

# **ROD - ARMP: Bradshaw-Harquahala**

**April 22, 2010**



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## Dear Reader Letter



### United States Department of the Interior BUREAU OF LAND MANAGEMENT

Hassayampa Field Office  
21605 North 7th Avenue  
Phoenix, Arizona 85027  
[www.blm.gov/az/](http://www.blm.gov/az/)



In reply refer to: 1610 (AZP010)

Dear Reader/Interested Party:

I am pleased to announce that, after several years of hard work and collaborative efforts, the Bradshaw-Harquahala Resource Management Plan (Approved RMP ) is complete. This document will provide guidance for the management of about 896,100 acres of Federal surface and mineral estate administered by the Bureau of Land Management (BLM) in Maricopa, Yavapai, and La Paz Counties in central and western Arizona. It will also provide guidance for administration of an additional 527,500 acres of mineral estate within these three Counties and Coconino County in northern Arizona.

The attached Record of Decision ( ROD ) and Approved RMP have been prepared in accordance with the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA ). The ROD /Approved RMP is available to members of the public and will be sent to pertinent local, State, Tribal and Federal government entities. The ROD finalizes the proposed decisions presented in the Proposed RMP/Final Environmental Impact Statement (FEIS) that was released on August 8, 2008 and subject to a 30-day protest period that ended on September 8, 2008. Three protest letters with standing were received. The protests were reviewed by the BLM Director in Washington, D.C. After careful consideration of all points raised in these protests, the Director concluded the responsible planning team and decision makers followed all applicable laws, regulations, policies, and pertinent resource considerations in developing the proposed plan. Minor adjustments or points of clarification are incorporated into the Approved RMP in response to issues raised in the protest process and final BLM review. These minor changes are discussed in the ROD under the section titled Modifications and Clarifications, but the protest review did not result in any significant changes from the Proposed RMP.

The approval of this ROD by the BLM Director serves as the final decision for all land use plan decisions described in the attached Approved RMP. Future implementation of land use plan decisions will not be undertaken without suitable further NEPA analysis, including all appropriate public involvement and any hearings available to the public.

Notification of the approval of this ROD /Approved RMP will be announced via local news releases and on the Hassayampa Field Office website at:

[http://www.blm.gov/az/st/en/fo/hassayampa\\_field\\_office.html](http://www.blm.gov/az/st/en/fo/hassayampa_field_office.html)

Hard copies and CD-ROM versions of the ROD /Approved RMP may be obtained by contacting the Hassayampa Field Office by phone at (623) 580-5500; by sending a request by email to [AZ\\_AFNM\\_Bradshaw@blm.gov](mailto:AZ_AFNM_Bradshaw@blm.gov) ; or at the following address:

Bureau of Land Management  
Hassayampa Field Office  
21605 N. 7th Avenue  
Phoenix, Arizona 85027

The BLM is pleased to provide this copy of the Bradshaw-Harquahala ROD /Approved RMP for your reference. We greatly appreciate the efforts of all who contributed to completion of this Approved RMP, including the State of Arizona, Maricopa County, Yavapai County, and numerous Federal and State government agencies that worked closely with us to complete this important effort. We also appreciate the extensive public involvement during this time by local communities, organizations, and individuals. Public input informed and improved this planning document. We look forward to continuing to work with our partners and citizens as we implement the decisions in this Approved RMP.

Sincerely,

Steven Cohn  
Field Manager

# Chapter 1. Record of Decision





## 1.1. Introduction

This Record of Decision ( ROD ) approves the Bureau of Land Management's (BLM's) proposal to manage the BLM-administered public lands within the Bradshaw-Harquahala Planning Area as presented in the attached Approved Resource Management Plan (Approved RMP). This Approved RMP was described as Alternative E in the *Agua Fria National Monument and Bradshaw-Harquahala Proposed Resource Management Plan and Final Environmental Impact Statement* (PRMP/FEIS), which was released in August 2008 (BLM 2008). While the PRMP/FEIS also addressed management of the Agua Fria National Monument, which is also administered by the Hassayampa Field Office, this ROD applies only to those decisions for management of the Bradshaw-Harquahala area.

The Bradshaw-Harquahala Planning Area encompasses lands north and west of Phoenix in central western Arizona. The planning boundaries encompass more than 3 million acres in Maricopa, Yavapai, and La Paz counties. The area includes remote and undeveloped zones of desert and mountain ranges, as well as urban interface zones near Phoenix, Prescott, Buckeye, Wickenburg, and other communities. These lands sustain a wide range of activities and resources.

The Bradshaw-Harquahala Planning Area includes 896,100 surface acres of BLM-administered lands and subsurface (mineral) rights to 346,300 additional acres within the planning area boundaries (shown on in the Approved RMP). The BLM also retains and administers mineral rights to another 181,200 acres in Coconino County in northern Arizona, which are addressed in the Approved RMP . The decisions in the Approved RMP only apply to BLM-administered lands and resources.

This ROD provides an overview of the alternatives considered; a summary of protests received and clarifications made in response; a summary of the types of decisions and the key decisions in the plan; management considerations and rationale for the decisions; and an overview of public involvement in the planning process.

## 1.2. Overview of the Alternatives

Five alternatives, including a No Action Alternative, were analyzed in detail in the Draft RMP /EIS (BLM 2006) and the PRMP/FEIS (BLM 2008). The alternatives were developed to address major planning issues identified through the scoping process and to provide management direction for resource programs. Each alternative represented a general theme that guided the development of desired future conditions, land use allocations, and management actions for specific resources. Each alternative provided management direction at a broad scale to govern the protection and use of the resources on BLM-administered lands.

### 1.2.1. Alternative A: (No Action Alternative)

Alternative A described the current management of BLM-administered lands in the Bradshaw-Harquahala area. The current management identifies the management decisions contained within existing management plans. These management actions would have continued to occur if new decisions had not been made to alter them. Some management actions were carried forward into the Proposed RMP . Alternative A served as a baseline and an opportunity to compare the current management with the various management strategies that were proposed in Alternatives B, C, D, and E.

### **1.2.2. Alternative B: Management for Increased Recreational Use**

Alternative B allowed for relatively high levels of public use allocations for recreation zones and interpreted archaeological sites and included more opportunities for public access with recreation-related facilities and development, while ensuring that resource protection is not compromised. This alternative would designate a single Areas of Critical Environmental Concern ( ACEC ) and a single area allocated to maintain wilderness characteristics .

### **1.2.3. Alternative C: Management for Use and Landscape Protection**

Alternative C generally would have imposed more restrictive decisions on recreation and other authorized activities than would Alternative B, allowing fewer related developments or facilities. This alternative put more emphasis on identifying and protecting undeveloped landscapes than Alternative B, with more areas allocated as ACEC s or areas managed for wilderness characteristics .

### **1.2.4. Alternative D: Management for Primitive Landscape Protection**

Alternative D emphasized the protection of undeveloped, primitive landscapes, with the largest number of acres allocated to manage for wilderness characteristics and non-motorized recreation with limited recreational facilities. Alternative D also would close more acres to mineral location, lease, and sale, and no lands would be made available for disposal through sale or exchange.

### **1.2.5. Alternative E: Management for Resource Sustainability and Consistent Uses (Proposed Plan)**

Alternative E combines elements selected from the other alternatives that were further refined. It is designed to respond most comprehensively to each of the issues and management concerns identified in the planning process. Using the Preferred Alternative in the DRMP/DEIS, the BLM revised this alternative to incorporate and address comments received during the 90 day public comment period. Through clarifications in response to the protests received, the Proposed RMP is now the Approved RMP , which is attached to this ROD . In the most comprehensive manner, the Approved Plan is designed to respond to each of the issues and management concerns recognized during the planning process. The BLM determined that the decisions presented under Alternative E will provide the optimal balance between authorized resource use and the protection and long-term sustainability of sensitive resources within the area.

Alternative E, the Approved Plan, is considered by the BLM to be the environmentally preferable alternative when taking into consideration the natural, social, and economic components of the human environment. The U.S. Council on Environmental Quality (CEQ) has defined the environmentally preferable alternative as the alternative that will promote the national policy as expressed in Section 101 of the National Environmental Policy Act (NEPA ). This section lists six broad policy goals for all federal plans, programs, and policies:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;



2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

In comparison with the other alternatives that were analyzed, Alternative E best meets the above NEPA goals for the future management of the Bradshaw-Harquahala Planning Area. It provides for the protection of sensitive natural, scenic, and cultural resources, while maintaining open space near communities to accommodate a variety of motorized and non-motorized recreational activities. This alternative also supports community needs for energy, transportation, minerals, and lands for public purposes and sustainable economic activities. It promotes public safety through actions that address fire and vegetation management, hazardous materials, responsible recreation, and reclamation of abandoned mine lands. Alternative E best meets the requirements of Section 101 of NEPA and was thus selected as the environmentally preferable alternative.

### 1.3. Results of Protest Review

The BLM received three protest letters during the 30-day protest period provided for the proposed land use plan decisions in the PRMP/FEIS in accordance with 43 CFR Part 1610.5-2. Protesting parties are listed below:

1. City of Peoria
2. Black Canyon Trail Coalition, Inc.
3. New River/Desert Hills Community Association, Inc.

Main protest points pertained to:

**Issue 1.** The City of Peoria objected to the absence of a new, designated utility corridor across BLM-administered lands adjacent to State Route 74. Peoria stated that its land use plans, calling for the preservation of open space on private and city lands in northern Peoria, would be violated by the expansion of utility infrastructure unless that expansion were to occur along the state highway.

**Issue 2.** The Black Canyon Trail Coalition and the New River/Desert Hills Community Association raised the same issues. They objected to boundary adjustments to the designated Black Canyon utility corridor between Black Canyon City and Cordes Junction, which increased the width of the corridor in some areas.

**Issue 3.** The two protesting parties asserted that a wider corridor would adversely impact view sheds, recreational opportunities, wildlife, and cultural resources.

**Issue 4.** The two protesting parties stated that the description of the Black Canyon utility corridor in the PRMP/FEIS is unclear and confusing.

**Issue 5.** The two protesting parties asserted that widening of the utility corridor would allow it to be used as a transportation corridor for new lanes of Interstate Highway 17.

The BLM Director's decisions on the protests are summarized in the *Director's Protest Resolution Report, Agua Fria National Monument and Bradshaw-Harquahala Resource Management Plans*, released on February 2, 2009. The Director dismissed the protest from the City of Peoria, because the City had not previously raised this issue during the planning process. The Director denied the protests from the Black Canyon Trail Coalition and the New River/Desert Hills Community Association and included a response to these protests in the *Director's Protest Resolution Report*. In summary, the Director concluded that the BLM Arizona State Director followed the applicable laws, regulations, and policies, and considered all relevant resource information and public input in developing the Proposed RMP .

The BLM Director resolved the protests without making significant changes to the Proposed RMP , though minor clarifications were made and have been explained in the Modifications and Clarifications section below.

## **1.4. The Decision**

The decision of the BLM is to approve the attached document as the Approved Resource Management Plan for BLM-administered public lands in the Bradshaw-Harquahala Planning Area and outlying areas that are managed by the Hassayampa Field Office. The Approved RMP replaces relevant decisions in the Phoenix Resource Management Plan (BLM 1988), as amended; the *Lower Gila North Management Framework Plan (BLM 1983)*; and the *Approved Amendment to the Lower Gila North Management Framework Plan and the Lower Gila South Resource Management Plan (BLM 2005)*. Those portions of previous management which are responsive to changed conditions and circumstances were carried forward to the Approved RMP .

The Approved RMP was prepared under the regulations of 43 Code of Federal Regulations (CFR) Part 1600, which implements the Federal Land Policy and Management Act (FLPMA) of 1976. An Environmental Impact Statement (EIS) was prepared for this Approved RMP in compliance with the National Environmental Policy Act (NEPA ) of 1969. The plan is nearly identical to the one presented in the PRMP/FEIS published in August 2008. Management decisions and guidance for public lands are presented in the Approved RMP attached to this ROD in the section titled Management Decisions.

### **1.4.1. What the Decision/Approved RMP Provides**

The Approved RMP provides overall direction for management of all resources on BLM-administered lands. Many land use plan decisions are implemented or become effective upon publication of the ROD for the Approved Plan. Such decisions were attained using the planning process found in 43 CFR 1600 and guide future land management actions and subsequent site-specific implementation decisions. When presented to the public as proposed decisions, land use plan decisions can be protested to the BLM Director; however, they are not appealable to the Interior Board of Land Appeals.

Land use plan decisions represent the desired outcomes and the actions needed to achieve them. The Approved RMP is the summation of its desired future conditions, land use allocations,

special designations, and management actions, along with the associated administrative actions and standard operating procedures that represent day-to-day actions, rather than plan decisions.

Brief descriptions of the types of land use plan decisions are presented below.

## **Desired Future Conditions**

Land use plans express desired future conditions as desired outcomes in terms of specific goals, standards, and objectives for resources and/or uses. They direct the BLM actions in most effectively complying with legal mandates, numerous regulatory responsibilities, national policy, BLM State Director guidance, and other resource or social needs. Land use plans are designed to most effectively meet these desired future conditions through land use allocations, special designations, or management actions.

## **Land Use Allocations (Allowable Uses)**

Allowable, restricted, or prohibited uses define land use allocations that identify lands where uses are allowed, including any restrictions needed to meet goals and objectives. Areas may be identified to exclude specific uses in order to protect resource values. Examples of these decisions include areas to be managed for wilderness characteristics ; and management zones where certain types of recreational activities or facilities will or will not be permitted. Land use allocations have geographic boundaries. It is common for specific resource or use allocations to overlap with other resource or use allocations.

## **Special Designations**

Special designations include those that are designated by Congress for special protection, such as wilderness areas, wild and scenic rivers, or national historic or scenic trails. Such designations are not land use plan decisions. However, recommendations for designation can be made to Congress at the land use plan level. Congress may then act on these recommendations at a later time. Administrative designations made by the BLM (e.g., designating Areas of Critical Environmental Concern ( ACEC s) or watchable wildlife viewing sites) are also considered special designations and can be made in the land use plan.

## **Management Actions**

Management actions include those provisions that help in meeting the established goals and objectives, and include measures that will be applied to guide day-to-day activities on public lands to meet desired future conditions. Management actions are categorized as actions to achieve desired outcomes and may include but are not limited to stipulations, guidelines, best management practices, and design features.

## **Administrative Actions**

Administrative actions are not land use plan decisions. They include day-to-day activities conducted by the BLM, often required by FLPMA. BLM administrative actions do not require NEPA analysis or a written decision by a responsible official to be accomplished. Examples of administrative actions include mapping, surveying, inventorying, monitoring, and collecting needed information through research and studies. Administrative actions also include developing

and sustaining partnerships to achieve desired future conditions. See Appendix A, *Administrative Actions and Standard Operating Procedures* in the attached Approved RMP for descriptions of Administrative Actions and Standard Operating Procedures.

## Key Decisions in the Approved RMP

Listed below are key management decisions in the Approved Plan.

- Designates four new Areas of Critical Environmental Concern , encompassing 89,970 acres, to provide protection for important wildlife habitat , riparian areas, and cultural resources.
- Identifies 67,279 acres for management to maintain wilderness characteristics in areas of the Bradshaw, Belmont, and Big Horn mountain ranges.
- Identifies 39,395 acres as available for disposal through sale or exchange
- Designates five utility corridors and six communication sites.
- Identifies approximately 101,000 acres as closed to mineral location, leasing, and material sales. These areas include 96,820 acres in the five designated Wilderness Areas as well as portions of the new ACEC s.
- Retains 966,820 acres available to livestock grazing in existing allotments. Grazing practices on individual allotments may be adjusted to meet the Arizona Standards for Rangeland Health and Guidelines for Grazing Management.
- Allocates 15 areas, covering 678,835 acres, as Special Recreation Management Areas and Recreation Management Zones. These areas will provide opportunities for diverse motorized and non-motorized activities that are consistent with the specific, benefits-based objectives defined for each area. The remaining areas will be managed as Extensive Recreation Management Areas, where activities will be monitored with minimal development of facilities.
- Provides for management actions to protect threatened, endangered, and sensitive fish and wildlife species.
- Identifies scientific use allocations and protective actions for cultural resources (archaeological sites and places of traditional cultural significance).
- Identifies five Special Cultural Resource Management Areas (SCRMA's) with specific sites available for public use allocations, which would allow unobtrusive development for interpretive use and public education.
- Limits motorized travel to designated routes only. Limits travel to inventoried routes pending the completion of route designations and Travel Management Plans within 5 years of RMP approval.
- Allocates 80,800 acres as the Lake Pleasant Herd Management Area to sustain a viable population of wild burros. Burros in the Harquahala Mountains will be removed as funding is available with the target of reaching a population of zero.

This ROD serves as the final decision establishing the land use plan decisions outlined in the Approved RMP and is effective on the date it is signed. No further administrative remedies are available for these land use plan decisions.

### 1.4.2. What the Decision/Approved RMP Does Not Provide

The Approved RMP does not contain decisions for actions outside the jurisdiction of the BLM. Comments asking for decisions that were beyond the scope of this plan were forwarded to the appropriate agency.

In addition, many decisions are not appropriate at this level of planning and are not included in the ROD . Examples of these types of decisions include:

*Statutory requirements.* The decision will not change the BLM's responsibility to comply with applicable laws and regulations.

*National policy.* The decision will not change the BLM's obligation to conform to current or future national policy.

*Funding levels and budget allocations.* These are determined annually at the national level and are beyond the control of the field office.

### **1.4.3. Implementation Decisions**

Implementation decisions (or activity-level decisions) are management actions tied to a specific location that take action to implement land use plan decisions. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed and require appropriate site-specific planning and NEPA analysis. Such decisions may be incorporated into implementation plans (activity or project plans) or may exist as stand-alone decisions.

This Approved RMP does not contain implementation decisions. Future activity-level plans will address the implementation of the Approved RMP . Implementation decisions and management actions that require additional site-specific project planning, as funding becomes available, will require further environmental analysis.

### **1.4.4. Modifications and Clarifications**

Changes to the PRMP/FEIS consist primarily of clarifications and corrections in response to protests and team reviews.

### **1.4.5. Modifications**

The PRMP contained some errors that did not conform to the proposed plan decisions. These errors have been corrected in the Approved RMP :

- Several maps for Alternative E depicted proposed route designations within areas proposed to be managed for wilderness characteristics or as ACEC s: Map 2-83, Black Canyon Management Unit Multiple Resource Allocations; Map 2-84, Castle Hot Springs Management Unit Multiple Resource Allocations; and Map 2-86, Harquahala Management Unit Multiple Resource Allocations. These maps have been corrected to delete any proposed route designations. Route designations will be addressed during future implementation of the Approved RMP with public and agency input.
- Map 2-90, Morgan City Wash Road, Alternative E. The Proposed RMP does not include an area to be managed for wilderness characteristics immediately west of Lake Pleasant. This designation has been deleted in the corrected version of this map.
- Map 2-84, Castle Hot Springs Management Unit Multiple Resource Allocations, failed to depict the boundaries of the Baldy Mountain Recreation Management Zone. This RMZ has been added to the map.

- Appendix R, Lands Management, failed to list the following parcels that are available for disposal near Buckeye: T. 2 N., R. 3 W., S. 14, E ½, 320 acres; and T. 2 N., R. 3 W., S. 26, N ½, 320 acres. These parcels have been added to the table.

In addition, several definitions in the Glossary, relating to Travel Management, were modified to conform to updated BLM guidance since the PRMP/FEIS was published in 2006.

## 1.4.6. Clarifications

To provide a clarification of the boundaries of the Black Canyon utility corridor in response to protests, a map was added to the Approved RMP that specifically shows the Black Canyon corridor between Black Canyon City and Cordes Junction with existing highways and utility lines.

Management decision LR-3 [44], under Lands and Realty Management, Land Use Allocations, defines two designated transportation corridors as alternatives for construction of a highway bypass around Wickenburg. Language has been added to clarify that any development proposal will require an environmental analysis to determine which, if either, of the two corridors would be more appropriate for meeting future transportation needs. The intent is that development, if it occurs, will be limited to a single corridor in order to reduce impacts on the nearby Vulture Mountain ACEC, Wickenburg Community and Vulture Mine Recreation Management Zones, and authorized land uses in this area.

As the result of continued internal review, the BLM made several clarifications between the PRMP/FEIS and the Approved RMP.

- To facilitate locating a resource, the BLM restructured the resource sections; the resources now appear in alphabetical order.
- Some decisions presented in the PRMP/FEIS were placed in the incorrect decision category. These decisions were moved to their correct category. (This includes some Management Actions that were actually Administrative Actions. Administrative Actions were moved to Appendix A in the Approved RMP.)
- Some decisions were clarified with additional text.
- Some decisions presented in the PRMP/FEIS were repeated in two program areas. In the Approved RMP, these decisions are coded only once. The code reflects the program that is most affected.

Minor grammatical or editorial edits were completed and are not described here in detail.

Also, some PRMP/FEIS appendices that relate to the Bradshaw-Harquahala area were not included in the Approved RMP or are incorporated by reference. The appendices incorporated by reference are accessible for review in the PRMP/FEIS, through the Arizona BLM website or by contacting the Phoenix District to obtain a CD copy of the PRMP/FEIS.

- Appendix B, *Scoping Results*, was deleted since this addressed the process prior to the DRMP/DEIS and the PRMP/FEIS.
- Appendix C, *Applicable Laws, Regulations, Policies and Planning Criteria* provides descriptions of the applicable federal laws, regulations and policies and is incorporated by reference.

Several resource-specific appendices or portions thereof, in the PRMP/FEIS also have been incorporated by reference. These include Appendix H, *Priority Wildlife Species List*; Appendix L, *Fire Management Units*; Appendix O, *Grazing Allotment Information*; Appendix

S, *Benefits-Based Recreation*; Appendix T, *Off-Highway Vehicle Mitigation Examples*; and Appendix V, *Additional Information for the Black Canyon Utility Corridor*.

A new appendix was added to the Approved RMP :

- Appendix A, *Administrative Actions and Standard Operating Procedures*, Administrative Actions and Standard Operating Procedures. This appendix includes Administrative Actions (by program area) from the PRMP/FEIS. Administrative Actions are not land use plan decisions. However, these are day-to-day, non-ground-disturbing activities and are an important component when considering program activities. Standard Operating Procedures are based on laws, regulations, and executive orders as well as BLM planning manuals, policies, instruction memoranda, and applicable planning documents.

## 1.5. Management Considerations for Selecting the Approved Plan

The BLM is tasked with the job of multiple use management and the sustained yield of renewable resources. In addition, the new RMP must address the challenges of increasing demands for commodities, recreational opportunities, energy, and transportation associated with the continuing rapid growth of the Phoenix metropolitan area.

The alternatives described in the Draft RMP /EIS, in addition to the public comments and input provided throughout this planning process, were considered in preparing the Proposed RMP . The Proposed RMP is a combination of decisions from the five alternatives considered in the Draft RMP /EIS, with emphasis on Alternative E. The Approved RMP is similar to the Proposed RMP , containing only minor modifications and clarifications stemming from protests and internal review.

This approach was chosen as the Approved RMP because:

- It most effectively accomplishes the overall objectives of supporting communities through authorized uses and providing for diverse recreational opportunities and public safety, while protecting sensitive natural, scenic, and cultural resources. The Approved RMP provides the optimal balance between authorized resource uses and long-term sustainability of diverse resources.
- It best addresses the diverse community and stakeholder concerns in a fair and equitable manner.
- It provides the most workable framework for future management in collaboration with government agencies, counties, communities, other partners, and the public.

The Approved RMP proposes management that will improve and sustain properly functioning resource conditions while considering needs and demands for existing or potential resource commodities and values. In the end, resource use is managed by integrating ecological, economic, and social principles in a manner that safeguards the long-term sustainability, diversity, and productivity of the land.

The Approved RMP responds to issues related to managing for healthy rangelands and riparian and upland vegetation while providing for livestock grazing and wildlife habitat. It responds to issues regarding noxious weeds and invasive species by maintaining the BLM's integrated management approach, as well as emphasizing the reestablishment and restoration of native plants during project activities and as a part of the watershed assessment process.

The Approved RMP identifies lands for retention near rural communities to preserve open space, scenic values, and recreational opportunities in areas where citizens objected to the potential

disposal of those lands through sale or exchange. It provides for a diverse range of motorized and non-motorized recreational activities, including improvements and extensions to the existing Black Canyon National Recreation Trail.

Concerns about specific resource values are addressed throughout the Approved RMP . Resource values are protected through the associated management actions defined to achieve desired future conditions, as well as the designation of four new ACEC and allocations of areas to be managed to sustain wilderness characteristics .

Activities on BLM-administered land, including motorized recreation, have the potential to contribute to air pollution in areas surrounding Phoenix. Under Section 176(c) of the Clean Air Act, federal agencies must demonstrate that their actions do not interfere with state and local plans to bring an area into attainment with the National Ambient Air Quality Standards. Within the Bradshaw-Harquahala area, parts of Maricopa County have been identified as non-attainment areas for ozone and particulate matter. To address this regulatory requirement, the BLM prepared a *Review of General Air Quality Conformity Applicability for the Agua Fria National Monument and Bradshaw-Harquahala Resource Management Plans and Environmental Impact Statement* (AECOM 2009). This study concluded that the majority of BLM-managed or authorized activities would likely have minimal emissions or would represent no appreciable change from baseline emission levels. Proposed mitigation measures would reduce emissions associated with recreation and other activities to maintain them at levels that would be below *de minimis* thresholds (i.e., would not exceed specified annual emission rates).

## Consistency and Consultation Review

CEQ regulations mandate that the federal agencies responsible for preparing NEPA analysis and documentation do so “in cooperation with state and local governments” and other agencies with jurisdiction by law or special expertise. In support of this mandate, the BLM invited a broad range of local, state, tribal, and federal agencies to establish cooperating agency status with the BLM. Agencies that participated in the planning process, and with whom the BLM will cooperate in implementing the Approved RMP , include the U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, Federal Highway Administration, Luke Air Force Base, Prescott National Forest, Arizona Game and Fish Department, State Historic Preservation Office, Arizona Department of Transportation, Maricopa County, and Yavapai County. BLM also consulted with the Hopi Tribe, Yavapai-Prescott Indian Tribe, Yavapai-Apache Tribe, Salt River Pima-Maricopa Indian Community, Gila River Indian Community, Ak-Chin Indian Community, and other tribes who have traditional cultural ties to the area.

Consistency of the Approved RMP with other local, state, tribal, and federal plans and policies was also considered as a factor in alternative selection. The Approved RMP is consistent with plans and policies of the Department of the Interior and Bureau of Land Management, other federal agencies, state government, and local governments to the extent that the guidance and local plans are also consistent with the purposes, policies, and programs of federal law and regulation applicable to public lands.

The Arizona Governor’s Office did not identify any inconsistencies between the PRMP/FEIS and state or local plans, policies, and programs following the 60-day Governor’s Consistency Review of the PRMP/FEIS (initiated on April 15, 2008, in accordance with planning regulations at 43 CFR Part 1610.3 2(e)).



## 1.6. Mitigation Measures

Measures to avoid or minimize environmental harm were built into the Approved RMP where practicable and appropriate. Many of the standard management provisions will minimize impacts when applied to activities proposed in the planning area. The Arizona Land Health Standards, including *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* (BLM 1997) will be used as the base standards to assess the health of BLM-administered lands. Best management practices will be used (when applicable) for a number of uses including livestock grazing, recreation and travel management, and fire management. Additional measures to mitigate environmental impacts may also be developed during subsequent NEPA analysis at the activity-level planning and project stages, or through legally mandated consultations covering those same proposed actions.

## 1.7. Plan Monitoring

As the Approved RMP is implemented, the BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data or support new management techniques and scientific principles. To the extent that such new information or actions address issues covered in the Approved RMP, the BLM will integrate the data through a process called plan maintenance or updating. This process includes the use of monitoring, which is the repeated measurement of activities and conditions over time with the implied purpose to use this information to adjust management, if necessary, to achieve or maintain resource objectives. BLM planning regulations (43 CFR Part 1610.4-9) call for monitoring Resource Management Plans on a continual basis and establishing intervals and standards based on the sensitivity of the resource to the decisions involved. CEQ regulations implementing NEPA state that agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases (40 CFR Part 1505.2(c)).

Plan implementation also includes the use of an adaptive management strategy. As part of this process, the BLM will review management actions in the Approved RMP periodically to determine whether the objectives set forth in this and other applicable planning documents are being met. Where they are not being met, the BLM will consider appropriate adjustments. Where the BLM considers taking or approving actions that would alter or not conform to overall direction of the Approved RMP, the BLM will prepare a plan amendment and environmental analysis in making its determinations and in seeking public comment.

There are two types of monitoring (implementation and effectiveness), which are described below.

### 1.7.1. Implementation Monitoring

Implementation monitoring, known by some agencies as compliance monitoring, is the most basic type of monitoring and simply determines whether planned activities have been implemented in the manner prescribed by the Approved RMP. This monitoring documents the BLM's progress toward full implementation of the land use plan decision. There are no specific thresholds or indicators required for this type of monitoring, but progress towards plan compliance will be evaluated and reported at 5 year intervals from the date of plan approval. Aspects of the effectiveness monitoring may also be addressed in this periodic evaluation.

## 1.7.2. Effectiveness Monitoring

Effectiveness monitoring determines if the implementation of activities has achieved the desired future conditions (i.e., goals and objectives) set forth in the Approved RMP . Effectiveness monitoring asks the following question: “Was the specified activity successful in achieving the objective?” The answer requires knowledge of the objectives established in the Approved Plan, as well as indicators that can be measured. Indicators are established by technical specialists in order to address specific questions through the collection and analysis of appropriate data. Success is measured against the benchmark of achieving the objectives (desired future conditions) established by the Approved RMP , which may include regulated standards for resources such as endangered species, air, and water. The interval between these efforts will vary by resource and expected rate of change, but effectiveness monitoring progress will generally be reported to the field manager on an annual basis. These reports will include trends and conclusions, when appropriate, and be incorporated into the evaluation reports completed at 5-year intervals.

The BLM will monitor the Approved RMP to determine whether the objectives set forth in this document are being met and if applying the land use plan direction is effective. Monitoring is addressed in the Management Decisions section of the Approved RMP . If monitoring shows land use plan actions or best management practices are not effective, the BLM may modify or adjust management without amending or revising the plan as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed (see the discussion entitled Maintaining the Plan in the Approved RMP ). Where the BLM considers taking or approving actions that will alter or not conform to overall direction of the plan, the BLM will prepare a plan amendment or revision and environmental analysis of appropriate scope (see the discussion entitled in the Approved RMP ).

## 1.8. Implementation of the Management Plan

Implementation of the Approved RMP will begin upon publication of its Notice of Availability in the *Federal Register*. Some decisions require immediate action and will be implemented upon publication of the ROD and Approved RMP . Other decisions will be implemented over a period of years. The rate of implementation is tied, in part, to BLM’s budgeting process. The implementation of the Approved RMP will also occur in accordance with an adaptive management framework.

## 1.9. Public Involvement

One of the BLM’s primary objectives during development of the Bradshaw-Harquahala Approved RMP was to understand the views of various publics by providing opportunities for meaningful participation in the planning process. The interdisciplinary planning team used the scoping process to identify relevant issues and conducted workshops that involved the public in developing the plan alternatives. Through communication media such as meetings, newsletters, and news releases, the public was provided opportunities to identify issues that needed to be addressed in the PRMP/FEIS. The goal was for this process to result in a better understanding of the planning process, the decisions that result from it, and the importance of collaborative stewardship as a strategy for implementation.

Productive partnerships emerged as a result of the planning process and are in place to assist the BLM in implementing the Approved RMP . Current community partners include the Upper Agua

Fria Watershed Partnership, Bradshaw Foothills Coalition, Black Canyon Trail Coalition, Black Canyon Community Association, New River/Desert Foothills Community Association, Friends of Table Mesa, Agua Fria Open Space Alliance, and Wickenburg Conservation Foundation.

Specifically, the formal process of public involvement began when the BLM published the Notice of Intent to prepare an RMP with EIS in the *Federal Register* in April 2002. The Notice of Availability of the DRMP/DEIS was published on January 6, 2006. The BLM facilitated public involvement through a series of open houses and workshops in 2002 and 2003, and additional meetings were held in local communities to obtain comments on the DEIS in 2006. The Notice of Availability of the PRMP/FEIS was published on August 8, 2008.

The Hassayampa Field Office also maintained a national mailing list of approximately 1,500 individuals, agencies, interest groups, and tribes who expressed interest in the planning process. The BLM mailed planning bulletins to those on the mailing list to keep them informed of project status. Additionally, public meetings were announced at least 15 days prior to the event in local news media. The BLM also participated in numerous meetings with cooperating agencies, other federal agencies, American Indian Tribes, and state and local governments. Additional details concerning the coordination and consultation process are included in the Approved RMP in the section entitled *Planning Process*, and in Chapter 5 of the PRMP/FEIS.

## 1.10. Availability of the Plan

Copies of the Record of Decision and the Bradshaw-Harquahala Resource Management Plan may be obtained by viewing or downloading the document from the BLM website located at [www.blm.gov/az](http://www.blm.gov/az); by obtaining a hard copy or CD at the BLM Phoenix District Office at 21605 N. 7th Avenue, Phoenix, Arizona 85027; or by sending a request by e-mail to the following address: [AZ\\_AFNM\\_Bradshaw@blm.gov](mailto:AZ_AFNM_Bradshaw@blm.gov). Copies will also be available for review at community libraries in the planning area, including the main branch of the Phoenix Library as well as libraries in Black Canyon City, Mayer, Prescott, Wickenburg, and Buckeye.

## 1.11. Field Manager Recommendation

Having considered a full range of reasonable alternatives, associated effects, and public input, I recommend adoption and implementation of the attached Bradshaw-Harquahala Resource Management Plan.

\_\_\_\_\_  
Steven M. Cohn  
Hassayampa Field Manager

\_\_\_\_\_  
Date

## 1.12. District Manager Concurrence

I concur with adoption and implementation of the attached Bradshaw-Harquahala Resource Management Plan.

\_\_\_\_\_  
Angelita Bullets  
Manager, Phoenix District

\_\_\_\_\_  
Date

## 1.13. State Director Approval

In consideration of the foregoing, I approve the Bradshaw-Harquahala Resource Management Plan.

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James G. Kenna  
Arizona State Director

---

Date

## Chapter 2. Approved Resource Management Plan





## 2.1. Introduction

The Bureau of Land Management (BLM), Hassayampa Field Office (HFO) has prepared the Approved Bradshaw-Harquahala Resource Management Plan (Approved RMP ) to provide comprehensive current and future management of the public lands administered by the HFO, excluding the Agua Fria National Monument which is covered under a separate Approved RMP . The Approved RMP will direct management of Federal surface and mineral estate managed by the HFO, primarily within Maricopa and Yavapai counties in central and western Arizona, with the westernmost lands extending into La Paz County. The Bradshaw-Harquahala planning area encompasses 896,100 acres administered by the HFO (Map 1 and Map 2 ). The HFO also administers an additional 346,300 acres of subsurface mineral estate within the planning area boundaries (Map 3 ), as well as another 181,200 acres of mineral estate in Coconino County in northern Arizona, which are addressed in the Approved RMP .

The Approved RMP was prepared in compliance with BLM's planning regulations Title 43 *Code of Federal Regulations* (CFR) 1600 under the authority of the Federal Land Policy and Management Act of 1976. This document also meets the requirements of the National Environmental Policy Act of 1969 (NEPA ), the *Council on Environmental Quality Regulations for Implementing the NEPA* (40 CFR 1500-1508), and requirements of BLM's *NEPA Handbook* 1790-1.

This plan represents years of ongoing, coordinated efforts on the part of BLM Phoenix District and Hassayampa Field Office staff, BLM Arizona State Office staff, representatives of communities located within the planning area, cooperating and collaborating government agencies, special interest and user groups, and hundreds of concerned citizens. The decisions outlined in this document will enable the BLM to manage the resources and uses of BLM-administered public lands within the Bradshaw-Harquahala planning area to achieve desired future conditions and management objectives in partnership with communities and citizens.

