN CREEK	09675	1/18/2011	1,2,3,5-Livestock Caused
DAMMEL	09687	NONE	Determination Not Complete
DAVIS CREEK	09861	2/28/2008	2,3,5-Weeds,Non-BLM
DEADMAN COULEE	09778	NONE	No Determination Completed
DEARBORN RIVER	07606	NONE	No Determination Completed
DEEP COULEE	02540	8/18/2005	All Standards Are Met
DEEP CREEK	06310	1/18/2011	All Standards Are Met
DEER CREEK	09728	1/18/2011	All Standards Are Met
DEER CREEK	10053	12/18/2006	All Standards Are Met
DEGNER PASTURE	02613	10/14/2006	All Standards Are Met
DEMARS	20026	2/28/2008	1,2,5-Crested Wheatgrass
DEVIL CANYON	09709	1/18/2011	All Standards Are Met
DEVILS CANYON	20082	12/18/2006	All Standards Are Met
DICKSON COULEE	02532	2/14/2008	All Standards Are Met
DINGER	02809	2/14/2008	1,5-Crested Wheatgrass
DIVIDE CREEK	19660	1/18/2011	5-Noxious Weeds
DOG CREEK	07825	1/18/2011	All Standards Are Met
DOG CREEK	15124	NONE	No Determination Completed
DOG CREEK	20033	7/1/2004	All Standards Are Met
DOMAN-SCHULTZ	04863	10/14/2006	All Standards Are Met
DOSTAL	09693	7/1/2004	All Standards Are Met
DOVETAIL AMP	04967	1/16/2014	All Standards Are Met
DRAG CREEK	15013	1/16/2014	All Standards Are Met
DRY BEAVER CREEK	06294	1/18/2011	All Standards Are Met
DRY BLOOD	05057	8/18/2005	5-Noxious Weeds
DRY FORK CREEK	02530	2/14/2008	5-Noxious Weeds
DRY HILLS	09743	1/18/2011	1,5-Livestock Caused
DUCK CREEK	04868	10/14/2006	1,5 - Crested Wheatgrass
DUNN RIDGE	15089	8/18/2005	All Standards Are Met
DUNN RIDGE COMMON	02560	1/16/2014	All Standards Are Met
E FARMERS RESEVOIR	06316	1/18/2011	All Standards Are Met

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E. BIRCH CREEK	06322	7/5/2007	2,5-Noxious Weeds
EAGER HOME RANCH	15061	10/14/2006	All Standards Are Met
EAGLE	09856	2/28/2008	All Standards Are Met
EAGLE BUTTE	19655	NONE	No Determination Completed
EAGLE CREEK	09672	1/18/2011	
EAGLE LAND	20029	9/30/1998	All Standards Are Met
EAR MOUNTAIN INDIV.	09835	1/18/2011	All Standards Are Met
EAST ANTELOPE	15101	2/21/2008	2,5-Livestock
EAST CHRISTINA	10023	NONE	No Determination Completed
EAST FORK ARMELLS CREEK	02631	9/29/2000	All Standards Are Met
EAST FORK BEAVER CR	20001	2/14/2008	1,5-Weeds
EAST FORK FORDS CRK	02681	12/18/2006	1,5-NonNative Grass
EAST INDIAN BUTTE COMMON	02001	2/21/2008	1,2,5-Livestock Caused
EAST LOCO CR.	07611	1/18/2011	All Standards Are Met
EAST PASTURE	00920	12/18/2006	All Standards Are Met
EAST PEAK	19844	2/28/2008	All Standards Are Met
EAST ROY	02670	10/14/2006	1-Livestock
EAST WINNETT	15047	10/14/2006	1,5-Crested Wheatgrass
ELDER	02659	10/14/2006	All Standards Are Met
ELK CREEK	02830	2/14/2008	5-Weeds
ELK CREEK	09800	1/18/2011	All Standards Are Met
ELK CREEK BENCH	04865	10/14/2006	1,5-Livestock Caused
ELK PEAK	12610	12/18/2006	1,5-Noxious Weeds
ERIE	20030	2/28/2008	1,5-Crested Wheatgrass
EVANS BEND	09797	NONE	No Determination Completed
EVERS BENCH	20002	NONE	No Determination Completed
FAIL PLACE	04846	8/18/2005	All Standards Are Met
FCC IND. A	25000	10/14/2006	All Standards Are Met
FERGUS TRIANGLE	02005	NONE	No Determination Completed
FINK EXCHANGE OF USE	02000	NONE	No Determination Completed
FINKBEINER EXCH. OF USE	02699	2/14/2008	All Standards Are Met
FISHER	02642	10/14/2006	2-Channel Incisement
FLAT CREEK	09826	6/26/2002	All Standards Are Met
FLAT MOUNTAIN	02640	12/18/2006	All Standards Are Met
FLAT MOUNTAIN EAST	02660	NONE	No Determination Completed
FLATWILLOW	15078	10/14/2006	5-Weeds
FLATWILLOW CLNY	09684	10/14/2006	1-Prairie Dog
FLORENCE CANAL	07614	1/18/2011	All Standards Are Met
FLYING O	09738	2/14/2008	All Standards Are Met
FORD COULEE	07831	1/18/2011	All Standards Are Met
FORD CREEK	15045	10/14/2006	All Standards Are Met
FOREST GROVE	02651	2/14/2008	All Standards Are Met
FORGY COMMON	12700	10/14/2006	1,5-Weeds 2-Weeds Channel

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			Incisement
FORTY-ONE	02664	10/14/2006	All Standards Are Met
FREEZEOUT WEST	06317	1/18/2011	All Standards Are Met
FRENCH	12625	2/14/2008	1,5-Crested Wheatgrass
FRITZ HARRI	02026	NONE	No Determination Completed
GALLATIN	20011	2/28/2008	1,3,5-Lack of bunchgrass, Non-BLM
GALLOWAY	02516	2/21/2008	1,5-Livestock Caused
GARDNER IND. C,F,H,I	05113	8/18/2005	5-Noxious Weeds
GARDNER IND. E	15058	8/18/2005	All Standards Are Met
GARDNER-SOLF AREA	04860	8/18/2005	All Standards Are Met
GIBBS COULEE	02533	1/16/2014	All Standards Are Met
GILSKEY	15103	NONE	No Determination Completed
GILTEDGE	02620	10/14/2006	1,5-Historiactal Livestock Use
GIPSY CREEK	09671	1/18/2011	All Standards Are Met
GORMAN COULEE	04990	10/14/2006	All Standards Are Met
GRACE BENCH	09864	NONE	No Determination Completed
GRANARY	09774	NONE	No Determination Completed
GRASS RANGE EAST	02673	10/14/2006	All Standards Are Met
GRASS RANGE NORTH	02626	2/14/2008	1,5-Weeds,Nonnative Grass
GRASS RANGE SOUTH	03203	2/14/2008	1,5-Crested Wheatgrass
GREATER DRY ARMELLS	02025	NONE	No Determination Completed
GREEN POLE	20049	2/14/2008	All Standards Are Met
GREEN TIMBER GULCH	06308	1/18/2011	All Standards Are Met
GREEN-ROYCE	20034	2/28/2008	All Standards Are Met
HAILEY COULEE	04841	8/18/2005	2-Livestock Caused
HALE RANCH	15069	10/14/2006	2-Livestock,Weeds
HALF MOON	02827	2/14/2008	1,3,5-Nonnative Grass, Stream Alteration
HANSEN COULEE	09793	2/14/2008	All Standards Are Met
HANSON DAM	14904	2/21/2008	1,5-Crested Wheatgrass
HARDY	06336	1/18/2011	1,5 – Significant Progress Being Made
HARDY CREEK	06334	1/18/2011	All Standards Are Met
HARLOW	19730	2/14/2008	5-Weeds
HARLOW RANCH	10038	2/14/2008	1,5-Nonnative Grass
HARRIS	04874	10/14/2006	1,5-Livestock Caused
HAWKINS PASTURE	15138	10/14/2006	All Standards Are Met
HAY COULEE	02505	2/21/2008	1,5-Livestock Caused
HEBLE	02632	2/14/2008	1,5-Crested Wheatgrass, Weeds
HEDMAN	04956	1/16/2014	All Standards Are Met
HEIL	02633	2/21/2008	2,5-Significant Progress Made
HIGHWOOD CREEK	09763	7/1/2004	All Standards Are Met
HILL PASTURE	15049	10/14/2006	All Standards Are Met

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HILL SOUTH WINNETT	04876	10/14/2006	All Standards Are Met
HOLE IN THE WALL	09799	6/26/2002	All Standards Are Met
HOLLIDAY L&L IND	09735	1/18/2011	All Standards Are Met
HOME PLACE	04859	10/14/2006	All Standards Are Met
HOMESITE	06324	1/18/2011	1,2,5-LivestockCaused Noxious Weeds
HORSETHIEF COULEE	02634	2/14/2008	1,5-Livestock,Weeds
HORSETHIEF RIDGE	02629	2/14/2008	1,5-Making Significant Progress
HOUND	09747	1/18/2011	All Standards Are Met
HUBERT COULEE	02539	10/14/2006	All Standards Are Met
OHUGHES COULEE	04831	10/14/2006	1-Livestock, Clubmoss
IDHE B	15110	8/18/2005	All Standards Are Met
IDHE RANCH	04852	8/18/2005	1,2,5-Livestock
IND. A	14955	1/16/2014	All Standards Are Met
IND. B	04965	1/16/2014	All Standards Are Met
IND. F CUST.	15015	8/18/2005	All Standards Are Met
INDIAN BUTTE	02008	2/21/2008	1,5-Livestock
INDIAN CREEK	07617	1/18/2011	All Standards Are Met
INDIAN HEAD ROCK	07659	1/18/2011	All Standards Are Met
IRON CITY ISLAND	20066	NONE	No Determination Completed
IVERSON	04957	1/16/2014	All Standards Are Met
IVERSON IND.	02507	1/16/2014	All Standards Are Met
IVERSON YELLOWWATER	15151	10/14/2006	1,2,5-Livestock,Weeds
JACKSON COULEE	20032	12/18/2006	All Standards Are Met
JACKSON HOME RANCH	02010	10/14/2006	1,5-Livestock Caused
JACKSON PLACE	14969	1/16/2014	All Standards Are Met
JIGGS FLAT	09787	2/28/2008	5-Weeds
JONES CONE	20005	2/28/2008	All Standards Are Met
JORDAN EAST PAST.	15105	2/21/2008	2-Significant Progress Made
JORDAN HOME RANCH	02012	2/21/2008	All Standards Are Met
JUDITH MTN. COMMON	10042	12/18/2006	All Standards Are Met
JUDITH PEAK	02627	12/18/2006	2-Livestock,1,5-Noxious Weeds,3-Historic Mining
JUDITH RIVER	15125	NONE	No Determination Completed
JUDITH RIVER	20051	2/28/2008	2,3,5-Livestock, Weeds
KATZMAN	20022	2/28/2008	All Standards Are Met
KAUFMAN	02815	10/14/2006	All Standards Are Met
KELLNER RESERVOIR	12702	2/21/2008	1,5-Crested Wheatgrass
KELLY BOTTOM	04835	2/28/2008	All Standards Are Met
KENDLE PLACE	09676	2/28/2008	2-FAR
KING	04884	10/14/2006	All Standards Are Met
KING 7-HEIFER PAST.	05054	10/14/2006	All Standards Are Met
KING WINTER PAST.	15055	10/14/2006	All Standards Are Met

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KINKELAAR	20044	2/28/2008	1,5-Crested Wheartgrass
KIPPS RAPIDS	09729	6/26/2002	All Standards Are Met
KNOX RIDGE	20078	NONE	Determination Not Complete
KOMAREK	02041	2/21/2008	1,5-Livestock Caused
KOMAREK PLACE	02016	9/29/2000	All Standards Are Met
KRUGER	04885	10/14/2006	All Standards Are Met
L.PIKE CREEK	15139	10/14/2006	1-Livestock 2,5-Weeds
LAMBERT BENCH	15145	10/14/2006	All Standards Are Met
LANDER CROSSING	09852	2/28/2008	All Standards Are Met
LEACH PLACE	09759	2/28/2008	All Standards Are Met
LEHFELDT IND.	02818	2/14/2008	All Standards Are Met
LEPLEYS CREEK	09782	2/28/2008	1,2-Livestock
LINDQUIST	02643	2/14/2008	1,5-Crested Wheatgrass
LINSE	20052	2/28/2008	All Standards Are Met
LITTLE BEAR	05018	10/14/2006	All Standards Are Met
LITTLE BOX ELDER	02609	10/14/2006	2-Weeds, Channel Incisement
LITTLE DAM	12601	10/14/2006	1,2,5 – Noxious Weeds
LITTLE ELK CREEK	09708	1/18/2011	All Standards Are Met
LITTLE SULPHUR CREEK	09732	1/18/2011	All Standards Are Met
LONG COULEE	04839	8/18/2005	All Standards Are Met
LOOKOUT PEAK	02649	12/18/2006	All Standards Are Met
LOST LAKE RANCH	09725	2/26/2008	2-FAR
LOWER ARMELLS	02021	9/29/2000	All Standards Are Met
LOWER BLOOD CREEK	04870	8/18/2005	2-Livestock Caused
LOWER FARGO COULEE	02040	NONE	Determination Not complete
LOWER FLAT CREEK	06331	1/18/2011	All Standards Are Met
LOWER SAND COULEE	09836	1/18/2011	All Standards Are Met
LOWER SNOOSE CREEK	03137	10/14/2006	All Standards Are Met
LOWER SPRING CR AMP	09673	1/18/2011	All Standards Are Met
LUKENS FLAT	02014	2/21/2008	All Standards Are Met
LUTHER	20054	2/14/2008	5-Weeds
M LAZY M	09860	2/28/2008	1,5-Livestock Caused
MAGINNIS	00823	10/14/2006	1,5–Livestock Caused
MAGINNIS CREEK	00985	10/14/2006	1,5-Livestock Caused
MAGINNIS MTN	02603	12/18/2006	1,2,5-Noxious Weeds
MAIDENHEAD	02616	10/14/2006	1,5-Crested Wheatgrass
MANUEL PLACE	04842	8/18/2005	All Standards Are Met
MANY SPRINGS	02816	2/14/2008	1,5-NonNative Species, Weeds
MARKS IND.	04887	10/14/2006	All Standards Are Met
MARSH HAWK	04894	10/14/2006	All Standards Are Met
MARTIN CREEK	09859	2/14/2008	1-Clubmoss
MARUSKA	02646	2/21/2008	5-Crested Wheatgrass
MARY'S KNOLL	09751	2/14/2008	All Standards Are Met

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MASON CANYON	20069	NONE	1,2,5-Noxious Weeds
MATHISON PLACE	02017	2/21/2008	1,2-Livestock Caused
MATTUSCHEK	20045	NONE	No Determination Completed
MAULAND/HANSON	02027	2/21/2008	All Standards Are Met
MAXWELL RANCH	15009	10/14/2006	All Standards Are Met
MAYBERRY PLACE	02018	NONE	No Determination Completed
MCCARTNEY CREEK	02812	2/14/2008	All Standards Are Met
MCDONALD CREEK	04902	10/14/2006	1,5 – Crested Wheatgrass
MEADORS BENCH	02648	2/14/2008	5-Weeds
MEADOW PASTURE	05141	10/14/2006	All Standards Are Met
MEES CABIN TRAIL	10085	2/28/2008	1,5-Lack of Bunchgrasses
MELTON COULEE	09703	7/1/2004	All Standards Are Met
MENDEL	20057	2/28/2008	1,5-Clubmoss
MERRILL CREEK	09828	2/28/2008	All Standards Are Met
MERRIMAC	09776	2/28/2008	All Standards Are Met
MEYERS	14968	1/16/2014	All Standards Are Met
MIDDLE CREEK	09704	1/18/2011	All Standards Are Met
MIDDLE FORK	07604	1/18/2011	All Standards Are Met
MIDDLE FORK DEARBORN	07603	1/18/2011	1,5-Past Logging
MILBURN PLACE	10060	12/18/2006	All Standards Are Met
MILLER PLACE	19652	6/26/2002	All Standards Are Met
MILWAUKEE	09677	2/28/2008	1,2,5-Livestock, Crested Wheatgrass
MING COULEE	09715	1/18/2011	All Standards Are Met
MONARCH	09722	1/18/2011	All Standards Are Met
MONEY ACRES	02019	2/21/2008	All Standards Are Met
MORROW PLACE	09811	2/26/2008	All Standards Are Met
MOSBY ROAD	25007	10/14/2006	All Standards Are Met
MOULTON	02679	2/14/2008	1,5-Crested Wheatgrass
MUD SPRING COULEE	09662	6/26/2002	All Standards Are Met
MULEY COULEE	02823	2/14/2008	5-Weeds
MUNSON	02653	10/14/2006	All Standards Are Met
MURPHY COULEE	04836	NONE	No Determination Completed
MURPHY PLACE	20019	NONE	No Determination Completed
MUSSELSHELL	15010	10/14/2006	All Standards Are Met
MUSSELSHELL RIVER	04959	1/16/2014	All Standards Are Met
MUSSELSHELL TRAIL	15025	1/16/2014	All Standards Are Met
MUTTON COULEE	20039	7/1/2004	All Standards Are Met
N BAR	02821	2/14/2008	1,5-Crested Wheatgrass, Weeds
N FORK MUSSELSHELL	09674	1/18/2011	All Standards Are Met
N. ANTELOPE MTN.	06338	1/18/2011	All Standards Are Met
NEBEL COULEE	09665	2/14/2008	1,5-Weeds,Non-Native Grass
NEBRASKA PLACE	04890	10/14/2006	All Standards Are Met
NINE MILE COMMON	02678	2/21/2008	1,5-Livestock Caused