### 2.1.1. Purpose and Need

The Federal Land Policy and Management Act (FLPMA) directs the BLM to manage the public lands and their various resource values for multiple use and sustained yield to ensure they are utilized in a manner that will best meet the present and future needs of the American people. As required by FLPMA and current BLM policy, the BLM prepared this Approved RMP to establish management directions for the balanced use of such renewable and non-renewable resources as rangeland, wildlife, wilderness, recreation, cultural resources, and other natural, scenic, scientific, and historical values within the Bradshaw-Harquahala planning area.

The planning area boundaries formerly encompassed portions of the BLM's Phoenix Resource Area, Lower Gila Resource Area, and Phoenix Field Office. The planning area is now administered by the Hassayampa Field Office as a result of a reorganization of the Phoenix District in 2005. The area has been managed under prior, amended RMPs and a Management Framework Plan. This Approved RMP consolidates these earlier plans and guides the overall management of activities, as well as the use and protection of BLM-administered resources within the planning area. Subsequent site-specific and more detailed planning will take place for certain geographic areas and resources within the planning area in conformance with this RMP. The management plan creates a framework for future planning and decision making.

This RMP was needed to respond to changed conditions and circumstances which may not have been previously addressed, as set forth in the *Phoenix RMP* (BLM 1988); the *Lower Gila North Management Framework Plan* (BLM 1983), and the *Approved Amendment to the Lower Gila North Management Framework Plan* and the *Lower Gila South Resource Management Plan* (BLM 2005). Since these prior management plans were completed, the Phoenix metropolitan area has seen dramatic increases in population and urban development. Changed conditions include compliance with stricter air quality standards; higher demands for saleable mineral products; and increased pressure on public lands for recreation, new rights-of-way for roads and utilities, and other uses. Those portions of previous management which are responsive to changed conditions and circumstances were carried forward to this Approved RMP.

The National Environmental Policy Act (NEPA ) requires federal agencies to prepare an Environmental Impact Statement (EIS) on major federal actions. Since the Approved RMP is a major federal action, the BLM distributed the Draft Resource Management Plan/Draft Environmental Impact Statement (DRMP/DEIS) in January 2006 and the Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) in August 2008. The FEIS documented the potential environmental impacts of implementing the Preferred Alternative from the DRMP/DEIS as well as other alternatives and conforms to U.S. Council on Environmental Quality regulations for implementing NEPA (40 CFR 1500).

The area includes large blocks of private land west of Phoenix and State Trust land west of Wickenburg. The southern portion of the Prescott National Forest includes higher areas of the Bradshaw Mountains. Two large, rural parks are located near Phoenix: White Tank Mountains Regional Park, operated by Maricopa County; and Lake Pleasant Regional Park, managed cooperatively by Maricopa County and the U.S. Bureau of Reclamation. Three Native American communities are located near the planning area boundaries: Yavapai Prescott Indian Tribe, Salt River Pima-Maricopa Indian Community, and Gila River Indian Community. Other tribes in central, western, and northern Arizona have traditional cultural ties to these lands.

### **2.1.2. Planning Area Description**

The Bradshaw-Harquahala planning area is bounded on the southeast by the Phoenix metropolitan area. Moving north, its boundary follows Interstate Highway 17 to Cordes Junction, then turns northwest toward Prescott and extends west to encompass portions of the Harcuvar and Harquahala mountain ranges. The southern boundary follows Interstate Highway 10 between the Harquahala Valley and Phoenix (Map 1 ). Major communities include Peoria, Anthem, New River, Black Canyon City, Mayer, Prescott, Wickenburg, and Buckeye.

The planning area includes remote, undeveloped areas, as well as urban interface zones. It encompasses mountain ranges and deserts of the Basin and Range physiographic province in the Sonoran Desert, as well as transitional and chaparral zones at higher elevations. The area features diverse land uses including mining, ranching, motorized and non-motorized recreation, major transportation routes, utility corridors, and communication sites. It also hosts a rich variety of wildlife, vegetation zones, archaeological sites, and other resources. There are five wilderness areas designated by Congress: Hells Canyon, Hassayampa River Canyon, Hummingbird Springs, Big Horn Mountains, and Harquahala Mountains (Map 1 ).

The area includes large blocks of private land west of Phoenix and State Trust land west of Wickenburg. The southern portion of the Prescott National Forest includes higher areas of the Bradshaw Mountains. Two large, rural parks are located near Phoenix: White Tank Mountains



Regional Park, operated by Maricopa County; and Lake Pleasant Regional Park, managed cooperatively by Maricopa County and the U.S. Bureau of Reclamation. Three Native American communities are located near the planning area boundaries: Yavapai Prescott Indian Tribe, Salt River Pima-Maricopa Indian Community, and Gila River Indian Community. Other tribes in central, western, and northern Arizona have traditional cultural ties to these lands.

### **2.1.3. Scoping Issues**

Development of this Approved RMP was formally initiated with publication of a Notice of Intent in the Federal Register on April 24, 2002. Over the next several years, the BLM conducted extensive public outreach, pursuing a number of collaborative efforts involving diverse communities and interests as part of plan development. These collaborative opportunities included informal meetings, community based partnership workshops, scoping meetings, alternative development workshops, and formal comment meetings. These are summarized in the Public Involvement section below and fully described on pages 661 through 663 of the Proposed RMP /Final EIS. In addition, communities were offered the opportunity to develop vision statements for public lands. Community vision statements from Black Canyon City, Castle Hot Springs, Dewey-Humboldt-Friends of the Agua Fria River Basin, New River, and Wickenburg are included on pages 32 through 34 of the Proposed RMP . The BLM also provided an opportunity to protest the proposed decisions to the Director of the Bureau of Land Management prior to approval of this Record of Decision ( ROD ) as required by the BLM planning regulations.

Resource Management Plans are prepared to resolve significant issues and management concerns associated with the management of the public lands in the planning area. The issues drive the RMP in that the Approved Plan is primarily designed to resolve the identified planning issues.

The BLM interdisciplinary planning team used the scoping process to identify issues relevant to the Bradshaw-Harquahala planning area. Through communication media such as meetings, newsletters, and news releases, the public was provided opportunities to identify issues that needed to be addressed in the Approved RMP . The planning team then analyzed the public's comments and identified the major planning issues to be resolved. The specific criteria by which changes in current resource management practices were considered are:

- Management of one resource significantly constrains or curtails use of another resource.
- Existing land use allocations conflict with agency resource management policies or guidance.
- Existing resource management practices conflict with management plans, policies, and guidance of another federal or state surface management agency.
- Documented public controversy regarding management of a specific resource value indicates a management issue.

### **2.1.4. Issues Addressed**

In early 2003, the BLM published the Scoping Report for the Agua Fria National Monument/Bradshaw-Harquahala Planning Areas (Jones and Stokes 2003). This document summarized the procedures, issues, and management concerns that were identified as the result of public meetings, comments received through the mail, and via email. Following the publication of the scoping report, the BLM continued to solicit input from the public, agencies, and staff members. Those additional comments all fell within the issues identified in the scoping report.

After the publication of the Agua Fria National Monument and Bradshaw-Harquahala DRMP/DEIS in January 2006, the BLM received 431 individual comment letters and 1,046 form letters during the 90-day public comment period. These letters contained more than 2,300 comments. Comments relating to the Bradshaw-Harquahala planning area focused on land tenure (favoring retention of public lands as open space); travel management issues; recreational opportunities and public access; protection of natural and cultural resource values and wildlife habitat; and management of lands with wilderness characteristics .

### **2.1.5. Issues Considered but not Further Analyzed**

During the planning process, the BLM received comments concerning issues that were infeasible or beyond the scope of this plan (e.g., establishing user fees that would be inconsistent with the Federal Lands Recreation Enhancement Act of 2004). When applicable, the BLM forwarded comments received to agencies that have authority over the issues that were beyond the scope of this plan. Other issues that were not included could be addressed through administrative or policy action (e.g., use of an area for educational purpose).

### **2.1.6. Planning Criteria**

Planning criteria are the constraints or ground rules that guide and direct the development of the plan. Criteria are taken from laws and regulations, BLM guidance, and input from state, county, and federal agencies, Indian tribes, and the public. These criteria were developed by the BLM to assure that the planning process and decision-making are focused on the pertinent issues, and to ensure that the BLM avoids unnecessary data collection and analyses. The criteria were used at four stages of the planning process (resource inventory, assessment of the current situation [which includes a description of current BLM guidance, discussion of existing problems, and opportunities to resolve them], formulation of alternatives, and selection of the Preferred Alternative).

The basic planning criteria are identified in Section 202 of the FLPMA:

- Follow the principles of multiple use and sustained yield.
- Use a systematic interdisciplinary approach, fully considering physical, biological, economic, and social aspects of public land management.
- Identify, designate, protect, and specially manage Areas of Critical Environmental Concern (ACEC s).
- Consider the relative significance of public land products, services, and use to local economies.
- Rely on the inventory of public lands, their resources, and other values to the extent such information is available.
- Consider present and potential uses of public lands.
- Consider the impact of federally approved actions on adjacent or nearby non-federal lands and on private land surface over federally owned subsurface minerals.
- Consider the relative scarcity of the values involved and alternative means and sites for realization of those values.
- Weigh the long-term benefits and consequences of proposed actions against short-term benefits and consequences.
- Comply with applicable pollution control laws, including state and federal air, water, noise, and other pollution standards and plans.

- Coordinate, to the extent consistent with public laws, resource planning and management programs of other federal departments and agencies, states, local governments, and Indian tribes.
- Provide the public with early notices and frequent opportunities to participate in the preparation of plans.
- Manage the public lands to prevent unnecessary or undue degradation of the lands.

## **2.1.7. Planning Process**

### **2.1.7.1. Collaboration/Partnership Relationships**

The Hassayampa Field Office conducts many activities that require coordination with tribes, state, other federal agencies, and interested public. Coordination has been ongoing throughout this planning effort. Coordination is accomplished as a matter of course when implementing land use plan decisions through project development and site-specific activities. Key coordination efforts include those described below.

In addition to building communication networks for the formal planning process, the BLM employed a contractor, James Kent Associates (JKA), who established contacts with communities and received citizens' comments on issues and concerns, while helping them to gain a better understanding of the land use planning process. These meetings occurred prior to the formal scoping process and took place in community settings and civic and social group meetings in Wickenburg, Yarnell, Buckeye, Tonopah, Castle Hot Springs, New River, Black Canyon City, Cordes Junction, Mayer, Dewey-Humboldt, Prescott Valley, and Phoenix.

During the planning process, the BLM cultivated productive partnerships with many organizations including the Bradshaw Foothills Coalition, Black Canyon Trail Coalition, Black Canyon Community Association, Upper Agua Fria Watershed Coalition, Yavapai County Trails Committee, Wickenburg Conservation Foundation, Black Canyon Heritage Park, and Agua Fria Open Space Alliance.

### **2.1.7.2. Intergovernmental, Inter-Agency, and Tribal Relationships**

In developing this plan, the BLM coordinated with agencies and governments including Prescott National Forest, Tonto National Forest, U.S. Bureau of Reclamation, Luke Air Force Base, Federal Highway Administration, Arizona Department of Transportation ( ADOT ), Arizona Game and Fish Department ( AGFD ), Arizona State Historic Preservation Office (SHPO), Maricopa County, Yavapai County, City of Phoenix, Town of Wickenburg, Town of Buckeye, and City of Peoria.

The BLM initiated consultation with American Indian tribes who have oral traditions or cultural concerns relating to the planning area, or who are documented as having occupied or used portions of the area during prehistoric or historic times. These tribes include the Hopi Tribe, Yavapai Prescott Indian Tribe, Yavapai-Apache Tribe at Camp Verde, Fort McDowell Yavapai Nation, Salt River Pima-Maricopa Indian Community, Gila River Indian Community, Ak-Chin Indian Community, Tohono O'odham Nation, Colorado River Indian Tribes, and Fort Mojave Indian Tribe. Follow-up meetings were conducted, at their request, with the Hopi Tribe, Yavapai-Prescott Indian Tribe, and the Four Southern Tribes cultural resources group (representing the Salt River, Gila River, Ak-Chin, and Tohono O'odham tribes).

### 2.1.7.3. Cooperating Agencies

In the first sentence of NEPA , Congress declares that:

*It is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations...to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans. (Sec. 101(a)).*

Additionally, U.S. Council on Environmental Quality regulations, contained in 40 CFR 1501.6 and 1508.5, mandate that federal agencies responsible for preparing NEPA analysis and documentation do so “in cooperation with state and local governments” and other agencies with jurisdiction by law or special expertise (42 United States Code [USC] 4331(a), 4332(2)).

In support of this mandate, the BLM invited a broad range of local, state, tribal, and federal agencies to attend a series of meetings with the aim of developing Memorandum of Understanding (MOU) that would establish cooperating agency status with the BLM. Cooperating agency status offers the opportunity for interested agencies to assume additional roles and responsibilities beyond the collaborative planning processes of attending public meetings and reviewing and commenting on plan documents. MOUs are time-limited documents that describe the roles and responsibilities of the BLM and the cooperating agency during the planning process for a particular RMP . Agencies that requested Cooperating Agency status include ADOT , AGFD , Yavapai County, and Luke Air Force Base.

#### 2.1.7.3.1. Transportation Agencies

In addition to working with ADOT and the Federal Highway Administration, BLM coordinated with city and county transportation departments. When these agencies plan and develop roadways that cross public lands, the BLM is involved in their design and contributes to environmental impact analysis. In that process, the BLM will coordinate with the responsible agency to develop design features that minimize the fragmenting effect of the planned roadway. The BLM will work with the responsible agency to evaluate and incorporate safe and effective wildlife crossings to ensure long-term species viability and maintaining habitat connectivity. Where planned roadways potentially fragment other resources, such as (but not limited to) recreation routes or trails, grazing allotments, or mining operations, the BLM will work with the responsible agency to provide continued connectivity for those purposes as well. The BLM would also work with the agency to provide continued safe access to public lands from any developed roadway for recreation and other public land users.

#### 2.1.7.3.2. Arizona Game and Fish Department

AGFD and the BLM work cooperatively to manage resources within the Bradshaw-Harquahala planning area. The BLM is responsible for management of wildlife habitats on BLM-administered lands, while AGFD is responsible for managing fish and wildlife. Continued efforts will be made to coordinate with AGFD for opportunities to enhance fish and wildlife habitat, species diversity, and riparian health.

In 2003, the BLM and AGFD signed a Memorandum of Understanding (MOU) giving AGFD cooperating agency status on the BLM planning efforts in Arizona. The MOU establishes

protocols that direct the cooperative working relationship between the agencies. The Master MOU between BLM and the Arizona Game and Fish Commission provides context to better enable both agencies to work in partnership and to make decisions in a consistent manner across the state. The HFO staff worked closely with the AGFD throughout the planning process, and the guidelines established in the MOU apply to implementation of this Approved RMP .

#### **2.1.7.4. Compliance**

Consultation with the Arizona SHPO and all potentially affected Tribes is conducted on proposed management plans and actions, in compliance with Section 106 of the National Historic Preservation Act (NHPA). BLM actions will also comply with existing programmatic environmental analyses, land use plans, and other federal environmental legislation, such as the Clear Air Act, the Clean Water Act, and the Safe Drinking Water Act, and with state and local government regulations (applicable laws, regulations, policies, and planning can be seen in Appendix A, *Administrative Actions and Standard Operating Procedures*).

##### **2.1.7.4.1. U.S. Fish and Wildlife Service**

As a part of this planning effort and in implementing on-the-ground activities, the BLM executed Endangered Species Act (ESA), Section 7 consultation with the USFWS. In 2001, the BLM and USFWS finalized a consultation agreement to establish an effective and cooperative ESA, Section 7 consultation process. A biological assessment (BA) was prepared and submitted to determine the effect of the Proposed Plan on all relevant listed, proposed, and candidate species, and associated critical habitat . All anticipated environmental effects, conservation actions, mitigation, and monitoring were disclosed in the BA, including analysis of all direct, indirect, and cumulative effects of the Proposed Plan/FEIS. The USFWS provided the BLM with a Biological Opinion of proposed actions on December 18, 2006 (Biological Opinion on the Effects of the Agua Fria NM and Bradshaw-Harquahala RMP on Federally-Listed Species, USFWS 22410-05-F-0785). As this plan's decisions are implemented, actions determined through environmental analysis to potentially affect species listed or candidate species for listing under ESA would trigger additional site-specific consultation on those actions.

##### **2.1.7.4.2. Sikes Act**

The Sikes Act (16 U.S.C. 670 et seq.) authorizes the Department of the Interior, in cooperation with state agencies responsible for administering fish and game laws, to plan, develop, maintain, and coordinate programs for conserving and rehabilitating wildlife, fish, and game on public lands within its jurisdiction. The plans must conform to overall land use and management plans for the lands involved. The plans could include habitat improvement projects and related activities and adequate protection for species of fish, wildlife, and plants considered endangered or threatened. The BLM must also coordinate with suitable state agencies in managing state-listed plant and animal species when the state has formally made such designations.

#### **2.1.8. Related Plans**

Title II, Section 202 of the FLPMA provides guidance for the land use planning process of the BLM to coordinate planning efforts with Native American Indian tribes, other federal departments, and agencies of state and local governments. To accomplish this directive, the BLM

is instructed to keep informed of state, local, and tribal plans; assure that consideration is given to such plans; and to assist in resolving inconsistencies between such plans and federal planning. The section goes on to state in Subsection (c)(9) that “Land use plans of the Secretary [of the Interior] under this section shall be consistent with state and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.” The provisions of this section of the FLPMA are echoed in Section 1610.3 of BLM Resource Management Planning regulations.

In keeping with the provision of this section, state, local, and tribal officials were made aware of the planning process through the previously described mailings and meetings. The following is a list of plans reviewed during the Bradshaw-Harquahala Approved RMP planning effort:

- *Prescott National Forest Proposed Action: Forest Plan Amendment (November 2001)*
- *Maricopa County 2020, Eye to the Future Comprehensive Plan (Revised) (August 2002)*
- *Yavapai County General Plan (April 2003)*
- *Maricopa Association of Governments: Desert Spaces Environmentally Sensitive Development Areas Policies and Design Guidelines (June 2000)*
- *Wildlife 2006: The Arizona Game and Fish Department's Wildlife Management Program Strategic Plan (January 2001)*
- *City of Phoenix General Plan (December 2001)*
- *City of Peoria General Plan (December 2002)*
- *Town of Wickenburg General Plan (1988)*
- *Town of Prescott Valley General Plan (January 2002)*
- *Town of Buckeye General Development Plan (September 2001).*

## 2.1.9. Policy

This plan is consistent with and incorporates requirements identified in various laws, regulation and policy. These include Executive Orders, legislative designations, and court settlements/rulings. The policies and decisions that existed prior to this plan being written are outside the scope of the plan but have influenced the decisions, constrained the alternatives, and are needed to understand management of the area.

Applicable laws, regulations, policy, and planning criteria can be reviewed in Appendix C of the Proposed RMP /Final EIS.

## 2.1.10. Mission and Goals

The BLM's mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Overall management goals for the Bradshaw-Harquahala planning area include the following:

- Engage communities and encourage partnerships with those who have a stake in the management and protection of resources in the planning area.
- Provide opportunities for public education, volunteerism, and enjoyment of resources in a manner consistent with resource protection.
- Form partnerships that provide for cooperative management of contiguous public lands for recreation and maintaining and restoring wildlife habitats.
- Restore and maintain the natural environments that characterize a healthy, unfragmented landscape.

- Manage lands and resources to contribute to the social, economic, and environmental health and sustainability of communities.
- Work with communities and other interests to meet the need for resources and infrastructure for growing populations.
- Promote visitor safety and develop outreach programs that encourage social responsibility for stewardship of public lands and resources.
- Support diverse, flourishing communities of native plants and wildlife.
- Retain scenic qualities as a legacy for current and future generations.
- Sustain diverse recreational opportunities and benefits, while protecting natural and cultural resources.

## 2.2. Management Decisions

This section of the Approved RMP presents the Desired Future Conditions, Land Use Allocations, and Management Actions established for public lands managed by the BLM's Hassayampa Field Office in the Bradshaw-Harquahala planning area. Most of the Desired Future Conditions are long-range in nature and will not be achieved immediately, but rather are assumed to require a period of time to achieve. These management decisions are presented by program area. Not all types of decisions were identified for each program.

Many of the following management decisions are applicable to the entire Bradshaw-Harquahala area. Other decisions apply only within specific geographic regions, which have been defined as Management Units. These six regions, shown on Map 4 , include the Black Canyon Management Unit (MU), Castle Hot Springs MU , Hassayampa MU , Harquahala MU , Harcuvar MU , and Upper Agua Fria River Basin MU . Together the Management Units include 858,520 acres of BLM-administered surface. The outlying areas are managed under the decisions applicable to the entire planning area.

Implementation or activity level decisions are decisions that take action to implement land use plan decisions. These types of decisions require appropriate site-specific planning and NEPA analysis. Implementation decisions generally constitute BLM's final approval allowing on-the-ground actions to proceed and are generally appealable to the Interior Board of Land Appeals (IBLA) under 43 CFR 4.410. This Approved RMP does not identify Implementation Decisions. However, some decisions in this plan will be incorporated into future implementation (activity- or project-level) plans. These implementation plans will provide the required additional site-specific planning and NEPA analysis. At that time, the decisions will become appealable. The appeal process will be listed in the future individual implementation plans.

Through adaptive management, monitoring plans will ensure that Land Use Allocations and Management Actions achieve Desired Future Conditions. The content of the decisions remains as contained in the Proposed RMP , except as described in the Modifications and Clarifications sections of the ROD .

Data used in development of the Approved RMP are dynamic. The data and maps used throughout the Approved RMP are for land use planning purposes and will be refined as site-specific planning and on-the-ground implementation occur. Updating data is considered plan maintenance that will occur over time as the Approved RMP is implemented. Please note that all acreages presented in the Approved RMP are estimations, even when presented to the nearest acre.

Complete consideration of the Approved RMP also includes Administrative Actions and Standard Operating Procedures (which are presented in Appendix A, *Administrative Actions and Standard Operating Procedures*). These actions and procedures outline the objectives, basic management policy, and program direction. Administrative Actions are not land use plan decisions. However, these are day-to-day activities that are not ground-disturbing and are an important component when considering program activities.

This section is organized alphabetically by program area. The decisions for each program are coded and numbered consecutively to reflect the primary resource that is affected. The codes are presented below.

- Biological Resources
  - Special Status Species (TE)
  - Wildlife and Fisheries (WF)
  - Vegetation (VM)
  - Riparian (RP)
- Cultural Resources (CL)
- Fire Management (FM)
- Land Health Standards (LH)
- Lands and Realty Management (LR)
- Mineral Resources (MI)
- Paleontological Resources (GL)
- Rangeland Management/Grazing (GM)
- Recreation Management (RR)
- Soil, Air, and Water Resources (WS)
- Special Designations
  - Area of Critical Environmental Concern (AC)
  - National Recreation Trail (RT)
  - Wilderness (WM)
- Travel Management (TM)
- Visual Resource Management (VR)
- Wild Burro Management (HB)
- Wilderness Characteristics (WC)

## **2.3. Decisions Applicable to Entire Planning Area**

### **2.3.1. Biological Resources**

The areas of consideration are the management of special status species, wildlife and fish habitat, and vegetation and riparian management. Conservation measures applicable to the Bradshaw-Harquahala area were derived from all applicable Recovery Plans, Conservation Plans, and Management Plans available for species within the planning area.



### **2.3.1.1. Special Status Species (TE)**

#### **2.3.1.1.1. Desired Future Conditions**

##### **2.3.1.1.1.1. Desert Tortoise**

**TE-1.** Desert tortoise habitat, by habitat category, will be managed to achieve the following desired conditions:

- Category I - Maintain stable, viable populations and protect existing tortoise habitat values and increase populations where possible,
- Category II - Maintain stable, viable populations and halt further declines in tortoise habitat values, and
- Category III - Limit tortoise habitat and population declines to the extent possible through mitigation.

**TE-2.** Categories I and II desert tortoise habitat will be managed to retain all natural shelter sites (boulders or caliche caves or similar features used by tortoises for sheltering) and to be unfragmented.

**TE-3.** In Category I and II areas, vegetation will consist of at least 5 percent native perennial grasses, at least 10 percent native perennial forbs or subshrubs, at least 30 percent native trees and cacti, by dry weight, as limited by the potential of the ecological site as described by the Natural Resource Conservation Service (NRCS) ecological site guides.

##### **2.3.1.1.1.2. Gila Topminnow, Gila Chub, and Desert Pupfish**

**TE-4.** All biologically suitable perennial waters on public lands are occupied by thriving populations of Gila topminnow, Gila chub, and desert pupfish.

##### **2.3.1.1.1.3. Spikedace**

**TE-5.** The Agua Fria River, where biologically suitable, is occupied by a thriving population of spikedace.

##### **2.3.1.1.1.4. Southwestern Willow Flycatcher**

**TE-6.** Riparian areas that could physically support (due to floodplain width and gradient) southwestern willow flycatcher habitats will attain the vegetation structure, plant species diversity, density, and canopy cover to constitute suitable habitat. Vegetation in these riparian areas will be sufficiently dense and structurally complex to inhibit flycatcher predators and cowbirds from finding flycatcher nests. Livestock management facilities or other facilities will not be located so that they would attract cowbirds to suitable flycatcher habitat.

##### **2.3.1.1.1.5. Bald Eagle**

**TE-7.** Habitat quality and quantity of riparian areas within the foraging range of bald eagles in the Lake Pleasant area is maintained and nesting and habitat for wintering birds in the Agua Fria

River drainage is maintained. Sufficient quantity and quality of these riparian areas provide roosting and potential nesting trees and adequate prey.

#### **2.3.1.1.1.6. Yellow-billed Cuckoo**

**TE-8.** Riparian areas that could physically support (due to floodplain width and gradient) yellow-billed cuckoo habitats will attain the vegetation structure, plant species diversity, density, and canopy cover to constitute suitable habitat. Livestock utilization will not substantially reduce the abundance, density or distribution of native riparian tree species through herbivory.

#### **2.3.1.1.2. Land Use Allocations**

**TE-9.** Desert tortoise habitat will be managed according to the three categories shown on Map 5 . Habitat management categories and boundaries will be revised as new population information becomes available. The criteria that will be used in revising categories and boundaries are those in the 1988 Range-wide Plan (BLM 1988).

The criteria for defining Category I tortoise habitat areas are the following:

- Habitat areas are essential to maintenance of large, viable populations.
  - Populations are increasing, stable, or decreasing.
- Conflicts are resolvable.
- Populations are medium to high density or low density contiguous with medium or high density.

The criteria for defining Category II tortoise habitat areas are the following:

- Habitat areas may be essential to maintenance of viable populations.
- Most conflicts are resolvable.
- Populations are medium to high density or low density contiguous with medium or high density.
- Populations are stable or decreasing.

Category III tortoise habitat areas are the following:

- Habitat areas are not essential to maintenance of viable populations.
- Most conflicts are not resolvable.
- Populations are low to medium density not contiguous with medium or high density.
- Populations are stable or decreasing.

#### **2.3.1.1.3. Management Actions**

##### **2.3.1.1.3.1. Desert Tortoise**

Desert tortoise management will be consistent with the following documents:

- Desert Tortoise Habitat Management on Public Lands: A Rangewide Plan (BLM 1988).
- Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona, Instruction Memorandum No. AZ-91-16 (BLM 1990a),
- Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona: New Guidance on Compensation for the Desert Tortoise, Instruction Memorandum No. AZ-92-46 (BLM 1992), and

- Supplemental Guidance for Desert Tortoise Compensation, Instruction Memorandum No. AZ-99-008 (BLM 1999).

**TE-10.** No net loss will occur in the quality or quantity of Category I and II desert tortoise habitat to the extent practicable. BLM will address and include mitigation measures in decision documents to offset the loss of quality or quantity of Category I, II, and III tortoise habitats.

**TE-11.** Compensation may be required to mitigate residual impacts from authorized actions.

**TE-12.** Evaluate on a case-by-case basis all proposed activities, including the following, for impacts to desert tortoise population or habitats:

- requests for rights-of-way,
- easements,
- withdrawals,
- other land tenure actions,
- range improvements,
- wildlife habitat projects,
- mineral material sales, and
- commercial and organized group SRP applications.

**TE-13.** Mitigation for adverse impacts is permissible to achieve no net loss in quantity or quality of desert tortoise habitat.

**TE-14.** In Category I and II tortoise habitats, all motorized competitive races will be prohibited from March 31 through October 15. All other use requests during this time will be reviewed on a case-by-case basis and may be denied or adjusted to avoid conflict with tortoise activity and habitat. Mitigation for conflicts will be permissible to achieve no net loss in quantity or quality of desert tortoise habitat.

**TE-15.** All mining plans of operations will be assessed for impacts to desert tortoise habitat on a case-by-case basis. Adverse impacts to desert tortoise will be mitigated to the extent allowable in the 3809 regulations.

### **2.3.1.2. Threatened or Endangered Species**

The actions described below implement the relevant Terms and Conditions and Conservation Recommendations contained in the following Biological Opinions and Conference Opinion:

- [2-21-88-F-167] The Phoenix Resource Management Plan and Environmental Impact Statement.
- [2-21-96-F-421] The Lower Gila North Management Framework Plan (1983), and Lower Gila North Grazing EIS (1982).
- [2-21-96-F-422] The Eastern Arizona Grazing EIS, Phoenix District Portion.
- [2-21-99-F-031] Reintroduction of Gila Topminnow and Desert Pupfish into Three Tributaries of the Agua Fria River.
- [2-21-03-F-210] BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management.

**TE-16.** Acquisition criteria for non-Federal lands will include lands with the potential to:

- enhance the conserving and managing of threatened or endangered species habitat, riparian habitat, desert tortoise habitat, key big game habitat, and

- improve the overall manageability of wildlife habitat.

**TE-17.** BLM will not transfer from Federal ownership the following types of lands:

- designated or proposed critical habitat for a listed or proposed threatened or endangered species,
- lands supporting listed or proposed threatened or endangered species if such transfer would be inconsistent with recovery needs and objectives or would likely affect the recovery of the listed or proposed species, and
- areas supporting Federal candidate species if such action would contribute to the need to list the species as threatened or endangered. Exceptions to the above could occur if the recipient of the lands would protect the species or critical habitat equally well under the ESA, such as disposal to a non-Federal governmental agency or private organization if conservation purposes for the species would still be achieved and ensured.

**TE-18.** Wildlife and prescribed fire management will incorporate the T/E Species Conservation Measures described in Appendix P which resulted from the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management ( BO #2-21-03-F-210).

#### **2.3.1.2.1. Gila Topminnow, Gila Chub, and Desert Pupfish**

**TE-19.** In cooperation with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service, BLM will re-establish Gila topminnow, Gila chub, and desert pupfish into suitable habitat sites throughout the planning area.

**TE-20.** Stream bank alteration due to recreation activities and livestock grazing in areas occupied by Gila topminnow, Gila chub, and desert pupfish will be limited to 25 percent annually.

**TE-21.** Domestic livestock utilization of native riparian trees seedlings along streams occupied by Gila chub, Gila topminnow, and desert pupfish will be limited to 30 percent of the apical stems per growing season.

**TE-22.** Fuels treatments on watersheds for habitat occupied by Gila topminnow, Gila chub, and desert pupfish will be limited to no more than 1/2 the watershed in any 2-year period.

#### **2.3.1.2.2. Spikedace**

**TE-23.** In cooperation with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service, the BLM will re-establish a spikedace population in the Agua Fria River.

#### **2.3.1.2.3. Southwestern Willow Flycatcher**

**TE-24.** Within the range of southwestern willow flycatcher, livestock grazing will conform to the guidelines described in the "Not Likely to Adversely Affect" section of Guidance Criteria for Determinations of Effects of Grazing Permit Issuance and Renewal on Threatened and Endangered Species (BLM and US Fish and Wildlife Service, Arizona and New Mexico 1999) or any subsequent agreed-upon amendment to these guidelines.

The current guidance criteria for Not Likely to Adversely Affect states:

1. Disturbance of individuals or nests, predation, or parasitism would not be likely because livestock use would not occur in occupied habitat during any time of the year.

2. Suitability for nesting flycatchers would not be reduced because livestock grazing in unoccupied suitable habitat would not occur during the growing season (key vegetation characteristics are maintained or enhanced and conditions promoting cowbird parasitism are avoided).
3. Cowbird parasitism would be unlikely because grazing would occur greater than five miles from occupied habitat during the breeding season, or
4. Monitoring of flycatcher nests demonstrates that no cowbird parasitism is occurring when livestock use occurs closer than 5 miles, but not within, occupied habitat, or
5. cowbird parasitism would be unlikely due to the physical juxtapositions of habitat type, terrain, facilities, elevation, and other factors.
6. Progression of potential habitat towards becoming suitable within 10 years would not be impeded by livestock grazing (e.g. regeneration or maintenance of woody vegetation is not impaired by trampling, bedding, or feeding)
7. Sufficient monitoring is in place to demonstrate that habitat suitability is being maintained or enhanced in accordance with two and four above. Such monitoring would continue through the life of the grazing action under consideration.

**TE-25.** Conservation of Federal threatened or endangered, proposed, candidate, and other special status species is promoted by maintaining or restoring their habitats.

### **2.3.1.3. Wildlife and Fisheries (WF)**

#### **2.3.1.3.1. Desired Future Conditions**

**WF-1.** Maintain, restore, or enhance the diversity, distribution, and viability of populations of native wildlife, and maintain, restore, or enhance overall ecosystem health. Discretionary activities will be managed to ensure connectivity of habitats and maintenance of unrestricted wildlife movement.

**WF-2.** The distribution and abundance of invasive animals will be contained, and through active management, the impact of invasive species on native ecosystems will be reduced from current levels.

**WF-3.** The values of bat roost habitats associated with natural caves and abandoned mine features are protected, and these sites do not pose a threat to human safety.

#### **2.3.1.3.2. Management Actions**

**WF-4.** Emphasize and give priority to managing priority species and priority habitats in the event of conflicts between resource management objectives. Priority species include the following, as specified in Appendix H of the Proposed RMP :

- game species,
- special status species,
- birds of conservation concern, and
- raptors.

Priority habitats include areas allocated as WHAs (for example, bighorn sheep habitat), ACEC s, riparian areas, springs, bat roosts, and desert tortoise habitat.

**WF-5.** Reintroductions, transplants, and supplemental stockings (augmentations) of wildlife populations will be carried out in collaboration with AGFD or the USFWS for the following purposes:

- to maintain current populations, distributions, and genetic diversity,
- to conserve or recover threatened or endangered species, and
- to restore or enhance native wildlife species diversity and distribution.

Species that may be reintroduced, transplanted, or augmented include but are not limited to pronghorn; desert bighorn sheep; mule deer; desert tortoise; beavers; lowland leopard frogs; Mexican garter snakes; and native fishes like spokedace, Gila chub, Gila topminnow, desert pupfish, longfin dace, speckled dace, and desert sucker.

**WF-6.** Management of habitat for Birds of Conservation Concern will emphasize avoidance or minimizing impacts and restoring and enhancing habitat quality to implement Executive Order 13186. Through the permitting process for all land use authorizations, ensure the maintenance of habitat quantity and quality. Take (as defined in the Glossary) of migratory birds from authorized activities will be minimized or avoided.

**WF-7.** Identify, minimize, and mitigate for wildlife habitat degradation, loss, and fragmentation to achieve Desired Future Conditions.

**WF-8.** Authorized activities will ensure the maintenance of bat roost habitat quantity and quality, using mitigation to achieve the DFC.

**WF-9.** Domestic sheep and goat grazing will be prohibited within nine miles of occupied desert bighorn sheep habitat to avoid disease transmission and comply with applicable BLM guidelines. Desert bighorn sheep habitat is depicted on Map 6 .

**WF-10.** The density and distribution of wildlife waters will be maintained, improved, or increased throughout the planning areas to sustain and enhance wildlife populations across their range.

**WF-11.** All existing wildlife waters will be maintained or improved as needed to maintain the presence of perennial water for wildlife.

**WF-12.** New wildlife waters will be built when needed to maintain, restore, or enhance native wildlife populations or distributions.

**WF-13.** Reasonable administrative vehicular access will be allowed for AGFD staff to wildlife water facilities for maintenance, repair, or research.

**WF-14.** Water developments, including those for purposes other than wildlife, will include design features to ensure safe and continued access to water by wildlife.

**WF-15.** The area contains suitable habitat for relocating and releasing individual animals and release of rehabilitated wildlife. These types of wildlife releases are not intended to establish new populations but are appropriate in areas of suitable habitat. Wildlife species that can be released include but are not limited to black bears; mountain lions; burrowing owls; and other raptors, reptiles, and game species.

**WF-16.** The evaluation of vehicle routes, in conjunction with the route designation process, will consider the effect of routes on wildlife habitat values. Routes that conflict with maintaining

sensitive wildlife habitat will be mitigated to achieve DFC. Mitigation will include, but not be limited to the following:

- route closure,
- seasonal use restrictions,
- rerouting,
- vehicle type restrictions,
- vehicle speed restrictions, and
- other mitigation suitable to the nature of the conflict.

**WF-17.** Administrative access will be allowed by law for enforcement and AGFD and USFWS staff for natural resource management. AGFD 's use of motorized and mechanized equipment off designated routes is considered an administrative use and will be allowed in suitable locations (as agreed to by BLM and AGFD ) for such purposes including, but not limited to the following:

- water supplementation,
- collar retrieval,
- capture and release of wildlife, and
- maintenance, repair, and building or rebuilding of wildlife waters.

**WF-18.** Implement seasonal restrictions or closures when vehicle use degrades habitat values.

**WF-19.** Adverse impacts to native animal communities from invasive species will be reduced. Efforts to control or eradicate invasive wildlife species will be carried out in cooperation and collaboration with AGFD or other organizations.

**WF-20.** Maintenance of wildlife habitat will be given management priority in resolving resource conflicts.

### **2.3.1.4. Vegetation (VM) and Riparian (RP) Management**

#### **2.3.1.4.1. Desired Future Conditions**

**VM-1.** Maintain, restore, or enhance the diversity, distribution, and viability of populations of native plants, and maintain, restore, or enhance overall ecosystem health.

**VM-2.** The distribution and abundance of invasive plants will be contained, and through active management, the impact of invasive species on native ecosystems will be reduced from current levels.

**VM-3.** All upland areas will include:

- a plant community that consists of native perennial grass and ground cover adequate to improve wildlife habitat, and
- improved watershed function based on monitoring and ecological site potential. Upland sites include five percent or greater dry-weight composition of native perennial grass, as limited by the potential of the ecological site as described by the Natural Resource Conservation Service (NRCS) ecological site guides.

**VM-4.** The desired plant community for upland sites will have a long-term stable population of columnar cacti and paniculate agave, where the sites have the potential for such plant communities.

**RP-1.** Riparian areas will include a plant community that consists of stream banks dominated (> 50 percent) by native species from the genera *Scirpus*, *Carex*, *Juncus*, and *Eleocharis*. The size class distribution of native riparian obligate trees will be > 15 percent seedlings, > 15 percent mid-size, and > 15 percent large size (depending on existing conditions and the site potential). Size classes are defined as follows:

- Seedlings are < 1 inch in basal diameter.
- Mid-sizes are 1 to 6 inches in basal diameter.
- Large sizes are > 6 inches in basal diameter.

### **2.3.1.4.2. Management Actions**

**VM-5.** Adverse impacts to native plant communities from invasive species will be reduced. Efforts to control or eradicate invasive wildlife species will be carried out in cooperation and collaboration with suitable weed management associations or other organizations.

**VM-6.** The use and perpetuation of native plant species will be emphasized when restoring or rehabilitating disturbed or degraded rangelands.

**VM-7.** Nonintrusive, non-native plant species will be considered suitable where native species:

- are not available,
- are not economically feasible,
- cannot achieve ecological objectives as well as non-native species, and
- cannot compete with already established non-native species.

**VM-8.** Fuels reduction projects may include provisions for permitting firewood collection on a case-by-case basis.

**VM-9.** Limit firewood collection to campfire use only. Allow collection of dead, down, and detached material for campfire firewood.

**VM-10.** Limit collecting of cacti skeletons, ironwood, and mesquite for personal use to 100 pounds per person per year.

**VM-11.** Prohibit the collection of cacti skeletons, ironwood, mesquite, and any other plant or plant product for commercial purposes.

**VM-12.** Allow the collecting of plant materials for scientific purposes with prior authorization.

## **2.3.2. Cultural Resources (CL)**

### **2.3.2.1. Desired Future Conditions**

**CL-1.** Cultural resources are protected to sustain their irreplaceable scientific, heritage, and educational values. Actions are implemented to monitor, limit, and repair damage. Partnerships and volunteers are utilized to support these objectives and management actions. Selected sites are interpreted to further public knowledge, enjoyment, and stewardship of cultural heritage values. Interpretive projects are completed in a manner that monitors and protects sites, while allowing for public visitation.



### 2.3.2.2. Land Use Allocations

**CL-2.** Cultural resource sites are or will be allocated to one or more of the six use categories, as defined in BLM Manual 8110.4:

- scientific use,
- conservation for future use,
- traditional use,
- public use,
- experimental use, and/or
- discharged from management.

Manage sites in accordance with the associated guidelines in BLM Manual 8110.4, Identifying and Evaluating Cultural Resources. See Appendix E in the Proposed RMP /Final EIS for more detailed information on these use categories.

**CL-3.** Scientific Use allocations: Permit scientific and historical studies by qualified researchers at selected sites allocated to scientific use. The highest priority for study will be assigned to significant sites that are threatened by vandalism or other types of disturbance. Scientific studies will be guided by historic contexts and research designs. Priorities will also emphasize sites that have the potential to yield important information, as defined in approved research designs.

**CL-4.** Allocate properties from the following classes of prehistoric sites to scientific use:

- pueblos and other residential sites,
- hilltop "forts" and masonry structures,
- pit house villages,
- rock art localities,
- caves and rock shelters,
- agricultural features,
- wells and water control features,
- roasting pits,
- trails and camps,
- resource processing sites,
- rock features and alignments,
- intaglios ("ground figures"),
- lithic quarries,
- grinding implement production sites, and
- artifact scatters that can yield important information and meet the Arizona State Museum (ASM) definition of a "site" as opposed to an isolated occurrence.

**CL-5.** Allocate properties from the following classes of historic period sites to scientific use:

- mines, mills, and associated features,
- settlements and camps,
- rock walls and features,
- ranches, homesteads, and associated features,
- livestock driveways, roads, and trails,
- other public works,
- facilities used in commerce,
- sites of military activities,
- agricultural features,

- wells and water control features, and
- artifact scatters that can yield important information and meet the ASM definition of a “site” as opposed to an isolated occurrence.

**CL-6.** Public use allocations: Allocate selected sites to public use for long-term preservation and public visitation. Consider the following factors in selecting sites suitable for this type of use:

- presence of above-ground features, such as structures or rock art, that are of interest to the public and are amenable to interpretive development,
- the condition of the site and the feasibility of treating or stabilizing selected areas to withstand visitation,
- accessibility to communities, travel routes, and recreation trails,
- compatibility with other land uses and site values, such as traditional use by Native Americans,
- visitor safety,
- feasibility of regular inspections by BLM staff and volunteers, and
- partnership opportunities for interpretive and educational projects.

**CL-7.** Six areas are identified as Special Cultural Resource Management Areas (SCRMA) allowing for site-specific allocations to the category of public use. SCRMA are depicted on Management Unit (MU) maps and include the following:

- Black Canyon Corridor SCRMA (Black Canyon MU )
- Lake Pleasant/Agua Fria SCRMA (Castle Hot Springs MU)
- Wickenburg/Vulture SCRMA (Hassayampa MU)
- Weaver/Octave SCRMA (Hassayampa MU)
- Harquahala Mountains SCRMA (Harquahala MU )
- Galena Gulch SCRMA (Upper Agua Fria MU)

**CL-8.** Allocate to traditional use sites that are perceived by a specified social or cultural group as important in maintaining the cultural identity, heritage, or well being of the group.

### **2.3.2.3. Management Actions**

**CL-9.** Implement physical and administrative protection measures to stop, limit, or repair damage and vandalism to sites. A variety of protection measures, described in BLM’s Manual 8140, may be used to protect the integrity of specific sites at risk:

- closing routes,
- restricting grazing or other uses,
- building fences or other barriers,
- installing erosion control devices,
- placing soil into exposed vandal pits or rooms,
- erecting signs, and
- repairing, shoring up, or stabilizing walls or other parts of structures.

**CL-10.** Install and maintain protective signs, including carsonite posts, with the message of the Arizona Site Steward Program on sites that are vulnerable to vandalism. Install protective signs in a manner to avoid drawing attention to sites.

**CL-11.** In evaluating project designs and proposed activities, seek to avoid disturbing or removing Native American human remains and associated items. Avoid directing site visitors toward areas where these items could be observed or disturbed.

**CL-12.** Include stipulations in Special Recreation Permits (SRPs) to ensure that commercial tour operations will not damage cultural resources. Require tour operators to report any new vandalism or damage to sites.

**CL-13.** Limit groups visiting archaeological sites to 25 people per site at a time. BLM may permit larger groups on a case-by-case basis for educational events, if it implements mitigation to minimize adverse impacts.

**CL-14.** Design and maintain facilities to preserve the visual integrity of cultural resource settings and cultural landscapes consistent with visual resource management objectives established in the RMP .

**CL-15.** Scientific studies may be conducted or authorized for the following purposes:

- to obtain critical data relevant to research objectives,
- to assess site protection and stabilization needs,
- to mitigate adverse impacts of proposed projects, activities, and authorizations, and
- to support interpretive planning for properties also allocated to public use.

**CL-16.** Implement some or all of the following and other actions at selected sites that are allocated to Public Use:

- platforms,
- restrooms,
- picnic tables,
- benches,
- trash receptacles,
- signs along routes and trails to direct visitors to interpreted sites,
- hard-surfaced walking trails,
- interpretive signs and register boxes, and
- brochures and related educational materials or programs.

### **2.3.3. Fire Management**

#### **2.3.3.1. Desired Future Conditions**

**FM-1.** Fire is recognized as a natural process in fire-adapted ecosystems and is used to achieve objectives for other resources.

**FM-2.** Fuels in the Wildland Urban Interface (WUI) are maintained at non-hazardous levels to provide for public and firefighter safety.

**FM-3.** Prescribed fire complies with Federal and State air quality regulations.

**FM-4.** Each vegetation community is maintained within its natural range of variation in plant composition, structure, and function, and fuel loads are maintained below levels that are considered to be hazardous (See Table 2-7 and Appendix J in the Proposed RMP /Final EIS for more information on each vegetation community).

**FM-5.** DFCs will be coordinated with the rangeland standard and guidelines allotment evaluations.

### 2.3.3.2. Land Use Allocations

BLM-administered lands will be assigned to one of the following two land use allocations for fire management.

**FM-6. Allocation One - Wildland Fire Use:** Areas suitable for wildland fire use for resource management benefit. In these areas, where wildland fire is desired, few or no constraints exist on its use, and conditions are suitable, unplanned and planned wildfire may be used to achieve desired objectives such as the following:

- to improve vegetation, wildlife habitat, or watershed conditions,
- to maintain non-hazardous levels of fuels,
- to reduce the hazardous effects of unplanned wildland fires, and
- to meet resource objectives.

Where fuel loading is high but conditions are not initially suitable for wildland fire, fuel loads are reduced by mechanical, chemical, or biological means to reduce hazardous fuel levels and meet resource objectives (includes WUI areas).

**FM-7. Allocation Two - Non Wildland Fire Use:** Areas not suitable for wildland fire use for resource benefit. This allocation includes areas such as the following, where mitigation and suppression are required to prevent direct threats to life or property:

- areas where fire historically never played a large role in developing and maintaining the ecosystem,
- areas where intervals between fires were very long, and
- areas (including some WUI areas) where an unplanned ignition could harm the ecosystem unless some form of mitigation is applied.

Mitigation may include mechanical, biological, chemical, or prescribed fire means to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires, and meet resource objectives.

The allocation of lands is based on the DFC of vegetation communities, ecological conditions, and ecological risks. The allocation of lands is determined by contrasting current and historical conditions and ecological risks of any changes (Map 7 ). The condition class concept helps describe changes in key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. BLM fire management plans will include the two allocations and identify areas for including fire use and mechanical, biological, or chemical means to:

- maintain non-hazardous levels of fuels,
- reduce the hazardous effects of unplanned wildland fires, and
- meet resource objectives.

Fire management plans will also determine which areas will be excluded from fire (through fire suppression) and which will receive chemical, mechanical, or biological treatments.

### 2.3.3.3. Management Actions

**FM-8. Use suitable tools for reducing hazardous fuels,** including prescribed burning, wildland fire use, and mechanical methods. Methods can include the following:

chainsaws,  
 motorized equipment for crushing brush,  
 tractor and hand piling,  
 thinning and pruning, and  
 treatments selected on a site-specific case that are ecologically suitable and cost effective.

**FM-9.** In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions and emphasize prevention, detection, and rapid suppression response.

**FM-10.** In areas not suitable for fire where fuel loading is high, BLM will use biological, mechanical, or chemical treatments and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives.

**FM-11.** In areas suitable for fire where fuel loading is high and current conditions constrain fire use, BLM will emphasize prevention and mitigation programs to reduce unwanted fire ignitions and use mechanical, biological, or chemical treatments to mitigate the fuel loadings and meet resource objectives.

**FM-12.** In areas suitable for fire where conditions allow, BLM will do the following:

- allow naturally ignited wildland fire,
- use prescribed fire and a combination of biological, mechanical, and chemical treatments to maintain nonhazardous levels of fuels,
- reduce the hazardous effects of unplanned wildland fires, and
- meet resource objectives.

**FM-13.** In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets Federal and State standards. If air quality approaches unhealthy levels, BLM would delay igniting prescribed fires.

**FM-14.** To reduce human-caused fires, BLM will undertake education, enforcement, and administrative fire prevention mitigation measures. Education measures will include the following:

- provide media information, including a signing program,
- give the public information on the natural role of fire within local ecosystems, and
- participate in fairs, parades, and public contacts.

**FM-15.** Enforcement staff will train employees interested in determining the cause of fires. Administration will include expanded prevention and education programs with cooperator agencies.

**FM-16.** Firefighter and public safety are the first priority in every fire management activity. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources must be based on the following:

- values to be protected,
- human health and safety, and
- costs of protection (BLM 2001b).

**FM-17.** For all fire management activities (wildfire suppression; appropriately managed wildfire use; prescribed fire; and mechanical, chemical, and biological vegetation treatments), conservation measures will be implemented as part of the proposed action to provide statewide consistency in reducing the effects of fire management on federally protected (threatened, endangered, proposed, and candidate) species.

**FM-18.** Conservation measures noted as “recommended” are discretionary for implementation but are recommended to help minimize effects to federally protected species. Incorporated here by reference are procedures within the Interagency Standards for Fire and Fire Aviation Operations (Task Group 2004), including future updates, relevant to fire operations that may affect federally protected species or their habitat.

**FM-19.** During fire suppression, resource advisors may be designated to coordinate concerns on federally protected species and to serve as liaison between the field office manager and the incident commander and the incident management team. Resource advisors will also serve as field contact representatives responsible for coordinating with the USFWS. Resource advisors will have the needed information on federally protected species and habitats in the area and the available conservation measures for the species. They will be briefed on the intended suppression actions for the fire and will provide input on which conservation measures are suitable within the standard constraints of safety and operational procedures. The incident commander has the final decision making authority on implementation of conservation measures during fire suppression.

**FM-20.** Conflicts may occur in attempting to implement all conservation measures for every species potentially affected by a particular activity, because of the number of species within the action area for the proposed statewide land use plan amendment (BLM 2004); and the variety of fire suppression and proposed fire management activities. Implementing these conservation measures will depend on:

- the number of federally protected species, and
- their individual life histories or habitat requirements within a particular location that is being affected by either fire suppression or a proposed fire management activity.

Conflicts could particularly arise from timing restrictions on fuel treatment if the ranges of several species with differing restrictions overlap. It could therefore, be impossible to effectively implement the activity. Resource advisors (in coordination with USFWS), fire management officers, incident commanders, and other resource specialists will need to coordinate to determine which conservation measures will be implemented during a particular activity. If conservation measures for a species cannot be implemented, BLM will be required to initiate Section 7 consultation with USFWS for that activity.

**FM-21.** BLM will update local fire management plans to include site-specific actions for managing wildfire and fuels in accordance with the new Federal fire policies, based on guidance provided in the decision records for statewide land use plan amendments (BLM 2004). These plans will be coordinated with USFWS and the AGFD to address site-specific concerns for federally protected species. These plans will incorporate the conservation measures included in this statewide land use plan amendment for federally protected species occurring within each fire management zone. BLM will consult with USFWS on these project-level plans, as needed.

**FM-22.** Categories A, B, C, and D, polygons are referenced in the 1998 Fire Management Plan (FMP). The FMP was updated in 2007 and has fire management units containing polygons based on the following:

- vegetation communities,
- fire regime condition classes, and
- proximity to urban interface areas.

**FM-23.** Wildfires resulting from natural fire starts (lightning) from an adjoining ownership may be allowed to cross jurisdictional boundaries if the fire meets predetermined, prescription criteria, and the ownerships have an agreement.

**FM-24.** In wilderness areas, when suppression actions are required, minimum impact suppression tactics (MIST, Interagency Standards for Fire and Fire Aviation Operations [Task Group 2004]) will be applied and coordinated with wilderness area management objectives and guidelines.

**FM-25.** To implement management actions in Areas of Critical Environmental Concern (ACECs), BLM will consider the desired conditions and management prescriptions for the specific ACEC in implementing fire management activities.

**FM-26.** BLM will continue to use prescribed fire and other methods to treat vegetation in the Weaver Mountains and foothills. The Weaver Mountain Hazardous Fuels Reduction Project was developed to treat hazardous fuel accumulations within an area encompassing 14,000 acres of public, State, and private lands roughly 17 miles north of Wickenburg. During prescribed burning, about 1,000 acres of chaparral will be treated annually over five to ten years to create mosaic patterns in the chaparral vegetation community. Project objectives include:

- reducing the risk of large, catastrophic wildfires, and
- maximizing benefits to wildlife and livestock by reducing dense chaparral cover by 30 to 80 percent.

## 2.3.4. Land Health Standards

### 2.3.4.1. Desired Future Conditions

In managing and implementing all resource programs, BLM must consider the Land Health Standards described in Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. The Land Health Standards were developed, pursuant to 43 CFR 4180, through a collaborative process involving BLM's staff and the Arizona Resource Advisory Council (RAC). The Land Health Standards were approved by the Secretary of the Interior in April 1997. These standards have been developed to determine the characteristics of healthy ecosystems on public lands and management actions to promote them. When approved, the Land Health Standards became BLM Arizona policy, guiding the planning for and management of BLM-administered lands. The Land Health Standards, therefore, have been incorporated into this Approved RMP. Listed below are the standards that describe the desired conditions needed to encourage proper functioning of ecological processes. These standards guide the management actions for all resource programs.

#### 2.3.4.1.1. Standard One: Upland Sites

**LH-1.** Upland soils exhibit infiltration, permeability, and erosion rates that are appropriate to soil type, climate, and landform (ecological site).

#### Criteria for Meeting Standard One

Soil conditions support the proper functioning of hydrologic, energy, and nutrient cycles. Many factors interact to maintain stable soils and healthy soil conditions, including suitable amounts of vegetation cover, litter, and soil porosity and organic matter. Under proper functioning conditions, rates of soil loss and infiltration are consistent with the site's potential.

Ground cover in the form of plants, litter, or rock is present in pattern, kind, and amount sufficient to prevent accelerated erosion for the ecological site; or ground cover is increasing as determined by monitoring over an established period of time.

Signs of accelerated erosion are minimal or diminishing for the ecological site as determined by monitoring over an established period of time. As indicated by such factors as:

- ground cover,
- litter,
- live vegetation (e.g., grass, shrubs, trees) amount and type,
- rock ,
- signs of erosion,
- flow pattern,
- gullies, and
- rills and plant pedestaling.

Exceptions and exemptions (where applicable):

- None.

#### **2.3.4.1.2. Standard Two: Riparian-Wetland Sites**

**LH-2.** Riparian-wetland areas are in properly functioning condition.

##### **Criteria for Meeting Standard Two**

Stream channel morphology and functions are appropriate for proper functioning condition for existing climate, landform, and channel reach characteristics. Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate the stream energy of high-water flows.

Riparian-wetland functioning condition assessments are based on examination of hydrologic, vegetation, soil and erosion-deposition factors. BLM has developed a standard checklist to address these factors and make functional assessments. Riparian-wetland areas are functioning properly as shown by the results of applying the appropriate checklist.

The checklist for riparian areas is in Technical Reference 1737-9, Process for Assessing Proper Functioning Condition (BLM 1993d). The checklist for wetlands is in Technical Reference 1737-11, Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas (BLM 1994c).

As indicated by such factors as the following:

- gradient,
- width/depth ratio,
- channel roughness and sinuosity of stream channel,
- bank stabilization,
- reduced erosion,



- captured sediment,
- ground water recharge, and
- dissipation of energy by vegetation.

Exceptions and exemptions (where applicable):

- Dirt tanks, wells, and other water facilities built or placed at a location to provide water for livestock or wildlife and not determined through local planning to provide for riparian or wetland habitat are exempt.
- Water impoundments permitted for construction, mining, or other similar activities are exempt.

### **2.3.4.1.3. Standard Three: Upland and Riparian-Wetland Plant Communities**

LH-3. Productive, diverse upland and riparian-wetland plant communities of native species exist and are maintained.

#### **Criteria for Meeting Standard Three**

Upland and riparian-wetland plant communities meet DPC objectives. Plant community objectives are determined with consideration for all multiple uses. Objectives also address native species and the requirements of the Taylor Grazing Act (TGA); FLPMA; Endangered Species Act (ESA); Clean Water Act (CWA); and suitable laws, regulations, and policies.

DPC objectives will be developed to assure that soil conditions and ecosystem function described in Standards 1 and 2 are met. These objectives detail a site-specific plant community, which when obtained, will assure rangeland health; State water quality standards; and habitat for endangered, threatened, and sensitive species. Thus, DPC objectives will be used as an indicator of ecosystem function and rangeland health.

As indicated by such factors as the following:

- composition,
- structure, and
- distribution.

Exceptions and exemptions (where applicable):

- Ecological sites or stream reaches on which a change in existing vegetation is physically, biologically, or economically impractical are exempt.

## **2.3.5. Lands and Realty Management (LR)**

### **2.3.5.1. Land Use Allocations**

**LR-1. Land Tenure Adjustments:** The Approved RMP identifies 39,395 acres as potentially suitable for disposal. Of these, 29,870 acres are potentially available for sale or disposal under any authority, and 9,525 acres are available only through exchange. The lands include scattered parcels as shown in Map 8 and listed in Appendix B, *Lands Available for Sale or Exchange*. Lands found to be potentially suitable for disposal by sale or exchange in this land use plan meet the criteria in Sections 203 and 206 of the FLPMA of 1976, and other laws and regulations.

**LR-2. Utility Corridors:** Utility corridors are designated to meet future expected demands for energy and water transmission facilities. These corridors are shown on Map 9 . These designations conform to the utility regulations of the Arizona Corporation Commission and are consistent with the Approved Resource Management Plan Amendments and Record of Decision for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States (BLM 2009).

Facilities significant enough to be the basis for corridor designation are the following:

- natural gas and other pipelines at least 10 inches in diameter,
- electric transmission facilities accommodating 115 kV lines or greater voltage, and
- significant canals delivering water to urban areas.

The following corridors include areas that currently contain at least one authorized right-of-way for a major utility line.

- Black Canyon
- Mead-Phoenix
- Parker-Liberty
- Palo Verde-Devers
- Palo Verde-Westwing
- Central Arizona Project

**LR-3. Transportation Corridors:** Two currently undeveloped areas are designated as transportation corridors to accommodate a potential route that would bypass Wickenburg (Map 9 ). Any proposal for development would require an analysis of environmental impacts, in accordance with NEPA , to evaluate which of these corridors (or other alternatives) would be more appropriate for meeting future transportation needs. No existing state highway system routes (Interstate, U.S. routes, and Arizona State routes) are designated as transportation corridors as the existing highway system routes, as they pertain to public lands, have been issued right-of-ways, and will remain issued under a right-of-way.

A designated transportation corridor means a designated parcel of land with specific boundaries identified by law, Secretarial Order, the land-use planning process, or other management decision, as being a proposed location for one or more transportation rights-of-way and other compatible facilities. The designated transportation corridor may be suitable to accommodate more than one type of right-of-way use or facility or one or more right-of-way uses or facilities which are similar, identical, or compatible.

Title V, Section 503 of [43 U.S.C. 1763] provides the guidelines in which transportation corridors will be identified and designated. Any existing transportation corridor may be designated as a transportation corridor without further review.

**LR-4. Communication Sites:** Nine areas are designated to accommodate communication sites, shown on Map 9 . These sites include Lone Mountain, Harquahala Mountain, Burnt Mountain, Valencia, Black Canyon City, and four sites in the White Tank Mountains (North, Middle, East, and West).

### **2.3.5.2. Management Actions**

#### **2.3.5.2.1. Land Tenure Adjustment**

**LR-5.** High priority is assigned to acquiring lands that contain habitat recognized by the U.S. Fish and Wildlife Service (USFWS) as needed for the recovery of federally listed threatened or endangered species.

**LR-6.** Evaluate the effects of land adjustments on sensitive species habitat. Avoid land adjustments that could result in a trend toward Federal listing or a loss of population viability for sensitive species.

**LR-7.** Evaluate and balance all resource requirements and consolidate land ownership to achieve management efficiency and reduced costs of administration, thereby improving Federal land management.

**LR-8.** Acquire lands that contain resources determined to be important in contributing toward BLM resource management goals and objectives, when these resources are threatened by land use change or when management may be enhanced by public ownership. Resources so identified may include historical or heritage resources, outstanding scenic values, critical ecosystems, or potential recreation opportunities.

**LR-9.** Acquire land that reduces conflicts between public and private landowner objectives.

**LR-10.** Evaluate the long-term effects of adjustments in jurisdiction near urban and rural communities on community economic and social stability and environmental sustainability. Work with a diverse network of residents, user groups, and governments to determine if land tenure adjustments could enhance both local communities and environmental health.

**LR-11.** BLM does not dispose of land:

- occupied by species that are listed or proposed to be listed as threatened or endangered under the ESA,
- with designated or proposed critical habitat for a listed or proposed threatened or endangered species,
- supporting listed or proposed threatened or endangered species if such transfer would conflict with recovery needs and objectives or would likely impede the recovery of the listed or proposed species, and/or
- supporting Federal candidate species if such action would contribute to the need to list the species as threatened or endangered. Exceptions to the above may occur if the recipient of the lands would protect the species or critical habitat equally well under the ESA, such as disposal to a non-Federal governmental agency or private organization if conservation purposes for the species would still be achieved and ensured.

**LR-12.** Maintain, obtain, and secure access rights to all BLM-administered lands to meet BLM goals and objectives. This action is accomplished by requiring reciprocal grants (where needed) when granting rights-of-way across BLM-administered lands and pursuing land disposal actions.

**LR-13.** Issue right-of-way reservations to BLM on existing designated routes that are needed for implementing the RMP .

**LR-14.** BLM will maintain the existing withdrawals which exclude location, leasing, and sales of minerals, and prohibit all land use authorizations on 20 acres of public land in Lot 21, eastern half of the southwest quarter of Section 6, Township 8N, Range 5W, for the BLM-Wickenburg fire station.

#### **2.3.5.2.2. Utility and Transportation Corridors**

**LR-15.** All major utilities will be routed through designated corridors. Encourage new rights-of-way within designated corridors to promote the maximum use of existing routes. Encourage joint use whenever possible.

**LR-16.** Co-locate smaller utility lines needed for local service near corridors or within a corridor unless doing so would limit the opportunity to co-locate other major utility lines in the corridor.

**LR-17.** Whenever possible, promote energy transfer efficiency and support alternative energy sources, such as the use of photovoltaic cells (solar energy) and wind power.

**LR-18.** Whenever possible, design or route utility transmission lines to minimize adverse visual impacts to the surrounding lands and vistas.

**LR-19.** In the Wickenburg Bypass and Canamex transportation corridors, other uses will be allowed when these uses are compatible, unless doing so would negatively impact the corridors.

#### **2.3.5.2.3. Communication Sites**

**LR-20.** Accept applications for communication sites on a case-by-case basis and in accordance with the resource management prescriptions in this land use plan. BLM planning related to communication infrastructure must, in accordance with the Telecommunications Act of 1996, help facilitate implementing wireless telephone systems, in compliance with existing law, by making Federal lands and facilities available for communication sites.

**LR-21.** Consider communication site applications on lands that have been identified for disposal on a case by case basis. If an application is approved and the lands are subsequently exchanged or sold, reserve the communication site, subject to valid existing rights.

**LR-22.** Retain and make subject to valid existing rights previously designated communication sites. On lands that have been acquired or identified for retention, limit communication site development to previously designated sites. Develop communication site plans for all designated sites.

**LR-23.** Design communication sites following guidelines developed by the USFWS to minimize impacts to migratory birds.

#### **2.3.5.2.4. Land Use Authorizations**

**LR-24.** Continue to issue land use authorizations (rights-of-way, leases, permits, easements) on a case-by-case basis and in accordance with resource management prescriptions in this land use plan.

**LR-25.** Under the Recreation & Public Purposes (R & PP) Act, accept applications from State and local governments and non-profit organizations on a case-by-case basis and in accordance

with resource management prescriptions in this land use plan. Consider and grant applications that are consistent with resource management objectives and beneficial to the public in accordance with provisions of the R & PP Act.

**LR-26.** Prohibit apiary (bee keeping) permits within 1/4 mile of facilities such as the following:

- high-use recreation areas such as campgrounds, trailheads, and staging areas,
- designated non-motorized trails,
- areas or routes with permitted recreation activities, and
- active scientific and research areas.

### **2.3.5.2.5. Public Land Withdrawals and Classifications**

**LR-27.** Consider public land withdrawals and classifications on a case-by-case basis and in accordance with resource management prescriptions in the land use plan. Actions prohibited by the terms of the withdrawal or classification remain in effect until such withdrawals are revoked or classifications terminated.

## **2.3.6. Mineral Resources (MI)**

### **2.3.6.1. Land Use Allocations**

**MI-1.** Open all public lands for mineral and geothermal leasing and exploration except lands with existing segregations or withdrawals, as shown on Map 10 .

**MI-2.** Except for legislatively withdrawn areas and other withdrawn and segregated areas, open all public lands within the planning area to mineral material disposal, on a case-by-case basis. Areas closed to saleable minerals actions are shown on Map 11 .

**MI-3.** All public lands within the planning area are open to locatable mineral activities except for Tule Creek ACEC , legislatively withdrawn areas and other withdrawn and segregated areas, as shown on Map 12 .

### **2.3.6.2. Management Actions**

#### **2.3.6.2.1. Leasable Minerals**

**MI-4.** Open lands re-conveyed to the Federal Government to mineral and geothermal leasing and exploration.

**MI-5.** Develop and implement needed restrictions to protect important resources. In leases include these as stipulations based on interdisciplinary review of individual proposals and environmental analysis.

#### **2.3.6.2.2. Saleable Minerals (Mineral Materials)**

**MI-6.** Open lands that have been re-conveyed to the Federal Government and managed by BLM to mineral material disposal under applicable laws, except on the floodplains of riparian areas.

**MI-7.** Deny mineral material disposal applications if the disposal would result in a net loss of desert tortoise habitat.

### **2.3.6.2.3. Locatable Minerals**

**MI-8.** Withdraw the Tule Creek Areas of Critical Environmental Concern ( ACEC ) from mineral entry.

**MI-9.** Lands that have been re-conveyed to the Federal Government and managed by BLM are open to location under the mining laws, except within riparian areas.

### **2.3.6.2.4. Private Lands**

**MI-10.** If BLM manages the Federal mineral estate but the surface is not in Federal ownership, BLM will manage the lands as public lands under FLPMA.

**MI-11.** Unless it is determined to be detrimental to the public interest, BLM will not normally allow mineral material disposal without the surface owner's consent.

**MI-12.** Where the private surface has been developed for non-mineral use, BLM will limit or forgo mineral materials sales.

**MI-13.** Unless it is determined to be detrimental to the public interest, BLM will not normally manage for solid mineral development without surface owner consent.

## **2.3.7. Paleontological Resources (GL)**

### **2.3.7.1. Desired Future Conditions**

**GL-1.** Paleontological resources are managed for their scientific, educational, and recreational values, and adverse impacts to these resources are mitigated.

**GL-2.** The BLM preserves and protects significant vertebrate paleontological resources for present and future generations. Scientifically significant invertebrates (to be determined by a qualified paleontologist) are also protected.

### **2.3.7.2. Land Use Allocations**

**GL-3.** Areas will be classified according to their potential to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. Paleontological Sensitivity Classes are as follows.

Class 1 (low sensitivity): Igneous and metamorphic geologic units and sedimentary geologic units where vertebrate fossils or uncommon invertebrate fossils are unlikely to occur.

Class 2 (moderate sensitivity): Sedimentary geologic units that are known to contain or have unknown potential to contain fossils that vary in significance, abundance, and predictable occurrence.

Class 3 (moderate sensitivity): Areas where geologic units are known to contain fossils but have little or no risk of human-caused adverse impacts or low risk of natural degradation.

Class 4 (high sensitivity): Areas where geologic units regularly and predictably contain vertebrate fossils or uncommon invertebrate fossils and are at risk of natural degradation or human-caused adverse impacts.

### **2.3.7.3. Management Actions**

**GL-4.** BLM will identify and protect significant fossils and allow for scientific research at paleontological sites, in accordance with permitting procedures.

**GL-5.** Should paleontological resources be discovered, the discovery will be evaluated to determine the geologic unit and the risk of adverse impacts to sensitive resources from human or natural processes. The discovery site will then be classified and managed consistent with the land use allocation classifications described above.

## **2.3.8. Rangeland Management (GM)**

### **2.3.8.1. Desired Future Conditions**

**GM-1.** Rangeland conditions conform to the Land Health Standards described in Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, which describe the desired conditions needed to encourage proper functioning of ecological processes. These standards are described in greater detail in the above section on Land Health Standards.

**GM-2.** Watersheds are in properly functioning condition, including their upland, riparian, and aquatic components. Soil and plant conditions support infiltration, storage, and release of water that are in balance with climate and landform.

**GM-3.** Ecological processes are maintained to support healthy biotic populations and communities.

### **2.3.8.2. Land Use Allocations**

**GM-4.** Administer 93 grazing authorizations within the grazing allotment boundaries shown on Map 13 .

**GM-5.** Public lands without a grazing permit or lease authorization will remain unauthorized for livestock grazing.

### **2.3.8.3. Management Actions**

**GM-6.** Build livestock control fences and alternative water sources where needed to meet natural resource objectives. Fence construction and maintenance will follow guidance provided in BLM's Handbook on Fencing No. 1741-1.

**GM-7.** Retiring livestock grazing from an allotment will be considered when lands are devoted to a public purpose that precludes continued grazing. Allotment boundaries may be adjusted to allow for such use.

**GM-8.** Inventory and/or monitoring studies are used to determine if adjustments to permitted use levels, terms and conditions, and management practices are necessary in order to meet and/or make significant progress towards meeting the Arizona Standards for Rangeland Health and other management objectives.

**GM-9.** Implement grazing management changes as needed to produce riparian areas that are in or making progress toward proper functioning condition.

**GM-10.** Rest-rotation, deferred-rotation, seasonal or short-duration use, other management systems, or no grazing may be implemented where needs are identified through monitoring. Monitoring will be used to assess the effectiveness of changes brought about by the new management practices.