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NINE MILE COMMON	15037	2/21/2008	1,5-Crested Wheatgrass
NO GO	02671	2/14/2008	5-Weeds
NORMAN	20063	2/28/2008	2,3,5-Livestock Weeds
NORMAN PLACE	09788	2/28/2008	3-Non-BLM
NORTH BOX ELDER	04850	10/14/2006	1,5-Livestock, Crested Wheatgrass
NORTH CROOKED CREEK	02506	2/21/2008	1,2,5-Livestock, Weeds
NORTH FK WARM SPRING	20056	12/18/2006	1,5-Nonnative Grass
NORTH FLATWILLOW	15146	10/14/2006	1,2,5-Livestock
NORTH FORK SHEEP CR	09726	1/18/2011	All Standards Are Met
NORTH FORTY	15135	8/18/2005	All Standards Are Met
NORTH HIGHWAY	15024	10/14/2006	1,5-Historical Livestock Use
NORTH MCDONALD	12612	2/14/2008	3,5-Weeds
NORTH MOCCASIN	10036	12/18/2006	1,5-NonNative Grass
NORTH OSWICK	02675	2/14/2008	All Standards Are Met
NORTH WILLOW CREEK	04824	10/14/2006	1.2,3,5-Livestock Caused
OLD WINNETT ROAD	04900	10/14/2006	All Standards Are Met
OLSEN	05099	2/28/2008	1,5-Crested Wheatgrass
OLSON	20087	2/28/2008	2,3-Non-BLM
O-N	02662	10/14/2006	All Standards Are Met
P N	09798	NONE	No Determination Completed
P.D. PASTURE	04878	10/14/2006	All Standards Are Met
PAGIL GULCH	09795	2/14/2008	All Standards Are Met
PASS COULEE	09777	NONE	No Determination Completed
PAUL CREEK	07618	1/18/2011	All Standards Are Met
PEARCE	14911	10/14/2006	1,5-Nonnative Grass
PETRANEK	20072	NONE	No Determination Completed
PETROLEUM IND.	15120	10/14/2006	All Standards Are Met
PETROLIA BENCH RANCH	04901	10/14/2006	All Standards Are Met
PHILLIPS SCHOOL	09796	12/18/2006	All Standards Are Met
PIKE CREEK	05161	10/14/2006	1,2,5-Livestock, Weeds
PIPER	02531	2/14/2008	1,5-Nonnative Grass, Weeds
PISHKUN	06311	1/18/2011	All Standards Are Met
PITMAN RANCH	02514	2/21/2008	1,5-Livestock Caused
PN SAG	15123	NONE	No Determination Completed
POPNOE	20074	9/29/2000	All Standards Are Met
BLACKFOOT CREEK(PORTAGE)	06329	1/18/2011	All Standards Are Met
POSTHILL CREEK	09754	2/28/2008	1-Invasive Species
POTTER CREEK	02831	2/14/2008	All Standards Are Met
POWNAI	09753	2/28/2008	1,2,5-Livestock Caused
PRONGHORN RANCH	02826	2/14/2008	1,5-Weeds
PULP 40	02527	2/14/2008	1,5-Weeds Conifer Encroachment
PYRAMID PEAK	20083	12/18/2006	1,5-Noxious Weeds
RAILROAD	15118	10/14/2006	All Standards Are Met

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
RATTLESNAKE BUTTE	12602	12/18/2006	All Standards Are Met
RATTLESNAKE COULEE	09714	NONE	No Determination Completed
REED COULEE	20071	NONE	No Determination Completed
RESERVATION BENCH	10041	NONE	No Determination Completed
RHYNARD IND	09801	1/18/2011	1,5 – Noxious Weeds
RINDAL COMMON	02030	NONE	No Determination Completed
RITLAND	09802	7/1/2004	All Standards Are Met
RIVER	20046	NONE	No Determination Completed
RIVER BLM	06325	1/18/2011	All Standards Are Met
RIVER PASTURE	04882	8/18/2005	2- Livestock Caused
RIVER RANCH	15115	8/18/2005	All Standards Are Met
RIVER TRACT	09691	1/18/2011	1,2,3,5–Livestock Caused
ROAD JUNCTION	15001	10/14/2006	All Standards Are Met
ROOST HILL	07607	1/18/2011	All Standards Are Met
ROSE CANYON	02672	2/14/2008	1,5-Crested Wheatgrass
ROSE CREEK	20100	2/28/2008	1,2,5-Crested Wheatgrass
ROSS PASS	02615	12/18/2006	1,5-Nonnative Grass
ROUNS PLACE	02520	2/14/2008	All Standards Are Met
ROWE COULEE	09767	7/1/2004	All Standards Are Met
ROZIE PASTURE	15140	10/14/2006	All Standards Are Met
RUBY GULCH	20068	12/18/2006	2-Historic Mining
RUNNING WOLF CREEK	09775	2/14/2008	All Standards Are Met
RYAN COULEE	06330	1/18/2011	All Standards Are Met
S. WAR HORSE IND.	15046	10/14/2006	1-Livestock Caused
SAGE CREEK	09745	2/14/2008	1,5-NonNative Grass
SAGE CREEK AMP	04856	8/18/2005	All Standards Are Met
SAGE HEN	04880	10/14/2006	All Standards Are Met
SALMOND RANCH CO.	06342	1/18/2011	All Standards Are Met
SALT SAGE	14992	10/14/2006	All Standards Are Met
SAND COULEE	09820	1/18/2011	All Standards Are Met
SATTERFIELD PLACE	02032	9/29/2000	All Standards Are Met
SAURE PLACE	09817	2/14/2008	All Standards Are Met
SAWMILL COULEE	02024	NONE	Determination Not Complete
SCHULZ	02666	10/14/2006	All Standards Are Met
SCHUSTER & WHITE	15048	10/14/2006	All Standards Are Met
SENNETT CANYON	10092	12/18/2006	1,5-Nonnative Grass
SEVENTY NINE COULEE	20079	7/1/2004	All Standards Are Met
SHADOW MTN.	02605	2/14/2008	5-Weeds
SHAMMEL	20077	12/18/2006	1,5-Nonnative Grass
SHANNON CREEK	09813	2/14/2008	5-Weeds
SHAW CREEK	19835	2/28/2008	All Standards Are Met
SHAW PLACE	04851	8/18/2005	All Standards Are Met
SHEEP SHED COULEE	19837	NONE	No Determination Complete

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
SHEEP WAGON	15064	10/14/2006	All Standards Are Met
SHELTERNOOK	02667	12/18/2006	1-Livestock Caused
SHERRY COULEE	09681	6/26/2002	All Standards Are Met
SILVER SAGE	15070	10/14/2006	All Standards Are Met
SIMMS CREEK	06328	1/18/2011	1,5 – Livestock Caused
SINCLAIR-BOHN EXCHANGE	15056	NONE	No Determination Completed
SINGLE	02618	2/14/2008	1,5-Crested Wheatgrass
SIX DIAMOND	19824	2/14/2008	All Standards Are Met
SIXTEEN	09690	1/18/2011	1,5 – Livestock Caused
SKIBBY PLACE	15059	10/14/2006	1,5-Livestock 2-Historical Use
SLIDE COULEE	09847	7/1/2004	All Standards Are Met
SLUGGETT RANCH	02512	2/21/2008	1,5-Livestock, Crested Wheatgrass
SMITH CREEK	09698	1/18/2011	All Standards Are Met
SMITH-BOLSTAD COMMON	20013	2/28/2008	All Standards Are Met
SNOOSE CREEK	15144	10/14/2006	2-Channel Incisement
SO FORK BEAR CREEK	14910	10/14/2006	All Standards Are Met
SO FORK FLATWILLOW	02819	2/14/2008	All Standards Are Met
SO. FORK BEAR CRK	02654	10/14/2006	All Standards Are Met
SODA CREEK	02559	1/16/2014	All Standards Are Met
SOLF BROS. A	15090	10/14/2006	1,5-Livestock, Clubmoss
SOLF BROS. B	04897	10/14/2006	All Standards Are Met
SOUTH BECKET	02829	2/14/2008	5-Weeds
SOUTH BLACK BUTTE	02635	2/14/2008	1,5-Crested Wheatgrass
SOUTH CANAL DITCH	06326	1/18/2011	1,2,3,5–Livestock Caused
SOUTH ELK CREEK	02802	2/14/2008	All Standards Are Met
SOUTH FORK	06443	1/18/2011	All Standards Are Met
SOUTH FOREST GROVE	12604	2/14/2008	1,5-Crested Wheatgrass, Weeds
SOUTH FORK RANCH	02820	2/14/2008	All Standards Are Met
SOUTH FORK SHEEP CR	09655	1/18/2011	All Standards Are Met
SOUTH MOCCASIN	19741	12/18/2006	All Standards Are Met
SOUTH PASTURE	05142	10/14/2006	1- Prairie Dog Town
SOUTH WAR HORSE	15153	10/14/2006	All Standards Are Met
SPEAR T	10059	12/18/2006	1-Nonnative Grass
SPEAR T RANCH	10058	12/18/2006	1-Nonnative Grass
SPRING COULEE	20075	7/1/2004	All Standards Are Met
SPRING CREEK	15147	10/14/2006	1,5- Livestock Caused
SPRING CREEK PASTURE	09758	1/18/2011	All Standards Are Met
SPRING CREEK-FLATWILLOW	03145	10/14/2006	All Standards Are Met
SPRINGS LEASE	02534	2/14/2008	1,5-Clubmoss, Weeds
STARVE OUT FLAT	09808	NONE	No Determination Completed
STULC AMP	20081	NONE	No Determination Completed
STYER ANTELOPE	02510	2/21/2008	All Standards Are Met
STYER IND. B (KOSIR)	02509	2/21/2008	All Standards Are Met

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
SUFFOLK	15097	9/29/2000	All Standards Are Met
SUFFOLK NORTH	20080	2/28/2008	1,5-Crested Wheatgrass
SUGARLOAF	11186	1/18/2011	All Standards Are Met
SUN CREEK	09815	2/14/2008	All Standards Are Met
SUN RIVER DITCH	06327	1/18/2011	1,5 – Ag Trespass
SURENOUGH CREEK	12607	2/14/2008	1,2,5-Livestock Caused
SURPRISE CK BADLANDS	19691	2/28/2008	All Standards Are Met
SURPRISE CREEK	09829	2/14/2008	All Standards Are Met
SWIFT DAM	06321	1/18/2011	All Standards Are Met
SWINGING H DOVETAIL	15053	1/16/2014	All Standards Are Met
SWINGING H IND. B	04966	1/16/2014	All Standards Are Met
T J	09670	2/28/2008	1,5-Livestock Caused
TAYLOR RANCH	02033	9/29/2000	All Standards Are Met
TEIGEN IND. PASTURE	04899	10/14/2006	All Standards Are Met
THE CANYON	09692	7/1/2004	All Standards Are Met
THE FLAT	06319	1/18/2011	1,5 – Livestock Caused
THREE BAR	20035	2/14/2008	1,5-Nonnative Grass, Weeds
THREE LINKS	02644	12/18/2006	All Standards Are Met
TIGER BUTTE	07832	1/18/2011	All Standards Are Met
TIN CAN	15082	8/18/2005	2-Natural Erosion
TINTINGER SLOUGH	06337	1/18/2011	1,5 – Nonnative Species
TOMS GULCH	07762	1/18/2011	All Standards Are Met
TUNNEL LAKE	06312	1/18/2011	All Standards Are Met
TWIN BUTTES	15063	8/18/2005	All Standards Are Met
TWIN SISTERS	09695	2/14/2008	2-Livestock Caused
TWO CALF	02039	NONE	Determination Not Complete
TWO CROW RR	15028	1/16/2014	All Standards Are Met
UPPER CAT CREEK	15019	8/18/2005	All Standards Are Met
UPPER CAT CREEK 2	02537	8/18/2005	All Standards Are Met
UPPER COFFEE CREEK	09746	2/28/2008	All Standards Are Met
UPPER COWBOY CREEK	09827	2/28/2008	All Standards Are Met
UPPER PASTURE	02558	1/18/2011	All Standards Are Met
UPPER SHONKIN	09749	2/28/2008	All Standards Are Met
UPPER TWO CALF	20070	NONE	Determination Not Complete
UPPER WILSON COULEE	09706	2/28/2008	All Standards Are Met
UPPER/LOWER 79 TRAIL	04964	1/16/2014	All Standards Are Met
VIDAL	02538	7/1/2004	All Standards Are Met
VINGER PLACE	02526	2/14/2008	All Standards Are Met
VONTVER-DOBSON	04838	8/18/2005	All Standards Are Met
W. INDIAN BUTTE	02013	NONE	Determination Not Complete
WADDEL LAKES	06320	1/18/2011	1,2,5–Noxious Weeds
WALKER RANCH A,B,D	14903	10/14/2006	1,2,5-Clubmoss, Livestock
WALLING	20089	2/28/2008	All Standards Are Met

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
WALTERS	20088	2/28/2008	1,2,5-Lack of Bunchgrasses, FAR
WARD B COMMON	15107	NONE	Determination Not Complete
WARHORSE IND.	15152	10/14/2006	1,2-Livestock Caused
WARNEKE	20017	2/28/2008	2,3,5-Livestock Caused
WATER TANK SMITH RIVER	09806	1/18/2011	All Standards Are Met
WEAVER RANCH	02511	2/21/2008	1-Crested Wheatgrass
WELLER PLACE	10086	2/28/2008	All Standards Are Met
WELLMAN	02677	10/14/2006	All Standards Are Met
WEST BASSETT	15039	10/14/2006	All Standards Are Met
WEST BIRCH CREEK	06323	1/18/2011	2,5 – Noxious Weeds
WEST BLOOD CREEK	04963	8/18/2005	All Standards Are Met
WEST BOHEMIAN	02636	10/14/2006	All Standards Are Met
WEST CAT CREEK	15054	8/18/2005	All Standards Are Met
WEST CR. CREEK	02504	2/21/2008	All Standards Are Met
WEST CROOKED CREEK	15128	2/21/2008	2-Significant Progress Made
WEST FK BEAVER CREEK	10062	2/14/2008	1-Nonnative Grass
WEST FORK HOUND CR	09780	1/18/2011	All Standards Are Met
WEST FORK MUD CREEK	09697	1/18/2011	All Standards Are Met
WEST SHONKIN CREEK	09830	2/28/2008	All Standards Are Met
WEST WINNETT	15023	10/14/2006	1,5-Livestock, Crested Wheatgrass
WHERLEY	20091	2/28/2008	1,5-Clubmoss
WHISKEY RIDGE	15132	7/1/2004	All Standards Are Met
WHISKEY RIDGE 5A CUS	02528	7/1/2004	All Standards Are Met
WHISKY GULCH GR	02524	12/18/2006	1,5 – Noxious Weeds
WHISKY GULCH JR	10073	12/18/2006	All Standards Are Met
WHISONANT PLACE	14906	10/14/2006	All Standards Are Met
WHITE ROCK	09838	NONE	No Determination Completed
WIDOW COULEE	09841	7/1/2004	All Standards Are Met
WILD HORSE LAKE	15072	10/14/2006	1,5-Crested Wheatgrass
WILD HORSE PASTURE	14970	1/16/2014	All Standards Are Met
WILLIAM LEWIS IND	04886	10/14/2006	1,5-Livestock, Weeds
WILLIS PLACE	02031	NONE	No Determination Completed
WILLMORE	02034	2/21/2008	All Standards Are Met
WILLOW CREEK	02807	2/14/2008	5-Weeds
WILLOW CREEK	07608	1/18/2011	All Standards Are Met
WILLOW CREEK CANAL	07612	1/18/2011	All Standards are Met
WILLOW CRK HEADWATER	19737	2/14/2008	All Standards Are Met
WILLOW CRK. PASTURE	06314	1/18/2011	All Standards Are Met
WILSON COULEE	09866	7/1/2004	All Standards Are Met
WINDBREAK	04873	10/14/2006	All Standards Are Met
WINDMILL EAST	15011	8/18/2005	All Standards Are Met
WINDMILL WEST	25006	8/18/2005	1,Crested Wheatgrass
WINDY HOLLOW	09818	1/18/2011	1,2,3,5 – Livestock Caused

<u>ALLOTMENT NAME</u>	<u>NUMBER</u>	<u>EA DATE</u>	<u>DETERMINATION</u>
WINTER PASTURE	01518	8/18/2005	All Standards Are Met
WOLF BUTTE	09819	2/14/2008	1,5 – Livestock Caused/Noxious weeds
WOLF CREEK COMMON	20016	2/28/2008	3-Non-BLM
WOLFF IND. B	02513	2/21/2008	1,5-Livestock Caused
WOODCOCK	09853	2/28/2008	All Standards Are Met
WOODCOCK COULEE	02517	7/1/2004	All Standards Are Met
WOODHAWK	20031	NONE	Determination Not Complete
YELLOW WATER BASIN	04898	10/14/2006	1,5-Livestock,Crested WG
YELLOWWATER	15040	10/14/2006	1,2,5 – Livestock Caused
YELLOWWATER CREEK	15085	10/14/2006	1,5-Clubmoss
YELLOWWATER IND. B	15092	10/14/2006	1,5-Livestock,Clubmoss
YENDRICK	07775	1/18/2011	1,5-Nonnative Grass
ZIMMERMAN PLACE	15036	10/14/2006	1,5-Livestock,Weeds
ZIMMERMAN WEST HIGHWAY	03309	10/14/2006	All Standards Are Met

APPENDIX E

BUREAU OF LAND MANAGEMENT (BLM) INVASIVE PLANT LIST

SCIENTIFIC NAME	COMMON NAME	FAMILY
GRASSES		
<i>Aegilops cylindrica</i>	jointed goatgrass	Poaceae
<i>Ammophila arenaria</i>	European beachgrass	Poaceae
<i>Arundo donax</i>	giant reed	Poaceae
<i>Bromus diandrus</i>	ripgut brome	Poaceae
<i>Bromus japonicus</i>	Japanese brome	Poaceae
<i>Bromus rubens</i>	red brome	Poaceae
<i>Bromus tectorum</i>	downy brome	Poaceae
<i>Cenchrus longispinus</i>	longspine sandbur	Poaceae
<i>Cortaderia jubata</i>	Andean pampas grass	Poaceae
<i>Cortaderia selloana</i>	pampas grass	Poaceae
<i>Cynodon dactylon</i>	bermudagrass	Poaceae
<i>Ehrharta calycina</i>	veldt grass	Poaceae
<i>Elytrigia repens</i>	quackgrass	Poaceae
<i>Eragrostis lehmanniana</i>	Lehmann lovegrass	Poaceae
<i>Nardus stricta</i>	matgrass	Poaceae
<i>Panicum miliaceum</i>	wild proso millet	Poaceae
<i>Pennisetum setaceum</i>	crimson fountain grass	Poaceae
<i>Schismus arabicus</i>	schismus	Poaceae
<i>Schismus barbatus</i>	mediterranean grass	Poaceae
<i>Sorghum halepense</i>	johnsongrass	Poaceae
<i>Taeniatherum caput-medusae</i>	medusa-head	Poaceae
FORBS		
<i>Acroptilon repens</i>	Russian knapweed	Asteraceae
<i>Anthemis arvensis</i>	scentless chamomile	Asteraceae
<i>Anthemis cotula</i>	mayweed chamomile	Asteraceae
<i>Arctium minus</i>	common burdock	Asteraceae
<i>Bassia hyssopifolia</i>	bassia Basellaceae	Asteraceae
<i>Brassica nigra</i>	black mustard	Brassicaceae
<i>Brassica tournefortii</i>	wild turnip	Brassicaceae