**GM-11.** Range improvements needed for proper management of the grazing program will be determined and completed, including repair and/or installation of fences, cattle guards, water developments, and vehicle routes needed to access improvement areas.

**GM-12.** Vehicular access to repair range improvements by the grazing permittee or lessee is considered administrative access. Use of vehicle routes closed to public use, but limited to administrative uses, will be allowed to maintain or repair range improvements. Off-route vehicle use will require prior authorization unless the needed access is to resolve an immediate risk to human health, safety, or property.

**GM-13.** One-time travel off designated routes to access or retrieve sick or injured livestock would be authorized as an administrative use for transporting the animal to obtain medical help.

**GM-14.** Management practices to achieve DPCs will consider protecting and conserving known cultural resources, including historical sites, prehistoric sites, and plants of significance to Native American people.

**GM-15.** Apply management actions outlined in the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (Land Health Standards) to recognize and correct potential erosion problems that could degrade other resources, with prioritized emphasis on sites that might directly affect species that have been listed as threatened, endangered, or candidate by the USFWS.

**GM-16.** Implement ephemeral range designation, where suitable, for managing vegetation and ecological processes as determined through the Arizona Land Health Standards (Land Health Standards) allotment evaluation process.

BLM may designate those areas for ephemeral grazing by applying criteria established in the Special Ephemeral Rule. In applying the rule, all the following criteria must be met at the same time:

- The area is within the hot desert biome.
- Annual precipitation is less than 8 inches.
- The land produces less than 25 pounds/acres of desirable perennial forage.
- The land contains less than five percent composition of desirable perennial forage plants.
- The area is below 3,500 feet in elevation.



- Total forage production is highly unpredictable, and forage is usually available only for a short time.
- The growth depends upon abundant moisture and other favorable climatic conditions.
- The area lacks potential to improve the current ecological conditions and produce a dependable supply of forage by applying intensive rangeland management.

#### **2.3.8.4. Arizona Standards for Rangeland Health - Guidelines for Grazing Administration**

The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration are a series of management practices used to ensure that grazing meets the standards for rangeland health, which are referred to in this plan as Land Health Standards. The following guidelines apply to all areas where grazing occurs. Refer to the Land Health Standards for descriptions of the standards.

##### **2.3.8.4.1. Guidelines for Standard One**

**GM-17.** Management activities will maintain or promote ground cover that will provide for infiltration, permeability, soil moisture storage, and soil stability appropriate for the ecological sites. The ground cover should maintain soil organisms, plants, and animals to support the hydrologic and nutrient cycles and energy flow. Ground cover and signs of erosion are surrogate measures for hydrologic and nutrient cycles, and energy flow.

**GM-18.** When grazing practices alone are not likely to restore areas of low infiltration or permeability, land management treatments may be designed and implemented to attain improvement.

##### **2.3.8.4.2. Guidelines for Standard Two**

**GM-19.** Management practices maintain or promote sufficient vegetation to maintain, improve or restore riparian-wetland functions of energy dissipation, sediment capture, groundwater recharge, and stream bank stability, thus promoting stream channel morphology (e.g. gradient, width/depth ratio, channel roughness, and sinuosity), and functions suitable to climate and landform.

**GM-20.** New facilities are located away from riparian-wetland areas if they conflict with achieving or maintaining riparian-wetland function. Existing facilities are used in a way that does not conflict with riparian-wetland functions or are relocated or modified when incompatible with these functions.

**GM-21.** The development of springs, seeps, or other projects affecting water, and associated resources will be designed to protect ecological functions and processes.

**GM-22.** Exceptions to Standard 1 and 2 of the Arizona Standards for Rangeland Health may occur on ecological sites or stream reaches where a change in existing vegetation is physically, biologically, or economically impractical.

### 2.3.8.4.3. Guidelines for Standard Three

**GM-23.** The use and perpetuation of native species will be emphasized. When restoring or rehabilitating disturbed or degraded rangelands, nonintrusive, non-native plant species are suitable for use where native species (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

**GM-24.** Intensity, season and frequency of use, and distribution of grazing use will be managed to provide for growth and reproduction of plant species needed to reach DPC (Desired Plant Community) objectives.

**GM-25.** Grazing on designated ephemeral (annual and perennial) rangeland may be authorized if the following conditions are met:

- Ephemeral vegetation is present in draws, washes, and under shrubs, and has grown to usable levels at the time grazing begins; as well as sufficient surface and subsurface soil moisture exists for continued plant growth.
- Serviceable waters can provide for proper grazing distribution.
- Sufficient annual vegetation will remain on site to satisfy other resource concerns (e.g. watershed, wildlife, wild horses, and burros).
- Monitoring is conducted during grazing to determine if objectives are being met.

**GM-26.** Grazing management practices will target populations of noxious weeds that can be controlled or eliminated by approved methods.

**GM-27.** DPC objectives will be quantified for each allotment through the rangeland monitoring and evaluation process. Ecological site descriptions available through the Natural Resources Conservation Service and other data will be used as a guide for addressing site capabilities and potentials for change over time. These DPC objectives are vegetation values that BLM is managing over the long term. Once established, DPC objectives will be updated and monitored by the use of indicators for Land Health Standard Three.

## 2.3.9. Recreation Management (RR)

### 2.3.9.1. Desired Future Conditions

**RR-1.** Desired Future Conditions conform to the benefits-based opportunities and outcomes identified for each recreation management zone. These zone-specific recreation settings, with associated activities and desired outcomes (experiences and benefits), are described in detail in the Proposed RMP /FEIS in Appendix S, Benefits-Based Recreation. Also included are prescriptions for facilitating the attainment of beneficial outcomes and an activity planning framework that addresses management, marketing, and monitoring actions needed to achieve management objectives and setting prescriptions.

**RR-2.** Designated Wilderness areas are managed for primitive settings to preserve their outstanding opportunities for solitude, primitive and unconfined recreation, and naturalness.

### 2.3.9.2. Land Use Allocations

**RR-3.** Three types of allocations apply to recreation management in the Bradshaw-Harquahala area. General descriptions of these allocations are given below. Area-specific Land Use Allocations, Desired Future Conditions, and Management Actions are described in the Recreation Management section for each Management Unit, as well as in Appendix S of the Proposed RMP /FEIS.

- Special Recreation Management Area (SRMA): an area of intensive recreation use that is managed to retain recreation opportunities, while protecting other resources and reducing user conflicts.
- Recreation Management Zone ( RMZ ): a planned and delineated area with designated recreation opportunities, settings, and activities
- Extensive Recreation Management Area (ERMA): a general allocation that applies to all public lands not otherwise allocated to an SRMA or an RMZ .

**RR-4.** The designated Wilderness areas are allocated as Special Recreation Management Areas. These areas are shown on Map 1 and include:

- Harquahala Mountains Wilderness,
- Hummingbird Springs Wilderness,
- Big Horn Mountains Wilderness,
- Hassayampa River Wilderness, and
- Hells Canyon Wilderness.

### 2.3.9.3. Management Actions

The following management actions apply to all public lands in the Bradshaw-Harquahala area, unless superseded by management actions specific to Recreation Management Zones or other land use allocations.

Visual resource management and travel management are closely related to recreation management. Relevant management actions for specific areas are included in the Visual Resource Management and Travel Management sections for each Management Unit.

#### 2.3.9.3.1. General Recreation Management

**RR-5.** All proposed actions will conform to the managerial and social settings described for each recreation allocation.

**RR-6.** Dispersed camping is permitted on all planning area lands unless otherwise specifically designated as closed or restricted for resource protection or public safety purposes.

**RR-7.** The current 14-day length of stay camping limit will continue to be policy for all public lands, unless otherwise specifically designated or modified by management actions in this plan. The 14-day limit may be reached by continuously occupying one site or by occupying more than one site within a 25-mile radius within a 90-day period. Following the 14-day period, the party may not relocate to a campsite within a distance of 25 miles that was previously occupied, nor may they return to any sites previously occupied. After 14 days, the party may also choose to move to a designated camping area or move off public land. Extensions beyond the 14-day length

of stay may be permitted on a case-by-case basis where needed for resource protection and land use management provisions.

**RR-8.** Designated camping locations and camping length of stay limits (long- and short-term) will be developed as needed for the following purposes:

- protecting resources,
- ensuring visitor safety,
- resolving social conflicts,
- improving recreation experiences, and
- increasing recreation opportunities.

**RR-9.** All campsite construction or designation will be compatible with social and managerial recreation settings and VRM objectives. Communities, user groups, or agency staff can bring camping site proposals forward for management consideration.

**RR-10.** Self-contained or vehicle-based camping is permitted within 100 feet of the centerline of designated routes. Visitors camping and parking along roads and routes will be strongly encouraged through visitor information, education and signing to select and use camp and parking sites with clear evidence of prior use. Such evidence is indicated or evidenced by vehicle access to the site, lack of vegetation, bare mineral soils and other dispersed campsite amenities such as fire rings.

**RR-11.** Campsites will be designated and developed at mining sites and prospecting areas when needed for resource protection due to trail proliferation, loss of soil and vegetation cover, public health and safety concerns, or user conflicts.

**RR-12.** Any trailhead or staging area may be closed to overnight camping upon written authorization of the authorized officer.

**RR-13.** It is unlawful for a person to camp within 1/4 mile of a natural water hole containing water or man-made watering facility containing water in such a place that wildlife or domestic stock will be denied access to the only reasonably available water (Arizona Revised Statute 17-308, Unlawful Camping).

**RR-14.** Existing vehicle parking and camping sites must be large enough to accommodate the group size without increasing the footprint of the disturbance area. Large group activities and events with 75 or more people require a special recreation permit unless otherwise specified in special management areas or designated sites where carrying capacities are established in subsequent implementation level plans, or when special management and monitoring are determined to be needed.

**RR-15.** Equestrian use will be monitored and managed to meet Arizona Land Health Standards.

**RR-16.** Encourage the use of weed-free animal feed to prevent introducing noxious, invasive weeds.

**RR-17.** The placement of geocaches is prohibited in archaeological and raptor nesting sites. Virtual caches may be allowed within archaeological sites with prior written authorization from the authorized officer.

**RR-18.** Other sites (in addition to archaeological and raptor nesting sites) may be closed to geocaching activities, if it is determined that the placement of caches would create unacceptable resource impacts, conflicts with other users, or health and safety concerns.

**RR-19.** Paintball activities are not permitted in designated wilderness areas and Areas of Critical Environmental Concern. Such activities are allowed elsewhere in the planning area, if suitable to other resource management objectives and special management allocations. The following stipulations apply:

- Require nontoxic, biodegradable, and water soluble paintball capsules.
- Allow temporary obstacles or structures to be used but require that they be removed at the end of the visit to the public lands. Allow no mechanized or motorized cross-country travel to set up or remove structures. Authorize no permanent structures.
- Require goggles and masks protecting the ears, face, and throat.
- Prohibit shooting paintballs at wildlife and saguaro cacti. Prohibit the use of natural features, such as boulders and vegetation, as paintball targets.
- Require participants to pick up and remove from the area all items related to paintball activities, including capsules and any other trash.
- Require SRPs for paintball activities with more than 15 participants, unless otherwise specified in special management areas.
- Prohibit paintball activities within 1/4 mile of:
  - high-use recreation areas such as campgrounds, trailheads, and staging areas
  - designated non-motorized trails
  - areas with permitted recreation activities
  - active scientific and research areas

**RR-20.** Allow the collecting of rocks, minerals, semi-precious gemstones, invertebrate fossils, and petrified wood in reasonable amounts. Reasonable limits for personal use are defined as up to 25 pounds per day, plus one piece, with a total of 250 pounds per person per year.

**RR-21.** Recreation management facilities will be planned, installed, and maintained where needed for:

- protecting resources,
- providing for visitor safety,
- resolving social conflicts,
- improving the quality of recreation experiences, and/or
- increasing recreation opportunities.

Such facilities may include water sources, toilets, scenic turnouts, interpretive signs and trails, kiosks, signs, parking areas, staging areas, and trailheads. Installed facilities must be compatible with recreation management objectives and desired settings and VRM standards. Communities, user groups, or agency staff can bring facility proposals forward for management attention.

**RR-22.** To the greatest extent possible, all new construction and modifications for recreation facilities, outdoor developed areas, and any related programs and activities will be accessible to people with disabilities in accordance with the Architectural Barriers Act of 1968 and Section 504 of the Rehabilitation Act of 1973, with later amendments. Guidance, requirements and standards for conforming to the above legislation may be found in the following:

- Uniform Federal Accessibility Standards.

- Americans with Disabilities Act Accessibility Guidelines, and the ADA -ABA Accessibility Guidelines (use whichever guidance is most stringent).
- Proposed Outdoor Developed Areas Guidelines (U.S. Access Board found at [www.access-board.gov](http://www.access-board.gov) and 43 CFR Part 17, Subpart E found at <http://www.gpoaccess.gov/cfr/index.html>).

**RR-23.** The current authority for collection of recreation user fees does not allow for collection of such fees within the Bradshaw-Harquahala area. Under the Federal Lands Recreation Enhancement Act of 2004, P.L.108-447, fees may be charged at a site that has:

- clearly defined access points and area boundaries,
- substantial expenditure in operations and maintenance costs,
- significant investment in facilities (including roads and trails), and
- contains all of the following amenities:
  - a designated and developed parking area
  - permanent toilet
  - permanent trash receptacle
  - kiosks
  - picnic tables
  - security services commensurate with use levels

Should the above criteria be met at facilities developed in the future, a study will be initiated to determine the need and feasibility of charging a recreation use fee.

### **2.3.9.3.2. Recreational Target Shooting**

**RR-24.** Recreational target shooting activities are permitted on public lands in the Bradshaw-Harquahala area and are governed by state law. Shooting is subject to legal restrictions that apply to areas near and including roads, occupied structures, developed recreational facilities, and other zones where shooting would jeopardize public safety. The BLM may further restrict shooting activities where it is demonstrated that public safety and significant resource concerns exist.

**RR-25.** BLM will work with the public, organizations, and law enforcement to promote safe shooting practices that limit user conflicts and damage to natural and cultural resources. The following discussion describes criteria for the selection of safe and considerate shooting sites.

It is the ultimate responsibility of the recreational target shooter to ensure the projectiles they fire are contained within the shooting site they select. While shooting is allowed in most public land areas, the shooter should make no concession concerning safety. Consideration of other people using public lands is not only considerate, Arizona Revised Statutes Title 13-1201 says:

- A. A person commits endangerment by recklessly endangering another person with a substantial risk of imminent death or physical injury.
- B. Endangerment involving a substantial risk of imminent death is a class six felony. In all other cases, it is a class one misdemeanor.

General considerations for selecting a suitable shooting site include the following:

- Make sure you have a safe backstop. That means you can see where the bullets are hitting behind the target. A hill or pushed-up berm of dirt is perfect. Remember that bullets can ricochet off flat surfaces—that includes rocks, dirt and water. Put your targets right in front of the backstop to ensure your bullets stop in the dirt.

- Select a site that doesn't put others at risk. Do not shoot towards or across areas where other people congregate such as hiking trails, vehicle parking and staging areas, and trail heads. It is a violation of Arizona State law (A.R.S. 17-301B) to shoot across a maintained road. Though this law only pertains to maintained roads, there are many routes in the desert that are used by motorcycles, quads, and four-wheel drive vehicles that are not as apparent as a maintained road. Shooting in the direction, or across them, though not a violation of the reference law, could be just as dangerous to people using them. Choose a site that avoids shooting across or towards motorcycle, quad, or four-wheel-drive routes as well.
- In addition to motorized routes, there are many popular hiking, bicycling, and equestrian trails. Select a site that doesn't cross or shoot in the direction of a trail that could put people at risk.
- Selection of a safe shooting site would include staying more than ¼ mile from any residence or occupied structure. When selecting a site, assume any structure is occupied. It is a violation of Arizona State Law to knowingly discharge a firearm at a structure. The statute (A.R.S. 13-1211A and B) says:

- A. A person who knowingly discharges a firearm at a residential structure is guilty of a class two felony.
- B. A person who knowingly discharges a firearm at a nonresidential structure is guilty of a class three felony.

- Selection of a site should include avoiding such improvements as wildlife or livestock water facilities, livestock control facilities such as corrals and fences, signs or kiosks installed to provide information, barns or other rural developments, or any other improvement that was not specifically designed to be shot at.
- It is a violation of Arizona State law (A.R.S. 13-1603A 1) if a person "Throws, places, drops or permits to be dropped on public property or property of another which is not a lawful dump any litter, destructive or injurious material which he does not immediately remove." This includes not only trash, but also brass or shells (including shotgun shells) from spent ammunition, and items used as targets. Shooters are required to remove any targets, items on which targets are mounted, and brass from spent ammunition. BLM Phoenix District policy is to only use targets that do not produce litter, and to remove them when you are finished shooting.
- Under the Code of Federal Regulations (43 CFR 8365.2-5(a)) no person shall "Discharge or use firearms..." on a developed recreation site. (43 CFR 8360.0-5(c) defines "Developed Recreation Sites and Areas" as "...sites and areas that contain structures or capital improvements primarily used by the public for recreation purposes. Such sites or areas may include such features as: delineated spaces for parking, camping or boat launching; sanitary facilities; potable water; grills or fire rings; or controlled access."

Selecting sites with side berms and backstops is optional where the shooter can be assured of safe shooting 1.5 miles downrange for pistol or 3.5 miles downrange for high powered rifles, with appropriate left and right ricochet safety zones. With the popularity of public lands for recreation and other uses, this scenario is the exception rather than the rule. Therefore, the primary purpose for selection of backstops and side berms is to protect against the injury of people, the damage of property or both.

The type of firearms being fired and the shooting activity being conducted will dictate the extent of the backstops, side berms and safety fans required to achieve that goal.

A downrange safety fan is an area beyond the backstop and side berms that is free of people or property that can be injured or damaged by errant bullets. It is important to remember that, depending on the suitability of the backstop and side berms, a safety fan downrange will be required to assure a safe shooting area. Below are ideal specifications for both backstops and side berms. Sites with less than ideal backstops and side berms must have increasingly longer downrange safety fans, approaching the distances described above of 1.5 miles for pistols and 3.5 miles for high power rifles. Even with an ideal backstop and side berms, site selection should still consider downrange safety and a downrange safety fan.

- The characteristics of safe backstops and berms recognized as needed for safe shooting practices are as follows:
  - Height. Preferred backstops include naturally occurring hills or mountainsides, or steep-sided wash banks. Backstops of soft dirt are preferred over hard surfaces, and rocky slopes should be avoided as they create a high ricochet hazard. A minimum height of 15 feet is acceptable but 20 to 25 feet is recommended. Remember that bullet ricochet can happen even on the best backstop. Site selection should consider ricochet possibilities and backstops that exceed 20 to 25 feet should be chosen where possible to reduce ricochet away from the shooting area.
  - Width/Length. The width of the backstop should be at least as wide as it is high. Targets should be placed directly in front of or on the backstop with sufficient backstop on either side to catch bullets. Ideally, side berms should be the same height and the full length of the shooting area from the backstop to even with the firing line.
  - Slope. The range side slope (side facing the shooter) must be as steep as possible, but not less than a 45-degree slope (a ratio of one-to-one). Side berm slopes should have the same dimensions.

The bottom line is to select a shooting site in harmony with adjacent properties and other public land users. The site should prevent adjacent properties and other public land users from experiencing any risk from the shooting activities. The overall responsibility of the shooter is to stop fired bullets before they exit the selected shooting area. It is the intention of the BLM to provide a safe and pleasant experience for any public land user. If shooting areas emerge that are contrary to the above criteria they will be clearly construed as putting other public land users at risk and they may be closed to shooting by the authorized officer, either temporarily or permanently.

### **2.3.9.3.3. Leases and Land Use Permits**

**RR-26.** Recreation concession leases, long-term authorizations for the use of public lands, are authorized under 43 CFR 2920. BLM will evaluate concession leases on a case-by-case basis to determine if they conform to land use plans, activity plans, and resource management objectives for managerial and social settings, VRM objectives, and other special use area prescriptions. A strong public demand must also be demonstrated for the proposed products or services to be considered. Leases will be awarded on a competitive bid basis and evaluated by the following traits of the concessionaire:

- experience,
- ability to provide quality services,
- financial stability and integrity, and
- past or present performance and financial offer.



**RR-27.** Permits for commercial filming or still photography, in accordance with Public Law 106-206, will be issued under the SRP guidelines when associated with permitted recreation activities. The fee schedule is outlined in 43 CFR 2920 on commercial filming regulations. Proposals are evaluated on a case-by-case basis to determine if they conform to land use plans, activity plans, and resource management objectives. Proposed activities would need to conform to the managerial and social settings as described in the document such as recreation settings, VRM objectives, and other special use area prescriptions. Land Use Permits for non-recreation related commercial filming will be authorized in conformance with 43 CFR 2920 guidelines.

**RR-28.** Apiary (bee keeping) permits will be prohibited within 1/4 mile of the following:

- high-use recreation areas such as campgrounds, trailheads, and staging areas,
- designated non-motorized trails,
- areas or routes with permitted recreation activities, and
- active scientific and research areas.

#### **2.3.9.3.4. Special Recreation Permits (SRPs)**

**RR-29.** This plan does not establish specific limits on the numbers of permits or events. However, permit and/or event limits may be established if monitoring of resources, users, or social conflicts indicates a need to establish such limits to protect resources, enhance safety, or reduce conflicts.

**RR-30.** SRP s are authorized on a case-by-case basis for all recreation activities meeting the requirements in 43 CFR 2930 and applicable manuals, policies, and guidance. SRP s are required for all commercial or competitive use recreation activities. SRP s may also be required for the following:

- noncommercial, noncompetitive organized group activities and events,
- vending operations,
- individual noncommercial recreation use in Special Area Designations, and/or
- academic, educational, scientific or research uses.

The criteria for when permits are required for these uses may be found in BLM Manual H-2930-1, Recreation Permit Administration Manual and Handbook. Definitions of the types of uses may be found in the Glossary.

**RR-31.** Issuance of SRP s is at BLM's discretion. BLM will evaluate permit applications on the basis of applicable laws and regulations and conformance with the RMP , including consistency with recreation and other resource objectives. The decision to authorize a proposed use will depend on the following:

- potential resource impacts,
- conflicts with other users,
- health and safety concerns,
- past or present performance with BLM or other agencies, and
- BLM's ability to timely process the application and effectively administer the permit.

**RR-32.** Authorized permits will ensure compliance with Federal, State, county, and local air quality and noise regulations.

**RR-33.** Permits are authorized based on the inclusion and compliance of standard and activity specific stipulations regarding the proposed activities. These stipulations for SRP s have been developed to protect natural resources, reduce user conflicts, and minimize health and safety risks. The stipulations must be adhered to keep the permit in good standing. Failure to comply with the stipulations can result in loss of permit privileges and/or lead to penalties prescribed in 43 CFR 2933.33.

**RR-34.** SRP s may be issued for vending operations at a recreation site, or in conjunction with a permitted activity or event. The SRP for the activity or event may include vending operations if the operations are directly related to the permitted activity or event, and the permittee is responsible for the vending operations. If the permittee is not responsible for the vending operations, a separate SRP for the vending will be required. Vending may be considered at recreation sites if the service or goods for sale:

- directly enhances the recreation experience and
- cannot be readily provided by the closest local community.

**RR-35.** Permanent structures are not authorized under a vending permit.

**RR-36.** All motorized competitive races must comply with stipulations to protect desert tortoise.

**RR-37.** Motorized competitive speed races are authorized only in SRMAs or RMZ s where an allocation for such use has been made.

### **2.3.9.3.5. Adaptive Management**

**RR-38.** Implement a process of adaptive management to identify and address resource impacts and social conflicts associated with anticipated increases in intensive use from motorized and non-motorized recreation. Implement adaptive management to achieve Land Health Standards.

Within two years of plan approval, BLM will form a collaborative partnership with universities, external agencies, and interested communities and citizens to list and prioritize areas of concern. The effort will then focus on developing a Limits of Acceptable Change (LAC) framework to determine suitable and acceptable use levels for recreation uses, considering natural resource, socio-political, and managerial factors. This process consists of four major components:

1. specifying acceptable and achievable resource and social conditions, defined by a series of measurable indicators,
2. analyzing the relationship between existing conditions and those judged acceptable,
3. selecting management actions to best achieve these desired conditions, and
4. implementing a monitoring and evaluation process to determine if management goals and objectives are being met. Monitoring strategies may include measurements, rapid site assessments, photography, or other suitable techniques.

During this process, inventories, surveys, and studies of existing resource and social conditions will be conducted to obtain and establish baseline data from which standards can be set and measured. Indicators would include both resource and social impacts such as the following:

- campsite proliferation or expansion,
- social trailing,
- soil compaction and erosion, and
- the number of social encounters.

**RR-39.** Management actions for adaptive management may include the following:

- providing public information and education,
- setting use and party-size limits,
- increasing visitor contacts and enforcement, and
- closing areas seasonally or shifting use to other areas.

**RR-40.** Thresholds may be adjusted as needed to ensure resource protection, manage recreation use, minimize user conflicts, or react to new information or research, if warranted, due to changing circumstances or changes in management objectives.

### **2.3.9.3.6. Recreation Opportunity Spectrum**

**RR-41.** Maintain recreation settings identified through inventory as shown on the Recreation Opportunity Spectrum on Map 14 , except where otherwise stipulated in prescriptions of other allocations.

## **2.3.10. Soil, Air, and Water Resources (WS)**

### **2.3.10.1. Desired Future Conditions**

**WS-1.** Management practices maintain, restore, or enhance water quality in conformance with State and Federal standards.

**WS-2.** Management practices maintain, restore, or enhance air quality in conformance with State and Federal standards.

**WS-3.** Implementing the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (Land Health Standards) meets the requirement for soils to support proper functioning of hydrologic, energy, and nutrient cycles.

### **2.3.10.2. Management Actions**

**WS-4.** Identify, quantify, and secure legal entitlement to all existing water sources on the public lands and seek to acquire water rights, when possible, to ensure water availability to meet multiple-resource needs.

**WS-5.** Assert Federal reserved water rights, where applicable, in designated wilderness areas to secure water for the purposes of the reservations.

**WS-6.** Water quality in streams and springs will be monitored and protected to meet Federal and State standards and to ensure that the needs of fish and wildlife are met along with the needs of people.

**WS-7.** Catchment systems, spring developments, and other projects affecting water resources will be designed to protect ecological functions and processes and to continue to provide habitat at the source for endemic invertebrates, native fishes, and other native aquatic species that may be present.

**WS-8.** Ensure that all land tenure decisions are reviewed for their impacts to water resources, including protection of instream flows.

## **2.3.11. Special Designations (WM)**

### **2.3.11.1. Designated Wilderness Areas**

#### **2.3.11.1.1. Desired Future Conditions**

**WM-1.** The five designated Wildernesses in the Bradshaw-Harquahala area retain the qualities for which they were designated by Congress. They remain undisturbed and offer a respite with opportunities for enjoyment of solitude and natural landscapes through non-motorized, non-mechanized access.

#### **2.3.11.1.2. Land Use Allocations**

**WM-2.** The Hassayampa River Canyon, Hells Canyon, Harquahala Mountains, Big Horn Mountains and Hummingbird Springs Wildernesses remain closed to motorized and mechanized uses (total of 96,820 acres).

#### **2.3.11.1.3. Management Actions**

**WM-3.** Exceptions to the prohibition on motorized and mechanized uses may be allowed for such wildlife management activities as approved by the Field Manager, and when such motorized and mechanized equipment is determined to be the minimum tool needed to do the job. Such activities will be evaluated on a case-by-case basis as the need arises in the Big Horn Mountains, Hummingbird Springs, and Harquahala Mountains wilderness areas. Existing wilderness management plans will guide wildlife management and other activities within Hells Canyon and Hassayampa River Canyon wilderness areas.

**WM-4.** In the absence of group size limitations in existing wilderness or activity plans, group size for casual use activities will be limited to 25 people. BLM will evaluate requests for groups of more than 25 people on a case-by-case basis to ensure that resources and wilderness values are protected. Groups exceeding 25 people will require prior written authorization from the authorized officer. A Special Recreation Permit will be required for groups over 50 people.

**WM-5.** Commercial recreation and vending operations are not allowed in the Harquahala Mountains, Hummingbird Springs, and Big Horn Mountains wilderness areas, (including, but not limited to, such activities as guided horse rides or guided hikes) except for guided hunt and outfitter services. Organized non-commercial activities will be allowed on a case-by-case basis when consistent with wilderness management objectives.

**WM-6.** Commercial recreation operations may be allowed in the Hassayampa River Canyon and Hells Canyon wilderness areas when such activities conform to wilderness management plans, resource protection, and wilderness management objectives, and may be performed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.

**WM-7.** Develop and adopt measurement standards for limits of acceptable change for trail conditions, visitor-to-visitor encounters, vegetation changes, Arizona Land Health Standards, and approved motorized/mechanized activities. Exceeding the limits of acceptable change could result in implementing actions such as the following:

- developing and distributing Leave-No-Trace or other educational information,
- initiating a permit system,
- closing damaged areas or trails to camping to allow natural restoration,
- realigning trails,
- reclaiming damaged areas,
- installing alternative access points,
- monitoring or removing non-native or invasive plants or animals, and
- mitigating the evidence (sights and sounds) of any authorized mechanized/mechanical uses.

## **2.3.12. Travel Management (TM)**

### **2.3.12.1. Desired Future Conditions**

**TM-1.** Designate, implement, and monitor a comprehensive travel management network affording a range of high-quality and diverse motorized and non-motorized recreation opportunities. The network consists of a system of roads, primitive roads, and trails. The travel management network and associated recreation opportunities are consistent with other resource management objectives and recreation settings within the Bradshaw-Harquahala area.

**TM-2.** Motorized routes connect neighboring communities, local jurisdictions, and lands administered by county, State, and Federal agencies to allow for multiple-day OHV experiences.

**TM-3.** A regional network of motorized routes exists for long-distance OHV back country touring. Looping, regional routes connect the Black Canyon, Bradshaw Foothills, Wickenburg/Vulture, and Harquahala-Big Horn areas, and continue north to the Wagoner and Skull Valley areas to connect to Prescott National Forest and the Great Western Trail. Economic development of local communities is synergistic with providing outstanding opportunities for motorized recreation.

**TM-4.** Designated, managed sites exist for specialized vehicle use, considering the unique natural terrain required for such activities. Certain types of motorized activities, such as rock crawling and motorcycle observed trails, require extreme terrain features and are not conducive to general use by traditional stock 4-WD vehicles. These sites will not be evaluated and established as designated motorized routes. However, access to these sites will be evaluated during the process of route designation.

**TM-5.** Local and regional networks of designated non-motorized trails exist for short and long-distance travel by foot, horseback, and human-powered conveyances (e.g. mountain bikes). These trails connect communities and Sonoran Desert landscapes and are consistent with the State of Arizona trails plan. Networks of non-motorized trails provide recreation opportunities that support tourism and economic development of communities.

### **2.3.12.2. Land Use Allocations**

**TM-6.** All public lands, with the exception of Congressionally designated wilderness areas, are allocated as limited use areas, with motorized and mechanized vehicle uses limited to designated routes. Until routes are formally designated, motorized vehicle access is limited to vehicle routes on the current BLM route inventory (Map 15a , Map 15b , Maps 15c , Map 15d and Map 15e ).

Areas limited to designated routes: 799,280 acres.

**TM-7.** The Hassayampa River Canyon, Hells Canyon, Harquahala Mountains, Big Horn Mountains and Hummingbird Springs Wildernesses remain closed to motorized and mechanized travel (Map 1 ). This Travel Management allocation is equivalent to WM-2 [62].

Closed to motorized and mechanized travel: 96,820 acres

### **2.3.12.3. Management Actions**

#### **2.3.12.3.1. Motorized and Mechanized Travel and Public Access**

**TM-8.** All motorized and mechanized travel is limited to existing roads and trails, according to the current BLM inventory of routes, until final route designations are made. Where inventories are not complete, use is limited to existing routes. Inventoried routes may be updated with new information from BLM, citizens, or partners. Livestock and game trails are not considered existing routes or trails.

**TM-9.** Cross-country travel is prohibited away from existing, inventoried routes. This prohibition will continue after routes are formally designated. The following exceptions apply in both cases:

- public health, safety, and law enforcement emergencies;
- administrative uses;
- BLM-authorized tasks approved by the authorized officer.

**TM-10.** Vehicle access on designated routes may be temporarily closed when weather creates muddy conditions. When conditions are such that travel by vehicle cannot be accomplished without damaging the existing roadway or departing the roadway and traveling cross-country, the route is closed until the roadway can once again support a vehicle without damage.

**TM-11.** Administrative and other authorized uses will be approved on a case-by-case basis.

**TM-12.** Temporary access and use restrictions may be enacted when needed to protect resources or public health and safety.

**TM-13.** Motorized vehicles may not be used off designated vehicle routes to retrieve game. The cross-country use of wheeled game carriers is permitted, except in wilderness areas. Permittees, including livestock operators, may not use motorized vehicles off designated routes without express permission from the Field Manager.

**TM-14.** Where a motorized or mechanized route creates a conflict between route users and natural or cultural resources; or an OHV or special vehicle use conflicts with recreation management objectives, the following or other mitigation could be applied:

- closing routes;
- limiting season of use and vehicle types, speeds, and noise;
- rerouting offending route segments; or
- modifying routes to reduce or eliminate conflicts.

**TM-15.** Single or multiple-use OHV and technical vehicle loops and routes, specialized sport sites, mountain bike trails, and management strategies will be designed and developed through interdisciplinary plans, with community and user input. Routes and areas will be developed to address the following considerations:

- protecting resources,

- ensuring visitor safety,
- satisfying local community needs, and
- improving recreation experiences or increasing recreation opportunities, such as for rock crawling and motorcycle trials.

**TM-16.** All route construction for motorized and mechanized vehicles will be compatible with social and managerial recreation settings and VRM standards. Communities, user groups, or agency staff can bring motorized vehicle route proposals forward for management attention.

**TM-17.** General long-distance travel corridors will be designated to establish motorized touring routes for general and OHV use. Existing routes will be selected and designated for inclusion into a regional route network. The designation of touring routes and motorized trail systems will be addressed through activity (implementation) planning.

**TM-18.** Loop route opportunities will be recognized and spur trails connected to augment the existing route network where no resource conflicts preclude the actions.

**TM-19.** Easements or rights-of-way across key private and State-administered lands will be acquired to ensure long-term network viability and public access. Easements or rights-of-way actions will be undertaken when:

- route system effectiveness is or would be adversely effected by outside actions;
- opportunity becomes available and the action is consistent with recreation settings and goals;
- recreation and resource disciplines need public and/or administrative access to sites;
- portal access is desired to support resource objectives of safety and sustainability.

**TM-20.** Actions will be taken to monitor and reduce impacts to air quality from vehicle use to comply with EPA, Maricopa County, and other applicable standards. Routes in PM<sub>10</sub> non-attainment areas and routes with fugitive dust issues will be part of an ongoing monitoring program. Proposed mitigation actions (closure, seasonal restrictions, speed limits, change in use, surfacing, surface and dust abatement treatments) will be addressed and implemented as part of the adaptive management for Travel and Transportation Management. Routes causing or contribution to unacceptable or noncompliant air quality impacts will be closed to travel until route conditions change or are corrected.

**TM-21.** Technical vehicle sites will be evaluated and established on a case-by-case basis. Sites may be established if they result in no net loss of quality or quantity of sensitive resources such as archaeological sites, wildlife habitat for priority species, sensitive soil resources, and other resources sensitive to motorized activities.

**TM-22.** Limitations to assure the safe and intended use of technical vehicle sites will be established as necessary. BLM, working with user groups and enthusiasts, will define the limitations in order to provide and maintain challenging opportunities for specialized sport activities. In accordance with BLM Instruction Memorandum 2005-007, difficulty ratings will not be published. Motorized users will be informed of the required equipment and skills necessary to utilize these sites through signing, information sheets, and outreach programs.