SCIENTIFIC NAME	COMMON NAME	FAMILY
<i>Caesalpinia gilliesii</i>	Mexican bird-of-paradise	Fabaceae
<i>Cardaria chalepensis</i>	lens-podded whitetop	Brassicaceae
<i>Cardaria draba</i>	hoary cress	Brassicaceae
<i>Cardaria pubescens</i>	hairy whitetop	Brassicaceae
<i>Carduus acanthoides</i>	plumeless thistle	Asteraceae
<i>Carduus nutans</i>	musk thistle	Asteraceae
<i>Carduus pycnocephalus</i>	Italian thistle	Asteraceae
<i>Carduus teniflorus</i>	slender-flowered thistle	Asteraceae
<i>Carpobrotus edulis</i>	hottentot fig	Aizoaceae
<i>Carpobrotus chilensis</i>	sea iceplant	Aizoaceae
<i>Carthamus lantus</i>	distaff thistle	Asteraceae
<i>Carum carvi</i>	common caraway	Apiaceae
<i>Centaurea calcitrapa</i>	purple starthistle	Asteraceae
<i>Centaurea cyanus</i>	cornflower	Asteraceae
<i>Centaurea diffusa</i>	diffuse knapweed	Asteraceae
<i>Centaurea iberica</i>	Iberian starthistle	Asteraceae
<i>Centaurea jacea</i>	brown knapweed	Asteraceae
<i>Centaurea macrocephala</i>	bighead knapweed	Asteraceae
<i>Centaurea maculosa</i>	spotted knapweed	Asteraceae
<i>Centaurea melitenensis</i>	malta starthistle	Asteraceae
<i>Centaurea montana</i>	mountain cornflower	Asteraceae
<i>Centaurea nigra</i>	black knapweed	Asteraceae
<i>Centaurea nigrescens</i>	Vochin knapweed	Asteraceae
<i>Centaurea pratensis</i>	meadow knapweed	Asteraceae
<i>Centaurea squarrosa</i>	squarrose knapweed	Asteraceae
<i>Centaurea solstitialis</i>	yellow starthistle	Asteraceae
<i>Centaurea trichocephala</i>	feather-headed knapweed	Asteraceae
<i>Chondrilla juncea</i>	rush skeletonweed	Asteraceae
<i>Chrysanthemum leucanthemum</i>	ox-eye daisy	Asteraceae
<i>Cichorium intybus</i>	chicory	Asteraceae
<i>Cirsium arvense</i>	Canada thistle	Asteraceae
<i>Cirsium vulgare</i>	bull thistle	Asteraceae
<i>Clematis orientalis</i>	Chinese clematis	Ranunculaceae

SCIENTIFIC NAME	COMMON NAME	FAMILY
<i>Conium maculatum</i>	poison hemlock	Apiaceae
<i>Convolvulus arvensis</i>	field bindweed	Convolvaceae
<i>Crepis setosa</i>	bristly hawkweed	Asteraceae
<i>Crupina vulgaris</i>	common crupina	Asteraceae
<i>Cynara cardunculus</i>	artichoke thistle	Asteraceae
<i>Cynoglossum officinale</i>	houndstongue	Boraginaceae
<i>Digitalis purpurea</i>	foxglove	Scrophulariaceae
<i>Dipsacus fullonum</i>	common teasel	Dipsacaceae
<i>Echium vulgare</i>	blueweed	Boraginaceae
<i>Egeria densa</i>	Brazilian waterweed	Hydrocharitaceae
<i>Eichhornia crassipes</i>	water hyacinth	Hydrocharitaceae
<i>Erechtites glomerata</i>	Australian fireweed	Asteraceae
<i>Euphorbia cyparissias</i>	cypress spurge	Euphorbiaceae
<i>Euphorbia esula</i>	leafy spurge	Euphorbiaceae
<i>Euphorbia myrsinites</i>	myrtle spurge	Euphorbiaceae
<i>Foeniculum vulgare</i>	fennel	Apiaceae
<i>Galega officinalis</i>	goats rue	Fabaceae
<i>Gypsophila paniculata</i>	babys breath	Caryophyllaceae
<i>Halogeton glomeratus</i>	halogeton	Chenopodiaceae
<i>Hesperis matronalis</i>	dames's rocket	Brassicaceae
<i>Hieracium aurantiacum</i>	orange hawkweed	Asteraceae
<i>Hieracium pilosella</i>	mouseear hawkweed	Asteraceae
<i>Hieracium pratense</i>	yellow hawkweed	Asteraceae
<i>Hydrilla verticillata</i>	hydrilla	Hydrocharitaceae
<i>Hyoscyamus niger</i>	black henbane	Solanaceae
<i>Hypericum perforatum</i>	common St. Johnswort	Hypericaceae
<i>Hyposhaeris radicata</i>	common catsear	Asteraceae
<i>Isatis tinctoria</i>	dyer's woad	Brassicaceae
<i>Knautia arvensis</i>	blue buttons	Dipsacaceae
<i>Lathyrus latifolius</i>	everlasting peavine	Fabaceae
<i>Lepidium latifolium</i>	perennial pepperweed	Brassicaceae
<i>Linaria genistifolia</i> spp. <i>dalmatica</i>	dalmation toadflax	Scrophulariaceae
<i>Linaria vulgaris</i>	yellow toadflax	Scrophulariaceae

SCIENTIFIC NAME	COMMON NAME	FAMILY
<i>Lysimachia vulgaris</i>	garden loosestrife	Primulaceae
<i>Lythrum salicaria</i>	purple loosestrife	Lythraceae
<i>Lythrum virgatum</i>	wand loosestrife	Lythraceae
<i>Madia sativa</i>	Chilean tarweed	Asteraceae
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	Haloragaceae
<i>Onopordum acanthium</i>	Scotch thistle	Asteraceae
<i>Onopordum taricum</i>	Scotch thistle	Asteraceae
<i>Peganum harmala</i>	African rue	Zygophyllaceae
<i>Potentilla recta</i>	sulphur cinquefoil	Rosaceae
<i>Salvia aethiopsis</i>	Mediterranean sage	Lamiaceae
<i>Saponaria officinalis</i>	bouncing bet	Caryophyllaceae
<i>Senecio jacobaea</i>	tansy ragwort	Asteraceae
<i>Senecio mikanooides</i>	German ivy	Asteraceae
<i>Solanum dulcamara</i>	bitter nightshade	Solanaceae
<i>Sonchus arvensis</i>	perennial sowthistle	Asteraceae
<i>Sphaerophysa salsula</i>	swainsonpea	Fabaceae
<i>Tanacetum vulgare</i>	common tansy	Asteraceae
<i>Zygophyllum fabago</i>	Syrian bean caper	Zygophyllaceae
SHRUBS AND TREES		
<i>Ailanthus altissima</i>	tree-of-heaven	Simaroubaceae
<i>Alhagi pseudalhagi</i>	camelthorn	Fabaceae
<i>Cytisus junceum</i>	Spanish broom	Fabaceae
<i>Cytisus monspessulanas</i>	French broom	Fabaceae
<i>Cytisus scoparius</i>	Scotch broom	Fabaceae
<i>Cytisus striatus</i>	Portugese broom	Fabaceae
<i>Elaeagnus angustifolia</i>	Russian olive	Elaeagnaceae
<i>Ficus carica</i>	edible fig	Moraceae
<i>Lespedeza cuneata</i>	Himalayan bush clover	Fabaceae
<i>Retama monosperma</i>	bridal veil broom	Fabaceae
<i>Rubus discolor</i>	Himalaya blackberry	Rosaceae
<i>Schinus terebrinthifolius</i>	Brazillian pepper	Anacardiaceae
<i>Tamarix aphylla</i>	athel	Tamaricaceae
<i>Tamarix chinensis</i>	tamarisk	Tamaricaceae

SCIENTIFIC NAME	COMMON NAME	FAMILY
<i>Tamarix gallica</i>	French tamarisk	Tamaricaceae
<i>Tamarix parviflora</i>	small flower tamerisk	Tamaricaceae
<i>Tamarix pentanda</i>	tamarisk	Tamaricaceae
<i>Tamarix ramosissima</i>	salt cedar	Tamaricaceae
<i>Ulex europaeus</i>	gorse	Fabaceae
<i>Ulmus pumila</i>	Siberian elm	Ulmaceae

APPENDIX F

THREATENED, ENDANGERED, CANDIDATE/PROPOSED, AND BLM SENSITIVE WILDLIFE AND FISH SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE ANALYSIS AREA ON THE LEWISTOWN FIELD OFFICE (FO)

NOTE: The U.S. Fish and Wildlife Service species list (US Fish and Wildlife Service 2013), Montana and Dakotas sensitive species list (BLM 2009) were reviewed.

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
INVERTEBRATES				
Dakota skipper <i>Hesperia dacotae</i>	S		ODR	Native tallgrass prairie in eastern Dakotas.
FISH				
Arctic grayling <i>Thymallus arcticus montananus</i>	S	✓		Small, cold, clear lakes with tributaries suitable for spawning. They do not coexist well with other fishes except cutthroat trout and others with which they evolved. Sun River along Rocky Mountain Front.
Bull trout <i>Salvelinus confluentus</i>	T	✓		Sub-adult and adult fluvial bull trout reside in larger streams and rivers and spawn in smaller tributary streams, whereas adfluvial bull trout reside in lakes and spawn in tributaries. They spawn in headwater streams with clear gravel or rubble bottom.
Northern redbelly dace x Finescale dace <i>Phoxinus eos x Phoxinus neogaeus</i>	S	✓		Northern redbelly dace prefer quiet waters from beaver ponds, bogs and clear streams. The finescale dace likes similar habitat but is also found in larger lakes. Known in Big Coulee Creek in Judith Basin County.
Paddlefish <i>Polyodon spathula</i>	S	✓		Slow or quiet waters of large rivers or impoundments. They spawn on the gravel bars of large rivers during spring high water. Paddlefish tolerate, or perhaps seek, turbid water
Pallid sturgeon <i>Scaphirhynchus albus</i>	E	✓		Large turbid streams including the Missouri and Yellowstone Rivers. They use all channel types, primarily straight reaches with islands. They primarily use areas with substrates containing sand (especially bottom sand dune formations) and fines (93% of observations)
Pearl dace <i>Margariscus margarita</i>	S		ODR	Small, cool streams, either clear or turbid (Brown, 1971). They spawn in clear water at depths of 1 to 2 feet over a gravel or sand bottom. Northeastern Montana.
Sauger <i>Stizostedion canadense</i>	S	✓		Larger, turbid rivers and the muddy shallows of lakes and reservoirs. They spawn in gravelly or rocky areas in shallow water and seem to prefer turbid water.
Sturgeon chub <i>Macrhybopsis gelida</i>	S	✓		Turbid water with moderate to strong current over bottoms ranging from rocks and gravel to coarse sand.
Westslope cutthroat trout <i>Oncorhynchus clarki lewisi</i>	S	✓		Gravel substrate in riffles and pool crests for spawning habitat. Cutthroat trout have long been regarded as sensitive to fine sediment
Yellowstone cutthroat trout <i>Oncorhynchus clarki bouvieri</i>	S	✓		Relatively clear, cold streams, rivers, and lakes. Optimal temperatures have been reported to be from 4 to 15 degrees C., with occupied waters ranging from 0 to 27 degrees C.
AMPHIBIANS AND REPTILES				
Coeur d'Alene salamander <i>Plethodon idahoensis</i>	S		ODR	Primary habitats are seepages and streamside talus. Western Montana near Libby, Montana.
Great Plains toad <i>Bufo cognatus</i>	S	✓		Sagebrush-grassland, rainwater pools in road ruts, in stream valleys, at small reservoirs and stock ponds, and around rural farms. Breeding has been documented in small reservoirs and backwater sites along streams; appears to prefer stock tanks and roadside ponds rather than floodplains. Eggs and larvae develop in shallow water, usually clear or slightly turbid, but not muddy.
Northern leopard frog <i>Lithobates pipiens</i>	S	✓		Wetland habitats of relatively fresh water with moderate salinity, including springs, slow streams, marshes, bogs, ponds, canals, flood plains, beaver ponds, reservoirs, and lakes; usually in permanent water with rooted aquatic vegetation.

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
Plains spadefoot <i>Spea bombifrons</i>	S	✓		Soft sandy/gravelly soils near permanent or temporary bodies of water; lives largely inactive in burrows of its own construction or occupies rodent burrows and enters water only to breed. Following heavy rains, adults have been reported in water up to 30 centimeters deep in flooded wagon wheel ruts, temporary rain pools formed in wide, flat-bottom coulees, water tanks, and badland seep ponds. Tadpoles and toadlets have been observed in stock ponds and small ephemeral reservoirs, usually in sagebrush-grassland habitats.
Western toad <i>Anaxyrus boreas boreas</i>	S	✓		Utilize a wide variety of habitats, including desert springs and streams, meadows and woodlands, mountain wetlands, beaver ponds, marshes, ditches, and backwater channels of rivers where they prefer shallow areas with mud bottoms.
REPTILES				
Greater short-horned lizard <i>Phrynosoma hernandesi</i>	S	✓		Ridge crests between coulees and in sparse, short grass and sagebrush with sun-baked soil. Limestone outcrops in canyon bottoms of sandy soil with an open canopy of limber pine-Utah juniper; and are also present on flats of relatively pebbly or stony soil with sparse grass and sagebrush cover.
Milksnake <i>Lampropeltis triangulum</i>	S	✓		Open sagebrush-grassland habitat and ponderosa pine savannah with sandy soils; most often in or near areas of rocky outcrops and hillsides or badland scarps, sometimes within city limits.
Snapping turtle <i>Chelydra serpentina</i>	S		ODR	Backwaters along major rivers, at smaller reservoirs, and in smaller streams and creeks with permanent flowing water and sandy or muddy bottoms.
Spiny softshell <i>Apalone spinifera</i>	S	✓		Primarily a riverine species, occupying large rivers and river impoundments, but also occurs in lakes, ponds along rivers, pools along intermittent streams, bayous, irrigation canals, and oxbows. open sandy or mud banks, a soft bottom, and submerged brush and other debris. Spiny Softshells bask on shores or on partially submerged logs. They burrow into the bottoms of permanent water bodies, either shallow or relatively deep (0.5 to 7.0 meters), where they spend winter. Eggs are laid in nests dug in open areas in sand, gravel, or soft soil near water.
Western hog-nosed snake <i>Heterodon nasicus</i>	S	✓		Apparent preference for arid areas, farmlands, and floodplains; particularly those with gravelly or sandy soil, has been noted. They occupy burrows or dig into soil and, less often, are found under rocks or debris, during periods of inactivity.
BIRDS				
Baird's sparrow <i>Ammodramus bairdii</i>	S	✓		Nest in native prairie, but structure may ultimately be more important than plant species composition (nesting has been observed in crested wheat, while smooth brome is avoided) areas with little to no grazing activity are required.
Bald eagle <i>Haliaeetus leucocephalus</i>	S	✓		Near open water, including rivers, streams and lakes; nesting and roosting in large ponderosa pine, Douglas-fir, or cottonwood trees in proximity to open water and rivers.
Black tern <i>Chilodoniast niger</i>	S	✓		Wetlands, marshes, prairie potholes, and small ponds; 30%-50% of the wetland complex is emergent vegetation. Vegetation within known breeding colonies includes alkali bulrushes, canary reed-grass, cattail spp., sedge spp., rush spp., reed spp., grass spp., <i>Polygonum</i> spp., <i>Juncus</i> spp., and <i>Potamogeton</i> spp., indicating a wide variety of potential habitats are usable by black terns. Water levels range from about 0.5 m to greater than 2.0 m with most having depths between 0.5 m and 1.0 m (MTNHP, 2003).
Black-backed woodpecker <i>Picoides arcticus</i>	S	✓		Early successional, burned forest of mixed conifer, lodgepole pine, Douglas-fir, and spruce-fir, although they are more numerous in lower elevation Douglas-fir and pine forest habitats than in higher elevation subalpine spruce forest habitats.
Black-crowned night heron <i>Nycticorax nycticorax</i>	S	✓		Shallow bulrush or cattail marshes, most often within a grassland landscape. Also nest in cottonwoods, willows, or other wetland vegetation that allows them to nest over water or on islands that may afford them protection from mammalian. Most colonies are located in large wetland complexes, typically with a 1:1 ratio of open water and emergent vegetation.

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
Blue-gray gnatcatcher <i>Poliioptilia caerulea</i>	S		ODR	Brush, scrub, or chaparral are intermixed with taller vegetation (e.g., forest edge, riparian corridors); nesting often occurs near water. Nests are built on branches or forks of trees or shrubs, usually 1 to 25 meters above ground (southcentral Montana).
Bobolink <i>Dolichonyx orysivorus</i>	S	✓		Nests built in tall grass and mixed-grass prairies. Prefers "old" hayfields with high grass-to-legume ratios.
Brewer's sparrow <i>Spizella breweri</i>	S	✓		Sagebrush, mountain meadows, and mountain shrub habitats. nested in sagebrush averaging 16-inches high. The cover (concealment) for the nest provided by sagebrush is very important.
Burrowing owl <i>Athene cunicularia</i>	S	✓		Open grasslands, where abandoned burrows dug by mammals such as ground squirrels, prairie dogs and badgers are available. Black-tailed prairie dog and Richardson's ground squirrel colonies provide the primary and secondary habitat for burrowing owls in the state.
Chestnut-collared longspur <i>Calcarius ornatus</i>	S	✓		Species prefers short-to-medium grasses that have been recently grazed or mowed. Prefers native pastures.
Common loon <i>Gavia immer</i>	S	✓		13+ acre lake <5,000 feet in elevation. Small islands preferred for nesting, but herbaceous shoreline areas also selected. Nursery areas are very often sheltered, shallow coves with abundant small fish and insects. Relatively oligotrophic and have not experienced significant siltation or other hydrological changes.
Dickcissel <i>Spiza americana</i>	S	✓		Grasslands, meadows, savanna, cultivated lands, and brushy fields. Nest on ground, in grass or rank herbage, or raised a little above ground, in grass tufts or tall weeds, or in low shrubs or trees, up to about 2 meters above the ground but usually low. Prefer habitat with dense, moderate to tall vegetation (particularly with some forbs) and moderately deep litter. Moderately grazed and idle prairie. A high abundance of forbs provides perches, nesting cover, nest support, and possibly increased invertebrate abundance.
Ferruginous hawk <i>Buteo regalis</i>	S	✓		Mixed-grass prairie, shrub-grasslands, grasslands, grass-sagebrush complex, and sagebrush steppe.
Flammulated owl <i>Otus flammeolus</i>	S	✓		Old-growth or mature ponderosa pine, ponderosa pine, and Douglas fir forests, often mixed with mature aspen, nesting in cavities, feeding on insects.
Franklin's gull <i>Larus pipixcan</i>	S	✓		Preferring large, relatively permanent prairie marsh complexes, the Franklin's gull builds its nests over water on a supporting structure of emergent vegetation. Nesting is noted to occur in cattails and bulrushes.
Golden eagle <i>Aquila chrysaetos</i>	S	✓		Nest on cliffs and in large trees (occasionally on power poles), and hunt over prairie and open woodlands. Cliff nests selected for south or east aspect, less than 200 in. snowfall, low elevation, availability of sagebrush/grassland hunting areas.
Great gray owl <i>Strix nebulosa</i>	S	✓		Dense coniferous and hardwood forest, especially pine, spruce, paper birch, poplar, and second-growth, especially near water. Forage in wet meadows, boreal forests, and spruce-tamarack bogs in the far north, and coniferous forest and meadows in mountainous areas. Nest in the tops of large, broken-off tree trunks in old nests of other large birds, or in debris platforms from dwarf mistletoe, frequently near bogs or clearings. Nests are frequently reused and the same pair often nests in the same area in successive years.
Greater sage-grouse <i>Centrocercus urophasianus</i>	C/S	✓		Tall, dense stands of sagebrush; 6 to 18 inch high sagebrush covered benches in June to July (average 213 acres); move to alfalfa fields (144 acres) or greasewood bottoms (91 acres) when forbs on the benches dry out; and move back to sagebrush (average 128 acres) in late August to early September (Peterson, 1969).
Harlequin duck <i>Histrionicus histrionicus</i>	S	✓		Fast moving, low gradient, clear mountain streams. Birds in streams on the Rocky Mountain Front were seen in pole-sized timber.
Least tern <i>Sternula antillarum</i>	E		ODR	Nest on unvegetated, sand-pebble beaches and islands of large reservoirs and rivers in northeastern and southeastern Montana, specifically the Yellowstone and Missouri River systems.
LeConte's sparrow <i>Ammodramus leconteii</i>	S		ODR	Wet meadows within peatlands, often with a strong sedge (<i>Carex</i>) component. Extreme northeast Montana and Kalispell vicinity north into Canada.

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
Loggerhead shrike <i>Lanius ludovicianus</i>	S	✓		Open riparian areas, montane meadows, agricultural areas, grasslands, shrublands, and piñon/juniper woodlands.
Long-billed curlew <i>Numenius americanus</i>	S	✓		Nests primarily in short-grass or mixed-prairie habitat with flat to rolling topography. Habitats with trees, high density of shrubs (e.g., sagebrush [<i>Artemisia</i> spp.]), and tall, dense grass generally. Taller, denser grass used during brood-rearing when shade and camouflage from predators are presumably more important for chicks, but may also reflect decline in availability of shorter habitats with season.
Marbled godwit <i>Limosa fedoa</i>	S	✓		Breeds in short, sparsely to moderately vegetated landscapes that include native grassland and wetlands. ephemeral ponds, as well as temporary ponds and alkali wetland. Semi-permanent ponds used as well. Upland habitat during breeding season primarily idle grassland and pastures.
McCown's longspur <i>Calcarius mccownii</i>	S	✓		Breeding habitat is a matrix of perennial shortgrass species (e.g., <i>Bouteloua gracilis</i> , <i>Buchloe dactyloides</i>) interspersed with cactus, and limited cover of midgrasses (e.g., <i>Aristida longiseta</i> , <i>Agropyron smithii</i> , <i>Stipa comata</i>) and shrubs (e.g., <i>Gutierrezia sarothrae</i> , <i>Chrysothamnus nauseosus</i> , <i>Artemisia frigida</i>).
Mountain plover <i>Charadrius montanus</i>	S	✓		Prairie dog colonies and other shortgrass prairie sites are confirmed as preferred breeding habitat. Strong preference was also given to sites with slopes less than 5% and grass height of less than 6 centimeters (3 inches).
Nelson's sparrow <i>Ammodramus nelsoni</i>	S		ODR	Freshwater wetlands with dense, emergent vegetation or damp areas with dense grasses. Extreme northeastern Montana.
Northern goshawk <i>Accipiter gentilis</i>	S	✓		Primarily forest habitat, especially in mountains, nesting in lower portions of mature Douglas fir, ponderosa pine, lodgepole pine, or aspen canopies; prefers mature or old-growth forest structure.
Peregrine falcon <i>Falco peregrinus anatum</i>	S	✓		Wide variety of habitats, selects cliff ledges or rock outcroppings for nesting, preferring high, open cliff faces that dominate the surrounding area.
Piping Plover <i>Charadrius melodus</i>	T	✓		Nests on sand or pebble beaches on freshwater and saline wetlands, lakes, reservoirs, and rivers. Only nests in areas with sparse to no vegetation. Summer range primarily in northeastern Montana with isolated population in Pondera County.
Red-headed woodpecker <i>Melanerpes erythrocephalus</i>	S	✓		Along major rivers having riparian forest. open savanna country with ground cover, snags, and canopy cover. Large burns also utilized. Nest in holes excavated 2 to 25 meters above ground by both sexes in live trees, dead stubs, utility poles, or fence posts. Individuals nest in the same cavity in successive years.
Sage sparrow <i>Artemisiospiza belli</i>	S		ODR	Prefers semi-open habitats with evenly spaced shrubs 1–2 meters high. Vertical structure, habitat patchiness, and vegetation density may be more important in habitat selection than specific shrub species, but this sparrow is closely associated with big sagebrush throughout most of its range. Historical records within FO 20+ years old. Extreme southcentral Montana.
Sage thrasher <i>Oreoscoptes montanus</i>	S	✓		Sagebrush obligate in Montana. Abundance is generally positively correlated with the amount of sage cover and negatively correlated with grass cover.
Sedge wren <i>Cistothorus platensis</i>	S		ODR	Areas that are highly susceptible to flooding and drying caused by annual and seasonal variation in rainfall.
Sprague's pipit <i>Anthus spragueii</i>	C/S	✓		native, medium to intermediate height prairie and in a shortgrass prairie landscape; can often be found in areas with taller grasses. More abundant in native prairie than in exotic vegetation; area sensitive, requiring relatively large areas of appropriate habitat.
Swainson's hawk <i>Buteo swainsoni</i>	S	✓		Nest in river bottom forests, brushy coulees, and shelterbelts. Hunt in grasslands and agricultural land, especially along river bottoms.
American three-toed woodpecker <i>Picoides dorsalis</i>	S	✓		Mature or old-growth spruce-fir forest, but also occurs in ponderosa pine, Douglas fir, and lodgepole pine forests with abundant snags and insect populations are present due to outbreaks from disease or fire.
Trumpeter swan <i>Cygnus buccinators</i>	S	✓		Along the Rocky Mountain Front the breeding habitat is small pothole lakes, generally with sufficient water to maintain emergent vegetation through the breeding season. Habitat requirements for breeding include room to take off (~100 meters), shallow, unpolluted water with sufficient emergent vegetation and invertebrates,

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
				appropriate nest sites (i.e., muskrat lodges), and areas with little human disturbance.
White-faced ibis <i>Plegadis chihi</i>	S	✓		Freshwater wetlands, including ponds, swamps, and marshes with pockets of emergent vegetation. Also use flooded hay meadows and agricultural fields as feeding locations. Nest in areas where water surrounds emergent vegetation, bushes, shrubs, or low trees. Use old stems in cattails (<i>Typha</i> spp.), hardstem bulrush (<i>Scirpus acutus</i>), or alkali bulrush (<i>S. paludosus</i>) over shallow water as their nesting habitat.
Yellow rail <i>Coturnicops noveboracensis</i>	S		ODR	Breeding habitat consists of wet sedge meadows and other wetlands containing grasses, rushes, and bulrushes. Presence of the yellow rail is most commonly dictated by water depth, specifically one that fluctuates throughout the breeding season, i.e., wet in the early part of the breeding season and relatively dry (no standing water) by July or September. Northeastern Montana and Flathead Valley.
Yellow-billed cuckoo <i>Coccyzus americanus</i>	S		ODR	Tall cottonwood and willow riparian woodlands. Nests are found in trees, shrubs, or vines, an average of 1 to 3 meters above ground. Western subspecies require patches of at least 10 hectares (25 acres) of dense, riparian forest with a canopy cover of at least 50 percent in both the understory and overstory. Nests are typically found in mature willows.
MAMMALS				
Black-footed ferret <i>Mustela nigripes</i>	E		ODR	Intimately tied to prairie dogs and only found in association with prairie dogs. Limited to habitat used by prairie dogs: grasslands, steppe, and shrub steppe. Rely on abandoned prairie dog burrows for shelter. Only large complexes (several thousand acres of closely spaced colonies) can support and sustain a breeding population. Estimated that 40 to 60 hectares of prairie dog colony is needed to support one black-footed ferret, and females with litters have never been found on colonies less than 49 hectares.
Black-tailed prairie dog <i>Cynomys ludovicianus</i>	S	✓		Colonies are found on flat, open grasslands and shrub/grasslands with low, relatively sparse vegetation. The most frequently occupied habitat in Montana is dominated by western wheatgrass, blue grama and big sagebrush. Colonies are associated with silty clay loams, sandy clay loams, and loams and fine to medium textured soils are preferred, presumably because burrows and other structures tend to retain their shape and strength better than in coarse, loose soils.
Canada lynx <i>Lynx canadensis</i>	T	✓		Dense spruce-fir, Douglas fir, early seral lodgepole pine, mature lodgepole pine with developing understory of spruce-fir and aspen in subalpine zone and timberline, using caves, rock crevices, banks, logs for denning; closely associated with snowshoe hare.
Fisher <i>Martes pennanti</i>	S		ODR	When inactive, they occupy dens in tree hollows, under logs, or in ground or rocky crevices, or they rest in branches of conifers (in the warmer months). Fishers occur primarily in dense coniferous or mixed forests, including early successional forests with dense overhead cover. Optimal conditions for fishers are forest tracts of 245 acres or more, interconnected with other large areas of suitable habitat.
Fringed myotis <i>Myotis thysanodes</i>	S	✓		Rocky outcroppings in mid-elevation ponderosa pine, piñon/juniper, oak, and mixed conifer woodlands, grasslands, deserts, and shrublands.
Fringe-tailed myotis <i>Myotis thysanodes pahasapensis</i>	S		ODR	Occurs primarily in caves in the Black Hills and Badlands. Occurs only in certain montane (mountainous) areas of South Dakota and Wyoming.
Gray wolf <i>Canis lupis</i>	S	✓		No particular habitat preference except for the presence of native ungulates within its territory on a year-round basis. Gray wolves establishing new packs in Montana have demonstrated greater tolerance of human presence and disturbance than previously thought characteristic of this species.
Great Basin pocket mouse <i>Perognathus parvus</i>	S		ODR	Arid and sometimes sparsely vegetated. They include grassland-shrubland with less than 40% cover, stabilized sandhills, and landscapes with sandy soils, more than 28% sagebrush cover, and 0.3 to 2.0 meters shrub height (extreme southwestern Montana).

SPECIES COMMON AND SCIENTIFIC NAME	STATUS ¹	POTENTIAL TO OCCUR?	RATIONALE FOR EXCLUSION ²	BRIEF HABITAT DESCRIPTION AND RANGE IN MONTANA
Grizzly bear <i>Ursus arctos horribilis</i>	T	✓		Primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Habitat use is highly variable between areas, seasons, local populations, and individuals. Historically, the grizzly bear was primarily a plains species occurring in higher densities throughout most of eastern Montana.
Long-eared myotis <i>Myotis evotis</i>	S	✓		Found in wooded and rocky areas. It has been located hibernating in a mine in riverbreaks habitat in northeastern Montana.
Long-legged myotis <i>Myotis volans</i>	S	✓		Typically occupy mountainous or relatively rugged areas. They often live in coniferous forest, although they are sometimes found in oak or streamside woodlands, and even deserts. They feed mostly on moths, but are opportunistic, eating whatever soft-bodied insects are most abundant.
Meadow jumping mouse <i>Zapus hudsonius</i>	S		ODR	Dense, tall and lush grass and forbs in marshy areas (sometimes with standing water), riparian areas, woody draws, and grassy upland slopes, sometimes within or near forested sites of ponderosa pine (east/southeast Montana).
Northern myotis <i>Myotis septentrionalis</i>	S		ODR	Located hibernating in an abandoned mine in riverbreaks habitat in Richland County. Prefers cooler hibernacula than <i>Myotis lucifugus</i> and selects narrow crevices in which to hibernate (northeastern Montana).
Pallid bat <i>Antrozous pallidus</i>	S	✓		Arid deserts, juniper woodlands, sagebrush shrub-steppe, and grasslands, often with rocky outcrops and water nearby. Arid and semi-arid regions throughout northern Mexico and the western United States. Pallid bats eat beetles, grasshoppers, and moths, and they forage for slow-moving prey, such as scorpions, flightless arthropods, and sometimes lizards, at and near ground level. Visit flowers in their hunt for insects, and are natural pollinators of several species of cactus (southcentral Montana).
Pygmy rabbit <i>Brachylagus idahoensis</i>	S		ODR	Shrub-grasslands on alluvial fans, floodplains, plateaus, high mountain valleys, and mountain slopes, where suitable sagebrush cover and soils for burrowing are available. Some occupied sites may support a relatively sparse cover of sagebrush and shallow soils, but these usually support patches of dense sagebrush and deeper soils. Big sagebrush was the dominant shrub at all occupied sites, averaging 21.3 to 22.6% coverage; bare ground averaged 33% and forbs 5.8% (southwestern Montana).
Swift fox <i>Vulpes velox</i>	S	✓		Open prairie and arid plains, including areas intermixed with winter wheat fields in north-central Montana. They use burrows when they are inactive; either dug by themselves or made by other mammals (marmot, prairie dog, badger). The burrows are usually located in sandy soil on high ground such as hilltops in open prairies, along fencerows, or occasionally in a plowed field. Suitable habitat generally extensive in size (preferably over 100,000 acres), with relatively level topography, and with greater than 50% of the area undisturbed by agriculture. A total of 8,000,000 suitable acres were identified in Montana.
Townsend's big-eared bat <i>Plecotus townsendii</i>	S	✓		Associated with caves and abandoned mines for day roosts and hibernacula; will also use abandoned buildings in western shrubland, piñon/juniper woodlands, and open montane forests in elevations up to 9,500 feet.
White-tailed prairie dog <i>Cynomys leucurus</i>	S		ODR	Xeric sites with mixed stands of shrubs and grasses. Habitats dominated by two types of vegetation: areas with Nuttall saltbrush with lesser amounts of big sage, and areas with poverty sumpweed and winter fat (extreme southcentral Montana).
Wolverine <i>Gulo gulo</i>	C/S	✓		Alpine and subalpine mature/intermediate timbered areas around natural openings, including cliffs, slides, basins, and meadows; dependant on ungulates; range extending the length of the Rocky Mountains.

¹Status Codes: E=federally listed endangered; T=federally listed threatened; C=federally proposed/candidate for listing; and S=BLM sensitive

²Exclusion Rationale Codes: ODR=outside known distributional range of the species; HAB=no habitat present in Analysis Area; SEA=species not present/affected during season

Sources:

Bureau of Land Management (BLM). 2009. 2009 Montana/Dakotas Special Status Species List. Instruction Memorandum No. MT-2009-039 (April 24, 2009).

http://www.blm.gov/mt/st/en/res/public_room/efoia/2009/IMs/09mtm039.html

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http://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species.html accessed 8/1/13.