**TM-23.** Limits of acceptable change indicators and standards will be developed in site-specific planning to reduce user and resource conflicts.

**TM-24.** The use of aircraft, motorized and non-motorized, must conform to Federal Aviation Administration (FAA) standards including the use of backcountry landing strips. No backcountry

airstrips are designated for public use on BLM-managed land within the planning area. Use of public lands for launching or landing aircraft other than airplanes (balloons, hang gliders, etc.) may be permitted on a case-by-case basis through the appropriate permit process.

### **2.3.12.3.2. Travel Management Plans**

**TM-25.** Develop Travel Management Plans for specific travel management areas to accomplish all final route designations within five years of completion of the Approved RMP . In general, Travel Management Area boundaries will correspond to the boundaries of Management Units, Special Recreation Management Areas, or Recreation Management Zones.

**TM-26.** Employ a structured route evaluation process, supported by standardized documentation and compatible software with GIS functionality. Public and agency input will be a critical and important component of the evaluation and designation process. Route designations will apply to all motorized vehicles and mechanized equipment designed to provide a mechanical advantage and intended for human conveyance, including automobiles, trucks, ATVs, motorcycles, mountain bikes, and other conveyances with one, two, three, four, or more wheels or tracks.

**TM-27.** New routes may be added to the designated route network to address changing conditions and demands. The process for adding new routes to the designated route network, motorized or non-motorized, will include a structured analysis approach. All proposed additions will be processed as follows:

1. Route locations will be mapped or located using accepted Global Positioning System devices and presented to the BLM office for consideration. Locations for route proposals off of designated motorized routes must be located and mapped using non-motorized methods.
2. The route proposal submitted to BLM will include a description of the route including its proposed width, its proposed use(s), and a rationale for its need.
3. The route location will be staked and flagged for on-the-ground review by resource specialists.
4. The route location will be analyzed for potential conflicts such as, (but not limited to): wildlife habitats, cultural resources, visual resources, other recreation uses, mining claims or leases, grazing facilities, rights-of-way, and proximity to other jurisdictions (such as private land.) A structured process will be used to evaluate and document the potential route conditions.
5. The conflict assessment may lead to development of mitigation actions or alternative locations or design.
6. An environmental analysis (EA) would be conducted to determine the environmental effects of the proposed route and any alternatives and recommended mitigation.
7. A decision will be issued by the authorized officer based on Land Use Plan compliance, resource objectives, and environmental impacts.
8. If the decision is to approve the addition of the route, the Travel Management Plan will be updated accordingly.

### **2.3.12.3.3. Non-Motorized and Non-Mechanized Travel**

**TM-28.** Allow non-mechanized travel (i.e., foot and equestrian use) away from designated routes, except where otherwise prohibited. Casual hiking and equestrian activities are not restricted to trails unless prescribed in the management actions of a special area designation or allocation. However, the creation of routes caused by repetitive use is discouraged.



**TM-29.** The authorized officer may close areas to casual hiking or equestrian use, or require these activities to be limited to trails, where needed to mitigate resource damage.

**TM-30.** Designate existing and new trails in conjunction with the development of Travel Management Plans. Plan, designate, and develop new trails through interdisciplinary plans with community and user input. Trails will be developed as needed for the following purposes:

- protecting resources,
- ensuring visitor safety,
- meeting community needs,
- improving recreation experiences,
- increasing recreation opportunities, or
- creating links within regional trail networks, such as the Maricopa County Regional Trail System.

**TM-31.** Develop long-distance trails that connect communities and areas such as (but not limited to) the following:

- Prescott Valley,
- Mayer,
- Black Canyon City,
- Agua Fria National Monument,
- Prescott National Forest,
- Bradshaw Foothills,
- Wickenburg area,
- Vulture Mountains, and
- Harquahala Mountains.

**TM-32.** All trail building will be compatible with social and managerial recreation settings and VRM standards.

**TM-33.** Trails project plans will establish limits of acceptable change indicators and standards.

**TM-34.** Equestrian activities that require SRP s may be limited to existing trails, which for these purposes do not include livestock and game trails. These limitations would be included in permit stipulations designed to protect resources and address safety concerns.

**TM-35.** Trails not meeting land health standards or plan objectives may be closed. Temporary access and use restrictions may be enacted when needed to protect resources or public health and safety.

**TM-36.** All caves, mines, wells, abandoned structures, or other confined spaces are closed to public entry unless an individual site is signed open for such entry or entry is authorized under special use permit.

## **2.3.13. Visual Resource Management (VR)**

### **2.3.13.1. Desired Future Conditions**

**VR-1.** Visual resources are managed to meet the objectives for Visual Resource Management (VRM ) Classes I through IV, as defined in BLM's Handbook H-8410-1, Visual Resource

Inventory, (Section B, 1 through 4). Objectives (desired conditions) for these VRM classes are described below.

VRM Class I: The objective of this class provides for natural ecological changes, but it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

VRM Class II: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

VRM Class III: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

VRM Class IV: The objective of this class is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer's attention. Every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

### **2.3.13.2. Land Use Allocations**

VRM Class allocations for public lands throughout the planning area are shown on Map 16 .

**VR-2.** 96,820 acres in the Hells Canyon Wilderness, Hassayampa River Canyon Wilderness, Hummingbird Springs Wilderness, Big Horn Mountains Wilderness, and Harquahala Mountains Wilderness are allocated to VRM Class I.

**VR-3.** 429,250 acres are allocated to VRM Class II. These acres include undeveloped landscapes and areas managed to maintain wilderness characteristics . **VR-4.** 266,640 acres are allocated to VRM Class III.

**VR-5.** 103,390 acres are allocated to VRM Class IV.

### **2.3.13.3. Management Actions**

**VR-6.** Project proposals that could result in surface disturbance or may contain visible components will be analyzed using procedures outlined in BLM Handbook H-8431-1, Visual Contrast Rating, to determine their conformance with the VRM allocation of the project area. If necessary, modifications will be made to the project, including design changes or a change of location, for the project to meet the VRM Class objective. In any case, regardless of VRM Class, an effort will be made to make any project proposal with a visible component as visually compatible with its surroundings as practical.

**VR-7.** If possible, avoid utilizing strobes or other lights that will affect the quality of night skies.

## **2.3.14. Wild Burro Management (HB)**

### **2.3.14.1. Desired Future Conditions**

**HB-1.** BLM manages wild burros in the Lake Pleasant Herd Management Area (HMA) at the minimum population level needed to ensure the herd's free-roaming character, health, and self-sustaining ability.

### **2.3.14.2. Land Use Allocations**

**HB-2.** The Lake Pleasant HMA includes 80,800 acres and is shown on Map 17 .

### **2.3.14.3. Management Actions**

**HB-3.** Management of burros within the Lake Pleasant HMA will continue in accordance with the provisions of the Lake Pleasant Herd Management Plan and managed to achieve the Appropriate Management Level (AML) set in that plan.

**HB-4.** Burros will be removed from the Lake Pleasant HMA when the population exceeds the AML or if burros are determined to be nuisance animals as defined by the Wild Horse and Burro Act of 1972.

**HB-5.** The Harquahala Herd Area, including 156,255 acres shown on Map 17 , will not be managed as a HMA. Burros will be removed from the herd area, as funding is available, with the target of reaching a population of zero.

## **2.3.15. Wilderness Characteristics (WC)**

### **2.3.15.1. Desired Future Conditions**

**WC-1.** Lands allocated to maintain wilderness characteristics contain few human intrusions with primitive and natural landscape settings, providing self-reliant and self-directed visitor experiences. These characteristics have been determined to be reasonably present and of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and to be practical to manage and maintain.

**WC-2.** Lands and resources within these areas exhibit a high degree of naturalness. These areas are affected mainly by the forces of nature, and the imprint of human activity is substantially unnoticeable. Naturalness is evaluated by the following:

- occurrence of vehicle routes, fences, wildlife, and range facilities,
- nature and extent of landscape modifications,
- presence of native plant and wildlife communities, and
- habitat connectivity.

**WC-3.** Outstanding opportunities for solitude or primitive and unconfined recreation are present. Travel generally occurs through non-motorized and non-mechanical means. Motorized use that

does not degrade natural and cultural resources or conflict with DFC is allowed on designated routes. Non-motorized conveyances (such as bicycles) are allowed on designated trails.

**WC-4.** There is no or minimal development of recreation facilities. Lands allocated to maintain wilderness characteristics provide opportunities for visitor adventure, challenge, solitude, and discovery. Recreation settings and associated experiences are semi-primitive non-motorized to primitive with limited areas of semi-primitive motorized around designated vehicle routes. Hunting, hiking, backpacking, camping, horseback riding, mountain bicycling, wildlife observation, photography, and historic/cultural study are the chief activities with foot or horseback the customary means of travel.

**WC-5.** Wildlife populations and habitat are recognized as important aspects of the naturalness and are actively managed.

### **2.3.15.2. Land Use Allocations**

**WC-6.** The following areas are allocated for management to maintain wilderness characteristics, as shown on Map 18. Area-specific management decisions are described in the Wilderness Characteristics section for the applicable Management Unit (MU).

- 13,490 acres in the foothills of the Bradshaw Mountains, within the Black Canyon MU.
- 53,789 acres including portions of the Big Horn and Belmont mountain ranges, within the Harquahala MU.

### **2.3.15.3. Management Actions**

**WC-7.** Lands allocated to maintain wilderness characteristics are managed to protect primitive qualities. The management actions are designed to:

- maintain low interaction among users away from designated routes, and
- provide opportunities for experiencing isolation from the sights and sounds of other humans.

**WC-8.** Lands allocated to maintain wilderness characteristics will be managed to have limited evidence of human-induced management restrictions and controls. Visitors are encouraged to practice Leave No Trace skills to avoid human-induced impacts.

**WC-9.** In accordance with travel management planning and implementation, vehicle routes will be mitigated to resolve conflicts with cultural, biological, or other resources to achieve DFC objectives (which may allow for motorized access in these areas). Mitigation measures may include the following:

- engineering to reduce conflicts,
- limiting seasons of use, vehicle type, vehicle speed, or vehicle numbers, and
- closing routes.

**WC-10.** BLM will consider building new routes only as a mitigation measure for route and resource conflicts or where necessary to meet approved administrative actions.

**WC-11.** The use of wheeled game carriers is allowed away from designated routes.

**WC-12.** Sites and areas affected by human activities will be reclaimed when such locales or sites are no longer needed by authorized land uses.

**WC-13.** Commercial recreation and vending operations, guided hunt and associated activities, and concession leases are allowed when such activities conform to the following:

- desired recreation settings,
- VRM Class II objectives, and
- other social and managerial settings.

**WC-14.** Discretionary surface-disturbing activities that involve excavations or the use of motorized or mechanized equipment and are not compatible with achieving the DFC or specifically approved are prohibited.

**WC-15.** Arizona Game and Fish Department ( AGFD ) use of motorized and mechanized equipment off designated routes is considered an administrative use and will be allowed in suitable locations (as agreed to by BLM and AGFD ) for such purposes including, but not limited to the following:

- water supplementation,
- collar retrieval,
- capture and release of wildlife, and
- maintenance, repair, and building or rebuilding of wildlife waters.

**WC-16.** Non-motorized access in areas managed for wilderness characteristics may include developing some trails, or simply marking foot routes with posts for minimal disturbance of the ground surface. Installing trails may be considered, where needed; to protect resources, to ensure public safety, or to advance public education and interpretation of objectives.

## **2.4. Decisions Specific to the Black Canyon Management Unit**

The Black Canyon MU stretches from the Table Mesa area on the south to Cordes Junction on the north. It is bounded by the Agua Fria National Monument and Tonto National Forest on the east and the Prescott National Forest on the west (Map 19 ).

The Black Canyon MU contains the following lands:

- 68,730 acres of BLM-administered lands,
- 12,600 acres of Arizona State land,
- 6,780 acres of private land, and
- 1,100 acres of county parklands in both Maricopa and Yavapai Counties.

### **2.4.1. Cultural Resources (CL)**

#### **2.4.1.1. Land Use Allocations**

**CL-17.** Black Canyon Corridor SCRMA (Map 19 ) includes 49,540 acres administered by BLM. Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-18.** Exclude from public use allocation sites located outside the Black Canyon Corridor SCRMA.

**CL-19.** Allocate the following sites to scientific use to permit studies by qualified researchers: Running Deer Pueblo (NA 5856), Agua Fria Fort, Archaic Period site AZ N:16:224 ( ASM ), Euler Site, Spanish Hill Fort, DeNoyelles Site, and Dripping Spring Pueblo.

**CL-20.** Allocate to public use selected sites that are accessible from the Black Canyon National Recreation Trail. Appropriate sites could include Agua Fria Fort or other prehistoric hilltop structures, petroglyphs, historic mining camps and ranching facilities, historic trails, and features associated with the historic Black Canyon Sheep Driveway.

### **2.4.1.2. Management Actions**

**CL-21.** Build non-motorized trails to link interpreted sites to the Black Canyon Trail.

**CL-22.** Develop selected historic properties in support of heritage tourism programs and partnerships, incorporating management actions to support their long-term protection and productive use.

**CL-23.** Complete site documentation projects at the DeNoyelles site (AZ N:12:60 ( ASM )) and Dripping Spring Pueblo, sites that have been damaged by vandalism. Use the information to assess and implement measures to reduce further architectural deterioration and to repair vandalism.

**CL-24.** Locate and preserve the remaining historical signs and features of the historic Black Canyon Livestock Driveway and allocate them to public use to interpret the stock driveway's history.

**CL-25.** Close or relocate transportation routes that lead directly to significant sites not allocated to public use, where such access threatens damage or vandalism to these sites and other measures are expected to be of limited effectiveness in mitigating impacts.

**CL-26.** Prepare and submit the required documentation to nominate a "Black Mesa Rim" archaeological district to the National Register of Historic Places. The boundaries, to be determined, would include prehistoric and/or historic period sites on and below Black Mesa.

**CL-27.** Acquire and protect portions of the historic Gillette site that are outside federally administered lands

## **2.4.2. Lands and Realty Management (LR)**

### **2.4.2.1. Land Use Allocations**

**LR-28.** No public lands are available for disposal in the Black Canyon MU.

**See LR-2 [44], Utility Corridors:** The Black Canyon utility corridor traverses the Black Canyon MU (Map 9 and Map 20 ).

**See LR-4 [44], Communication Sites:** The Black Canyon MU contains the designated Black Canyon City communication site.

## **2.4.3. Mineral Resources (MI)**

### **2.4.3.1. Management Actions**

**MI-14.** Close riparian areas in re-conveyed lands to mineral entry, and close riparian areas throughout the MU to mineral material disposal, to preserve riparian values.

## **2.4.4. Recreation Management (RR)**

### **2.4.4.1. Desired Future Conditions**

**RR-42.** Preserve scenic and open space values and provide an array of public opportunities for trail-based recreation within diverse and healthy landscapes.

**RR-43.** Provide an assortment of intensively managed, intensively used trail-based motorized and non-motorized recreation uses. Emphasize motorized and non-motorized trail links east and west of Interstate 17, links with Prescott and Tonto National Forests, Lake Pleasant Regional Park, the Castle Hot Springs area, the Great Western Trail, and connections to all communities.

**RR-44.** Connect the Maricopa County Park System with a regional non-motorized trail system between Lake Pleasant Regional Park, the Cave Creek Recreation Area, and the Spur Cross Ranch Conservation Area.

**RR-45.** Manage the area to function as an open space gateway into Maricopa County from the north, managed for viewsheds and long-range vistas of valleys, hills, and the Bradshaw Mountains. Facilitate preserving a scenic open space corridor along I-17, between Yavapai and Maricopa Counties, welcoming visitors to Maricopa County and promoting area tourism.

**RR-46.** Secure more law enforcement and public user group involvement as a high priority to promote environmentally responsible recreation, discourage vandalism, protect the public, and protect the public investment in public lands.

### **2.4.4.2. Land Use Allocations**

**RR-47.** The entire MU is allocated to the Black Canyon Special Recreation Management Area (SRMA), including 68,730 acres of BLM-administered land. The Black Canyon SRMA includes the following Recreation Management Zones shown on Map 19 .

- Black Canyon Hiking and Equestrian Trails RMZ (8,325 acres BLM)
- Table Mesa RMZ (11,050 acres BLM)

### **2.4.4.3. Management Actions**

**RR-48.** Acquire legal public access to public lands for recreation uses through suitable easements, rights-of-way, or other methods.

**RR-49.** Develop a comprehensive trail system centered on the Black Canyon Trail. Identify, analyze, build, and designate new single-use and multi-use, hiking, equestrian, and OHV /vehicle routes for hikers, equestrians, mountain bicycles, ATVs, and four-wheel-drive enthusiasts, and linked to other trail systems and communities. Routes would include motorized and

non-motorized Wickenburg-Lake Pleasant-Black Canyon City trail corridors and direct links with the Great Western Trail. Specific activities envisioned in this area include trail development for the following:

- differentiated use (separate motorized and non-motorized travel routes),
- single use (e.g. hiking or ATVs only),
- multi use (vehicles, bicycles, hiking, and equestrian use on a single trail), and
- single-track use (e.g. motorcycles or mountain bicycles only).

**RR-50.** Locate, analyze, build and designate single or multiple-use, motorized (OHV ) special recreation vehicle areas, loops, routes, and management strategies through interdisciplinary plans, with community and user input.

**RR-51.** Locate and develop parking, staging areas, and trailheads, as suitable, for the following purposes:

- facilitating responsible use,
- ensuring resource protection,
- parking, and
- unloading OHVs and horses.

**RR-52.** Limit to five acres per developed site of exposed barren soil. Mark or delineate the perimeters with barriers to prevent expansion.

**RR-53.** Prohibit motorized competitive races in the SRMA.

**RR-54.** Pursue legal public access through the Lake Pleasant Regional Park using existing routes to provide access to archaeological and historic sites allocated for public use, or to achieve other resource objectives.

#### **2.4.4.4. Black Canyon Hiking and Equestrian Trails RMZ**

##### **2.4.4.4.1. Desired Future Conditions**

**RR-55.** Complete the Black Canyon National Recreation Trail alignments from State Highway 74 to State Highway 69 and beyond. The trails will provide high-quality non-motorized recreation experiences for hikers, equestrians, and mountain bikers through the Black Canyon corridor.

**RR-56.** Incorporate loops, links, and trailheads for both destination and point-to-point travel into the Black Canyon Trail design. Link the communities of Black Canyon City, New River, Anthem, and Phoenix, and eventually develop a connecting trail system to include Lake Pleasant Regional Park and Tonto and Prescott National Forests.

**RR-57.** Establish the Black Canyon National Recreation Trail as a model of successful community partnerships. Determine exact locations of the trail or any ancillary trails and facilities, in conjunction with Maricopa and Yavapai County trails committees, local communities, equestrian and other user groups, and interested citizens. Citizen working groups will help with designation of trail alignments, design, construction, and maintenance.

**RR-58.** Sustain the Black Canyon Trail as an important component of the National Recreation Trail System in order to provide for the ever-increasing outdoor recreation needs of an expanding



urban population and in order to promote public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Black Canyon corridor.

#### **2.4.4.4.2. Management Actions**

**RR-59.** Locate, analyze, build, and designate new trail segments, including segments needed to replace those now used by motorized vehicles. Align these new segments as closely as possible along the historic sheep driveway corridor.

**RR-60.** Secure rights-of-way for the trail and ancillary trails and facilities to preserve public access and long-term character. Acquire easements or rights-of-way on non-Federal lands if the trail or facilities are proposed for any of these lands. Ensure public access to the trail and related facilities through easements, rights-of-way, deed restrictions, or other suitable means.

**RR-61.** Recognize and accommodate long-term continuation of the trail and facilities in land tenure actions. Retain a 1/4-mile wide corridor (1/8 mile each side of the trail) along the trail and any ancillary facility for a permanent trail location.

**RR-62.** Develop at least eight trailheads and staging or camping areas near communities, with vehicle access points to serve the Black Canyon Trail and adjoining public lands for the following purposes:

- parking,
- unloading of OHVs and horses, and
- picnicking.

**RR-63.** Facilities development could include the following:

- information signs,
- kiosks,
- picnic tables,
- loading ramps, and
- soil stabilization for dust abatement.

**RR-64.** Limit to 5 acres the area of exposed barren soil for each developed site. Mark or delineate the perimeters with barriers to prevent expansion. One proposed site identified during planning is the heavily used site near the intersection of County Road 59 (Crown King Road) and Forest Service Road 684 (Castle Creek Road).

#### **2.4.4.5. Table Mesa RMZ**

##### **2.4.4.5.1. Desired Future Conditions**

**RR-65.** Manage for intensive motorized single and two-track routes and general motorized recreation in semi-primitive motorized and roaded-natural settings. Recreation use is dispersed with developed facilities to meet the basic needs of visitors and to enhance resource protection. Clear yet non-intrusive signing exists to provide information to visitors.

**RR-66.** Manage recreation activities for dust control and compliance with air quality standards and compatibility with neighboring communities and landowners.

### **2.4.4.5.2. Management Actions**

**RR-67.** Develop facilities, staging areas, trails, signage, trailheads, and other sites when needed to protect resources, to promote visitor health and safety, or to maintain recreation opportunities.

**RR-68.** Develop large (generally five to ten acres) and small (one-acre) staging areas in the RMZ as needed for the following purposes:

- meeting high demands for motorized and non-motorized recreation,
- providing for parking,
- unloading of OHVs and horses,
- overnight camping, and
- large special events.

**RR-69.** Development at staging areas could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramps, and
- soil stabilization for dust abatement.

**RR-70.** Limit the area of exposed barren soil for the staging area sites to a maximum of 20 acres. Mark or delineate the perimeter of staging areas with barriers to prevent expansion.

**RR-71.** Develop at least two small day use areas for up to ten vehicles with trailers for the following purposes:

- parking,
- unloading of OHVs and horses, and
- picnicking.

**RR-72.** Development at day use areas could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramps, and
- soil stabilization for dust abatement.

**RR-73.** Limit to 2 acres the area of exposed barren soil for each day use site. Mark or delineate the perimeters with barriers to prevent expansion.

**RR-74.** Manage recreational target shooting consistent with the "Recreational Target Shooting" guidelines in the Recreation section under Decisions Applicable to the Entire Planning Area.

## **2.4.5. Special Designations**

### **2.4.5.1. Black Canyon National Recreation Trail**

The Secretary of the Interior designated the Black Canyon Trail as a National Recreation Trail in 2008 in conjunction with the 40th anniversary of the National Trails System. Located in the Bradshaw Mountain foothills of central Arizona and managed by a diverse partnership led

by the BLM, this world-class hiking, mountain biking and equestrian trail system, which will eventually stretch for at least 70 miles, benefits both residents of the Black Canyon Corridor and visitors from metropolitan Phoenix.

#### **2.4.5.1.1. Desired Future Conditions**

**RT-1.** Provide for the ever-increasing outdoor recreation needs of an expanding urban population to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Black Canyon corridor. Segments of the trail are established primarily near urban areas, secondarily within scenic areas, and along historic travel routes of the area. A motorized route will generally parallel the trail to improve administrative access needs and public long distance travel using vehicles.

#### **2.4.5.1.2. Management Actions**

The Desired Future Conditions and Management Actions for the Black Canyon Hiking and Equestrian Trails RMZ (RR-55 [74] through RR-64 [75]) are applicable to management of the Black Canyon National Recreation Trail.

### **2.4.6. Travel Management (TM)**

#### **2.4.6.1. Management Actions**

**TM-37.** Complete designations for all existing and proposed motorized routes and non-motorized trails on public lands in the Black Canyon SRMA , within 2 years of approval of the RMP .

The following management decisions, relating to recreation management, also apply to travel management: RR-49 [73], 50 [74], 59 [75], 65 [75], 66 [75], 67 [76], and 68 [76]. Decisions WC-18 [78] and WC-22 [78] are also applicable.

### **2.4.7. Visual Resource Management (VR)**

#### **2.4.7.1. Land Use Allocations**

**VR-8.** Black Canyon MU lands are allocated to the following VRM classes (Map 16 ):

- Lands allocated to maintain wilderness characteristics to VRM Class II objectives.
- Black Canyon SRMA to VRM Class II objectives, except:
  - Table Mesa RMZ to VRM Class III objectives, and a corridor along Interstate 17 near New River to VRM Class IV
  - Utility corridors are allocated to VRM Class III or IV.

#### **2.4.7.2. Management Actions**

**VR-9.** Minimize visual disturbances to the area's open spaces, vistas, and viewsheds. Co-locate communication towers/facilities on existing power lines or communication towers, using identified utility corridors whenever possible.

**VR-10.** Apply visual resource prescriptions for the SRMA or RMZ s to all governmental, commercial, and private rights-of-way, easements, and other conveyances.

## **2.4.8. Wilderness Characteristics (WC)**

### **2.4.8.1. Desired Future Conditions**

**WC-17.** Management retains the area's undeveloped natural desert landscapes and scenic remote character and preserves outstanding opportunities for solitude and primitive recreation experiences.

**WC-18.** Maintain and enhance non-motorized and primitive recreation experiences, tied to open space and natural landscapes. The desired recreation setting is semi-primitive non-motorized. Manage the motorized segment of the Black Canyon Trail, which crosses this allocation, as a semi-primitive motorized corridor. This trail segment is multi-use, open to both motorized and non-motorized users.

**WC-19.** Conserve rock cabins, artifacts, petroglyph sites, prehistoric structures, and riparian areas. Recognize that wildlife populations and habitat are important aspects of the naturalness and actively manage them.

### **2.4.8.2. Land Use Allocations**

**WC-20.** Within the Black Canyon MU , 13,490 acres are allocated to maintain wilderness characteristics as shown on Map 19 . These lands are in the foothills of the Bradshaw Mountains north of Black Canyon City.

### **2.4.8.3. Management Actions**

**WC-21.** Manage for a semi-primitive motorized recreation setting along designated routes and semi-primitive non-motorized recreation setting beyond ½ mile from designated routes.

**WC-22.** Develop non-motorized trails when such trails are determined to be needed to protect resources, enhance recreation opportunities, or provide links with other trail systems.

## **2.5. Decisions Specific to the Castle Hot Springs Management Unit**

Castle Hot Springs Management Unit (MU) is bounded by State Route 74 (Carefree Highway) on the south, Prescott National Forest on the north, Black Canyon MU on the east, and Hassayampa MU on the west (Map 21 ). The MU contains the following lands:

- 112,430 acres of BLM-administered lands,
- 53,730 acres of Arizona State land,
- 32,560 acres of private land,
- 22,870 acres of county park lands in both Maricopa and Yavapai Counties (Lake Pleasant Regional Park), and
- 1,100 acres of Bureau of Reclamation lands outside Lake Pleasant Regional Park.

## **2.5.1. Cultural Resources (CL)**

### **2.5.1.1. Land Use Allocations**

**CL-28.** Lake Pleasant/Agua Fria SCRMA includes 27,240 acres administered by BLM Map 21 ). Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-29.** The following sites north of Lake Pleasant are allocated to public use: prehistoric hilltop site AZ T:4:1 (PC) and the historic Humbug hydraulic mining complex.

**CL-30.** Exclude from public use allocation sites located outside the SCRMA.

### **2.5.1.2. Management Actions**

**CL-31.** Complete site documentation projects at the Fort Tule and AZ T:4:1 (PC) prehistoric sites. Use the mapping and documentation in developing monitoring and protection measures for these sites.

**CL-32.** Prepare and submit the required documentation, in coordination with the U.S. Bureau of Reclamation, to nominate the historic Humbug hydraulic mining complex to the National Register of Historic Places.

## **2.5.2. Lands and Realty Management (LR)**

### **2.5.2.1. Land Use Allocations**

**LR-29.** No public lands are available for disposal in the Castle Hot Springs MU.

**LR-30.** No new utility corridors are designated within this MU.

**LR-31.** All State highway system routes are designated as transportation corridors, including a new 1-mile-wide corridor along SR 74, 1/2 mile on either side of the highway centerline.

### **2.5.2.2. Management Actions**

**LR-32.** Acquire public access from Highway 74 to Castle Hot Springs Road through Morgan City Wash across several Arizona Trust and private land parcels in Township 6 North, Range 1 West, sections 6, 9, 22, and 23; Township 7 North, Range 2 West, sections 2 and 36; and in Township 7 North, Range 1 West, section 31 (see Map 21 ).

**LR-33.** Select and develop an improved route north of Lake Pleasant to Table Mesa, extending from French Creek Road to Interstate 17, for public safety, administrative, and recreation access. To ensure long-term public access, secure easements or rights-of-way crossing private or State parcels, when identified. This action would secure motorized legal public access from the Castle Hot Springs community to Interstate 17.

## 2.5.3. Recreation Management (RR)

### 2.5.3.1. Desired Future Conditions

**RR-75.** Emphasize preserving open space and retaining scenic and visual qualities. Sustain recreation, cultural, and biological assets while recognizing and protecting private property rights. Retain and acquire legal access to public lands.

**RR-76.** Management emphasizes a wide range of regional recreation needs, while accomplishing the following:

- maintaining the quality of life for local communities,
- preserving open space and natural landscapes, and
- ensuring resource conservation.

**RR-77.** Maintain an array of recreation settings (rural, roaded-natural, semi-primitive motorized, and semi-primitive non-motorized) and opportunities. Recreation activities include the following:

- intense route-based motorized use,
- permitted recreation events,
- developed facilities,
- developed hiking and equestrian trails, and
- remote semi-primitive wilderness settings with non-motorized recreation opportunities.

**RR-78.** Establish over the long term a system of high-quality OHV and hiking trails affording many opportunities for hikers, equestrians, mountain bikers, four-wheel drivers, ATVs, and motorcycle enthusiasts.

### 2.5.3.2. Land Use Allocations

**RR-79.** The entire Management Unit is allocated to the Castle Hot Springs SRMA (112,430 acres BLM) containing the following Recreation Management Zones (Map 21 ).

- Hieroglyphic Mountains RMZ (16,510 acres BLM).
- Sheep Mountain RMZ (4,270 acres BLM).
- Baldy Mountain RMZ (6,550 acres BLM).

### 2.5.3.3. Management Actions

**RR-80.** Intensively manage all recreation uses with a significant BLM ground presence by using signing, facilities, law enforcement, volunteers, and collaborative efforts through community and organizational partnerships. Continue cooperative efforts with the Arizona Off-Highway Vehicle Ambassador Program.

**RR-81.** Analyze the feasibility and manageability of establishing parts of the SRMA as a fee-for-use area. The feasibility study will include an analysis to determine if fees are necessary to maintain or enhance the recreation opportunities and conditions of the area. Fees would be used to:

- maintain motorized and non-motorized trails and facilities,
- improve law enforcement, and
- enhance user and community education, stewardship, and volunteer programs.

**RR-82.** Identify, analyze, build, and designate new single-use and multi-use hiking, equestrian, and OHV /vehicle routes. Network design emphasizes connections that would link them to local trail systems and communities. Routes include a proposed motorized and non-motorized Wickenburg-Lake Pleasant Regional Park-Black Canyon Trail corridor. Planning for this network requires collaboration with the AGFD , Prescott National Forest, Maricopa and Yavapai Counties, and Lake Pleasant Regional Park, to link to trails on BLM's land. Activities envisioned in this area include trail development for:

- differentiated use (motorized and non-motorized travel),
- single use (e.g. hiking or ATVs only),
- multi-use (vehicles, bicycles, hiking, and equestrian use),
- single-track use (e.g. motorcycles or mountain bicycles only), and
- multi-use trails and foot, bike, and horse trails linking Wickenburg and the Lake Pleasant Regional Park, with other links to Peoria and Phoenix trail systems, and the Black Canyon Trail.

**RR-83.** Locate and develop staging areas, trails, signs, trailheads, and other sites when needed for resource protection, visitor health and safety, or maintaining recreation opportunities.

**RR-84.** Locate and develop small day-use areas for up to ten vehicles with trailers to provide the following:

- parking,
- unloading OHVs and horses, and
- picnicking.

**RR-85.** Development could include the following:

- informational signing,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-86.** Limit to two acres the area of exposed barren soil for each developed site. Mark or delineate the perimeter with barriers to prevent expansion.

**RR-87.** Confine motorized competitive races to the Hieroglyphic Mountains RMZ.

## **2.5.3.4. Hieroglyphic Mountains RMZ**

### **2.5.3.4.1. Desired Future Conditions**

**RR-88.** Manage mainly to provide opportunities for intensive camping and OHV use, with single and two-track routes for general motorized recreation use, commercial use, organized OHV events and competitive races. Maintain semi-primitive motorized and roaded-natural recreation settings with users concentrated in some areas.

**RR-89.** Maintain acceptable dust control and compatibility with neighboring communities and landowners.

### 2.5.3.4.2. Management Actions

**RR-90.** Develop facilities with a variety of amenities consistent with the desired recreation setting. Provide nonintrusive directional route signs and user information in the RMZ .

**RR-91.** Make all designated routes within this zone available for general motorized recreation use, commercial use, organized OHV events, and competitive races.

**RR-92.** The number of miles of single and two-track motorized routes allocated to motorized competitive races will be determined by trail sustainability and durability along with the ability to reduce environmental issues and social conflicts. A course of routes used for competitive races would optimally provide for an array of challenges for truck, buggy, ATV , and motorcycle competitive races.

**RR-93.** Locate at least 20 miles of single and two-track motorized routes to provide a unique array of challenges for truck, buggy, ATV , and motorcycle competitive races.

**RR-94.** Limit the number of motorized competitive races to two per year.

**RR-95.** Develop the Boulders staging area for the following purposes:

- meeting intense motorized recreation demands,
- parking,
- unloading of OHVs,
- overnight camping, and
- large special-event operations.

**RR-96.** Development at Boulders staging area could include the following:

- informational signs,
- kiosks,
- picnic tables,
- vault toilets,
- campground host facilities, and
- soil stabilization for dust abatement.

**RR-97.** Limit to 25 acres the area of exposed barren soil at Boulders staging area. Mark or delineate the perimeter to prevent further expansion.

**RR-98.** Locate and develop at least one small staging and camping area for up to ten vehicles with trailers for the following purposes:

- parking,
- unloading OHVs, and
- picnicking.

**RR-99.** Development of small staging/camping areas could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.



**RR-100.** Limit to 5 acres the areas of exposed barren soil at small staging/camping areas. Mark or delineate the perimeter to prevent expansion.

**RR-101.** Apply proactive adaptive management to manage potential conflicts with surrounding communities and landowners, and potential impacts to resources. Mitigation may be needed to reduce these problems. The following are examples of mitigation:

- implementing speed limits on routes to reduce fugitive dust,
- stabilizing soil on routes,
- closing routes for some types of activities,
- imposing stricter noise reduction standards, and
- establishing seasonal or time-of-day use restrictions or both.

**RR-102.** Determine specific areas where comprehensive site assessments would be initiated to:

- determine existing physical and social impacts of recreation activities,
- define desired conditions and standards, and
- establish monitoring plans to manage camping and other recreation uses.

Conduct these assessments with public collaboration involving interested residents, users, and other interested parties.

### **2.5.3.5. Sheep Mountain RMZ**

#### **2.5.3.5.1. Desired Future Conditions**

**RR-103.** Preserve the natural landscape, open-space values, and wildlife habitat of the Sheep Mountain area. Maintain a semi-primitive non-motorized recreation setting.

#### **2.5.3.5.2. Management Actions**

**RR-104.** Close all vehicle routes identified as reclaimed during the BLM route inventory, except those evaluated to be needed for administrative access to the area.

**RR-105.** Prohibit the building of new motorized routes and commercial rights-of-way.

**RR-106.** Prohibit discretionary surface-disturbing activities not compatible with achieving the DFC.

### **2.5.3.6. Baldy Mountain RMZ**

#### **2.5.3.6.1. Desired Future Conditions**

**RR-107.** Retain a natural landscape between the Hells Canyon Wilderness and Lake Pleasant Regional Park. This area complements the landscape and recreation opportunities in the regional county park and the entire Castle Hot Springs SRMA. Provide high-quality non-motorized recreation in a region otherwise allocated to motorized recreation. Preserve desert tortoise habitat, sustain riparian areas, and maintain the area's value for use by a wild burro herd. Maintain semi-primitive motorized recreation setting along designated routes. Manage areas beyond ½ mile from a designated route for a semi-primitive non-motorized setting.