114° W 113° W 112° W 111° W 110° W 109° W 108° W

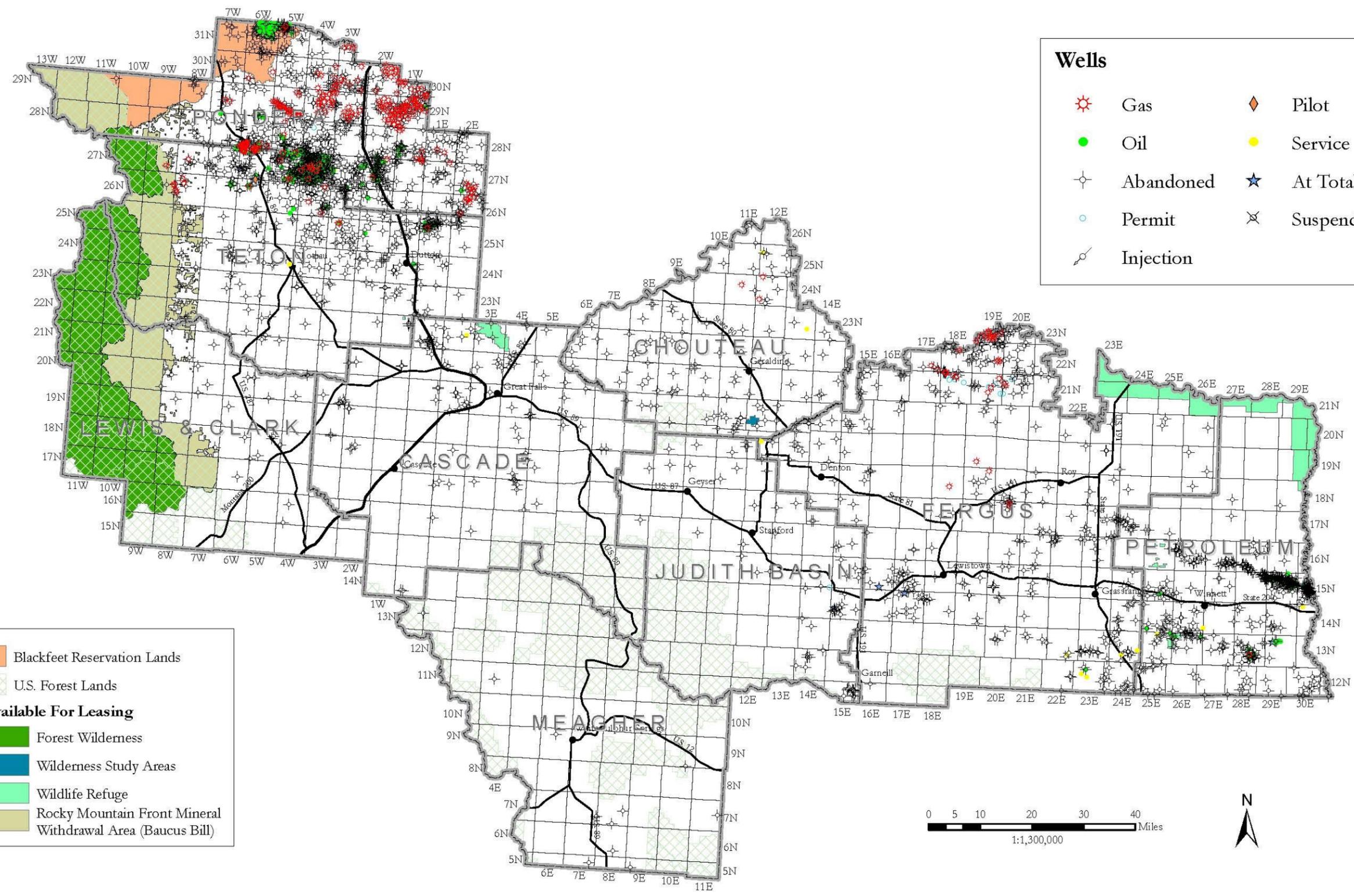
48° N

48° N

47° N

47° N

46° N



Wells

	Gas		Pilot
	Oil		Service
	Abandoned		At Total Depth
	Permit		Suspended
	Injection		

Unavailable For Leasing

- Blackfeet Reservation Lands
- U.S. Forest Lands
- Forest Wilderness
- Wilderness Study Areas
- Wildlife Refuge
- Rocky Mountain Front Mineral Withdrawal Area (Baucus Bill)



November, 2013

113° W 112° W 111° W 110° W 109° W 108° W

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources. This information was developed through digital means and may be updated without notification.



APPENDIX I

OUTSTANDING NATURAL AREA (ONA) RESOURCES AND CURRENT RESOURCE USE RESTRICTIONS

During the development of the ONA Activity Plan/Environmental Assessment (AP/EA), six major problems or issues were identified by the Bureau of Land Management (BLM) interdisciplinary team, cooperating agencies and the public: legal access, seismic activities, resource developments, overnight camping, noxious plants, and fire management and use. The following is a description of the status and current condition of those issues.

- 1) **Legal Access:** The ONA AP/EA Policy Statement and Management Direction Record of Decision (ROD) listed the following direction specific to legal access to the ONAs:
 - *Land acquisition will normally be on a "willing seller basis."*
 - *A minimum of one public access route will be acquired into three of the ONAs: Blind Horse, Chute Mountain, and Deep Creek-Battle Creek.*
 - *The Blind Horse ONA will require one access route to be acquired by 1993.*
 - *The Ear Mountain ONA has an existing legal access from the Teton County road in the northeast corner of the ONA, as well as foot access from May 15 through December 1 through the MDFW&P Ear Mountain Wildlife Management Area. Therefore, no additional access routes will be required. Additional public access exists through the Lewis and Clark National Forest from the west.*
 - *The Chute Mountain ONA will require one access route to be acquired by 1993, to provide legal access from the east, and the Deep Creek-Battle Creek ONA will require one-two access routes, both to be acquired by 1993.*
 - *All access routes will be acquired in accordance with the final State Directors Guidance on Access. The draft guidance, issued August 1988, proposed acquisition within 5 years.*
 - *A willing buyer-willing seller arrangement to achieve this public access will be attempted in all cases. BLM has other tools for acquiring access, such as land exchanges, direct purchase of land or land rights, or long-term use agreements providing for public access. As a last resort, condemnation can be used. All efforts to acquire access, with an agreement that is equitable to all parties involved, will be exhausted before condemnation is used.*

Since adoption of the ONA AP/EA Policy Statement and Management Direction, no new land has been acquired on the Rocky Mountain Front (RMF) to enhance access nor has any land disposal action occurred, decreasing access.

No additional public access to Blind Horse ONA, Deep Creek ONA, or Chute Mountain ONA has been provided. Currently, the only legal access to these ONAs is through adjacent Forest Service (FS) lands to the west. Legal access issues have not been resolved.

- 2) **Seismic Activities:** Federal minerals along Montana's , including ONAs, have been congressionally withdrawn from future natural gas and oil leasing and mineral exploration.
- 3) **Resource Developments:** The following policy and management direction is currently in place:
 - ONAs have been precluded from oil and gas development.
 - No common variety (sand, gravel, etc.) mineral removal is allowed.
 - Developments for livestock grazing are designed to meet resource objectives and mitigated to reduce conflicts with wildlife and the visual character of the area. No developments were proposed for livestock developments in ONAs in the Great Falls Area Grazing Lease Renewal Plan (August 2010), however one stock water pipeline has been proposed within the boundary of the Deep Creek ONA.
 - Communication site rights-of-way are not allowed in ONAs.
- 4) **Overnight Camping:** Overnight camping is permitted yearlong on BLM-administered land within the ONAs, except the Ear Mountain Trailhead. Recreational camping is restricted within 200 feet of all springs to protect the water source and to permit wildlife use. Overnight camping is monitored to determine if detrimental impacts are occurring on spring grizzly bear use or winter ungulate use. Camping policy changes are made in response to monitoring results to protect wildlife resources.
- 5) **Noxious Plants:** The biological agents approach is the preferred method of control in ONAs; however, chemicals or mechanical control efforts are applied when biological agents are unavailable or impractical. Control with sheep and goats is not allowed. Current land health evaluations for grazing allotments within designated ONAs do not indicate that noxious plants are impacting land health. Cooperative agreements are implemented with livestock grazing lessees as a condition of holding a grazing lease where noxious plants have been identified.
- 6) **Fire Management and Use:** Suppression action, including heavy equipment and air attack, is allowed only when necessary to prevent spread to adjacent private land. Normal suppression techniques include pumper trucks and handline construction. Fire camps are located outside ONAs. Wildfire, prescribed burning, and fuel management is directed to maintain or improve the current visual resources, wildlife habitat, excellent watersheds, and public uses of essentially wilderness ONAs.

The highest priority for prescribed fire burning is given to benches important as bighorn sheep and elk winter range.

ONA RESOURCES AND CURRENT RESOURCE RESTRICTIONS

Air Quality: Air Quality in the ONAs is currently Class II. The BLM is obligated by law to maintain that condition. All pollutant generating, federally-sanctioned actions will meet all air quality standards.

Soils: All surface-disturbing activities will avoid the Garlet, Loberg, Starman, and Whitore soil series of Upland Woodlands, except for critical locations where trails or roads cross. Any disturbance will avoid wetland sites, riparian communities, and areas with slopes exceeding 25 percent for more than 250 feet in length. Every attempt is made to limit land disturbances in Foothills Grasslands.

Water: Water quality is to be maintained or improved to meet wildlife, fisheries, and public water quality needs. The BLM is to claim all water rights within ONAs. The claims are for existing or proposed livestock and wildlife water sources in which BLM has a vested interest. Any increases in forage are to be dedicated to watershed resources.

Fish and Wildlife: The ONA AP provides protection and management direction for: unique plants in the ONAs; the critical habitat of threatened/endangered species and important seasonal habitat for numerous wildlife including elk, mountain goat, deer, bighorn sheep, black bear, and mountain lion plus various raptors and upland birds.

The objectives of the Rocky Mountain Front Range Wildlife Habitat Management Plan were incorporated into management policy and direction for all ONAs. Some objectives of that document have been accomplished and do not need carried forward, while other objectives from the ONA AP are still relevant. New issues and concerns, such as recent developments in the management and status of lynx, wolverine, and grizzly bear need to be reconsidered.

Cultural: The cultural resource management prescription is to provide protection for archeological, historical, and paleontological resources for future scientific use and public enjoyment. This is accomplished through inventories of all proposed project areas in the ONAs and subsequent avoidance or mitigation of impacts to any significant cultural resources identified. Cultural resources are fragile, nonrenewable, and ever dwindling in quality and quantity across the nation.

Paleontological: Use geology map to identify Class 3-5 paleontological resources.

Visual Resources: The ONAs are designated Class I VRM, except for the Ear Mountain Trailhead which is Class II.

Forest and Woodland Products: No timber harvest, post and pole cutting, timber improvement practices, firewood cutting, or Christmas tree cutting is permitted in the ONAs.

Livestock: The following is a description of the status of land health, management objectives and the mandatory terms and conditions for each allotment occurring within the four ONAs.

BLIND HORSE ONA:

Chicken Coulee (#06303)

Public acres – 3,340

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain or improve native vegetation in a late seral to Potential Natural Community (PNC) ecological condition rating.
- Maintain residual forage.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain the riparian areas on Blindhorse Creek, Frenchy Coulee, and Pamburn in proper functioning condition (PFC) or above.
- Continue to support the regeneration of preferred trees and shrubs.
- Maintain the functionality and water storage capabilities of the lentic wetlands within the allotment.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Maintain the vegetative buffers surrounding the lentic wetlands.
- Continue to support existing and designated beneficial uses of Pamburn Creek and its immediate receiving water, North Fork of the Teton River, including coldwater fishery.
- Maintain stream channel function and vegetative buffers on Blindhorse Creek and Frenchy Coulee to mitigate nonpoint source pollution from entering Muddy Creek.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native plants, particularly rough fescue, needlegrass, and other bunchgrass species.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
210 Cattle	7/1 to 9/30	44	Active	279

Total permitted use: 279 AUMs

The Chicken Coulee Allotment (#06303) and Choteau Mountain Allotment (#06304) are contained within the same grazing lease.

Choteau Mountain (#06304)

Public acres – 240

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain or improve native vegetation in a late seral to PNC ecological condition rating.
- Maintain residual forage.

Meeting Riparian Health Standard:

- No riparian habitat on public land within the allotment.

Meeting Water Quality Standard:

- N/A

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native plants.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
1 Cattle	3/1 to 2/28	100	Custodial	12

Total permitted use: 12 AUMs

The Chicken Coulee Allotment (#06303) and Choteau Mountain Allotment (#06304) are contained within the same grazing lease.

Cowtract (#06306)

Public acres – 360

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a late seral to PNC ecological condition rating.
- Maintain residual forage.
- Prevent expansion of nonnative, invasive species such as timothy and Kentucky bluegrass.

Meeting Riparian Health Standard:

- No riparian habitat on public land within the allotment.

Meeting Water Quality Standard:

- N/A

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native plants.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
10 Horses	6/15 to 9/30	100	Custodial	36

Total permitted use: 36 AUMs

Indian Head Rock (#07659)

Public acres – 78

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a late seral to PNC ecological condition rating.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain riparian area on North Fork of the Teton River in PFC or above.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Continue to support designated beneficial uses on North Fork of the Teton River, including coldwater fishery.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain condition and cover of native upland vegetation.
- Maintain diversity, abundance, and recruitment of woody browse species such as red-osier dogwood alder, birch, willow, and silverberry in the riparian zones along Teton River.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted is:

Livestock # and Kind	Season	Public Land	Type Use	AUMs
2 Horses	7/1 to 8/31	100	Custodial	4

Total permitted use: 4 AUMs

EAR MOUNTAIN ONA:

Blackfeet Gulch (#06335)

Public acres – 60

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain or improve native vegetation in a late seral to PNC ecological condition rating.
- Maintain or increase residual forage.

Meeting Riparian Health Standard:

- No riparian habitat on public land within the allotment.

Meeting Water Quality Standard:

- N/A

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native plants, particularly rough fescue, needlegrass, and other bunchgrass species.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
3 Horses	7/1 to 9/1	100	Custodial	6

Total permitted use: 6 AUMs

Ear Mountain Individual (#09835)

Public acres – 884

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a PNC ecological condition rating to prevent establishment of nonnative, invasive species.
- Maintain residual forage.

Meeting Riparian Health Standard:

- No riparian habitat on public land within the allotment.

Meeting Water Quality Standard:

- N/A

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native bunchgrasses in the uplands.
- Maintain health and regeneration of aspen stands.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
15 Horses	7/1 to 9/30	100	Active	45

Total permitted use: 53 AUMs

CHUTE MOUNTAIN ONA:

Deep Creek (#06310)

Public acres – 3,000

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a PNC ecological condition rating to prevent establishment of nonnative, invasive species.
- Maintain residual forage.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain the riparian areas on Edwards Creek and North and South Forks of Deep Creek in PFC or above.
- Continue to support regeneration of preferred tree and shrub species such as cottonwood, willow, alder, birch, and silverberry.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Continue to support existing beneficial uses on Edwards Creek and North and South Forks of Deep Creek, including coldwater fishery.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native bunchgrasses in the uplands and woody browse species such as alder, birch, willow, and silverberry in the riparian zones along Deep Creek.
- Maintain health and regeneration of aspen stands.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Deep Creek Pasture

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
12 Cattle	3/1 to 2/28	100	Custodial	144

Willow Creek Pasture

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
27 Cattle	5/15 to 10/15	100	Custodial	139

Total permitted use: 285 AUMs

The Saypo Cattle Company/BLM Grazing Allotment Plan (1990) implemented a three-pasture rest-rotation grazing system. The Deep Creek and Willow Creek Pastures are now contained within the Deep Creek Allotment (#6310) while the Ear Mountain Pasture became the Salmond Ranch Company Allotment (#06342) which was retained under a separate grazing lease. The BLM, in conjunction with the lessee and the State of Montana, will revise the 1990 Saypo Cattle Company/BLM Grazing Allotment Plan to incorporate changes in land tenure.

Salmond Ranch Company (#06322)

Public acres – 1,242

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a late seral to PNC ecological condition rating.
- Maintain residual forage.
- Prevent establishment of nonnative, invasive species.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain riparian area on Edwards Creek in PFC or above.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Maintain upland and riparian vegetative conditions within the allotment to mitigate nonpoint source pollution from entering Edwards Creek.
- Continue to support existing beneficial uses within Edwards Creek.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain diversity, abundance, and recruitment of woody browse species such as red-osier dogwood, birch, and willow in the riparian zones along Edwards Creek.
- Maintain health and regeneration of aspen stands.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

Proposed Action: The Saypo Cattle Company/BLM Grazing Allotment Plan (1990) implemented a three-pasture rest-rotation grazing system. Two of the pastures (Deep Creek and Willow Creek) used in that rotation were split into separate allotments under control of a new operator. The Ear Mountain Pasture became the Salmond Ranch Company Allotment (#06342) and was retained under this grazing lease. The BLM lands contained within this lease are now used in conjunction with deeded lands and the Ear Mountain Wildlife Management Area Rest-rotation Grazing Plan outlined by Montana Fish, Wildlife and Parks (MFWP). Permitted use is currently:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
267 Cattle	5/15 to 10/15	7	Active	95

Total permitted use: 95 AUMs

DEEP CREEK/BATTLE CREEK ONA:

Deep Creek (#06310)

Public acres – 3,000

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a PNC ecological condition rating to prevent establishment of nonnative, invasive species.
- Maintain residual forage.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain the riparian areas on Edwards Creek and North and South Forks of Deep Creek in PFC or above.
- Continue to support regeneration of preferred tree and shrub species such as cottonwood, willow, alder, birch, and silverberry.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Continue to support existing beneficial uses on Edwards Creek and North and South Forks of Deep Creek, including coldwater fishery.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native bunchgrasses in the uplands and woody browse species such as alder, birch, willow, and silverberry in the riparian zones along Deep Creek.
- Maintain health and regeneration of aspen stands.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Deep Creek Pasture

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
12 Cattle	3/1 to 2/28	100	Custodial	144

Willow Creek Pasture

Livestock # and kind	Season	Public land	Type use	AUM
27 Cattle	5/15 to 10/15	100	Custodial	139

Total permitted use: 285 AUMs

The Saypo Cattle Company/BLM Grazing Allotment Plan (1990) implemented a three-pasture rest-rotation grazing system. The Deep Creek and Willow Creek Pastures are now contained within the Deep Creek Allotment (#06310) while the Ear Mountain Pasture became the Salmond Ranch Company Allotment (#06342) which was retained under a separate grazing lease. The BLM, in conjunction with the lessee and the State of Montana, would revise the 1990 Saypo Cattle Company/BLM Grazing Allotment Plan to incorporate changes in land tenure.

Battle Creek (ONA) (#06307)

Public acres – 1,597

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain or improve native vegetation in a late seral to PNC ecological condition rating.
- Decrease abundance of Kentucky bluegrass in Sections 30 and 31.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain the riparian areas on North and South Forks of Battle Creek in PFC or above.
- Continue to support regeneration of preferred trees and shrubs.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives:

- Continue to support existing beneficial uses of North and South Forks of Battle Creek.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain rough fescue and bluebunch wheatgrass stands.
- Prevent expansion of nonnative, invasive species such as Kentucky bluegrass and timothy.
- Maintain health of aspen groves.
- Maintain diversity and quality of woody browse species in North Fork and South Forks of Battle Creek.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
11 Cattle	5/15 to 10/31	100	Custodial	62

Total permitted use: 62 AUMs

Green Timber Gulch (#06308)

Public acres – 728

Meeting Upland Standard:

- Yes

Upland Objectives:

- Maintain native vegetation in a late seral to PNC ecological condition rating.
- Maintain residual forage and increase abundance and cover of desirable bunchgrasses such as rough fescue and bluebunch wheatgrass.
- Prevent expansion of nonnative invasive species such as timothy and Kentucky bluegrass.