### **2.5.3.6.2. Management Actions**

**RR-108.** Develop up to five non-motorized trails and trailheads to link with the Hells Canyon trail system and ultimately to the Maricopa County trail system. Emphasize hiking, bicycling and equestrian opportunities in recreation management planning.

### **2.5.3.7. Special Designations**

#### **2.5.3.7.1. Tule Creek Area of Critical Environmental Concern**

The Tule Creek ACEC encompasses 640 acres of BLM-administered land north of Lake Pleasant (Map 21 ).

##### **Relevance**

The Tule Creek area contains significant historic and cultural values, including the Fort Tule site, a prehistoric hilltop ruin, and a home site occupied by miners in the 1920s and 1930s. Tule Creek is an example of a rare Sonoran Desert riparian system dominated by emergent vegetation and occupied by the endangered Gila topminnow.

##### **Importance**

The Fort Tule cultural site was probably used as a significant connection in a regional communication system based on signaling among hilltop sites. Fort Tule's role in the communication system can offer important information on prehistoric social systems during the era it was used.

Tule Creek and its sensitive biological resources are extremely vulnerable to disturbance and degradation from vehicle, mining, and livestock use. Continued protection of Tule Creek is important to the recovery of the endangered Gila topminnow.

#### **2.5.3.7.1.1. Desired Future Conditions**

**AC-1.** The integrity of the riparian area, endangered species habitat quality, and cultural resources in the Tule Creek ACEC are maintained and protected from degradation.

#### **2.5.3.7.1.2. Management Actions**

**AC-2.** Withdraw the ACEC from mineral entry, close it to mineral and geothermal leasing, and close it to mineral material disposal .

**AC-3.** Close the fenced area within the Tule Creek ACEC (640 acres) to motor vehicles.

**AC-4.** Exclude the fenced area from livestock grazing.

**AC-5.** Develop an interpretive site to provide information on biological and cultural resources.

**AC-6.** Continue patrols of archaeological sites with help from Site Steward volunteers. Where needed, take measures to protect sites such as the following:

- stabilizing structures,
- fencing or closing sensitive sites to public visitation,
- excavating to collect scientific information from threatened sites, and
- taking other actions to be determined by site-specific needs.

**AC-7.** Ensure that activities that change the visual landscape conform to the historical setting.

## **2.5.4. Travel Management (RR)**

### **2.5.4.1. Management Actions**

**TM-38.** Evaluate and designate all existing and potentially mechanized (OHV ) and non-mechanized trails and routes on public land in the Castle Hot Springs SRMA within three years of RMP approval using a structured process.

The following management decisions, relating to recreation management, also apply to travel management: RR-77 [80], 78 [80], 82 [81], 88 [81], 91 [82], 92 [82], 93 [82], 104 [83], 105 [83], and 108. [84]

## **2.5.5. Visual Resource Management (VR)**

### **2.5.5.1. Land Use Allocations**

**VR-11.** Castle Hot Springs MU lands are allocated to the following VRM classes (Map 16 ):

- Hells Canyon Wilderness Area is allocated to VRM Class I,
- Constellation Mine Road/Buckhorn Mine Road to Class II standards ½ mile to either side of the road's centerline, and
- Castle Hot Springs SRMA to Class II objectives, except Hieroglyphics Mountain RMZ to Class III objectives.

## **2.6. Decisions Specific to the Hassayampa Management Unit**

The Hassayampa MU is bounded on the east by the Castle Hot Springs MU and Prescott National Forest and on the west by the Harquahala MU. The southern edge is south of the Vulture Mountains, and the northern boundary is north of Yarnell. The Town of Wickenburg is located at the MU's center (Map 22 ). The MU contains the following lands:

- 181,910 acres of BLM-administered lands,
- 130,580 acres of Arizona State land,
- 50,610 acres of private land, and
- 460 acres of county-administered lands in Maricopa and Yavapai Counties.

## **2.6.1. Cultural Resources (CL)**

### **2.6.1.1. Cultural Resources**

**CL-33.** Wickenburg/Vulture SCRMA includes 124,000 acres administered by BLM (Map 22 ). Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-34.** Weaver/Octave SCRMA includes 2,730 acres administered by BLM (Map 22 ). Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-35.** The following historic period sites are allocated to public use: Vulture City Cemetery, Constellation Road, Monte Cristo Mine, and Weaver Cemetery/town site.

**CL-36.** Exclude from public use allocation sites located outside the SCRMA's.

**CL-37.** Allocate the following sites to "conservation for future use" to ensure long-term preservation: Vulture City Cemetery, Weaver Cemetery, and segments of Constellation Road where historic engineering features remain intact.

**CL-38.** Allocate the Anderson Mill site near San Domingo Wash to scientific use to be documented for its values as a unique 20<sup>th</sup> century industrial facility.

### **2.6.1.2. Management Actions**

**CL-39.** Develop selected historic period sites for on-the ground interpretive facilities and public visitation. Work with the Wickenburg community and organizations to use these sites to highlight the history of ranching and mining in the area.

**CL-40.** Maintain the protective fence around the Vulture City Cemetery and install protective signs.

**CL-41.** Ensure that road maintenance activities are implemented, to the extent possible, to preserve and stabilize the historic structural features of Constellation Road.

**CL-42.** Complete a detailed documentation of the Anderson (San Domingo) Mill site.

**CL-43.** Assess the condition of the rock cabin and other historic structures at the Weaver town site and the feasibility and effectiveness of implementing stabilization measures. Maintain the fence around the Weaver Cemetery and implement other measures needed to protect its integrity.

**CL-44.** Install one or more interpretive signs at the Weaver Cemetery/town site.

## **2.6.2. Lands and Realty Management (LR)**

### **2.6.2.1. Land Use Allocations**

**LR-34.** 741 acres are identified as suitable for disposal in the Hassayampa MU (Map 8 ).

**See LR-2 [44], Utility Corridors:** The Approved RMP designates a new 1-mile-wide corridor leg on the Mead-Phoenix corridor.

**See LR-3 [44], Transportation Corridors:** The RMP identifies two potential locations for the Wickenburg Bypass highway under consideration by the Arizona Department of Transportation Map 9 ). Once the route is chosen, a 1-mile-wide transportation corridor will be designated along the route. The corridor may not be centered on the right-of-way, but will be located with the bypass within it, and the boundaries adjusted to minimize conflict with resources or management objectives.

## 2.6.3. Recreation Management (RR)

### 2.6.3.1. Desired Future Conditions

**RR-109.** The long-term recreation goals for the area are to:

- conserve natural, scenic, recreation, and cultural resources,
- recognize and protect private property rights, and
- maintain diverse recreational opportunities for residents and visitors.

**RR-110.** Management emphasizes meeting a range of local and tourism-based regional recreation needs while maintaining the quality of life for local communities. Recreation activities include the following:

- intensive motorized uses,
- permitted recreation events,
- developed facilities, and
- systems of non-motorized trails.

**RR-111.** Intensively manage all recreation uses with a significant BLM and citizen volunteer ground presence through signing, facilities, and law enforcement.

**RR-112.** Emphasize and maintain, in suitable areas, an array of rural, roaded-natural, semi-primitive motorized, and semi-primitive non-motorized settings; and experiences and opportunities for residents, tourists, and winter visitors. Maintain current recreation settings as depicted on the Recreation Opportunity Spectrum on Map 14 , except where otherwise stipulated in RMZ allocations.

### 2.6.3.2. Land Use Allocations

**RR-113.** The entire Management Unit is allocated to the Hassayampa SRMA (181,910 acres BLM) with the following Recreation Management Zones (Map 22 ):

- Stanton RMZ (6,050 acres BLM).
- Wickenburg Community RMZ (72,040 acres BLM), including the Red Top Trail System and “The Box” RMZ.
- San Domingo Wash RMZ (16,040 acres BLM).
- Vulture Mine RMZ (30,100 acres BLM).

### 2.6.3.3. Management Actions

**RR-114.** Work closely with law enforcement authorities; including the Arizona Game and Fish Department, Yavapai County, Maricopa County, City of Peoria, and other agencies with jurisdiction to:

- enhance visitor and resident safety,
- improve resource protection, and
- ensure compliance with county, State, or Federal environmental laws.

**RR-115.** Develop and designate comprehensive motorized and non-motorized trail systems. Identify, analyze, build, and designate new single- and multi-use, hiking, equestrian, and vehicle routes, and link them to local trail systems and communities. Routes include a proposed motorized and non-motorized Wickenburg-Lake Pleasant Regional Park-Black Canyon Trail corridor. Activities envisioned in this area include trail development as follows:

- Differentiated use (motorized and non-motorized travel),
- Single use (e.g. hiking or ATVs only),
- Multi-use (vehicles, bicycles, hiking, and equestrian use),
- Single-track use (e.g. motorcycles or mountain bicycles only), and
- Multi-use trails and foot, bicycle, and horse trails linking Wickenburg and Lake Pleasant Regional Park, with other links to the Peoria/Phoenix trail systems and the Black Canyon Trail.

**RR-116.** Confine motorized competitive races to the San Domingo, Stanton, and Vulture RMZs.

**RR-117.** Trail sustainability will determine the types of uses on the trail systems and the extent of the number of miles allocated to races. Sustainability determination will consider environmental factors, including (but not limited to) soil erosion, wildlife or cultural resource conflicts, conflicts with grazing management, and air quality. These determinations will also address social concerns, including (but not limited to) noise, conflict with casual uses or other organized events, or conflicts with other recreation activities such as hunting.

**RR-118.** Maintain long-term public access to the Yarnell hang gliding launching area and landing zones (Map 23 ). This site is one of the most valued in Arizona for successful launching of long-distance non-powered flights.

### 2.6.3.4. Stanton RMZ

#### 2.6.3.4.1. Desired Future Conditions

**RR-119.** Provide diverse recreation experiences while reducing any unacceptable environmental impacts from the following recreation uses:

- excessive and unregulated camping,
- activities of prospecting clubs, and
- motorized activities

**RR-120.** Maintain a variety of recreation settings and opportunities, with an emphasis on semi-primitive motorized and roaded-natural settings and opportunities.

### 2.6.3.4.2. Management Actions

**RR-121.** Allow for up to two motorized competitive races conducted between October 1 and March 30. The number of miles of single and two-track motorized routes allocated to motorized competitive races will be determined by trail sustainability and durability along with the ability to reduce environmental issues and social conflicts. A course of routes used for competitive races would optimally provide for an array of challenges for truck, buggy, ATV , and motorcycle competitive races.

**RR-122.** Locate and develop trailheads, staging and camping areas, and other facilities as needed for supporting recreation opportunities and resource protection. In planning for these facilities, provide for visitor safety and resolve social conflicts.

**RR-123.** Develop a diverse network of motorized vehicle routes that offer a range of OHV experiences and challenges, compatible with the existing non-motorized trails in the RMZ .

**RR-124.** Install informational, educational, and interpretive kiosks and trail signs where needed and suitable. Placement of interpretive signs along the Stanton-Octave-Yarnell road, as proposed under the Lower Gila North MFP, would be consistent with this management action.

### 2.6.3.5. Wickenburg Community RMZ

#### 2.6.3.5.1. Desired Future Conditions

**RR-125.** Collaborate with a diverse group of Wickenburg citizens and organizations in a collective effort to conserve the ecological, cultural, open space, and recreation values of the Wickenburg area, so that it remains a place where people want to live, work, and recreate.

**RR-126.** Preserve open space and provide a wide array of landscape-based recreation while conserving scenic landscapes and maintaining cultural and biological assets.

**RR-127.** Offer quality recreation and tourism opportunities with proper management and marketing. Heritage tourism partnerships highlight the mining and ranching history of the area. Users exhibit a strong land ethic for conserving and protecting the natural resources and cultural heritage of the Wickenburg RMZ.

**RR-128.** Develop and sustain a system of high-quality equestrian and hiking trails that surround Wickenburg, buffer the area from urban sprawl, and preserve the open space of the local landscape. This trail system affords many opportunities for recreationists and enhances the lifestyle and cultural history of community residents.

**RR-129.** Emphasize and maintain an array of rural, roaded-natural, semi-primitive motorized, and semi-primitive non-motorized settings; and opportunities in suitable areas for the enjoyment of residents, tourists, and winter visitors.

**RR-130.** Conserve the canyon on the Hassayampa River known as "*The Box*" and surrounding lands as a recreation area for hiking, horseback riding, limited motorized use, picnicking, camping, and social gatherings, while protecting and enhancing the values of the riparian habitat.

### **2.6.3.5.2. Management Actions**

**RR-131.** Acquire State and private lands within the SRMA to sustain access and recreation opportunities. These lands will be acquired according to the following priorities:

- maintaining access and securing trail alignments,
- enhancing recreation opportunities,
- preserving scenery and open space, and
- conserving riparian values.

**RR-132.** Maintain and upgrade the Vulture Peak Trail by rerouting or reengineering eroded trail segments.

**RR-133.** Develop and install facilities for horse camping in areas south of Vulture Peak and south of Congress. Amenities could range from developed to more primitive facilities.

### **2.6.3.6. Wickenburg Community RMZ — Red Top Trail System**

#### **2.6.3.6.1. Desired Future Conditions**

**RR-134.** Provide a high-quality non-motorized trail network, known as the Red Top Trail System, with amenities in the Red Top Mountain area. Allow an alternate route system for motorized uses where appropriate to avoid conflicting uses.

#### **2.6.3.6.2. Management Actions**

**RR-135.** Identify, analyze, build and designate new trails less than 52 inches wide, as needed, for resource protection, visitor safety, or meeting management objectives

**RR-136.** Locate and develop a large trailhead and staging area for the Red Top Trail System for the following purposes:

- meeting the high demand for non-motorized recreation,
- parking,
- unloading horses,
- overnight camping, and
- organized events.

**RR-137.** Development of the large staging area could include the following:

- informational signs,
- kiosks,
- picnic tables,
- hitching posts,
- troughs for water hauled to the site, and
- soil stabilization for dust abatement.

**RR-138.** Limit to 10 acres the area of exposed barren soil in the large staging area. Mark or delineate the perimeter as needed to prevent expansion.

**RR-139.** Locate and develop a small day use motorized trailhead and staging area for the Red Top Trail System, to accommodate up to ten vehicles with trailers, for the following purposes:



- meeting motorized recreation demand reduce user conflicts,
- parking,
- unloading OHVs, and
- picnicking.

**RR-140.** Development of the motorized staging area could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-141.** Limit to 2 acres the area of exposed barren soil for each site. Mark the area's perimeter with barriers to prevent expansion.

**RR-142.** Identify, analyze, build, and designate an ATV and a motorcycle trail network in the Red Top Trail area to give the local community opportunities to shift motorized use from the designated non-motorized trails. Use existing designated motorized vehicle routes and create new trails less than 52 inches wide, if needed, to meet management objectives.

### **2.6.3.7. Wickenburg Community RMZ — The Box RMZ**

#### **2.6.3.7.1. Desired Future Conditions**

**RR-143.** Provide a high-quality non-motorized recreation use area with amenities in Box Canyon, known as "The Box," while protecting its riparian and scenic values.

#### **2.6.3.7.2. Management Actions**

**RR-144.** Locate and develop picnic, camping, and public use areas and develop access to these sites.

**RR-145.** Designate access routes for varied uses such as hiking and horseback riding.

**RR-146.** Identify, analyze, build, and designate four-wheel drive, jeep, ATV , sand rail, and dirt bike trails with suitable use areas and limitations. Close areas where sustainability cannot be achieved.

**RR-147.** Develop facilities such as toilets, tables, parking, campsites, and other amenities where needed to protect resources or reduce user conflicts.

### **2.6.3.8. San Domingo Wash RMZ**

#### **2.6.3.8.1. Desired Future Conditions**

**RR-148.** Provide a suitable array of opportunities for motorized and non-motorized recreation in a Sonoran Desert wash and upland environment. Manage for semi-primitive motorized and some roaded-natural settings.

**RR-149.** Provide opportunities for the following while protecting the natural and cultural resources in the area:

- intensive camping,
- OHV activities,
- equestrian use,
- recreation activities of prospecting clubs,
- event operations, and
- motorized single and two-track routes for general motorized recreation use and competitive races.

### **2.6.3.8.2. Management Actions**

**RR-150.** The number of miles of single and two-track motorized routes allocated to motorized competitive races will be determined by trail sustainability and durability along with the ability to reduce environmental issues and social conflicts. A course of routes used for competitive races would optimally provide for an array of challenges for truck, buggy, ATV , and motorcycle competitive races.

**RR-151.** Limit the number of motorized competitive events to 2 events per year.

**RR-152.** When needed for resource protection, visitor health and safety, or maintaining recreation opportunities, develop facilities such as the following:

- staging areas,
- trails,
- signs,
- trailheads, and
- other types of sites.

**RR-153.** Locate and develop one large motorized and non-motorized staging and camping area for the following purposes:

- meeting the high motorized and non-motorized recreation demand,
- parking and unloading OHVs and horses,
- overnight camping, and
- event operations.

**RR-154.** Development of the San Domingo staging area could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-155.** Limit to 20 acres the areas of exposed barren soil at the large staging and camping area. Mark or delineate the perimeter with barriers to prevent expansion.

**RR-156.** Locate and develop at least one day-use staging area for the following purposes:

- meeting the high motorized and non-motorized recreation demand,
- picnicking, and
- parking and unloading OHVs and horses.

**RR-157.** Development of day-use areas could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-158.** Limit to 5 acres the areas of exposed barren soil at day-use sites. Mark or delineate the perimeter with barriers to prevent expansion.

### **2.6.3.9. Vulture Mine RMZ**

#### **2.6.3.9.1. Desired Future Conditions**

**RR-159.** Provide a Sonoran Desert landscape area suitable for intensive motorized single and two-track routes for general motorized recreation use, commercial use, organized OHV events and competitive races.

**RR-160.** Emphasize and maintain the roaded-natural and semi-primitive motorized recreation settings.

**RR-161** Preserve the site and interpret mining and settlement history associate with the Vulture City Cemetery.

#### **2.6.3.9.2. Management Actions**

**RR-162.** The number of miles of single and two-track motorized routes allocated to motorized competitive races will be determined by trail sustainability and durability along with our ability to reduce environmental issues and social conflicts. A course of routes used for competitive races would optimally provide for an array of challenges for truck, buggy, ATV , and motorcycle competitive races.

**RR-163.** Limit the number of motorized competitive races to 4 events per year.

**RR-164.** Locate and develop one large motorized staging and camping area for the following purposes:

- meeting the high motorized recreation demand,
- parking,
- unloading OHVs,
- overnight camping, and
- event operations.

**RR-165.** Development of the large staging area could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-166.** Limit to 20 acres the area of exposed barren soil at the large staging area. Mark or delineate the perimeter with barriers to prevent expansion.

### **2.6.3.10. Special Designations**

#### **2.6.3.10.1. Vulture Mountain Area of Critical Environmental Concern**

##### **Relevance**

The cliffs along the crest of Vulture and Caballeros Peaks are significant habitat features used by many raptor species. Also, they are a pristine, scenic landmark. These cliffs are essential to maintaining the current biological diversity of the surrounding area. Large concentrations of nesting hawks and falcons use these spectacular cliff faces.

##### **Importance**

The value of the cliffs for nesting raptors is significant for a large area. These cliffs are virtually the only suitable nesting cliffs for many miles. Nesting raptors are sensitive to construction-related activities. If the cliffs and surrounding area are not protected from these activities, cliff-nesting raptors would disappear from much of the area.

##### **2.6.3.10.1.1. Desired Future Conditions**

**AC-8.** Maintain the raptor nesting habitat values of the cliffs and the surrounding foraging habitat.

##### **2.6.3.10.1.2. Management Actions**

**AC-9.** Consider building new routes only when necessary to meet natural resource objectives and where routes would not degrade the resources for which the ACEC is being created.

**AC-10.** Mitigate vehicle routes that conflict with maintaining wildlife values to ensure achieving the DFC. Mitigation measures include relocating routes, limiting season or time-of-day use, and closing routes.

**AC-11.** Prohibit building new recreation sites; however, maintain the Vulture Peak Trail and trailheads to their current condition and standards.

**AC-12.** Prohibit rock climbing within the Vulture Mountain ACEC .

**AC-13.** Acquire non-Federal lands within the Vulture Mountain ACEC as available.

### **2.6.4. Travel Management (TM)**

#### **2.6.4.1. Management Actions**

**TM-39.** Evaluate and designate all existing and potentially mechanized (OHV ) and non-mechanized trails and routes on public land in the Hassayampa SRMA within three years of RMP approval using a structured process.

**TM-40.** Close areas in “The Box” RMZ to motorized use where needed to mitigate impacts to natural resources from motorized vehicles.

**TM-41.** Consider development of hard-surfaced walking trails at selected cultural resource sites within the Wickenburg/Vulture SCRMA and the Weaver/Octave SCRMA, where needed for developing interpretation, education, and visitation opportunities.

The following management decisions, relating to recreation management, also apply to travel management: RR-110 [87], 112 [87], 115 [88], 123 [89], 128 [89], 129 [89], 134 [90], 145 [91], 146 [91], 148 [91], 149 [92], 159 [93], 160 [93], and 162 [93]. Management decisions AC-9 [94] and AC-10 [94] also apply to travel management.

## 2.6.5. Visual Resource Management

### 2.6.5.1. Land Use Allocations

**VR-12** Hassayampa MU lands are allocated to the following VRM classes (Map 16 ).

- Hassayampa SRMA is allocated to VRM Class II except:
  - San Domingo Wash RMZ to VRM Class III,
  - Vulture Mine RMZ to VRM Class III,
  - Stanton RMZ to VRM Class III, and
  - Wickenburg Community RMZ to VRM Class II where desired recreation settings are semi-primitive motorized and semi-primitive non-motorized and VRM Class III where desired settings are Rural or Roaded Natural.
- Utility corridors are allocated to VRM Class III or IV
- In areas not listed above, VRM classes are as portrayed on Map 16 .

## 2.7. Decisions Specific to the Harquahala Management Unit

The Harquahala MU is bounded on the east by the Hassayampa MU and extends west to the Hassayampa Field Office boundary with the BLM Colorado River District (Map 24 ). The northern boundary follows the BLM’s property line south of State Route 60, which goes west of Wickenburg through Aguila and Wenden. The MU extends south to Interstate Highway 10. The Harquahala MU contains the following lands:

- 420,730 acres of BLM-administered land,
- 48,410 acres of Arizona State land, and
- 29,616 acres of private land.

### 2.7.1. Biological Resources

#### 2.7.1.1. Desired Future Conditions

**WF-21.** Restore, enhance, and maintain the wildlife, plant diversity, and species richness of the Sonoran Desert Scrub vegetation community in the Belmont/Big Horn Mountains Wildlife Habitat Area. Maintain unfragmented wildlife habitat to provide adequate forage, cover, and access to water for healthy wildlife populations. Conserving and managing for healthy wildlife populations are priorities in managing the area.

### **2.7.1.2. Land Use Allocations**

**WF-22.** The Belmont/Big Horn Mountains Wildlife Habitat Area (WHA) includes 140,310 acres administered by BLM (Map 24 ).

### **2.7.1.3. Management Actions—Belmont/Big Horn Mountains WHA**

**WF-23.** Modify existing fences and incorporate design features in new fences to ensure free movement of mule deer and bighorn sheep.

**WF-24.** Mitigate vehicle routes and route improvements that conflict with maintaining wildlife habitat values to ensure achieving DFC. Mitigation includes the following:

- relocating route segments,
- building wildlife passes,
- limiting seasonal or time-of-day use, and
- closing routes.

**WF-25.** Mitigate the impacts of future vehicle route improvements on priority wildlife species, especially desert bighorn sheep and desert tortoise, to ensure achieving DFC.

**WF-26.** Mitigate recreation use and development to minimize impacts on priority wildlife species so as to ensure achieving DFC.

**WF-27.** Acquire State and private lands within the WHA from willing sellers.

## **2.7.2. Cultural Resources (CL)**

### **2.7.2.1. Land Use Allocations**

**CL-45.** Harquahala Mountains SCRMA includes approximately 65,000 acres administered by BLM (Map 24 ). It is located within the boundaries of the Harquahala Mountains Area of Critical Environmental Concern and includes the Harquahala Mountain Observatory National Register District. Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-46.** The following historic period sites are allocated to public use: Harquahala Peak Smithsonian Observatory and Harquahala Peak Pack Trail.

**CL-47.** Exclude from public use allocation sites located outside the SCRMA.

**CL-48.** Allocate the Harquahala Peak Smithsonian Observatory to “conservation for future use.”

**CL-49.** Allocate historic sites associated with the observatory and prehistoric sites in selected canyons to scientific use. Complete inventories and documentation of site concentrations in selected canyons and near springs.

### 2.7.2.2. Management Actions

**CL-50.** Manage cultural resources in the Harquahala Mountains SCRMA to conform to prescriptions for the Harquahala Mountains ACEC . Applicable management decisions for cultural resources are AC-14 [99], 18 [99], 26 [100], 27 [100], 28 [100], and 29 [100].

**CL-51.** Manage cultural resources in the Black Butte ACEC ACEC to conform to management prescriptions for the ACEC Applicable management decisions are AC-31 [101], 33 [101], 35 [101], 36 [101], and 37 [101].

**CL-52.** Acquire significant cultural sites on State and private lands within the SCRMA on a willing seller/willing buyer basis to afford them federal management and protection.

### 2.7.3. Lands and Realty Management (LR)

#### 2.7.3.1. Land Use Allocations

**LR-35.** 3,528 acres are identified as suitable for disposal in the Harquahala MU (Map 8 ).

**See LR-2 [44], Utility Corridors:** As shown on Map 9 , the Approved RMP shifts the Central Arizona Project (CAP) corridor to the north, extending it one mile north from the southern CAP right-of-way boundary. The RMP adds a new 1-mile-wide corridor leg on the Mead-Phoenix corridor (partly in Harquahala MU, partly in Hassayampa MU ).

**See LR-4 [44], Communication Sites:** The Harquahala MU contains the designated Harquahala Peak communication site.

### 2.7.4. Recreation Management (RR)

#### 2.7.4.1. Land Use Allocations

**RR-167.** The entire Harquahala MU is allocated as an Extensive Recreation Management Area (ERMA), where recreation will be managed consistent with the Decisions Applicable to the Entire Planning Area. There are no allocations for Special Recreation Management Areas or Recreation Management Zones.

#### 2.7.4.2. Management Actions

**RR-168.** Select, plan, and develop at least one staging and camping area to meet motorized and non-motorized recreation demand. Have this area provide accommodation for the following:

- parking,
- unloading OHVs and horses,
- overnight camping, and
- large organized event operations.

**RR-169.** Development of staging areas may include the following:

- informational signs
- kiosks,

- picnic tables,
- hitching posts,
- troughs for water hauled to the site,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-170.** Limit to 20 acres the area of exposed barren soil at staging areas. Mark or delineate the perimeter with barriers to prevent expansion.

**RR-171.** Develop at least one day-use area near or adjacent to lands allocated to maintain wilderness characteristics in the Belmont Mountains. The development would be designed for up to 50 vehicles with trailers to meet the non-motorized recreation demand. The facility would provide for parking, unloading horses, picnicking, and small special event operations. Development may include:

- informational signs,
- kiosks,
- picnic tables,
- hitching posts,
- loading ramp, and
- soil stabilization for dust abatement.

**RR-172.** Mark or delineate the perimeter of the Belmont Mountain day-use area to prevent expansion. Limit to 5 acres the site's area of exposed barren soil.

### **2.7.4.3. Special Designations**

#### **2.7.4.3.1. Harquahala Mountains Area of Critical Environmental Concern**

The Harquahala Mountains ACEC encompasses 74,950 acres of BLM-administered land in and around the Harquahala mountain range (Map 24 ).

#### **Relevance**

The area constitutes a rare intact, mountaintop vegetation community surrounded by low desert. As the highest topographic feature in the region, the mountains contain a biologically diverse system, in stark contrast to the surrounding landscape. The mountain range supports a diverse sky island ecosystem, with many species not found in the surrounding Sonoran Desert. The mountains are a natural area with few noticeable human intrusions in a primitive landscape setting. The mountain range is high enough that, from the summit, mountains in Mexico are visible during very clear air conditions. Conversely, the mountain range is a dominant landscape feature for travelers in many areas of southwest Arizona, visible from major highways (such as Interstate 10 and US Highway 60) as much as a hundred miles away.

#### **Importance**

The ACEC designation protects unique biological resources and significant cultural resources, including intact prehistoric and historic sites. This area also is of cultural importance to the Yavapai Tribe, as it was a major area of settlement for the Western Yavapai groups. The word



“Harquahala” is reported to be Yavapai for “water up high,” possibly reflecting the presence of springs in the canyons and interior basins.

The biological richness of the Harquahala Mountains is unique within southwest Arizona. The Harquahala Mountains and surrounding bajadas provide important wildlife habitat to a diverse array of species. The area is an ecoregional conservation site with important biodiversity values. The ACEC will safeguard important and unfragmented wildlife habitat.

The ACEC contains the Harquahala Mountain Smithsonian Observatory, which was used by astronomers during the 1920s to study solar activity. The observatory site is the centerpiece of a National Register of Historic Places district. The historic Harquahala Peak Pack Trail, Ellison’s Camp, and other sites are components of the historic district. The area also includes many well-preserved prehistoric sites along with historic ranching and mining sites. Some archaeological sites may be related to the use of the mountain range by a regional group of the Western Yavapai tribe.

#### **2.7.4.3.1.1. Desired Future Conditions**

**AC-14.** Protect the sensitive resources discussed in the statements of relevance and importance. Minimize the visual intrusion of any management activity so as to retain the outstanding scenic quality and natural landscape appearance. Achieve long-term conservation of scenic, natural resource, and cultural values.

**AC-15.** Preserve outstanding opportunities for high-quality hiking, backpacking, hunting, wildlife observation, and study and observation of cultural resource sites.

**AC-16.** Maintain the plant diversity and richness of the chaparral, riparian/wetland, and Sonoran Desert scrub vegetation communities.

**AC-17.** Achieve and maintain unfragmented wildlife habitat, which provides adequate forage, cover, and access to water for healthy wildlife populations.

**AC-18.** Maintain all existing interpretive facilities in good condition to promote public education and appreciation of natural and cultural resources. Interpret selected historic and prehistoric sites to support public education in conjunction with heritage tourism along the existing Harquahala Mountain Back Country Byway and hiking trails.

#### **2.7.4.3.1.2. Management Actions**

**AC-19.** Continue to manage the existing Harquahala Mountain Back Country Byway and associated facilities to current standards and conditions. Management is currently conducted under an activity plan. Portions of that plan not superseded by this Approved RMP will continue as valid guidance for management of the Back Country Byway.

**AC-20.** Mitigate impacts of surface disturbances that are inconsistent with achieving the DFC.

**AC-21.** Unless new vehicle routes and fences are needed to mitigate resource conflicts and achieve DFC, prohibit such construction.

**AC-22.** In the Inner Basin, which encompasses a valley just below and east of the summit, prohibit grazing improvements that encourage concentrated livestock use.

**AC-23.** Approve grazing improvements in the Inner Basin if they:

- are needed to meet resource objectives,
- would help achieve DFC, and
- conform to the standards and objectives for the area.

**AC-24.** Restore and protect all spring sources and the wildlife habitat values of springs.

**AC-25.** Acquire from willing parties State and private lands containing resource values that are consistent with the relevance and importance of the ACEC .

**AC-26.** Identify, monitor, and protect cultural resources that contribute to the importance of the ACEC . Implement actions to stabilize, repair, and maintain selected cultural sites in a condition that preserves their value to scientific or public uses as needed. Regularly monitor the condition of these sites for possible remedial action.

**AC-27.** Maintain the Harquahala Observatory historical site and its interpretive facilities to meet current standards and conditions.

**AC-28.** elect specific cultural sites for public use, based on the following characteristics as adapted from Management Decision Section 2.3.2.2, “Land Use Allocations” [36].

- presence of features of interest to the public, related to the history of the Harquahala Observatory site, Native American life ways, or ranching and mining history,
- accessibility to communities, travel routes, the Harquahala Pack Trail and other recreation trails, and the Harquahala Mountain Back Country Byway,
- site condition and the feasibility of stabilizing selected areas or features to withstand visitation,
- visitor safety,
- compatibility with other land uses and site values, such as traditional use by Native Americans,
- feasibility of regular inspections by BLM’s staff and volunteers, and
- partnership opportunities for interpretive and educational projects.

**AC-29.** Implement the following actions at cultural resource sites allocated to public use:

- build visitor facilities such as benches or parking areas,
- install signs along routes and trails to direct visitors to interpreted sites,
- build hardened walking trails,
- install interpretive signs and register boxes, and
- produce brochures and related educational materials or programs.

**AC-30.** Authorize commercial and noncommercial group tours if they are conducted with protective stipulations, in accordance with BLM’s regulations and, where required, special SRP s.

#### **2.7.4.3.2. Black Butte Area of Critical Environmental Concern**

The Black Butte ACEC encompasses 8,260 acres of BLM-administered land in the Vulture Mountains southwest of Wickenburg (Map 24 ).

#### **Relevance**

The area contains the Vulture obsidian source, which was a major source of "Apache tears" used to make stone tools during prehistoric times. The cliffs at the crest of Black Butte are

significant habitat features used by raptor species and are a pristine, scenic landmark. These cliffs are essential to maintaining the biological diversity of the surrounding area.

## **Importance**

Archaeologists recognize the Vulture obsidian source as one of the major sources of a valuable trade commodity in prehistoric Arizona. Obsidian (volcanic glass) was used widely in making stone tools. Nodules of Vulture obsidian have a distinctive chemical composition that allows archaeologists to map changes in its distribution, use, and trade by prehistoric peoples. Vulture obsidian has been traced to prehistoric sites within at least a 100-mile radius of Black Butte.

The value of the cliffs for nesting raptors is significant for a large area. Nesting raptors are sensitive to construction-related human activities. If these cliffs are not protected from these activities, cliff-nesting raptors would disappear from much of the surrounding area.

### **2.7.4.3.2.1. Desired Future Conditions**

**AC-31.** Manage the area to emphasize protecting the sensitive resources discussed in the statements of relevance and importance. Maintain current natural conditions and open space. Minimize the visual intrusion of any management activity so as to preserve the outstanding scenic quality and natural landscape appearance.

**AC-32.** Manage the area surrounding Black Butte and Jackrabbit Wash to:

- preserve valuable non-motorized recreation opportunities and settings,
- conserve scenic volcanic landscapes,
- maintain a semi-primitive non-motorized recreation setting.

**AC-33.** Retain Black Butte's physical integrity and cultural significance as an important source of material for prehistoric tool production.

**AC-34.** Sustain important raptor nesting habitat in the central Black Butte cliffs area. Restore, enhance, and maintain wildlife and plant diversity and species richness of this Sonoran Desert vegetation community. Set as ACEC priorities conserving vegetation communities and managing for healthy wildlife populations.

### **2.7.4.3.2.2. Management Actions**

**AC-35.** Mitigate impacts of surface disturbances that conflict with the protection of biological and cultural resources for which the ACEC is designated.

**AC-36.** Prohibit building new recreation sites that conflict with raptor management or cultural resource protection. Build non-motorized trails and recreation facilities, if needed, to ensure resource protection, protect wildlife habitat, or enhance recreation opportunities.

**AC-37.** Manage the ACEC to preserve the Vulture obsidian source, permit scientific studies, and implement actions to restrict activities that threaten its integrity.

**AC-38.** Prohibit rock climbing in the ACEC .

## 2.7.5. Travel Management

### 2.7.5.1. Management Actions

**TM-42.** Limit motorized vehicle use to designated routes. Build non-motorized trails and associated recreation facilities within the Black Butte ACEC if needed, to ensure resource protection, protect wildlife habitat, or enhance recreation opportunities.

**TM-43.** Mitigate vehicle routes within the Belmont/Big Horn Mountains WHA by relocating route segments, building wildlife passes, limiting seasonal or time-of-day use, or closing routes that conflict with maintaining wildlife habitat values to ensure achieving DFC.

**TM-44.** Coordinate the route system designation with the Lake Havasu Field Office to ensure consistency and connectivity across field office boundaries.

**TM-45.** Evaluate and designate all existing and potentially mechanized (OHV ) and non-mechanized trails and routes on public land in the Harquahala MU within five years of RMP approval using a structured process.

## 2.7.6. Visual Resource Management

### 2.7.6.1. Land Use Allocations

**VR-13.** Harquahala MU lands are allocated to the following VRM classes (Map 16 ).

- Harquahala Mountains ACEC and Black Butte ACEC are allocated to VRM Class II.
- Lands allocated to maintain wilderness characteristics are allocated to VRM Class II.
- Continue the allocation to VRM Class I in three designated wilderness areas (Harquahala Mountains, Big Horn Mountains, and Hummingbird Springs).
- Utility corridors are allocated to VRM Class III or IV.
- The remaining areas of the MU are allocated to VRM classes as portrayed on the above referenced map.

## 2.7.7. Wilderness Characteristics

### 2.7.7.1. Desired Future Conditions

**WC-23.** Maintain and manage wilderness characteristics , open space, and wildlife habitat. Retain natural landscapes. Preserve an array of scenic and special features in these areas.

**WC-24.** Provide opportunities for solitude and outstanding primitive recreation in remote settings.

**WC-25.** Restore, enhance, and maintain the wildlife/plant diversity and species richness of this Sonoran Desert scrub vegetation community.

**WC-26.** Wildlife populations and habitat are important aspects of the naturalness and are actively managed. Maintain important and unfragmented habitat for desert tortoises and desert bighorn sheep.

### **2.7.7.2. Land Use Allocations**

**WC-27.** Within the Harquahala MU, 53,789 acres are allocated to maintain wilderness characteristics as shown on Map 24. These areas encompass portions of the Belmont and Big Horn mountain ranges.

### **2.7.7.3. Management Actions**

**WC-28.** Manage the recreation setting along designated routes for a semi-primitive motorized setting. Manage areas away from designated motorized routes as semi-primitive non-motorized.

**WC-29.** Prohibit building new fences, unless construction helps to achieve the DFC.

**WC-30.** Acquire State and private lands on a willing seller/willing buyer basis.

**WC-31.** Prohibit the construction of new recreation sites that would conflict with wildlife management, habitat, or movement, or would affect sensitive cultural or botanical resources.

**WC-32.** Build non-motorized trails and recreation facilities only if needed for the following purposes:

- to ensure resource protection,
- to protect wilderness characteristics, and
- to protect wildlife habitat.

## **2.8. Decisions Specific to the Harcuvar Management Unit (MU)**

The Harcuvar MU is located at the eastern end of the Harcuvar mountain range. It is bounded on the west and north by the Hassayampa Field Office boundary with the BLM's Lake Havasu Field Office, and on the east and south by the boundary between BLM and non-BLM-administered lands (Map 25). The MU contains the following lands:

- 53,200 acres of BLM-administered lands,
- 6,280 acres of Arizona State land, and
- 3,360 acres of private land.

This MU is managed in accordance with the Decisions Applicable to the Entire Planning Area. Efforts will be undertaken to share information with the Lake Havasu Field Office in order to manage public lands consistently across field office boundaries.

### **2.8.1. Cultural Resources (CL)**

#### **2.8.1.1. Land Use Allocations**

**CL-53.** No sites are allocated to public use in the Harcuvar MU.

**CL-54.** Allocate any pictograph sites (painted rock art) to "conservation for future use" for long-term preservation.

## **2.8.2. Recreation Management (RR)**

### **2.8.2.1. Land Use Allocations**

**RR-173.** The entire Harcuvar MU is allocated as an Extensive Recreation Management Area (ERMA), where recreation will be managed consistent with the Decisions Applicable to the Entire Planning Area. There are no allocations for Special Recreation Management Areas or Recreation Management Zones.

## **2.8.3. Visual Resource Management (VR)**

### **2.8.3.1. Land Use Allocations**

**VR-14.** Harcuvar MU lands are allocated to the following VRM classes (Map 16 ).

- Mountains and canyons at the eastern end of the Harcuvar Mountains are allocated to VRM Class II.
- The remainder of the MU is allocated to VRM Class III.

## **2.9. Decisions Specific to the Agua Fria River Basin Management Unit**

The Upper Agua Fria River Basin MU is sandwiched between Prescott National Forest's Bradshaw Mountains and Verde Ranger Districts. The MU stretches from Cordes Junction in the south to the Town of Prescott Valley in the north (Map 26 ). The MU contains the following lands:

- 21,520 acres of BLM-administered lands,
- 36,990 acres of Arizona State land, and
- 39,290 acres of private land.

### **2.9.1. Cultural Resources (CL)**

#### **2.9.1.1. Land Use Allocations**

**CL-55.** Galena Gulch SCRMA includes 2,500 acres administered by BLM (Map 26 ). Allocate to public use sites that are accessible and appropriate for interpretive development as defined in the Cultural Resources section of the Decisions Applicable to the Entire Planning Area.

**CL-56.** Exclude from public use allocation sites located outside the SCRMA and not within the North Black Canyon Hiking and Equestrian Trails RMZ.

**CL-57.** Allocate the historic McCabe Cemetery to "conservation for future use" for long-term preservation.

**CL-58.** Allocate the Humboldt Ruin (NA 4637) to scientific use for thorough documentation.

### 2.9.1.2. Management Actions

**CL-59.** Build trails to link public use sites to segments of the Black Canyon National Recreation Trail. Local site types potentially suitable for public use include the following:

- prehistoric hilltop structures,
- rock art,
- mining camps, and
- features of the historic Black Canyon sheep driveway.

**CL-60.** Develop selected historic properties for heritage tourism to contribute to their long-term preservation and productive use. Highlight the history of prehistoric and historic tribes, mining, commerce, and transportation.

**CL-61.** Implement a combination of some or all of following and other actions at selected sites allocated to public use:

- platforms,
- restrooms,
- picnic tables,
- benches,
- trash receptacles,
- signs along routes and trails to direct visitors to interpreted sites,
- hard-surfaced walking trails,
- interpretive signs and register boxes, and
- brochures and related educational materials or programs.

**CL-62.** Maintain the barbed wire fence and erosion control features at the McCabe Cemetery.

**CL-63.** Install signs and suitable protection measures at the Humboldt Ruin. Conduct mapping and documentation at the site and use this information to establish a baseline for monitoring.

**CL-64.** Authorize commercial and noncommercial group tours to sites if they are conducted with protective stipulations in accordance with BLM regulations. Where required, issue SRP s.

## 2.9.2. Lands and Realty Management (LR)

### 2.9.2.1. Desired Future Conditions

**LR-36.** No public lands are available for disposal in the Upper Agua Fria River Basin MU.

**LR-37.** See management decision LR-2 [44], Utility Corridors. Establish a new 1-mile-wide corridor leg centered on the Southwest Gas (formerly El Paso) natural gas pipeline.

**LR-38.** Designate all State highway system routes as transportation corridors, including a new 1-mile-wide corridor along State Route 69, a 1/2-mile on each side of the centerline.

## **2.9.3. Recreation Management (RR)**

### **2.9.3.1. Desired Future Conditions**

**RR-174.** Maintain the natural landscape and open space qualities of the Upper Agua Fria River Basin MU.

**RR-175.** Offer visitors recreation opportunities, scenic views, and access to the Black Canyon Trail and other trail systems. Emphasize rural, roaded-natural, and semi-primitive motorized recreation settings where suitable.

### **2.9.3.2. Land Use Allocations**

**RR-176.** The entire Management Unit is allocated to the Upper Agua Fria River Basin SRMA (21,440 acres BLM), with the exception of 80 acres at and near the Cordes Junction Interchange on Interstate 17. The SRMA includes the following Recreation Management Zone (Map 26 ):

- North Black Canyon Hiking and Equestrian Trails RMZ (3,210 acres BLM).

### **2.9.3.3. Management Actions**

**RR-177.** Locate and develop new trails, parking, and staging areas, where suitable, for motorized and non-motorized use.

### **2.9.3.4. North Black Canyon Hiking and Equestrian Trails RMZ**

#### **2.9.3.4.1. Desired Future Conditions**

**RR-178.** Complete the Black Canyon National Recreation Trail north and east of Highway 69 to connect with trails in Prescott National Forest. Analyze, build and designate the trail to provide a non-motorized experience along the historic sheep driveway. Identify exact locations of the trail and facilities in conjunction with the Yavapai Trails Association and other interested citizens. Maintain rural roaded-natural and semi-primitive motorized settings as suitable.

#### **2.9.3.4.2. Management Actions**

**RR-179.** Locate and develop staging or camping areas near communities and vehicle access points to service the north Black Canyon Trail and adjoining public lands for the following purposes:

- parking,
- unloading OHVs and horses, and
- picnicking.

**RR-180.** Development at staging or camping areas could include the following:

- informational signs,
- kiosks,
- picnic tables,
- loading ramps, and
- soil stabilization for dust abatement.



**RR-181.** Limit to five acres the areas of exposed barren soil on each site. Mark or delineate the perimeters to prevent expansion.

**RR-182.** Issue a right-of-way for the Black Canyon Trail and facilities to preserve public access and protect the trail from incompatible land uses.

**RR-183.** Acquire access easements or rights-of-way for non-Federal lands where the trail or facilities are proposed.

**RR-184.** Recognize the trail and facilities in any land tenure actions. Retain a 1/4-mile corridor (1/8 mile each side) along the trail.

## **2.9.4. Special Designations**

### **2.9.4.1. Black Canyon National Recreation Trail**

The Secretary of the Interior designated the Black Canyon Trail as a National Recreation Trail in 2008 in conjunction with the 40th anniversary of the National Trails System. Located in the Bradshaw Mountain foothills of central Arizona and managed by a diverse partnership led by the BLM, this world-class hiking, mountain biking and equestrian trail system, which will eventually stretch for at least 70 miles, benefits both residents of the Black Canyon Corridor and visitors from metropolitan Phoenix, Prescott and other communities.

#### **2.9.4.1.1. Desired Future Conditions**

**RT-2.** Provide for the ever-increasing outdoor recreation needs of expanding urban populations to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources along the Black Canyon National Recreation Trail. Extend the existing trail northward and provide connections to other trail systems in Yavapai and Maricopa Counties.

**RT-3.** Establish the northern segments of the Black Canyon National Recreation Trail as a model of successful community partnerships. Determine exact locations of the trail or any ancillary trails and facilities, in conjunction with Yavapai County trails committees, local communities, equestrian and other user groups, and interested citizens. Citizen working groups will help with designation of trail alignments, design, construction, and maintenance.

#### **2.9.4.1.2. Management Actions**

The Desired Future Conditions and Management Actions for the North Black Canyon Hiking and Equestrian Trails RMZ are applicable to the Black Canyon National Recreation Trail. The following management decisions, relating to the Black Canyon Hiking and Equestrian Trails RMZ (within the Black Canyon MU ) are also applicable: RR-55 [74], 56 [74], 57 [74], 58 [74], 59 [75], 60 [75], and 61 [75].

## **2.9.5. Travel Management**

### **2.9.5.1. Management Actions**

**TM-46.** Locate a motorized route, generally parallel to the Black Canyon Trail, to support a long distance motor vehicle route network.

**TM-47.** Build trails to link cultural public use sites to the Black Canyon Trail. Trails could lead to suitable sites including prehistoric hilltop structures, rock art, mining camps, and features of the historic Black Canyon sheep driveway.

Management decisions for the North Black Canyon Hiking and Equestrian Trails RMZ also relate to travel management, as do recreation management decisions RR-174 [106] and RR-176 [106].

## **2.9.6. Visual Resource Management**

### **2.9.6.1. Land Use Allocations**

**VR-15.** Lands within the Upper Agua Fria River Basin MU are allocated to VRM Class III (Map 16 ).

## **2.10. Public Involvement**

The BLM will continue to work with existing partners, cultivate new partnerships, and actively seek the views of the public, using techniques such as news releases, website postings, and mass mailings to ask for participation and to inform the public of new and ongoing project proposals (including the status of travel management planning), site-specific planning, and opportunities and timeframes for comment. The public is encouraged to contact the BLM (Hassayampa Field Office at 21605 N. 7th Avenue, Phoenix, Arizona 85027) and request that their name be placed in the field office mailing list along with their specific area of interest (e.g., recreation, cultural, or mineral) for future projects. The public may also make this request by calling (623) 580 5500.

The BLM will also continue to coordinate, both formally and informally, with the numerous federal and state agencies, American Indian Tribes, local agencies, and officials interested and involved in the management of public lands in the planning area.

## **2.11. Management Plan Implementation**

Plan implementation is a continuous and active process. Decisions presented in the Management Decisions section of this Approved RMP are of three types: Immediate, One-Time, and Long-Term.

### **2.11.1. Immediate Decisions**

These decisions go into effect upon signature of the Record of Decision and Approved RMP . These include decisions such as the allocation of lands as available or unavailable for disposal, ACEC designations, and minerals actions. Immediate decisions require no additional analysis and provide the framework for any subsequent activities proposed in the planning area. Proposals for

actions such as land adjustments and other allocation-based actions will be reviewed against these decisions/allocations to determine if the proposal is in conformance with the plan.

## **2.11.2. One-Time Decisions**

These decisions include those that are implemented after additional site-specific analysis is completed. Examples are implementation of the development of an ACEC plan or TMP . One-time decisions usually require additional analysis and are prioritized as part of the BLM budget process. Priorities for implementation of “one-time” RMP decisions will be based on several criteria, including:

- Current and projected resource needs and demands.
- National and statewide BLM management direction and program emphasis.
- Funding.

## **2.11.3. Long-Term Guidance/Life of Plan Direction**

These decisions include the goals, objectives (Desired Future Conditions), and management actions established by the plan that are applied during site-specific analyses and activity planning. This guidance is applied whether the action is initiated by the BLM or by a non-BLM project proponent. Long-term guidance and plan direction is incorporated into BLM management as implementation-level planning and project analysis occurs. For instance, if any developer, including the BLM, proposes construction of a new motorized trail through public land, that proposal would need to be in harmony with the goals, allocations, and actions established through this Approved RMP relative to that parcel of land, for the associated biological, prescribed recreation settings, VRM , and lands interests. If the proposal was in compliance with the BLM’s long-term guidance, it could easily move onto the next level of assessment. In short, these decisions “guide” BLM decision-makers in what is, and is not acceptable through the life of the plan.

## **2.11.4. General Implementation Schedule of *One-Time* Actions**

Decisions in the Approved RMP will be implemented over a period of years depending on budget and staff availability. Most of these actions require additional analysis and site-specific activity planning. Annual priority lists and schedules will assist BLM managers and staff members in preparing budget requests and in scheduling work. However, the proposed priorities must be considered tentative and will be affected by future funding, changing program priorities, non-discretionary workloads, community dynamics, and cooperation by partners and external publics.

## **2.11.5. Implementation Updates**

The BLM will prepare an Annual Planning Update Report and Summary on the implementation of the Approved RMP . This report will be released in January of the year following the fiscal year reviewed (for example, January 2011 for Fiscal Year 2010) and will be available to the public on the Internet, with hard copies available upon request. Annual review of the plan will provide consistent tracking of accomplishments and provide information that can be used to develop annual budget requests to continue implementation.

## 2.11.6. Maintaining the Plan

Land use plan decisions and supporting information can be maintained to reflect minor changes in data, but maintenance is limited to refining, documenting, and/or clarifying previously approved decisions. Some examples of maintenance actions include:

- Correcting minor data, typographical, mapping, or tabular data errors.
- Refining baseline information as a result of new inventory data (e.g., changing the boundary of an archaeological district, refining the known habitat of special status species, or adjusting the boundary of a fire management unit based on updated fire regime condition class inventory, fire occurrence, monitoring data, and/or demographic changes).

The BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data and/or support new management techniques, best management practices, and scientific principles. Adaptive management strategies may be used when monitoring data is available as long as the goals and objectives of the plan are met (see Plan Evaluation and Adaptive Management). In other words, where monitoring shows land use plan actions or best management practices are not effective, modifications or adjustments may occur within the plan without amendment or revision of the plan as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed.

Plan maintenance will be documented in supporting records and reported in annual planning updates. Plan maintenance does not require formal public involvement, inter-agency coordination, or the NEPA analysis required for making new land use plan decisions.

## 2.11.7. Changing the Plan

Land use plan decisions are changed through either a plan amendment or a plan revision. Amendments and revisions are accomplished with public input and the appropriate level of environmental analysis.

Plan amendments are often prompted by the need to:

- consider a proposed action that does not conform to the plan,
- implement a policy that changes land use plan decisions,
- respond to changed uses on public lands, and
- consider significant new information from resource assessments, monitoring, or scientific studies that change land use plan decisions.

Plan revisions involve preparation of a new RMP to replace an existing RMP . Revisions are necessary if monitoring and evaluation findings, new data, new or revised policy, or changes in circumstances indicate that decisions for an entire plan, or a major portion of the plan, no longer serve as a useful guide for resource management.

The Approved RMP may be changed, should conditions warrant, through a plan amendment. A plan amendment may become necessary if major changes are needed or in consideration of a proposal or action that is not in conformance with the plan. The results of monitoring, evaluation of new data, or policy changes and changing public needs might also provide the impetus for an amendment. Generally, an amendment is issue-specific. If several areas of the plan become

outdated or otherwise obsolete, a plan amendment may become necessary. Amendments are accomplished with public input and the appropriate level of environmental analysis.

## **2.12. Plan Evaluation and Adaptive Management**

### **2.12.1. Plan Evaluation**

Evaluation is a process in which the plan and monitoring data are reviewed to see if management goals and objectives are being met and if management direction is sound. Land use plan evaluations determine if decisions are being implemented, whether mitigation measures are satisfactory, whether there are significant changes in the related plans of other entities, whether there is new data of significance to the plan, and if decisions should be changed through amendment. Monitoring data gathered over time is examined and used to draw conclusions on whether management actions are meeting stated objectives, and if not, why they are failing. Conclusions are then used to make recommendations on whether to continue current management or to identify what changes need to be made in management practices to meet objectives.

The BLM will use land use plan evaluations to determine if the decisions in the Approved RMP , supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Evaluation of the Approved RMP will generally be conducted every 5 years, unless unexpected actions, new information, or significant changes in other plans, legislation, or litigation triggers an evaluation.

The following estimated evaluation schedule will be followed for the Bradshaw-Harquahala RMP :

- 2014
- 2019
- 2024
- 2029

### **2.12.2. Adaptive Management**

As defined by the Office of Environmental Policy and Compliance, adaptive management is a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or re-evaluated.

As described in the DRMP/DEIS and the PRMP/FEIS, the Bradshaw-Harquahala Approved RMP fosters adaptive management by the presentation of desired future conditions that focus on reaching outcomes rather than identifying inflexible standards and prescriptions that may not be applicable in certain situations.

When land use plan actions or best management practices are found to be ineffective, modifications may occur without amendment of the plan as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed. This approach uses on-the-ground monitoring, review of scientific information, and consideration of practical experience to adjust management and modify implementation of the plan to reach the desired outcome.



# Abbreviations and Acronyms

## A

- ACEC :**  
Area of Critical Environmental Concern
- ADA :**  
Americans with Disabilities Act
- ADEQ :**  
Arizona Department of Environmental Quality
- ADOT :**  
Arizona Department of Transportation
- AFNM :**  
Agua Fria National Monument
- AGFD :**  
Arizona Game and Fish Department
- AML :**  
Appropriate Management Level
- AMP :**  
Allotment Management Plan
- AMS :**  
Analysis of the Management Situation
- APHIS :**  
Animal and Plant Health Inspection Service
- ARMP :**  
Approved Resource Management Plan
- ARPA :**  
Archaeological Resources Protection Act
- ASM :**  
Arizona State Museum
- ATV :**  
All-Terrain Vehicle

## B

- BLM :**  
U.S. Department of the Interior, Bureau of Land Management
- BO :**  
Biological Opinion

## C

- CAP :**  
Central Arizona Project
- CEQ :**  
Council on Environmental Quality
- CFR :**  
Code of Federal Regulations
- CWA :**  
Clean Water Act

**D**

- DEIS :**  
Draft Environmental Impact Statement
- DFC :**  
Desired Future Condition
- DHS :**  
Department of Homeland Security
- DM :**  
Departmental Manual
- DNA :**  
Determination of NEPA Adequacy
- DNRC :**  
Department of Natural Resources Conservation
- DO :**  
Dissolved Oxygen
- DOI :**  
Department of the Interior
- DPC :**  
Desired Plant Community
- DR :**  
Decision Record (for an Environmental Assessment)
- DRMP :**  
Draft Resource Management Plan

**E**

- EA :**  
Environmental Analysis or Environmental Assessment
- EIS :**  
Environmental Impact Statement
- EJ :**  
Environmental Justice
- EO :**  
Executive Order
- EPA :**  
Environmental Protection Agency
- EPCRA :**  
Emergency Planning and Community Right to Know Act
- EPS :**  
Economic Profile System
- EPSC :**  
Economic Profile System for Communities
- ERMA :**  
Extensive Recreation Management Area
- ESA :**  
Endangered Species Act of 1973, as amended

**F**

- FACA :**  
Federal Advisory Committee Act



**FCC :**  
Federal Communications Commission

**FEIS :**  
Final Environmental Impact Statement

**FERC :**  
Federal Energy Regulatory Commission

**FHWA :**  
Federal Highway Administration

**FIMMS :**  
Facilities Inventory Maintenance Management System

**FIL :**  
Fire Intensity Level

**F.I.R.E. :**  
Finance, Insurance, and Real Estate

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

**FMP :**  
Fire Management Plan

**FMZ :**  
Fire Management Zone

**FO :**  
Field Office

**FOIA :**  
Freedom of Information Act

**FONSI :**  
Finding of No Significant Impact

**FR :**  
Federal Register

**FS :**  
Forest Service

**FWS :**  
Fish and Wildlife Service

**FY :**  
Fiscal Year

**G**

**GIS :**  
Geographic Information Systems

**H**

**HA :**  
Herd Area

**HAZMAT :**  
Hazardous Materials

**HMA :**  
Herd Management Area

**HMM :**  
Hazardous Materials Management

**HMP :**  
Habitat Management Plan

**I**

- IB :**  
Information Bulletin
- IBLA :**  
Interior Board of Land Appeals
- IDT :**  
Interdisciplinary Team
- IM :**  
Instruction Memorandums [or Memoranda]
- IMP :**  
Interim Management Policy (for WSAs)

**L**

- LAA :**  
Likely to Adversely Affect
- LAC :**  
Limits of Acceptable Change
- LN :**  
Lease Notice
- LNT :**  
Leave No Trace
- LUP :**  
Land Use Plan

**M**

- MA :**  
Management Action
- MAG :**  
Maricopa Association of Governments
- MFP :**  
Management Framework Plan
- MIS :**  
Management Indicator Species
- MIST :**  
Minimum Impact Suppression Tactics
- MOU :**  
Memorandum of Understanding
- MPO :**  
Mining Plan of Operation
- MU :**  
Management Unit

**N**

- NAAQS :**  
National Ambient Air Quality Standards
- NAGPRA :**  
Native American Graves Protection and Repatriation Act
- NCP :**  
National Contingency Plan

**NEPA :**

National Environmental Policy Act

**NFP :**

National Fire Plan

**NHPA :**

National Historic Preservation Act

**NHT :**

National Historic Trail

**NIFC :**

National Interagency Fire Center

**NL :**

No Lease

**NLAA :**

Not Likely to Adversely Affect

**NLCS :**

National Landscape Conservation System

**NOA :**

Notice of Availability

**NO<sub>x</sub> :**

Nitrogen Oxides

**NP :**

National Park

**NPDES :**

National Pollutant Discharge Elimination System

**NPS :**

National Park Service

**NRCS :**

Natural Resources and Conservation Service (formerly Soil Conservation Service)

**NREL :**

National Renewable Energy Laboratory

**NRHP :**

National Register of Historic Places

**NSO :**

No Surface Occupancy

**NWR :**

National Wildlife Refuge

**O**

**OHV :**

Off-Highway Vehicle

**ORV :**

Off-Road Vehicle

**P**

**PCA :**

Primary Conservation Area

**PFC :**

Proper Functioning Condition

**PILT :**

Payment in Lieu of Taxes

**PL :**

Public Law

**PM<sub>10</sub> :**

Particulate Matter 10 microns in diameter or smaller

**PPA :**

Pollution Prevention Act

**PRPA :**

Paleontological Resources Protection Act

**PRMP :**

Proposed Resource Management Plan

**PSD :**

Prevention of Significant Deteriorations

**R****R & PP :**

Recreation and Public Purposes

**RAC :**

Resource Advisory Council

**RCRA :**

Resource Conservation and Recovery Act

**REIS :**

Reasonably Foreseeable Development

**RFD :**

Reasonably Foreseeable Development

**RMIS :**

Recreation Management Information System

**RMP :**

Resource Management Plan

**RMZ :**

Recreation Management Zone

**ROD :**

Record of Decision

**ROS :**

Recreation Opportunity Spectrum

**ROW :**

Right-of-Way

**S****SARA :**

Superfund Amendments and Reauthorization Act

**SCRMA :**

Special Cultural Resource Management Area

**SHPO :**

State Historic Preservation Office

**SIP :**

Arizona State Implementation Plan

**SMA :**

Surface Management Agency

**SRMA :**

Special Recreation Management Area

**SRP :**

Special Recreation Permit

**SSP :**

Special Status Species

**T**

**T&E :**

Threatened and Endangered

**TBC :**

To Be Considered

**TCP :**

Traditional Cultural Properties

**TGA :**

Taylor Grazing Act

**TMDL :**

Total Maximum Daily Load

**TMP :**

Transportation Management Plan

**TSCA :**

Toxic Substance Control Act

**U**

**USC :**

United States Code

**USDA :**

United States Department of Agriculture

**USDAFS :**

United States Department of Agriculture Forest Service

**USDI :**

United States Department of the Interior

**USDOT :**

United States Department of Transportation

**USFS :**

United States Forest Service

**USFWS :**

United States Fish and Wildlife Service

**USGS :**

United States Geological Survey

**V**

**VRM :**

Visual Resource Management

**W**

**WA :**

Wilderness Area

**WFIP :**

Wildland Fire Implementation Plan

**WHA :**

Wildlife Habitat Area

**WHBA :**

Wild Free Roaming Horse and Burro Act

**WMA :**

Wildlife Management Area

**WO :**

BLM Washington Office

**WSA :**

Wilderness Study Area

**WSR :**

Wild and Scenic Rivers

**WUI :**

Wildland Urban Interface

# Glossary

**ACQUIRED PUBLIC LANDS :**

Lands in Federal ownership that the Government obtained as a gift or by purchase, exchange, or condemnation. Also see PUBLIC LANDS .

**ACTIVE MINING CLAIM :**

A parcel of federal land, valuable for a mineral deposit or deposits. A claim is a parcel for which one has asserted a right of possession. The right is restricted to extracting and developing a mineral deposit. The rights granted by a mining claim are valid against a challenge by the United States and other claimants only after the discovery of a valuable mineral deposit. There are two types of mining claims: lode and placer. Since October 5, 1992, only claimants who have a legal interest in ten or fewer mining claims nationwide and who also meet other requirements, may perform assessment work and file evidence of assessment. All other claimants must pay an annual fee of \$125 per claim to BLM or file for a waiver from payment by August 31. Failure to file by August 31 requires BLM to declare the claim or site null and void by operation of law.

**ACTIVITY PLAN :**

A detailed and specific plan for managing a single resource program or plan element undertaken, as needed, to implement the more general resource management plan (RMP ) decisions. BLM prepares activity plans for specific areas to reach specific resource management objectives within stated timeframes.

**AIR QUALITY RATING :**

See and CLASS II AIR QUALITY RATING .

**AIRSHED:**

An area that shares the same air because of topography, meteorology, and climate; the atmospheric zone potentially influenced by air pollutants from various sources.

**ALLOTMENT:**

An area of one or more pastures where one or more operators graze their livestock. An allotment generally consists of Federal rangelands, but may include intermingled parcels of private, State, or Federal lands. BLM stipulates the number of livestock and season of use for each allotment.

**ALLOTMENT MANAGEMENT PLAN (AMP) :**

A livestock grazing management plan for a specific unit of rangeland and based on multiple use resource management objectives. The AMP considers livestock grazing in relation to other uses of rangelands and to renewable resources--watershed, vegetation, and wildlife. An AMP establishes the seasons of use, number of livestock to be permitted on rangelands, and the range improvements needed.

**ANALYSIS OF THE MANAGEMENT SITUATION (AMS) :**

Step 4 in BLM's resource management planning process. An AMS describes a planning area's current public land management and suggests opportunities to better manage this land.

**ANIMAL UNIT :**

One mature (1,000 pound) cow or the equivalent based upon an average daily forage consumption of 26 pounds of dry matter per day.

**ANIMAL UNIT MONTH (AUM) :**

The amount of forage needed to sustain one cow, five sheep, or five goats for a month.

**ANNUAL PLANT :**

A plant that completes its life cycle and dies in 1 year or less. Also see PERENNIAL PLANT .

**APPROPRIATE MANAGEMENT LEVEL (AML) :**

In wild horse and burro management, a single number that is the high point of an established population range to maintain a thriving natural ecological balance, based on available forage, water, and other resource needs or conflicts.

**AQUATIC HABITATS :**

Habitats confined to streams, rivers, springs, lakes, ponds, reservoirs, and other water bodies.

**AQUIFER:**

A water-bearing bed or layer of permeable rock, sand, or gravel capable of yielding large amounts of water.

**AQUIFER RECHARGE :**

Adding water to an aquifer, a process that occurs naturally from the infiltration of rainfall and from water flowing over earth materials that allow it to infiltrate below the land surface.

**ARCHAEOLOGICAL FEATURE :**

A nonportable object, not recoverable from its matrix (usually in an archeological site) without destroying its integrity. Examples are rock paintings, hearths, post holes, floors, and walls.

**AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) :**

A designated area on public lands where special management attention is required - (1) to protect and prevent irreparable damage to fish and wildlife; (2) to protect important historic, cultural, or scenic values, or other natural systems or processes; or (3) to protect life and safety from natural hazards.

**ASPECT:**

See VISUAL ASPECT .

**ARIZONA STANDARDS FOR RANGELAND HEALTH AND GUIDELINES FOR GRAZING ADMINISTRATION:**

Standards and guidelines developed collaboratively by BLM and the Arizona Resource Advisory Council (RAC) to address the minimum requirements of the Department of the Interior's final rule for Grazing Administration effective Aug. 21, 1995.

**BACK COUNTRY BYWAY :**

A component of the national scenic byway system which focuses primarily on corridors along back country roads which have high scenic, historic, archeological, or other public interest values. The road may vary from a single track bike trail to a low speed, paved road that traverses back country areas. (BLM Handbook H-8357-1, B 2)

**BACK COUNTRY ZONE :**

Areas with undeveloped, primitive, and self-directed visitor experience without provisions for motorized or mechanized access, except for designated routes. Also see and PASSAGE ZONE .

**BASE FLOW (DISCHARGE) :**

The portion of stream discharge derived from such natural storage sources as groundwater, large lakes, and swamps but not derived from direct runoff or flow from stream regulation, water diversion, or other human activities.

**BASE HERD :**

The constant livestock herd size that is continually licensed but may not be the same as the grazing (carrying) capacity. Also see GRAZING CAPACITY (CARRYING CAPACITY) .

**BIOLOGICAL ASSESSMENT :**

Information prepared by or under the direction of a Federal agency to determine whether a proposed action is likely to (1) harm threatened or endangered species or designated critical habitat, (2) jeopardize the existence of species that are proposed for listing, or (3) adversely modify proposed critical habitat. Biological assessments must be prepared for major



construction activities. The outcome of a biological assessment determines whether formal Section 7 consultation or a conference is needed. Also see BIOLOGICAL EVALUATION .

**BIOLOGICAL DIVERSITY (BIODIVERSITY):**

The full range of variability within and among living organisms and the ecological complexes in which they occur. Biological diversity encompasses ecosystem or community diversity, species diversity, and genetic diversity.

**BIOLOGICAL EVALUATION :**

The gathering and evaluation of information on proposed endangered and threatened species and critical and proposed critical habitat for actions that do not require a biological assessment. Also see BIOLOGICAL ASSESSMENT .

**BIOLOGICAL OPINION :**

A document that includes the following - (1) the opinion of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service as to whether a Federal action is likely to jeopardize the existence of a species listed as threatened or endangered or destroy or adversely modify designated critical habitat, (2) a summary of the information on which the opinion is based, and (3) a detailed discussion of the effects of the action on listed species or designated critical habitat.

**BIOLOGICAL VEGETATION TREATMENT :**

Methods of vegetation treatment that employ living organisms to selectively suppress, inhibit, or control herbaceous and woody vegetation. Examples of such methods include insects; pathogens; and grazing by cattle, sheep, or goats.

**BIRDS OF CONSERVATION CONCERN :**

As listed by the U.S. Fish and Wildlife Service, birds (other than threatened or endangered species) that are in greatest need of conservation action and without such action might become listed as threatened or endangered.

**BLM SENSITIVE SPECIES :**

See SENSITIVE SPECIES .

**BURNBLOCK:**

In prescribed burning, an area having uniform enough conditions of stand and fuel to be treated uniformly under a given burning prescription. The size of burnblocks ranges from the smallest that allows an economically acceptable cost per acre, up to the largest that can conveniently be treated in one burning period.

**BURN OUT :**

Setting fire inside a control line to widen it or consume fuel between the edge of the fire and the control line.

**CANDIDATE SPECIES :**

Species not protected under the Endangered Species Act, but being considered by the U.S. Fish and Wildlife Service for inclusion on the list of federally threatened and endangered species.

**CANOPY:**

The cover or leaves of branches formed by the tops or crowns of plants as viewed from above the cover measured by the vertical projection downward of the extent of the cover and expressed as a percentage of the ground so covered.

**CARBON-14 DATING :**

A method of estimating the age of an artifact containing carbon by measuring the radioactivity of its carbon-14 content to determine how long ago the specimen was separated from equilibrium with the atmosphere/plant/animal cycle. Continuously produced in the atmosphere by cosmic ray bombardment, carbon-14 decays with a half-life typically described as 5,568 years. An object is dated by comparing its carbon-14 activity per unit mass with that in a contemporary sample.

**CARRYING CAPACITY (RECREATION) :**

The amount of recreation use a given resource can sustain before the resource's quality begins to irreversibly deteriorate.

**CARRYING CAPACITY (WILDLIFE) :**

The most animals a specific habitat or area can support without causing deterioration or degradation of that habitat. Also see GRAZING CAPACITY (CARRYING CAPACITY) .

**CASUAL USE (MINING) :**

Mining that only negligibly disturbs Federal lands and resources and does not include the use of mechanized earth moving equipment or explosives or motorized equipment in areas closed to off-highway vehicles. Casual use generally includes panning, non-motorized sluicing, and collecting mineral specimens using hand tools.

**CASUAL USE (RECREATION) :**

Noncommercial or nonorganized group or individual activities on public land. Casual use does the following:

- complies with land use decisions and designations, i.e. special area designations,
- does not award cash prizes,
- is not publicly advertised
- poses minimal risk for damage to public land or related water resources, and
- generally requires no monitoring

If the use goes beyond those conditions, the activity should be treated as any other organized recreational group or competitive activity or event for which BLM would require the event organizer to obtain a special recreation permit (SRP ).

**CASUAL USE OF MINERAL MATERIALS :**

Extracting mineral materials for limited personal (noncommercial) uses.

**CATEGORICAL EXCLUSION :**

A category of federal actions that do not individually or cumulatively have a significant effect on the human environment and for which an environmental impact statement or an environment assessment is required.

**CHEMICAL VEGETATION TREATMENTS :**

The applying of chemicals to control unwanted vegetation.