Meeting Riparian Health Standard:

- Yes

Riparian Objectives:

- Maintain the riparian area on Green Timber Gulch in PFC or above.
- Continue to support woody species communities of aspen, red-osier dogwood, and willow.

Meeting Water Quality Standard:

- Yes

Water Quality Objectives

- Continue to support stream channel function, vegetative conditions, and recruitment of woody species in order to mitigate nonpoint source pollutants from entering Green Timber Gulch.

Meeting Biodiversity Standard:

- Yes

Biodiversity Objectives:

- Maintain ground litter and residual forage for ground nesting birds, game and nongame wildlife species.
- Maintain diversity and abundance of desirable native bunchgrasses in the uplands and woody browse species such as red-osier dogwood, alder, birch, willow, and silverberry in the riparian zones along Green Timber Gulch.
- Maintain health and regeneration of aspen stands.

Conforms with Guidelines for Livestock Grazing Management:

- Yes

The current permitted use is:

Livestock # and Kind	Season	% Public Land	Type Use	AUMs
50 Cattle	6/15 to 10/15	18	Active	35

Total permitted use: 35 AUMs

Recreation and Visitor Services: A developed trailhead site exists on 12 acres to access Ear Mountain Trail.

Transport/Access: Administrative access is managed as follows:

The ONAs are closed to all motorized vehicles so as to retain the natural characteristics and fragile land types of the ONAs and to meet the broad Headwaters Resource Management Plan (RMP) direction “to protect the wildlife habitat, scenery and other surface resources from disturbance: and to ensure they are managed essentially as wilderness.” Administrative access may be allowed by the authorized office, for those purposes defined in 43 CFR 8340.05(a) and BLM guidance and specifically permitted by BLM.

Ear Mountain Trailhead is an exception to the motorized vehicle closure.

Mountain bikes and nonmotorized methods of travel are permissible within the ONA boundaries.

BLM-administered land adjacent to and including the ONAs is not available for motorcycle events.

Administrative motorized use is limited to designated routes. No cross-county travel is permitted except in extreme situations such as grizzly bear control actions, livestock veterinary care, search and rescue, and other similar situations.

Livestock lessees are allowed access to administer their livestock lease. Every attempt is made to limit this administrative access to designated roads and trails. In emergency cases, such as veterinary care, lessees may be allowed to travel off designated roads and trails. In all cases, administrative access is by permit only.

Lands/Realty: All federal land within the ONAs is managed as avoidance areas for utility and transportation corridors. Federal land within avoidance areas is not available for utility and transportation corridor development. Exceptions are allowed based on consideration of the following criteria: type of and need for facility proposed; conflicts with other resource values and uses including potential values and uses; and availability of alternatives and/or mitigation measures. Additional objectives include:

Continue to pursue private land acquisitions on a “willing seller basis.”

Management Decisions

The following management direction derived from the Headwaters RMP established generic and specific objectives for the ONAs.

The Headwaters RMP/EIS derived resources management direction which will be followed by all relative resources in the development and execution of the plan.

1. **Wildlife and Fisheries:**

Wildlife reintroductions and fish stocking proposals will be evaluated and recommendations will be made to the MFWP.

2. **Wildlife and Fisheries:**

A Wildlife Habitat Management Plan (HMP) will be prepared prior to any wildlife reintroductions.

3. **Wildlife and Fisheries:**

HMPs or Coordinated Resource Management Plans (CRMP) will be used to identify projects necessary to stabilize and/or improve unsatisfactory or declining wildlife habitat condition.

4. Wildlife and Fisheries:

No activities will be permitted in habitat for threatened and endangered (T&E) species that would jeopardize the continued existence of such species. Management activities in T&E habitat will be designed to benefit those species through habitat improvement as per the Endangered Species Act (ESA).

5. Wildlife and Fisheries:

The US Fish and Wildlife Service (FWS) and MFWP will be consulted prior to implementing projects that may affect T&E species.

6. Wildlife and Fisheries:

Management actions within occupied grizzly bear habitat will be consistent with the goal and objectives contained in the Grizzly Bear Recovery Plan (US Department of the Interior [USDI], FW 19821 and the guidelines developed through the Interagency Wildlife Monitoring Program for mineral exploration and development.

7. Wildlife and Fisheries:

Animal damage control programs will be coordinated with the FWS, and in the case of aerial gunning requests, with Montana Department of Agriculture.

8. Wildlife and Fisheries:

Fish and wildlife habitat will continue to be evaluated on a case-by-case basis as a part of project level planning.

Stipulations will be attached as appropriate to assure compatibility of projects with critical, crucial and essential habitat.

9. Wildlife and Fisheries:

Water developments will not be established for livestock where significant conflicts over vegetation would result.

Water will be provided in allotments (including rested pastures) during seasonal periods for wildlife.

10. Wildlife and Fisheries:

Vegetative manipulation projects will be designed to minimize impact on wildlife habitat and to improve it whenever possible. Consult with MFWP in advance of all vegetative manipulation projects.

11. Wildlife and Fisheries:

Sufficient forage and cover will be provided for wildlife seasonal habitat.

12. Wildlife and Fisheries:

Wildlife forage and cover requirements will be incorporated in livestock allotment management plans (AMPs) and will be specific to areas of primary wildlife use. Riparian habitat needs will be

taken into consideration in developing livestock grazing systems and pasture designs. Some of the techniques which could be used are: changing class of stock; either eliminating hot season grazing or scheduling hot season grazing for only one out of three years; salting away from riparian areas; laying out pasture fences so that each pasture has as much riparian habitat as possible; locating fences so that they do not confine or concentrate livestock near the riparian zone; developing alternative sources of water to lessen the grazing pressure on the riparian habitat; and, as a last resort, excluding livestock completely from the riparian habitat by protective fencing.

13. Wildlife and Fisheries:

Range (livestock) improvements will be designed to achieve both wildlife and range objectives. Existing fences may be modified and new fences will be built so as to allow wildlife passage. Modify fences which do not allow for wildlife passage.

14. Recreation-Visual Resources:

At a minimum, Class II VRM guidelines will be applied on the ONAs. Visual resources will continue to be evaluated as a part of activity and project planning; stipulations will be attached, as appropriate, to assure the compatibility of projects with management objectives for visual resources.

15. Recreation-Motorcycle Use Areas:

Federal BLM-administered land along the Front Range ONAs is not available for motorcycle events.

16. Recreation-Travel Planning and Motorized Vehicle Use:

The ONAs are closed to motorized vehicle use.

17. Recreation:

Investment of public funds for new recreation developments will be permitted only on lands identified for retention in public ownership.

18. Range (Livestock):

Allotment management plans will be written to analyze actions which affect the environment and alternatives to those actions and mitigate adverse impacts. All allotments in which range improvement funds are to be spent will be subjected to an economic analysis.

19. Cultural Resources:

Cultural resources will be inventoried and evaluated as part of project planning in compliance with Executive Order (EO) 11583 and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended; stipulations will be attached, as appropriate, to assure compatibility of projects with proposed management objectives for cultural resources.

20. Oil and Gas:

Seasonal stipulations on oil and gas exploration and/or production will be required in bighorn sheep, elk, and mule deer winter/spring range and mountain goat kidding areas.

No surface occupancy will be permitted on new leases in the ONAs.

As described in the Headwaters RMP, no leasing will be permitted in the core of the no surface occupancy (NSO) areas.

21. Minerals-Salable:

Applications for removal of common variety mineral materials will continue to be processed on a case-by-case basis.

Stipulations to protect important surface values will be attached based on interdisciplinary review of each proposal.

22. Minerals-Locatable:

All federal land will remain open to mineral entry and development unless previously withdrawn. Locatable mineral exploration and development will be regulated under 43 CFR 3808.

23. Lands:

Federal land within the retention areas (four ONAs) will remain in public ownership.

24. Lands-Utility/Transportation Corridor:

Public lands along the RMF are to be managed as avoidance areas (areas generally not available for utility or transportation corridor development). Exceptions may be permitted based on consideration of the following criteria: type of and need for facility proposed; conflicts with other resource values and uses, including potential values and uses; and availability of alternatives and/or mitigation measures.

25. Water:

Water quality will be maintained or improved in accordance with state and federal standards. The BLM will consult with state agencies on proposed projects that may significantly affect water quality. Management actions on public land within municipal watersheds will be designed to protect water quality and quantity. Management activities in riparian zones will be designed to maintain or improve riparian habitat condition.

26. Water:

Authorized improvements will avoid riparian zones. Water resources will be evaluated on a case-by-case basis as a part of project planning. Stipulations will be attached, as necessary.

27. Forestry:

Public land in the four ONAs is set aside from forest management.

28. Fire:

Continue to provide control during the first burning period of all wildfires on or threatening public land until the 1978 Normal Fire Year Plan is updated. Then, modified suppression areas may be established based on the following criteria: values at risk; fire behavior; fire occurrence; beneficial fire effects; fire suppression costs; and consistency with other agency plans and policies.

Prescribed burning will be used in support of resource management objectives.

ONA COORDINATED ACTIVITY PLAN SUMMARY

A coordinated AP and corresponding environmental assessment (EA) were prepared for the four ONAs, Blind Horse, Ear Mountain, Chute Mountain, and Deep Creek-Battle Creek, totaling 13,087 acres located on the RMF, about 20 miles west of Choteau, Montana.

The Headwaters RMP/Environmental Impact Statement (EIS) (1984) established broad management direction for these ONAs to "protect the wildlife habitat, scenery and other surface resources from disturbance" and "to ensure they are managed essentially as wilderness." The purpose of this AP is to provide specific objectives, constraints, and management policy for all current and proposed actions on the ONAs.

The AP also included the north unit of Ear Mountain that was an acquired addition. The 1,041-acre parcel was analyzed in the RMP amendment: *Special Designation of Recently Acquired Public Land in the Rocky Mountain Front Planning Amendment to the Headwaters RMP/EA (December 1986)*.

Two alternatives were analyzed in the draft AP, the Preferred and No Action. The selected alternative implemented the ONA guidance. The selected alternative did not amend the Headwaters RMP.

Six major problems or issues were identified by the BLM interdisciplinary team and the public: legal access, seismic activities, resource developments, overnight camping, noxious plants, and fire management and use. Those issues were addressed in the AP.

A substantial number of agency resource use objectives and constraints (such as the ESA; related wildlife recovery plans; and specific direction from policy, law, and natural circumstances) were identified in the Headwaters RMP. These were also addressed and incorporated in this AP.

The highly dissected topography supports numerous wildlife and has a very high, nearly pristine wilderness quality. Prominent geographic features include Blind Horse Creek, Deep Creek, Battle Creek, Ear Mountain, and Timber Gulch.

The principle wildlife objectives (to improve riparian communities, fescue grassland benches, grizzly bear and gray wolf habitat, and similar environs important as wildlife habitats) will be achieved through livestock grazing regulation. Public access will be acquired to three ONAs (Blind Horse, Chute Mountain and Deep Creek-Battle Creek) to permit wildlife resources use through hunting, fishing, photography, and viewing. Such access currently exists only to the Ear Mountain ONA.

The RMF Wildlife Guidelines will be strictly adhered to if oil and gas seismic activities are proposed.

Administrative vehicle access will be permitted only within a strict permit regulation process for limited activities including potential livestock operations, seismic activity, and wildlife management.

Camping will be allowed throughout the year and monitored to determine any detrimental effects on spring grizzly bear use or winter ungulate use relative to the gray wolf. Camping policy changes will be made in response to monitoring results designed to protect the wildlife resources.

Specific guidelines and restrictions will be applied to all ONAs to implement the off-road vehicle designations and closures throughout all ONAs. No cross-country travel will be permitted except in an extreme situation, such as grizzly bear control actions, livestock veterinary care, search and rescue

efforts, or other similar situations. Camping will be permitted throughout all ONAs except at the Ear Mountain Trailhead. The exclusion of camping is necessary at this trailhead because it lies in a grizzly bear high use area, and would create human and bear conflicts. All ONA boundaries will be signed to identify avoidance areas, ORV regulations, noxious plant control efforts, and other essential information. Trailheads will be developed as ONA access is acquired, with various degrees of public facilities at each. Camping will be precluded within 200 feet of all springs or similar water sources. Livestock regulation will be intensified to improve general vegetation communities; to enhance grizzly bear and gray wolf prey populations; and to improve general wildlife habitats. Livestock forage will be evaluated and monitored. The AP will focus on livestock range resource management. Season-of-use restrictions, herding, or (as a last alternative) fencing, to exclude livestock grazing, will be implemented where livestock pasture management is not practical.

Integrated pest management methods will be used to control noxious plants, with an emphasis on biological control agents (sheep or goats will not be used).

There will be no broad cultural resources inventory on the ONAs, but site-specific evaluations will be required for all proposed actions in the ONAs to assure resource data integrity. Avoidance or mitigation of located cultural resources will be the required procedure.

Air quality in the ONAs is currently Class II and the BLM is obligated, by law, to maintain that condition. Oil and gas activities, prescribed burning, and other pollutant-generating, federally-sanctioned actions will meet all air quality standards. Oil and gas exploration and development will be managed in accordance with the Headwaters RMP. Existing oil and gas leases in areas designated by the Headwaters RMP as future "No Lease" portions of the ONAs will not be reoffered upon lease expiration.

All oil and gas leases will be reviewed to determine if they meet the RMF Wildlife Guidelines. The ONAs will remain open to locatable mineral entry and development, as described in the Headwaters RMP. No removal of common salable minerals (gravel, sand, and rock) will be permitted.

Water quality will be maintained or improved to meet wildlife, fisheries, and public water quality needs. The BLM will file on all water rights within the ONAs. All vegetative increases will be dedicated to wildlife and watershed resources. Oil and gas activities must meet all federal water quality standards.

Wildfire, prescribed burning, and fuel management will be directed to maintain or improve the visual resources, wildlife habitat, watersheds, and public uses of these ONAs.

OUTSTANDING NATURAL AREA (ONA) ACTIVITY PLAN

(POLICY STATEMENTS AND MANAGEMENT DIRECTION)

Wildlife and Fisheries

1. Grazing systems will be actively and intensively managed, particularly in the two east Front allotments, to improve important wildlife habitats. The grazing management program for each allotment as described in the Range-Livestock Section of this AP will be adhered to. If a substantial improvement in vegetation trend is not apparent within two grazing cycles after AMP implementation, grazing system modifications will be made to improve important wildlife habitats. This could require excluding cattle from important wildlife habitats, riparian areas important to fisheries and grizzly bears, and fescue/grassland benches important as bighorn sheep winter range.

This modification could be accomplished by fence enclosures of the entire area or by fencing out water sources which attract cattle to these important wildlife and fisheries habitats.

2. Intensive grazing management will continue in the Chicken Coulee Allotment.
3. Access to the eastern boundaries of three ONAs (Blind Horse, Chute Mountain and Deep Creek-Battle Creek) will be established to allow walk-in hunting, proper wildlife management (regulated harvest), and the general public to use the wildlife resources. Such access currently exists only to the Ear Mountain ONA.
4. Seismic exploration will be allowed in ONAs with strict adherence to the RMF Wildlife Guidelines. Particular care will be exercised by BLM concerning the use and authorization of helicopters (e.g., flight paths, above-ground heights, and 9-mile spacing).

Recreation

1. Overnight camping will be permitted on BLM-administered land within the ONAs, except at the Ear Mountain Trailhead.
2. Camping restrictions at future trailhead developments will be determined on an individual basis.
3. Visitors will be advised to follow correct bear management practices when camping or hiking in the ONAs.
4. All access points will be posted with MFWP bear management informational signs.
5. Off-road vehicle use in the ONAs will comply with stipulations listed in the Administrative Access Section of this AP.
6. Off-road vehicle barriers will be installed *at* all ONA boundaries to exclude motorized vehicles from existing roads, vehicle ways, and trails, except as specifically authorized by Administrative Access.
7. Nonmotorized travel on trails may be restricted during wet periods to avoid damage to wet soils.
8. Authorized vehicle travel will be restricted to designated roads and trails except for those situations discussed under the Range and Administrative Access Sections of this document.
9. Visual resource management (VRM) contrast ratings will be completed for all proposed projects in the ONAs.
10. Recreational camping will be restricted within 200 feet of all springs to protect the water source and to permit wildlife use.

Range-Livestock

1. This AP limits the livestock class to cattle and horses. Grazing sheep and/or goats will not be allowed in the ONAs because of grizzly bear habitat requirements and potential depredation conflicts. The livestock class policy will follow the wildlife management direction recommended by the Interagency Grizzly Bear Committee (IGBC) Guidelines, the Grizzly Bear Recovery Plan, and the RMF Guidelines.

2. Administrative use and livestock operators will be allowed to monitor rangeland, inspect livestock, and to provide maintenance of range improvements or to construct range improvements. Every attempt will be made to limit administrative access, where practical, to designated roads and trails. In all cases, administrative access will be by permit.
3. No grazing will begin before July 1 and will not extend beyond October 10.
4. Livestock grazing developments will not conflict with wildlife habitat objectives or impair the natural area visual character, and will be designed to improve resource objectives.
5. Integrated pest management will be used to control noxious plants with an emphasis on biological control agents such as insects. No sheep or goats will be used as biological control agents because of grizzly bear conflicts.
6. Moderate livestock grazing use (up to 60 Dfof of suitable rangeland will be allowed. Pasture rotation, seasonal restrictions, and herding will be used to obtain moderate livestock vegetation use on ONA allotments.

Cultural

1. Cultural resource inventories will be required in advance of all surface-disturbing activities in accordance with federal regulations and BLM policy.
2. If cultural resources are identified, they must be recorded and evaluated under the criteria of eligibility for the National Register of Historic Places (NRHP). Impacts from surface-disturbing activities must be avoided or mitigated for all eligible cultural resources. The process of evaluation and determination of effect requires consultation and coordination with the Montana State Historic Preservation Officer and the Advisory Council on Historic Preservation.

Air Quality

1. Prescribed burns will be coordinated with the Montana State Airshed Coordinator.
2. Dust abatement and traffic control requirements may be necessary to minimize particulate matter in the air, should any of the "grandfathered" oil and gas leases within the Blind Horse ONA boundary be developed.
3. Venting and flaring of the wells will not be allowed if not economically justified or if in violation of state or federal air quality standards. Should venting and flaring of the wells occur, an approved H₂S contingency plan and proper fire abatement procedures must be in place.
4. Vapor recovery units may be required to reduce or eliminate noxious or toxic gases, should oil and gas production facilities be placed adjacent to an ONA boundary.

Oil and Gas and Minerals

1. Oil and Gas
 - a. Oil and gas leases will use the guidance of the Headwaters RMP and the Ear Mountain Addition Amendment.

- b. Seismic notices and operational requests will be reviewed on an individual basis and stipulations from the RMF Wildlife Guidelines will be applied, as necessary.

2. Locatable Minerals

- a. Public lands within the ONAs will remain open to mineral entry as defined in the HRVIP. An approved plan of operations will be required on all activities (43 CFR 3B09.1-41b131) should a claim be staked, except casual use (as defined in 43 CFR 3809.1-21). "Operations" includes all activity associated with exploration, assessment work, development, and processing of mineral deposits located under the mining laws. Valid existing lease rights within the boundaries of an ONA will be honored.
- b. Bonding will be required of all operations, except for casual use, to ensure adequate rehabilitation.
- c. Disturbed site rehabilitation measures will consider wildlife food and cover replacement.
- d. Locatable minerals exploration and mining operations are regulated so as not to cause unnecessary and undue degradation. However, prevention of unnecessary and undue degradation may not prevent significant impacts to wildlife and other resources.

During the permitting process, BLM will seek voluntary cooperation from individual operators to lessen the impacts on nonmineral resources.

- e. Mining operators exploring in crucial wildlife habitat may be required to rehabilitate their previous mining disturbances prior to initiating new surface-disturbing activities. This action will allow mining operations to continue while rehabilitating wildlife habitat at the earliest time.

3. Mineral Materials

- a. There will be no common variety (sand, gravel, etc.) mineral removal allowed within the ONAs.

Lands

1. All BLM-administered land will be retained in federal ownership.
2. Land acquisition will normally be on a "willing seller basis."
3. The ONAs will be avoidance areas for rights-of-way, leases, and permits which require development or disturbance. A minimum of one public access route will be acquired into three of the ONAs (Blind Horse, Chute Mountain, and Deep Creek-Battle Creek).
4. Communications site rights-of-way will not be allowed within the ONAs.
5. The Blind Horse ONA will require one access route to be acquired by 1993. The Ear Mountain ONA has an existing legal access from the Teton Country road in the northeast corner of the ONA, as well as foot access from May 15 through December 1 through the MFWP Ear Mountain Wildlife Management Area. Therefore, no additional access routes will be required. Additional public access exists through the Lewis and Clark National Forest from the west. The Chute Mountain ONA will require one access route to be acquired by 1993, to provide legal access from the east, and the Deep Creek-Battle Creek ONA will require one-two access routes, both to be acquired by 1993.

6. All access routes will be acquired in accordance with the final State Director's Guidance on Access. The draft guidance, issued August 1988, proposed acquisition within 5 years.

A willing buyer-willing seller arrangement to achieve this public access will be attempted in all cases. The BLM has other tools for acquiring access, such as land exchanges, direct purchase of land or land rights, or long-term use agreements providing for public access. As a last resort, condemnation can be used. All efforts to acquire access, with an agreement that is equitable to parties involved, will be exhausted before condemnation is used.

Watershed

1. Livestock grazing will be intensively managed to improve vegetative cover throughout the watershed in all ONAs.

Monitoring techniques, as outlined in the AP Range-Livestock Section, will be used to determine an upward trend in vegetative cover.

2. The BLM will consider an alternate grazing method or exclude livestock by fencing if improvement is not apparent within two grazing cycles after AMP implementation.
3. The BLM will intensively manage the South Fork of Deep Creek riparian area to improve streambank vegetation and stability by implementation of an AMP which may include fencing, alternate water development, and other measures.
4. Water quality will be maintained or improved to meet wildlife, fisheries, and public water quality needs. The BLM will claim all water rights within the ONAs. The claims will be for existing or proposed livestock and wildlife water sources in which BLM has a vested interest. Projects funded entirely by the permittee or other parties could be held by the contributing party. In such an event, the contributing party will be required to sign a stipulation relinquishing to the BLM any right to the water upon loss of grazing preference. All vegetative increases will be dedicated to wildlife and watershed resources. Oil and gas activities must meet federal water quality standards. The BLM has no authority to enforce state water quality standards. However, federal standards are generally equal or more stringent than state standards.
5. Oil and gas activities for valid existing leases as well as any other surface-disturbing activities around water sources will adhere to state and federal regulations.

Soils

1. All surface-disturbing activities will avoid the Garlet, Loberg, Starman, and Whitore soil series of Upland Woodlands, except for critical locations where trails or roads cross. Water erosion hazard is severe or very severe on these soils if vegetation is removed, due to their dominantly steep and very steep slopes and relatively thin topsoil.
2. All land disturbances will avoid wetland sites, riparian communities, and areas with slopes exceeding 25 degrees for more than 250 feet in length. Location of these crossings shall be selected by an interdisciplinary team consisting of a wildlife biologist, hydrologist, civil engineer, and soil scientist.
3. Every attempt shall be made to limit land disturbances in Foothills Grasslands.

Noxious Plants

1. The BLM will implement the Integrated Pest Management (IPM) Program to reduce or eradicate noxious plants in the ONAs, with emphasis on biological control. Herbicides, mechanical, or manual methods can be used under the IPM program along roads, trails, and on small, upland infestations to contain or eradicate specific noxious plants on BLM-administered areas. The biological agents approach is the preferred method; however, chemicals or mechanical control efforts may be applied if biological agents are unavailable, or the size of infestations (small, isolated) makes biological agents impractical. Biological agents will not include sheep or goats.

Fire

1. Wildfires
 - a. Wildfires: The FS will continue as the head agency and would use appropriate suppression action in ONAs, including heavy equipment, only when necessary to prevent spread to adjacent private land. Normal suppression techniques will include pumper trucks and hand-line construction crews. Air attacks are permissible in initial attack to prevent fires from spreading to adjacent private lands. The initial action agency (FS) will locate fire camps and associated facilities outside the ONAs.
2. Prescribed Burns
 - a. Specific areas ("wolfy" rough fescue and/or Idaho fescue grassland benches, decadent aspen groves) where prescribed burns can improve vegetation condition will be inventoried and prioritized by 1990. The highest priority for burning will be given to benches important as bighorn sheep and elk winter range.

Administrative Access

1. The ONAs are closed to all forms of motorized vehicles.
2. Administrative vehicular access will be allowed to agency personnel for project and range allotment monitoring, and resource use evaluations.
3. Livestock permittees will be allowed administrative access on a permit basis to administer their livestock lease (to include, but not limited to: spring, pipeline, and fence maintenance; salt dispersal; livestock inspection; and veterinarian care) subject to stipulations imposed by the BLM. Every attempt will be made to limit administrative access, where practical, to designated roads and trails. In all cases, administrative access will be by permit.
4. Seismic activity conducted by ground-travelling motorized vehicles will be allowed access on a permitted basis and limited to designated roads/trails subject to stipulations imposed by the agency. Cross-country motorized travel for seismic exploration will not be permitted.

APPENDIX J

POTENTIAL FOSSIL YIELD CLASSIFICATION (PFYC) SYSTEM

This was published in Instruction Memorandum (IM) 2008-009:

Occurrences of paleontological resources are closely tied to the geologic units (i.e., formations, members, or beds) that contain them. The probability for finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Therefore, geologic mapping can be used for assessing the potential for the occurrence of paleontological resources.

Using the Potential Fossil Yield Classification (PFYC) system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. This classification is applied to the geologic formation, member, or other distinguishable unit, preferably at the most detailed mappable level. It is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment.

The PFYC system is meant to provide baseline guidance for predicting, assessing, and mitigating paleontological resources. The classification should be considered at an intermediate point in the analysis, and should be used to assist in determining the need for further mitigation assessment or actions.

The descriptions for the classes below are written to serve as guidelines, rather than as strict definitions. Knowledge of the geology and the paleontological potential for individual units or preservational conditions should be considered when determining the appropriate class assignment. Assignments are best made by collaboration between land managers and knowledgeable researchers.

Class 1 – Very Low. Geologic units that are not likely to contain recognizable fossil remains.

- Units that are igneous or metamorphic, excluding reworked volcanic ash units.
- Units that are Precambrian in age or older.

- (1) Management concern for paleontological resources in Class 1 units is usually negligible or not applicable.
- (2) Assessment or mitigation is usually unnecessary except in very rare or isolated circumstances. The probability for impacting any fossils is negligible. Assessment or mitigation of paleontological resources is usually unnecessary. The occurrence of significant fossils is nonexistent or extremely rare.

Class 2 – Low. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils.

- Vertebrate or significant invertebrate or plant fossils not present or very rare.
- Units that are generally younger than 10,000 years before present.
- Recent aeolian deposits.
- Sediments that exhibit significant physical and chemical changes (i.e., diagenetic alteration).

- (1) Management concern for paleontological resources is generally low.
- (2) Assessment or mitigation is usually unnecessary except in rare or isolated circumstances.

The probability for impacting vertebrate fossils or scientifically-significant invertebrate or plant fossils is low. Assessment or mitigation of paleontological resources is not likely to be necessary. Localities containing important resources may exist, but would be rare and would not influence the classification. These important localities would be managed on a case-by-case basis.

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.

- Often marine in origin with sporadic known occurrences of vertebrate fossils.
- Vertebrate fossils and scientifically significant invertebrate or plant fossils known to occur intermittently; predictability known to be low.

(or)

- Poorly studied and/or poorly documented. Potential yield cannot be assigned without ground reconnaissance.

Class 3a – Moderate Potential. Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for hobby collecting. The potential for a project to be sited on, or impact a significant fossil locality is low, but is somewhat higher for common fossils.

Class 3b – Unknown Potential. Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. The units in this class may eventually be placed in another class when sufficient survey and research is performed. The unknown potential of the units in this class should be carefully considered when developing any mitigation or management actions.

- (1) Management concern for paleontological resources is moderate, or cannot be determined from existing data.
- (2) Surface-disturbing activities may require field assessment to determine appropriate course of action.

This classification includes a broad range of paleontological potential. It includes geologic units of unknown potential, as well as units of moderate or infrequent occurrence of significant fossils. Management considerations cover a broad range of options as well, and could include predisturbance surveys, monitoring, or avoidance. Surface-disturbing activities will require sufficient assessment to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources. These units may contain areas that would be appropriate to designate as hobby collection areas due to the higher occurrence of common fossils and a lower concern about affecting significant paleontological resources.

Class 4 – High. Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but

may vary in occurrence and predictability. Surface-disturbing activities may adversely affect paleontological resources in many cases.

Class 4a – Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than 2 acres. Paleontological resources may be susceptible to adverse impacts from surface-disturbing actions. Illegal collecting activities may impact some areas.

Class 4b – These are areas underlain by geologic units with high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
 - Areas of exposed outcrop are smaller than 2 contiguous acres.
 - Outcrops form cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
 - Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.
- (1) Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action.
 - (2) A field survey by a qualified paleontologist is often needed to assess local conditions.
 - (3) Management prescriptions for resource preservation and conservation through controlled access or special management designation should be considered.
 - (4) Class 4 and Class 5 units may be combined as Class 5 for broad applications, such as planning efforts or preliminary assessments, when geologic mapping at an appropriate scale is not available. Resource assessment, mitigation, and other management considerations are similar at this level of analysis, and impacts and alternatives can be addressed at a level appropriate to the application.

The probability for impacting significant paleontological resources is moderate to high, and is dependent on the proposed action. Mitigation considerations must include assessment of the disturbance, such as

removal or penetration of protective surface alluvium or soils; potential for future accelerated erosion; or increased ease of access resulting in greater looting potential. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface-disturbing action will usually be necessary. Onsite monitoring or spot-checking may be necessary during construction activities.

Class 5 – Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at risk of human-caused adverse impacts or natural degradation.

Class 5a – Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two contiguous acres. Paleontological resources are highly susceptible to adverse impacts from surface-disturbing actions. Unit is frequently the focus of illegal collecting activities.

Class 5b – These are areas underlain by geologic units with very high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has very high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops form cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

(1) Management concern for paleontological resources in Class 5 areas is high to very high.

(2) A field survey by a qualified paleontologist is usually necessary prior to surface-disturbing activities or land tenure adjustments. Mitigation will often be necessary before and/or during these actions.

(3) Official designation of areas of avoidance, special interest, and concern may be appropriate.

The probability for impacting significant fossils is high. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface-disturbing activities will usually be necessary. Onsite monitoring may be necessary during construction activities.

APPENDIX K

BEST MANAGEMENT PRACTICES

The publications referenced in this appendix are sources of “Best Management Practices” (BMPs). These BMPs are measures that have been developed by agency, industry, scientific, and/or working groups as voluntary methods for reducing environmental impacts associated with certain classes of activity. The Bureau of Land Management (BLM) typically uses these measures as guidelines or “project design features” during implementation planning at the activity and/or project-specific levels.

The list included in this appendix is not limiting, but references the most frequently used sources. As new publications are developed, BLM may consider those BMPs. In addition, many BLM handbooks (such as BLM Manuals 9113 - *Roads* and 9213 - *Interagency Standards for Fire and Aviation Operation*) also contain BMP-type measures for minimizing impacts. These BLM-specific guidance and direction documents are not referenced in this appendix.

Planning implications: Use of BMPs is not mandatory, since individual measures may not be appropriate for use in every situation. They may be added, dropped, or modified through plan maintenance.

National Environmental Policy Act (NEPA) implications: Only the wind energy development BMPs have been analyzed in a NEPA process. The use of other BMPs should be analyzed on a case-by-case basis in NEPA documents associated with projects on the public lands. These case-by-case analyses should not “tier to” the BMP publication as a way to dismiss environmental impacts (i.e., must still analyze and disclose the environmental considerations and effects associated with use of the BMP).

Montana BMPs for Grazing

Developed by: Working group with representation from: Montana State University (MSU) College of Agriculture, Society of American Fisheries, Montana Stockgrowers Association, Montana Woolgrowers Association, United States Department of the Interior (USDI) BLM, United States Department of Agriculture (USDA) Forest Service (FS), USDA Natural Resources Conservation Service (NRCS), Montana Farm Bureau, and Montana Department of Natural Resources and Conservation (DNRC).

Publication reference: N/A, first printed in 1999

Available from: Conservation Districts Bureau, DNRC, PO Box 201601, Helena, MT 59620-1601 (406-444-6667).

Description: Describes BMPs for livestock grazing designed to protect and enhance water quality, soils, plant communities, and other rangeland resources. Explains how and why to use BMPs to manage

upland rangeland, forested rangeland, and riparian areas and describes how grazing BMPs fit into a grazing management plan.

Water Quality BMPs for Montana Forests

Developed by: MSU Extension Service

Publication reference: Logan, R. 2001. *Water Quality BMPs – Best Management Practices for Montana Forests*. EB158, MSU Extension Forestry, Missoula, MT. 58 pp.

Available from: MSU Extension Forestry, 32 Campus Drive, Missoula, MT 59812, or MSU Extension Publications, PO Box 172040, Bozeman, MT 59717

Description: Discusses methods for managing forest land while protecting water quality and forest soils. Intended for all forest land in Montana, including nonindustrial private, forest industry, and state or federally- owned forests. These are preferred (but voluntary) methods that go beyond Montana State Law (Streamside Management Zones). Includes definitions, basic biological information, and BMPs for Streamside Management Zones; road design, use, planning and locating, construction, drainage, and closure; stream crossings, soil, timber harvesting methods, reforestation, winter planning, and clean up.

Montana Placer Mining BMPs

Developed by: Montana Bureau of Mines and Geology (MBMG)

Publication Reference: Special Publication 106, October 1993

Available from: MBMG, Main Hall, Montana College of Mineral Science and Technology, Butte, MT 59701

Description: Provides guidelines for planning, erosion control, and reclamation in arid to semi-arid, alpine, and subalpine environments, to prevent or decrease environmental damage and degradation of water quality.

BMPs for Wind Energy

Developed by: BLM

Publication reference: Wind Energy Development Programmatic EIS

Available from: Final Programmatic Environmental Impact Statement (FEIS), Chapter 2 (Section 2.2.3.2) at <http://windeis.anl.gov/>

Description: As part of the proposed action, BLM developed BMPs for each major step of the wind energy development process, including site monitoring and testing, plan of development preparation, construction, operation, and decommissioning. General BMPs are available for each step, and certain steps also include specific BMPs to address the following resource issues: wildlife and other ecological resources, visual resources, roads, transportation, noise, noxious weeds and pesticides, cultural/historic resources, paleontological resources, hazardous materials and waste management, storm water, human health and safety, monitoring program, air emissions, and excavation and blasting activities.

Montana Guide to the Streamside Management Zone Law

Note: The Montana Guide to the Streamside Management Zone Law is a field guide to comply with State of Montana Law 77-5-301[1] MCA.

Developed by: MDNRC Service Forestry Bureau, in cooperation with Montana Department of Environmental Quality (MDEQ), Montana Logging Association, Montana Wood Products Association, Plum Creek Timber LP, USDA FS, and USDI, BLM

Publication reference: Revised August 2002

Available from: MDNRC, 2705 Spurgin Road, Missoula, MT 59801-3199, (406)542-4300, or local MDNRC Field Office

Description: MT State Law (77-5-301[1] MCA). Complementary BMPs are found in the Water Quality BMPS for Montana Forests (also referenced in this appendix). Provides definitions, stream classifications, and guidelines on the seven forest practices prohibited by Montana Law in streamside management zones (SMZs) (broadcast burning, operation of wheeled or tracked vehicles except on established roads, the forest practice of clearcutting, the construction of roads except when necessary to cross a stream or wetland; the handling, storage, application, or disposal of hazardous or toxic materials in a manner that pollutes streams, lakes, or wetlands, or that may cause damage or injury to humans, land, animals, or plants; the side casting of road material into a stream, lake, wetland, or watercourse; and the deposit of slash in streams, lakes, or other water bodies.

Erosion and Sediment Control Practices: Field Manual

Developed by: Prepared for the Montana Department of Transportation (MDT)

Publication reference: FHWA/MT-030003/8165

Available from: National Technical Information Service(NTIS), Springfield, VA 21161

Description: The Erosion and Sediment Control Best Management Practices Construction Field Manual was developed to assist in design, construction, and post-construction phases of MDT projects. This manual provides background to concepts of Erosion and Sediment Control. Most of MDT's BMPs are

listed within the manual based on application categories. Each BMP is described; its applications and limitations are listed, as well as its design criteria. Construction phase and post-construction phase BMPs are described. This manual is a field guide and condensed version of the Erosion and Sediment Control Design Construction Best Management Practices Manual. For more detailed discussion on topics found within, refer to the Erosion and Sediment Control Construction Best Management Practices Manual.

Erosion and Sediment Control Practices: Reference Manual

Developed by: Prepared for the MDT

Publication reference: FHWA/MT-030003/8165

Available from: NTIS, Springfield, VA 21161

Description: The Erosion and Sediment Control Construction Best Management Practices Manual was developed to assist in the design, construction, and post-construction phases of MDT projects. This manual provides background to state and federal regulations associated with erosion and sediment control practices, including a general overview of the erosion and sediment processes. The BMPs are listed within the manual based on application categories. Each BMP is described; its applications and limitations are listed, as well as its design criteria. The design phase includes development of construction plans, NOI, and SWPPP. Construction phase includes the finalization of the SWPPP, NOI, and the implementation of BMPs. Post-construction phase includes monitoring, maintenance, and removal activities.

BMPs for Fluid Minerals

Developed by: BLM

Publication reference: BLM/WO/ST-06/021+3071

Available from: Online at: <http://www.blm.gov/bmp/>

Description: The BMPs for oil and gas demonstrate practical ideas which may eliminate or minimize adverse impacts from oil and gas development to public health and the environment, landowners, and natural resources; enhance the value of natural and landowner resources; and reduce conflict. The publication reference is to the "Gold Book" which is formally titled *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. In addition, the first internet citation is to a location maintained by the Washington Office of the BLM containing general and technical information on the use and application of BMPs. The second location refers the reader directly to an online version of the "Gold Book." The third and fourth locations refer the reader to color charts for use in selecting paint colors for oil and gas facilities.

Montana Nonpoint Source Management Plan

Developed by: MDEQ, Water Quality Planning Bureau, Watershed Protection Section

Publication reference: 2007

Available from: MDEQ, Water Quality Planning Bureau, Watershed Protection Section, PO Box 200901, Helena, MT 59620-0901

Online at: <http://www.deq.mt.gov/wqinfo/nonpoint/nonpointsourceprogram.mcp>

Description: This document describes the MDEQ's updated strategy for controlling nonpoint source (NPS) water pollution, which is the state's single largest source of water quality impairment. Nonpoint source pollution is contaminated runoff from the land surface that can be generated by most land use activities including agriculture, forestry, urban and suburban development, mining, and others. Common NPS pollutants include sediment, nutrients, temperature, heavy metals, pesticides, pathogens, and salt. The purpose of the Montana NPS Pollution Management Plan is: 1) to inform the state's citizens about NPS pollution problems and 2) to establish goals, objectives, and both long-term and short-term strategies for controlling NPS pollution on a statewide basis. The goal of Montana's NPS Management Program is to protect and restore water quality from the impacts of nonpoint sources of pollution in order to provide a clean and healthy environment.

APPENDIX L

Standard Operating Procedures for Applying Herbicides

Resource Element	Standard Operating Procedure
Guidance Documents	BLM Handbook H-9011-1 (Chemical Pest Control); and Manuals 1112 (Safety), 9011 (Chemical Pest Control), 9012 (Expenditure of Rangeland Insect Pest Control Funds), 9015 (Integrated Weed Management), and 9220 (Integrated Pest Management).
General	<ul style="list-style-type: none"> • Prepare operational and spill contingency plan in advance of treatment. • Conduct a pretreatment survey before applying herbicides. • Select herbicide that is least damaging to the environment while providing the desired results. • Select herbicide products carefully to minimize additional impacts from degradates, adjuvants, inert ingredients, and tank mixtures. • Apply the least amount of herbicide needed to achieve the desired result. • Follow herbicide product label for use and storage. • Have licensed applicators apply herbicides. • Use only EPA-approved herbicides and follow product label directions and “advisory” statements. • Review, understand, and conform to the “Environmental Hazards” section on the herbicide product label. This section warns of known pesticide risks to the environment and provides practical ways to avoid harm to organisms or to the environment. • Consider surrounding land use before assigning aerial spraying as a treatment method and avoid aerial spraying near agricultural or densely populated areas. • Minimize the size of application area, when feasible. • Comply with herbicide-free buffer zones to ensure that drift will not affect crops or nearby residents/landowners. • Post treated areas and specify re-entry or rest times, if appropriate. • Notify adjacent landowners prior to treatment. • Keep a copy of material safety data sheets (MSDSs) at work sites. The MSDSs are available for review at http://www.Codems.net/. • Keep records of each application, including the active ingredient, formulation, application rate, date, time, and location. • Avoid accidental direct spray and spill conditions to minimize risks to resources. • Consider surrounding land uses before aerial spraying. • Avoid aerial spraying during periods of adverse weather conditions (snow or rain imminent, fog, or air turbulence). • Make helicopter applications at a target airspeed of 40 to 50 miles per hour (mph) and at about 30 to 45 feet above ground. • Take precautions to minimize drift by not applying herbicides when winds exceed 10 mph (6 mph for aerial applications) or a serious rainfall event is imminent.

Resource Element	Standard Operating Procedure
	<ul style="list-style-type: none"> • Use drift control agents and low volatile formulations. • Conduct pretreatment surveys for sensitive habitat and special status species within, or adjacent to, proposed treatment areas. • Consider site characteristics, environmental conditions, and application equipment in order to minimize damage to nontarget vegetation. • Use drift reduction agents, as appropriate, to reduce the drift hazard to nontarget species. • Turn off applied treatments at the completion of spray runs and during turns to start another spray run. • Refer to the herbicide product label when planning revegetation to ensure that subsequent vegetation would not be injured following application of the herbicide. • Clean OHVs to remove seeds.
Air Quality (see Manual 7000 Soil, Water, and Air Management)	<ul style="list-style-type: none"> • Consider the effects of wind, humidity, temperature inversions, and heavy rainfall on herbicide effectiveness and risks. • Apply herbicides in favorable weather conditions to minimize drift. For example, do not treat when winds exceed 10 mph (6 mph for aerial applications) or rainfall is imminent. • Use drift reduction agents, as appropriate, to reduce the drift hazard. • Select proper application equipment (e.g., spray equipment that produces 200- to 800-micron diameter droplets [spray droplets of 100 microns and less are most prone to drift]). • Select proper application methods (e.g., set maximum spray heights, use appropriate buffer distances between spray sites and nontarget resources).
Soil (see Manual 7000 Soil, Water, and Air Management)	<ul style="list-style-type: none"> • Minimize treatments in areas where herbicide runoff is likely, such as steep slopes when heavy rainfall is expected. • Minimize use of herbicides that have high soil mobility, particularly in areas where soil properties increase the potential for mobility. • Do not apply granular herbicides on slopes of more than 15 percent where there is the possibility of runoff carrying the granules into nontarget areas.
Water Resources (see Manual 7000 Soil, Water, and Air Management)	<ul style="list-style-type: none"> • Consider climate, soil type, slope, and vegetation type when developing herbicide treatment programs. • Select herbicide products to minimize impacts to water. This is especially important for application scenarios that involve risk from active ingredients in a particular herbicide, as predicted by risk assessments. • Use local historical weather data to choose the month of treatment. Considering the phenology of the target species, schedule treatments based on the condition of the water body and existing water quality conditions. • Plan to treat between weather fronts (calms) and at appropriate time of day to avoid high winds that increase water movements and to avoid potential stormwater runoff and water turbidity. • Review hydrogeologic maps of proposed treatment areas. Note depths to groundwater and areas of shallow groundwater and areas of surface water and groundwater interaction. Minimize treating areas with high risk for groundwater contamination.

Resource Element	Standard Operating Procedure
	<ul style="list-style-type: none"> • Conduct mixing and loading operations in an area where an accidental spill would not contaminate an aquatic body. • Do not rinse spray tanks in or near water bodies. Do not broadcast pellets where there is danger of contaminating water supplies. • Maintain buffers between treatment areas and water bodies. Buffer widths should be developed based on herbicide- and site-specific criteria to minimize impacts to water bodies. • Minimize the potential effects to surface water quality and quantity by stabilizing terrestrial areas as quickly as possible following treatment.
Wetlands and Riparian Areas	<ul style="list-style-type: none"> • Use a selective herbicide and a wick or backpack sprayer. • Use appropriate herbicide-free buffer zones for herbicides not labeled for aquatic use based on risk assessment guidance, with minimum widths of 100 feet for aerial, 25 feet for vehicle, and 10 feet for hand-spray applications.
Vegetation (see Handbook H-4410-1 - National Range Handbook, and Manuals 5000 - Forest Management and 9015 - Integrated Weed Management)	<ul style="list-style-type: none"> • Refer to the herbicide label when planning revegetation to ensure that subsequent vegetation would not be injured following application of the herbicide. • Use native or sterile species for revegetation and restoration projects to compete with invasive species until desired vegetation establishes. • Use weed-free feed for horses and pack animals. Use weed-free straw and mulch for revegetation and other activities. • Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment. Consider adjustments in the existing grazing permit to maintain desirable vegetation on the treatment site.
Pollinators	<ul style="list-style-type: none"> • Complete vegetation treatments seasonally before pollinator-foraging plants bloom. • Time vegetation treatments to take place when foraging pollinators are least active both seasonally and daily. • Design vegetation treatment projects so that nectar and pollen sources for important pollinators and resources are treated in patches rather than in one single treatment. • Minimize herbicide application rates. Use typical, rather than maximum, rates where there are important pollinator resources. • Maintain herbicide-free buffer zones around patches of important pollinator nectar and pollen sources. • Maintain herbicide-free buffer zones around patches of important pollinator nesting habitat and hibernacula. • Make special note of pollinators that have single-host plant species, and minimize herbicide spraying on those plants (if invasive species) and in their habitats.
Fish and Other Aquatic Organisms (see Manuals 6500 - Wildlife and Fisheries)	<ul style="list-style-type: none"> • Use appropriate buffer zones based on label and risk assessment guidance. • Minimize treatments near fish-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used, and use spot, rather than broadcast or aerial, treatments.

Resource Element	Standard Operating Procedure
Management and 6780 - Habitat Management Plans	<ul style="list-style-type: none"> • Use appropriate application equipment/method near water bodies if the potential for offsite drift exists. • For treatment of aquatic vegetation, 1) treat only that portion of the aquatic system necessary to achieve acceptable vegetation management; 2) use the appropriate application method to minimize the potential for injury to desirable vegetation and aquatic organisms; and 3) follow water use restrictions presented on the herbicide label.
Wildlife (see Manuals 6500 - Wildlife and Fisheries Management and 6780 - Habitat Management Plans)	<ul style="list-style-type: none"> • Use herbicides of low toxicity to wildlife, where feasible. • Use spot applications or low-boom broadcast operations, where possible, to limit the probability of contaminating nontarget food and water sources, especially nontarget vegetation over areas larger than the treatment area. • Use timing restrictions (e.g., do not treat during critical wildlife breeding or staging periods) to minimize impacts to wildlife.
Threatened, Endangered, and Sensitive Species (see Manual 6840 - Special Status Species)	<ul style="list-style-type: none"> • Survey for special status species before treating an area. Consider effects to special status species when designing herbicide treatment programs. • Use a selective herbicide and a wick or backpack sprayer to minimize risks to special status plants. • Avoid treating vegetation during time-sensitive periods (e.g., nesting and migration, sensitive life stages) for special status species in area to be treated.
Livestock (see Handbook H-4120-1 - Grazing Management)	<ul style="list-style-type: none"> • Whenever possible and whenever needed, schedule treatments when livestock are not present in the treatment area. Design treatments to take advantage of normal livestock grazing rest periods, when possible. • As directed by the herbicide product label, remove livestock from treatment sites prior to herbicide application, where applicable. • Use herbicides of low toxicity to livestock, where feasible. • Take into account the different types of application equipment and methods, where possible, to reduce the probability of contamination of nontarget food and water sources. • Avoid use of diquat in riparian pasture while pasture is being used by livestock. • Notify permittees of the herbicide treatment project to improve coordination and avoid potential conflicts and safety concerns during implementation of the treatment. • Notify permittees of livestock grazing, feeding, or slaughter restrictions, if necessary. • Provide alternative forage sites for livestock, if possible.
Cultural Resources and Paleontological Resources (see Handbooks H-8120-1 - Guidelines for Conduction Tribal Consultation and H-8270-1 - General)	<ul style="list-style-type: none"> • Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act (NHPA) as implemented through the Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act and state protocols or 36 Code of Federal Regulations (CFR) Part 800, including necessary consultations with State Historic Preservation Officers

Resource Element	Standard Operating Procedure
<p>Procedural Guidance for Paleontological Resource Management and Manuals 8100 - The Foundations for Managing Cultural Resources, 8120 - Tribal Consultation Under Cultural Resources Authorities, and 8270 -Paleontological Resource Management)</p> <p>See also: Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act</p>	<p>and interested tribes.</p> <ul style="list-style-type: none"> • Follow BLM Handbook H-8270-1 (General Procedural Guidance for Paleontological Resource Management) to determine known Condition I and Condition 2 paleontological areas or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts. • Consult with tribes to locate any areas of vegetation that are of significance to the tribe and that might be affected by herbicide treatments. • Work with tribes to minimize impacts to these resources. • Follow guidance under Human Health and Safety in the programmatic EIS in areas that may be visited by native peoples after treatments.
<p>Visual Resources (See Handbooks H-8410-1 - Visual Resource Inventory and H-8431-1 - Visual Resource Contrast Rating, and Manual 8400 - Visual Resource Management</p>	<ul style="list-style-type: none"> • Minimize the use of broadcast foliar applications in sensitive watersheds to avoid creating large areas of browned vegetation. • Consider the surrounding land use before assigning aerial spraying as an application method. • Minimize offsite drift and mobility of herbicides (e.g., do not treat when winds exceed 10 mph; minimize treatment in areas where herbicide runoff is likely; and establish appropriate buffer widths between treatment areas and residences) to contain visual changes to the intended treatment area. • If the area is a Class I or II visual resource, ensure that the change to the characteristic landscape is low and does not attract attention (Class I) or, if seen, does not attract the attention of the casual viewer (Class II). • Lessen visual impacts by: 1) designing projects to blend in with topographic forms; 2) leaving some low-growing trees or planting some low-growing

Resource Element	Standard Operating Procedure
	<p>tree seedlings adjacent to the treatment area to screen short-term effects; and 3) revegetating the site following treatment.</p> <ul style="list-style-type: none"> • When restoring treated areas, design activities to repeat the form, line, color, and texture of the natural landscape character conditions to meet established visual resource management (VRM) objectives.
<p>Wilderness and Other Special Areas</p> <p>(See Handbooks H-8550-1 - Management of Wilderness Study Areas (WSAs) and H-8560-1 - Management of Designated Wilderness Study Areas, and Manual 8351 - Wild and Scenic Rivers)</p>	<ul style="list-style-type: none"> • Encourage back country pack and saddle stock users to feed their livestock only weed-free feed for several days before entering a wilderness area. • Encourage stock users to tie and/or hold stock in such a way as to minimize soil disturbance and loss of native vegetation. • Revegetate disturbed sites with native species if there is no reasonable expectation of natural regeneration. • Provide educational materials at trailheads and other wilderness entry points to educate the public on the need to prevent the spread of weeds. • Use the “minimum tool” to treat noxious and invasive vegetation, relying primarily on the use of ground-based tools including backpack pumps, hand sprayers, and pumps mounted on pack and saddle stock. • Use chemicals only when they are the minimum method necessary to control weeds that are spreading within the wilderness or threaten lands outside the wilderness. • Give preference to herbicides that have the least impact on nontarget species and the wilderness environment. • Implement herbicide treatments during periods of low human use, where feasible. • Address wilderness and special areas in management plans. • Maintain adequate buffers for wild and scenic rivers (¼ mile on either side of river, ½ mile in Alaska).
<p>Recreation (See Handbook H-1601-1 - Land Use Planning Handbook, Appendix C)</p>	<ul style="list-style-type: none"> • Schedule treatments to avoid peak recreational use times, while taking into account the optimum management period for the targeted species. • Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas. • Adhere to entry restrictions identified on the herbicide product label for public and worker access. • Post signs noting exclusion areas and the duration of exclusion, if necessary. • Use herbicides during periods of low human use, where feasible.
<p>Social and Economic Values</p>	<ul style="list-style-type: none"> • Consider surrounding land use before selecting aerial spraying as a method, and avoid aerial spraying near agricultural or densely-populated areas. • Post treated areas and specify re-entry or rest times, if appropriate. • Notify grazing permittees of livestock feeding restrictions in treated areas, if necessary, as per herbicide product label instructions. • Notify the public of the project to improve coordination and avoid potential conflicts and safety concerns during implementation of the treatment. • Control public access until potential treatment hazards no longer exist, per herbicide product label instructions. • Observe restricted entry intervals specified by the herbicide product label. • Notify local emergency personnel of proposed treatments.

Resource Element	Standard Operating Procedure
	<ul style="list-style-type: none"> • Use spot applications or low-boom broadcast applications, where possible, to limit the probability of contaminating nontarget food and water sources, especially vegetation over areas larger than the treatment area. • Consult with Native American tribes and Alaska native groups to locate any areas of vegetation that are of significance to the tribes and native groups and that might be affected by herbicide treatments. • To the degree possible within the law, hire local contractors and workers to assist with herbicide application projects and purchase materials and supplies, including chemicals, for herbicide treatment projects through local suppliers. • To minimize fears based on lack of information, provide public educational information on the need for vegetation treatments and the use of herbicides in an integrated pest management program for projects proposing local use of herbicides.
ROWS	<ul style="list-style-type: none"> • Coordinate vegetation management activities where joint or multiple use of a ROW exists. • Notify other public land users within, or adjacent to, the ROW proposed for treatment. • Use only herbicides that are approved for use in ROW areas.