**CLASS I AIR QUALITY RATING :**

Under the Clean Air Act, the rating given areas of the country selected to receive the most stringent degree of air quality protection. Also see CLASS II AIR QUALITY RATING .

**CLASS II AIR QUALITY RATING :**

Under the Clean Air Act, the rating given areas of the country selected for somewhat less stringent protection from air pollution damage than Class I areas, except in specified cases. Also see CLASS I AIR QUALITY RATING .

**COLONIZATION:**

Occupation of an area by a group of organisms that previously did not occupy the area.

**COMMUNITY:**

A collective term used to describe an assemblage of organisms living together; an association of living organisms having mutual relationships among themselves and with their environment and thus functioning at least to some degree as an ecological unit.

**COMPETITIVE RACES :**

For purposes of this plan, all competitive events that have an element of speed as a component, including, motorcycle enduros, OHV desert racing, and equestrian endurance rides.

**COMMUNITY RESOURCE UNIT (CRU) :**

In social ecology, a subdivision of a human resource unit that shows the "catchment area" of a community, or its zone of influence, beyond which people relate to another community. Geographic features or settlement patterns often determine these boundaries. People in CRUs experience great face-to-face knowledge, and the caretaking systems through informal networks are the strongest. Also see HUMAN RESOURCE UNIT (HRU) .

**CONSERVATION EASEMENT :**

An interest in land which prohibits the landowner from doing things which otherwise would be lawful upon his estate in order to protect the natural resources of the property (e.g., open space, wildlife, riparian habitat, wetlands, etc.). Also see EASEMENT.

**COOPERATIVE MANAGEMENT AGREEMENT :**

A document that describes agreements made between BLM and the public on adjusting grazing use. This document also defines the specific adjustments and the schedule of adjustments (usually over a 5-year period).

**COOPERATIVE RECREATION MANAGEMENT AREA (CRMA) :**

An area for which BLM enters into a cooperative management agreement with a local government to manage recreation land.

**CORRIDOR:**

See DESIGNATED CORRIDOR .

**COVER:**

(1) Plants or plant parts, living or dead, on the surface of the ground; (2) plants or objects used by wild animals for nesting, rearing of young, escape from predators, or protection from harmful environmental conditions.

**COW-CALF LIVESTOCK OPERATION :**

A livestock operation that maintains a base breeding herd of mother cows and bulls. The cows produce a calf crop each year, and the operation keeps some heifer calves from each calf crop for breeding replacements. Between the ages of 6 and 12 months, the operation sells the rest of the calf crop along with old and nonproductive cows and bulls.

**CRITERIA AIR POLLUTANTS :**

Air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Examples of such pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM<sub>10</sub> and PM<sub>25</sub>.

**CRITERIA POLLUTANTS :**

See CRITERIA AIR POLLUTANTS .

**CRITICAL HABITAT, DESIGNATED :**

Specific parts of an area (1) that are occupied by a federally listed threatened or endangered plant or animal at the time it is listed and (2) that contain physical or biological features essential to the conservation of the species or that may require special management or protection. Critical habitat may also include specific areas outside an area occupied by a federally listed species if the Secretary of the Interior determines that these areas are essential for conserving the species.

**CULTURAL HERITAGE VALUES :**

The irreplaceable qualities that are embodied in cultural resources, such as scientific information about prehistory and history, cultural significance to Native Americans and other groups, and the potential to enhance public education and enjoyment of the Nation's rich cultural heritage. Section 1 of the National Historic Preservation Act states that "the preservation of this irreplaceable heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans."

**CULTURAL RESOURCES:**

A location of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Cultural resources include archaeological and historical sites, structures, buildings, objects, artifacts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains or areas where significant human events occurred, even though evidence of the events no longer remains. And they may include definite locations of traditional, cultural, or religious importance to specified social or cultural groups.

**CULTURAL RESOURCE DATA :**

Cultural resource information embodied in material remains such as artifacts, features, organic materials, and other remnants of past activities. An important aspect of data is context, a concept that refers to the relationships among these types of materials and the situations in which they are found.

**CULTURAL RESOURCE DATA RECOVERY :**

The professional application of scientific techniques of controlled observation, collection, excavation, and/or removal of physical remains, including analysis, interpretation, explanation, and preservation of recovered remains and associated records in an appropriate curatorial facility used as a means of protection. Data recovery may sometimes employ professional collection of such data as oral histories, genealogies, folklore, and related information to portray the social significance of the affected resources. Such data recovery is sometimes used as a measure to mitigate the adverse impacts of a ground-disturbing project or activity.

**CULTURAL RESOURCE INTEGRITY :**

The condition of a cultural property, its capacity to yield scientific data, and its ability to convey its historical significance. Integrity may reflect the authenticity of a property's historic identity, evidenced by the survival or physical characteristics that existed during its historic or prehistoric period, or its expression of the aesthetic or historic sense of a particular period of time.

**CULTURAL RESOURCE INVENTORY (SURVEY) :**

A descriptive listing and documentation, including photographs and maps of cultural resources. Included in an inventory are the processes of locating, identifying, and recording sites, structures, buildings, objects, and districts through library and archival research, information from persons knowledgeable about cultural resources, and on-the-ground surveys of varying intensity.

Class I: A professionally prepared study that compiles, analyzes, and synthesizes all available data on an area's cultural resources. Information sources for this study include published and unpublished documents, BLM inventory records, institutional site files, and state and National Register files. Class I inventories may have prehistoric, historic, and ethnological and sociological elements. These inventories are periodically updated to include new data from other studies and Class II and III inventories.

Class II: A professionally conducted, statistically based sample survey designed to describe the probable density, diversity, and distribution of cultural properties in a large area. This survey is achieved by projecting the results of an intensive survey carried out over limited parts of the target area. Within individual sample units, survey aims, methods, and intensities are the same as those applied in Class III inventories. To improve statistical reliability, Class II inventories may be conducted in several phases with different sample designs.

Class III: A professionally conducted intensive survey of an entire target area aimed at locating and recording all visible cultural properties. In a Class III survey, trained observers commonly conduct systematic inspections by walking a series of close-interval parallel transects until they have thoroughly examined an area.

**CULTURAL RESOURCE PROJECT PLAN :**

For cultural resource projects, a detailed design plan that defines the procedures, budget, and schedule for such activities as structure stabilization, recordation, interpretive development, and construction of facilities such as trails. These plans include estimates on workforce, equipment, and supply needs.

**CULTURAL SITE :**

A physical location of past human activities or events, more commonly referred to as an archaeological site or a historic property. Such sites vary greatly in size and range from the location of a single cultural resource object to a cluster of cultural resource structures with associated objects and features.

**CUMULATIVE IMPACTS :**

(40 CFR 1508.8) "...is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

**DATA RECOVERY :**

See CULTURAL RESOURCE DATA RECOVERY .

**DECISION RECORD :**

A manager's decision on a categorical exclusion review or an environmental assessment. Comparable to the record of decision for an environmental impact statement, the decision record includes - (1) a finding of no significant impact, (2) a decision to prepare an environmental impact statement, or (3) a decision not to proceed with a proposal. Also see RECORD OF DECISION .

**DEFERRED ROTATION GRAZING :**

Moving grazing animals to various parts of a range in succeeding years or seasons to provide for seed production, plant vigor, and seedling growth.

**DESERT TORTOISE HABITAT CLASSIFICATIONS :**

Three categories of desert tortoise habitat based on population, viability, size, density, and manageability and derived from BLM inventories of desert tortoise habitat throughout the planning areas between 1989 and 1999. The categories are as follows -

Category I: Medium to high tortoise density. Habitat area essential for maintaining large, viable populations.

Category II: Low to moderate tortoise density. Habitat is manageable.

Category III: Isolated patches of good habitat exist but are difficult to manage. Most management conflicts are not resolvable.

**DESIGNATED CORRIDOR :**

BLM's preferred route for placing rights-of-way for utilities (i.e. pipelines and powerlines) and transportation (i.e. highways and railroads).

**DESIRED PLANT COMMUNITY :**

The plant community that has been determined through a land use or management plan to best meets the plan's objectives for a site. A real, documented plant community that embodies the resource attributes needed for the present or potential use of an area, the desired plant

community is consistent with the site's capability to produce the required resource attributes through natural succession, management intervention, or a combination of both.

**DISPERSED RECREATION :**

Recreation that does not require developed sites or facilities.

**EASEMENT:**

The right to use land in a certain way granted by a landowner to a second party. Also see CONSERVATION EASEMENT .

**ECOLOGICAL CONDITION :**

See ECOLOGICAL SITE RATING (ECOLOGICAL CONDITION/ECOLOGICAL STATUS) .

**ECOLOGICAL INTEGRITY :**

The quality of a natural unmanaged or managed ecosystem in which the natural ecological processes are sustained, with genetic, species, and ecosystem diversity assured for the future.

**ECOLOGICAL NICHE :**

See NICHE.

**ECOLOGICAL SITE (RANGE SITE) :**

A distinctive kind of land that has specific physical characteristics and that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

**ECOLOGICAL SITE DESCRIPTIONS (RANGE SITE GUIDE) :**

Descriptions of the following characteristics of an ecological site - soils, physical features, climatic features, associated hydrologic features, plant communities possible on the site, plant community dynamics, annual production estimates and distribution of production throughout the year, associated animal communities, associated and similar sites, and interpretations for management.

**ECOLOGICAL SITE INVENTORY :**

The basic inventory of present and potential vegetation on BLM rangeland.

**ECOLOGICAL SITE RATING (ECOLOGICAL CONDITION/ECOLOGICAL STATUS) :**

The present state of vegetation of an ecological site in relation to the potential natural community for the site. Independent of the site's use, the ecological site rating is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a community resemble those of the potential natural community. The four ecological status classes correspond to 0-25 percent, 25-50 percent, 51-75 percent, or 76-100 percent similarity to the potential natural community and are called early-seral, mid-seral, late-seral, and potential natural community, respectively.

**ECOSYSTEM:**

Organisms, together with their abiotic environment, forming an interacting system and inhabiting an identifiable space.

**ECOTOURISM:**

Tourism that essentially focuses on natural rather than developed attractions with the goal of enhancing the visitor's understanding and appreciation of nature and natural features. Such tourism often attempts to be environmentally sound and to contribute economically to the local community.

**ELIGIBLE RIVER SEGMENT :**

Qualification of a river for inclusion in the National Wild and Scenic Rivers System by determining that it is free flowing and, with its adjacent land area, has at least one river-related value considered to be outstandingly remarkable.

**ENDANGERED SPECIES :**

Any animal or plant species in danger of extinction throughout all or a significant portion of its range as designated by the U.S. Fish and Wildlife Service under the Endangered Species Act. Also see THREATENED SPECIES .

**ENDURO:**

An off-road competition against the clock and usually over long distances.

**ENVIRONMENTAL ASSESSMENT (EA) :**

(40 CFR 1508.9)

"(a) Means a concise public document for which a Federal agency is responsible that serves to -

1. Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
2. Aid an agency's compliance with the Act when no environmental impact statement is necessary.
3. Facilitate preparation of a statement when one is necessary.

(b) Shall include brief discussions of the need for the proposal, of alternatives as required by section 102 (2) (E), of the environmental impacts of the proposed action and Alternatives, and a listing of agencies and persons consulted." Also see ENVIRONMENTAL IMPACT STATEMENT (EIS) .

**ENVIRONMENTAL IMPACT STATEMENT (EIS) :**

(40 CFR 1508.11) "...means a detailed written statement as required by section 102 (2) (C) of the Act" (referring to the National Environmental Policy Act.) Also see ENVIRONMENTAL ASSESSMENT (EA) .

**ENVIRONMENTAL JUSTICE (EJ) :**

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs Federal agencies to assess whether their actions have disproportionately high and adverse human health or environmental effects on minority or low-income populations.

**EPHEMERAL FORAGE :**

Part-time or seasonal forage; forage produced by annual forage species.

**EPHEMERAL STREAM :**

A stream or portion of a stream that (1) flows only in direct response to precipitation, (2) receives little or no water from springs or no long continued supply from snow or other sources, and (3) has a channel that is always above the water table.

**EXCLOSURE:**

An area fenced to exclude animals.

**EXOTIC:**

An organism or species that is not native to the region in which it is found.

**EXTENSIVE RECREATION MANAGEMENT AREA (ERMA) :**

A blanket RMP allocation for recreation use made in a resource management plan for all BLM's land covered by the plan but not otherwise allocated in special recreation management areas or recreation management zones.

**FACILITY FOOTPRINT :**

The area on the ground defining or delineating the extent of the facility. For a building, it could be the outside edge of the foundation. For a parking lot, staging area, or trail head, it could be a barrier fence or artificial boundary that defines the limits of the particular use.

**FAULT BLOCK MOUNTAINS (BLOCK MOUNTAINS) :**

Mountains formed by block faulting which divides the earth's crust into fault blocks of different elevations and orientations.

**FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) :**

The act that - (1) set out, for the Bureau of Land Management, standards for managing the public lands including land use planning, sales, withdrawals, acquisitions, and exchanges; (2) authorized the setting up of local advisory councils representing major citizens groups interested in land use planning and management, (3) established criteria for reviewing proposed , and (4) provided guidelines for other aspects of public land management such as grazing.

**FEE SIMPLE TITLE :**

Unrestricted ownership of real property (i.e. land and whatever is erected or growing on it).

**FINDING OF NO SIGNIFICANT IMPACT (FONSI) :**

A document that is prepared by a federal agency and that briefly explains why an action not otherwise excluded from the requirement to prepare an environmental impact statement (EIS) would not significantly affect the human environment and not require an EIS.

**FINE PARTICULATE MATTER (PM<sub>2.5</sub>) :**

Particulate matter that is less than 2.5 microns in diameter. Also see and INHALABLE PARTICULATE MATTER (PM<sub>10</sub>) .

**FIRE INTENSITY :**

The rate of heat release for an entire fire at a specific time.

**FIRE MANAGEMENT :**

The integration of fire protection, prescribed burning, and fire ecology knowledge into multiple use planning, decision making, and land management.

**FIRE MANAGEMENT PLAN :**

A plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved land use plan.

**FIRE SUPPRESSION :**

All the work of extinguishing or confining a fire, beginning with its discovery.

**FIRE SUPPRESSION RESOURCES :**

People, equipment, services, and supplies available or potentially available for assignment to incidents.

**FIXED STOCKING RATE :**

A stocking rate that is fixed and cannot vary from season to season or year to year. Also see STOCKING RATE .

**FLOODPLAIN:**

Nearly level land on either or both sides of a channel that is subject to overflow flooding.

**FORAGE:**

All browse and herbage that is available and acceptable to grazing animals or that may be harvested for feed.

**FORB:**

An herbaceous plant that is not a grass, sedge, or rush.

**FREE USE PERMIT :**

A permit that allows the removal of timber or other resources from the public lands free of charge.

**FRONT COUNTRY ZONE :**

Focal areas for motorized and non-motorized visitation, concentrating use along major access routes. Also see and PASSAGE ZONE .



**FUEL BED (IN FIRE SUPPRESSION) :**

The fuel composition in natural settings.

**FUEL LOAD (IN FIRE SUPPRESSION):**

The oven-dry weight of fuel per unit area usually expressed in tons/acre.

**FUEL LOADING :**

The amount of fuel present expressed by weight of fuel per unit area.

**FUEL MOISTURE CONTENT (FUEL MOISTURE) (IN FIRE SUPPRESSION) :**

The water content of a fuel expressed as a percentage of the fuel's oven-dry weight. For dead fuels, which have no living tissue, moisture content is determined almost entirely by relative humidity, precipitation, dry-bulb temperature, and solar radiation. The moisture content of live fuels is physiologically controlled within the living plant.

**FUGITIVE DUST :**

Dust particles that are introduced into the air through certain actions such as soil cultivation or vehicles crossing open fields or driving on dirt roads or trails.

**FUNCTIONING WATERS (WILDLIFE) :**

A well, catchment, spring, reservoir, or other feature (human made or natural) that provides a reliable source of potable water on a year-long basis. For such a source of water to be considered functional, the quality and quantity of water must be sufficient to sustain native wildlife populations in the local area. For example, a reservoir that fills up during monsoon rains but goes dry in a few weeks is not functional from a wildlife standpoint.

**FUNDAMENTALS OF RANGELAND HEALTH :**

As Described in 43 CFR 4180, the conditions in which (1) rangelands are in proper functioning physical condition, (2) ecological process are supporting healthy biotic populations and communities, (3) water quality is meeting state standards and BLM objectives, and (4) special status species habitat is being restored or maintained.

**GENETIC DIVERSITY :**

The variation in genes in a population pool that contributes to the ability of organisms to evolve and adapt to new conditions.

**GRAZING CAPACITY (CARRYING CAPACITY) :**

The highest livestock stocking rate possible without damaging vegetation or related resources. Grazing capacity may vary from year to year or in the same area because of fluctuating forage production.

**GRAZING CYCLE :**

The amount of time required for livestock to rotate completely through all the pastures under an allotment management plan.

**GRAZING PERMIT/LICENSE/LEASE :**

Official written permission to graze a specific number, kind, and class of livestock for a specified period on a defined rangeland.

**GRAZING PRIVILEGES :**

The use of public land for livestock grazing under permits or leases.

**GRAZING REST :**

Any period during which no livestock grazing is allowed within an area.

**GRAZING SEASON :**

An established period for which grazing permits are issued.

**GRAZING SYSTEM :**

A systematic sequence of grazing use and nonuse of an allotment to meet multiple use goals by improving the quality and amount of vegetation.

**GROUND COVER :**

See COVER.

**GROUND LITTER :**

See LITTER.

**GROUNDWATER:**

Subsurface water and underground streams that supply wells and springs. Use of groundwater in Arizona does not require a water right, but must only be "reasonable." Use of Groundwater in Arizona does not convey a water right; use must be "reasonable" and requires a permit from the Arizona Department of Water Resources. Water in the younger, floodplain alluvium is considered surface water. Water in the older, basin-fill alluvium is considered groundwater.

**HABITAT:**

An area that provides an animal or plant with adequate food, water, shelter, and living space.

**HABITAT FRAGMENTATION :**

Process by which habitats are increasingly subdivided into smaller units resulting in their increased insularity and losses of total habitat area.

**HABITAT MANAGEMENT PLAN :**

A site-specific wildlife habitat plan.

**HAZARDOUS MATERIALS (HAZMAT) :**

An all-encompassing term that includes hazardous substances; hazardous waste; hazardous chemical substances; toxic substances; pollutants and contaminants; and imminently hazardous chemical substances and mixtures that can pose an unreasonable risk to human health, safety, and property.

**HERD AREA (HA) :**

A geographic area occupied by a wild horse or burro herd and its habitat in 1971.

**HERD MANAGEMENT AREA (HMA) :**

An area established for maintaining wild horse and burro herds.

**HISTORICAL SITE :**

A location that was used or occupied after the arrival of Europeans in North America (ca. A.D. 1492). Such sites may consist of physical remains at archaeological sites or areas where significant human events occurred, even though evidence of the events no longer remains. They may have been used by people of either European or Native American descent.

**HOHOKAM:**

A group of North American Indians who lived between perhaps 300 BC and AD 1400 in central and southern Arizona, largely along the Gila and Salt Rivers.

**HUMAN RESOURCE UNIT (HRU) :**

An area that is roughly equivalent in size to a county but seldom corresponds to county boundaries. HRU boundaries are derived from the cultural descriptors listed below and by self-reporting by residents living in these areas.

- HRUs are characterized by frequent and customary interaction.
- HRUs reveal face-to-face human society where people could be expected to have personal knowledge of each other and where informal caretaking systems are the strongest.
- People's daily activities occur mainly within their HRU, including work, school, shopping, social activities, and recreation.
- Health, education, welfare, and other public services are highly organized at this level, with a town or community almost always as its focal point.
- An HRU is characterized by a sense of place, a sense of identity with the land and the people, a sense of a common understanding of how the resources of their HRU should be managed, and a common understanding of how things are normally done at this territorial level.
- The regularity of interaction within an HRU reinforces a recognition and identification by the residents of natural and human-made features as "home."

- Because of this familiarity, boundaries between HRUs are clearly defined in the minds of those living within them.

Also see COMMUNITY RESOURCE UNIT (CRU) .

**HYDRIC:**

Characterized by, relating to, or requiring an abundance of moisture.

**HYDROLOGIC CYCLE :**

The circuit of water movement from the atmosphere to the earth and its return to the atmosphere through various stages or processes, such as precipitation, interception, runoff, infiltration, percolation, storage, evaporation, and transpiration.

**IGNEOUS ROCK :**

Rock, such as granite and basalt, which has solidified from a molten or partially molten state.

**INCIDENT:**

A human-caused or natural occurrence, such as wildland fire, that requires emergency action to prevent or reduce the loss of life or damage to property or natural resources.

**INCIDENT COMMANDER :**

The person responsible for managing all operations in response to incidents (i.e. wildfires and other events requiring emergency action).

**INDICATORS:**

Elements of the human environment affected, or potentially affected, by a change agent. An indicator can be a structural component, a functional process or an index. A key indicator integrates several system elements in such a way as to indicate the general health of that system.

**INDUSTRIAL MINERALS :**

All minerals that humans extract from the earth's crust except for fuels, metallic ores, water and gemstones.

**INFILTRATION:**

The downward entry of water into the soil or other material.

**INFRASTRUCTURE:**

The set of systems and facilities that support a region or community's social and economic structures. Examples of such systems include energy, transportation, communication, education, medical service, and fire and police protection.

**INHALABLE PARTICULATE MATTER (PM<sub>10</sub>) :**

Particulate matter in ambient air exceeding 10 microns in diameter. Also see and FINE PARTICULATE MATTER (PM<sub>2.5</sub>) .

**INHOLDING:**

Parcels of land owned or managed by someone other than BLM but surrounded in part or entirely by BLM-administered land.

**INITIAL ATTACK :**

The actions taken by the first resources to arrive at a wildland fire to protect lives and property and prevent further extension of the fire.

**INSTREAM WATER USE :**

Water use within a stream channel for such purposes as navigation, recreation, fish and wildlife preservation, water quality improvement, and hydroelectric power generation.

**INSTREAM (FLOW) WATER RIGHT :**

A non-consumptive, State-based water right that keeps water in the stream. In Arizona, an instream flow water right may be obtained for wildlife, fish and recreation purposes. Also see INSTREAM WATER USE .

**INTERMITTENT STREAM :**

A stream that generally flows during wet seasons, but is dry during dry seasons.

**INVASIVE SPECIES (INVADERS) :**

Plant species that were either absent or present only in small amounts in undisturbed portions of a specific range site's original vegetation and invade following disturbance or continued overuse.

**KEY FORAGE SPECIES :**

Forage species whose use serves as an indicator of the degree of use of associated species.

**LAND USE AUTHORIZATION :**

BLM's authorizing through leases, permits, and easements of uses of the public land. Land use authorizations may allow occupancy, recreational residences and cabin sites, farming, manufacturing, outdoor recreation concessions, National Guard maneuvers, and many other uses.

**LEASABLE MINERALS :**

Minerals whose extraction from federally managed land requires a lease and the payment of royalties. Leasable minerals include coal, oil and gas, oil shale and tar sands, potash, phosphate, sodium, and geothermal steam.

**LEAVE NO TRACE :**

A nationwide (and international) program to help visitors with their decisions when they travel and camp on America's public lands. The program strives to educate visitors about the nature of their recreational impacts as well as techniques to prevent and minimize such impacts.

**LITTER:**

The uppermost layer of organic debris on the soil surface, essentially freshly fallen or slightly decomposed vegetal material.

**LIVE FUEL MOISTURE :**

See FUEL MOISTURE CONTENT (FUEL MOISTURE) (IN FIRE SUPPRESSION) .

**LIVESTOCK TRESPASS :**

The unauthorized grazing of livestock.

**LOAM:**

A soil texture class for soil material that contains 7 to 27% clay, 28 to 50% silt, and less than 52% sand.

**LOCATABLE MINERALS :**

Minerals that may be acquired under the Mining Law of 1872, as amended.

**LOCATION:**

The act of taking or appropriating a parcel of mineral land, including the posting of notices, the recording thereof when required, and marking the boundaries so they can be readily traced.

**MAINTENANCE (ROAD) :**

(From BLM 9100 Manual) The work required keeping a facility in such a condition that it may be continuously utilized at its original or designed capacity and efficiency, and for its intended purposes. Road or trail maintenance actions include (a) signage, (b) minor repairs, e.g. correction of drainage, erosion, or vegetation interference problems. Upon performance of condition assessment, maintenance could also be construed as (c) allowing road or trail to remain in present state for regular and continuous use.

**MANAGE FOR WILDERNESS CHARACTERISTICS (MWC) AREAS :**

Areas that contain values such as outstanding opportunities for primitive and unconfined recreation or outstanding opportunities for solitude and a few human intrusions, where preservation of these values represents a major management focus.

**MAJOR LAND RESOURCE AREAS (MLRAs) :**

Broad geographic areas that have a particular pattern of soils, climate, water resources, vegetation, and land use. Each MLRA in which range and forest land occur is further broken into range sites.

**MAJOR RIGHTS-OF-WAY :**

Rights-of-way along which pass transmission lines (consisting of 115kV or higher) used to transmit large blocks of energy to load centers for distribution.

**MANAGEMENT SITUATION ANALYSIS (MSA) :**

See ANALYSIS OF THE MANAGEMENT SITUATION (AMS) .

**MANUAL VEGETATION TREATMENTS :**

The use of hand-operated power tools and hand tools to cut, clear, or prune herbaceous and woody plants. In manual treatments, workers cut plants above ground level; pull, grub, or dig out plant root systems to prevent later sprouting and regrowth; scalp at ground level or remove competing plants around desired vegetation; or place mulch around desired vegetation to limit the growth of competing vegetation. Manual vegetation treatments cause less ground disturbance and generally remove less vegetation than prescribed fire or mechanical treatments.

**MECHANICAL VEGETATION TREATMENTS :**

The use of mechanical equipment to suppress, inhibit, or control herbaceous and woody vegetation. BLM uses wheeled tractors, crawler-type tractors, mowers, or specially designed vehicles with attached implements for such treatments.

**MINERAL ENTRY :**

The filing of a claim on public land to obtain the right to any minerals it may contain.

**MINERALIZATION:**

Evidence of the presence of minerals.

**MINERAL MATERIAL DISPOSAL :**

The disposal through sale or free use permit of sand, gravel, decorative rock, or other materials defined in 43 CFR 3600.

**MINERAL MATERIALS :**

Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Mineral Materials Act of 1947, as amended.

**MINERALS PLANNING AREA :**

The area with federally administered minerals, where (1) the surface rights are held by BLM, the State of Arizona, or private parties, and located within the administrative boundaries of BLM's Phoenix Field Office but (2) are not being planned for in the Sonoran Desert National Monument RMP and Phoenix South RMP Revision.

**MINING DISTRICT :**

An area, usually designated by name, with described or understood boundaries, where minerals are found and mined under rules prescribed by the miners, consistent with the Mining Law of 1872.

**MINING PLAN OF OPERATIONS :**

A plan for mineral exploration and development that a mining operator must submit to BLM for approval for all mining, milling, and bulk sampling of more than 1,000 tons and for exploration disturbing more than 5 acres or on special status lands, including wilderness, areas of critical environmental concern, national monuments, national conservation areas, and lands containing proposed or listed threatened or endangered species or their critical habitat. A plan of operations must document in detail all actions that the operator plans to take from exploration through reclamation.

**MONITORING:**

The collection of information to determine the effects of resource management and detect changing resource trends, needs, and conditions.

**MOSAIC:**

A pattern of vegetation in which two or more kinds of communities are interspersed in patches.

**MOTORIZED TRAIL :**

A designated route that allows for the use of small-wheel-based motorized vehicles such as all-terrain vehicles and motorcycles.

**MULTIPLE USE :**

A combination of balanced and diverse resource uses that considers long-term needs for renewable and nonrenewable resources including recreation, wildlife, rangeland, timber, minerals, and watershed protection, along with scenic, scientific, and cultural values.

**NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) :**

The allowable concentrations of air pollutants in the ambient (public outdoor) air specified in 40 CFR 50. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health including the health of "sensitive" populations such as asthmatics, children, and the elderly) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) :**

The Federal law, effective January 1, 1970, that established a national policy for the environment and requires federal agencies - (1) to become aware of the environmental ramifications of their proposed actions, (2) to fully disclose to the public proposed Federal actions and provide a mechanism for public input to Federal decision-making, and (3) to prepare environmental impact statements for every major action that would significantly affect the quality of the human environment.

**NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED (NHPA) :**

A Federal statute that established a Federal program to further the efforts of private agencies and individuals in preserving the Nation's historic and cultural foundations. The National Historic Preservation Act - (1) authorized the National Register of Historic Places, (2) established the Advisory Council on Historic Preservation and a National Trust Fund to administer grants for historic preservation, and (3) authorized the development of regulations to require Federal agencies to consider the effects of federally assisted activities on properties included on or eligible for the National Register of Historic Places. Also see NATIONAL REGISTER OF HISTORIC PLACES .

**NATIONAL HISTORIC TRAIL :**

One of the three categories of national trails defined in the National Trails System Act of 1968 that can only be established by act of Congress and are administered by Federal agencies, although part or all of their land base may be owned and managed by others. National historic trails are generally more than 100 miles long and follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Their purpose is identifying and protecting the historic route and its remnants and artifacts for public use and enjoyment.

**NATIONAL MONUMENT :**

An area designated to protect objects of scientific and historic interest by public proclamation of the President under the Antiquities Act of 1906, or by Congress for historic landmarks,

historic and prehistoric structures, or other objects of historic or scientific interest on public lands. Designation also provides for the management of these features and values.

**NATIONAL RECREATION TRAIL :**

One of the three categories of national trails defined in the National Trails System Act of 1968 that can only be established by act of Congress and are administered by federal agencies, although part or all of their land base may be owned and managed by others. National Recreation Trails are existing regional and local trails recognized by either the Secretary of Agriculture or the Secretary of the Interior upon application.

**NATIONAL REGISTER DISTRICT :**

A group of significant archaeological, historical, or architectural sites, within a defined geographic area, that is listed on the National Register of Historic Places. See NATIONAL REGISTER OF HISTORIC PLACES .

**NATIONAL REGISTER OF HISTORIC PLACES :**

The official list, established by the National Historic Preservation Act, of the Nation's cultural resources worthy of preservation. The National Register lists archeological, historic, and architectural properties (i.e. districts, sites, buildings, structures, and objects) nominated for their local, state, or national significance by state and federal agencies and approved by the National Register Staff. The National Park Service maintains the National Register. Also see NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED (NHPA) .

**NATIONAL REGISTER ELIGIBLE PROPERTIES :**

Cultural resource properties that meet the National Register criteria and have been determined eligible for nomination to the National Register of Historic Places because of their local, state, or national significance. Eligible properties generally are older than 50 years and have retained their integrity. They meet one or more of four criteria - (a) associated with events that have made a significant contribution to the broad patterns of our history; (b) associated with the lives of persons significant in our past; (c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master; and (d) have yielded, or may be likely to yield, information important in prehistory or history.

**NATIONAL WILD AND SCENIC RIVERS SYSTEM :**

A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historical, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams - (1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past, (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads, and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails with watersheds or shorelines essentially primitive and waters unpolluted.

**NATIVE DIVERSITY :**

The diversity of species that have evolved in a given place without human influence.

**NATIVE SPECIES :**

A species that is part of an area's original flora and fauna.

**NEOTROPICAL MIGRATORY BIRDS :**

Birds that travel to Central America, South America, the Caribbean, and Mexico during the fall to spend the winter and then return to the United States and Canada during the spring to breed. These birds include almost half of the bird species that breed in the United States and Canada.

**NICHE:**

The role of an organism in the environment, its activities and relationships to the biotic and abiotic environment.

**NITROGEN OXIDES (OXIDES OF NITROGEN, NO<sub>x</sub>):**

A general term for compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion and are major contributors to smog formation and acid deposition. NO<sub>2</sub> is a criteria air pollutant and may have many adverse health effects.

**NONATTAINMENT AREA :**

An area in which the level of a criteria air pollutant is higher than the level allowed by the federal standards. A single area may have acceptable levels of one criteria air pollutant but unacceptable levels of one or more other criteria air pollutants. Therefore, an area can be both attainment and non-attainment at the same time.

**NONPOINT SOURCE POLLUTION (WATER) :**

Pollution sources that are diffuse and do not have a single point of origin or are not introduced into a receiving water body from a specific outlet. These pollutants are generally carried off the land by storm water runoff from such sources as farming, forestry, mining, urban land uses, construction, and land disposal.

**NOXIOUS WEED :**

the Federal Noxious Weed Act, 1974 (PL 930629) defines a noxious weed as, "any living stage (including seeds and reproductive parts) of a parasitic or other plant of a kind which is of foreign origin, is new to or not widely prevalent in the U.S., and can directly or indirectly injure crops, other useful plants, livestock, poultry or other interests of agriculture, including irrigation, navigation, fish and wildlife resources, or the public health."

**NUTRIENT CYCLE :**

A general term for the movement of any particular life essential substance through the physical and biological environment. Essential nutrient cycles include those of carbon, nitrogen, oxygen, and water.

**OFF-HIGHWAY VEHICLE (OHV) :**

Any vehicle capable of or designed for travel on or immediately over land, water, or other natural terrain (deriving motive power from any source other than muscle.) OHVs exclude (1) any nonamphibious registered motorboat; (2) any fire, emergency, or law enforcement vehicle while being used for official or emergency purposes; and (3) any vehicle whose use is expressly authorized by a permit, lease, license, agreement, or contract issued by an authorized officer or otherwise approved. (43 CFR 8340.0-5)

**OFF-ROAD VEHICLE (ORV) :**

See OFF-HIGHWAY VEHICLE (OHV) .

**OFFSET:**

A method used in the 1990 Clean Air Act to give companies that own or operate large sources in nonattainment areas flexibility in meeting overall pollution reduction requirements when changing production processes. If the operator or owner of the source wants to increase the release of a criteria air pollutant, an offset (reduction of a somewhat greater amount of the same pollutant) must be obtained either at the same plant or by buying offsets from another company.

**OUTSTANDING NATURAL AREA (ONA) :**

ACECs which contain unusual natural characteristics and are managed primarily for educational and recreational purposes.



**PALEONTOLOGICAL RESOURCES :**

The remains of plants and animals preserved in soils and sedimentary rock. Paleontological resources are important for understanding past environments, environmental change, and the evolution of life.

**PASSAGE ZONE :**

Lands along secondary travel routes where visitor or other uses would not be directed or encouraged, but could be accommodated. Also see and FRONT COUNTRY ZONE .

**PATENT:**

The instrument by which the Federal Government conveys title to the public lands.

**PAYMENTS IN LIEU OF TAXES (PILT) :**

Payments made to counties by BLM to mitigate losses because public lands cannot be taxed. BLM calculates the amount of payments using a formula based on population and the amount of Federal land in a particular local jurisdiction. These payments are in addition to federal revenues transferred to local governments under other programs, such as income generated from timber harvests, mineral receipts, and the use of federal land for livestock grazing.

**PARTICULATE MATTER :**

Fine liquid or solid particles suspended in the air and consisting of dust, smoke, mist, fumes, and compounds containing sulfur, nitrogen, and metals. Also see and INHALABLE PARTICULATE MATTER (PM<sub>10</sub>) .

**PASTURE:**

A grazing area that is separated from other areas by fencing or natural barriers.

**PEDESTALLING:**

The removal of soil from the base of a plant, exposing the roots. Pedestalling is often a result of wind and streambank erosion.

**PERENNIAL PLANT :**

A plant that has a life cycle of 3 or more years. Also see ANNUAL PLANT .

**PERENNIAL STREAM :**

A stream that flows continuously during all seasons of the year.

**PERMEABILITY, SOIL :**

The ease with which gases, liquids, or plant roots penetrate or pass through a bulk mass of soil or a layer of soil.

**PERMITTEE:**

A person or company permitted to graze livestock on public land.

**PERMIT TYPES AND DEFINITIONS :**

Commercial Use: The activity, service, or use is commercial if:

- Any person, group, or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public lands led, sponsored, or organized by that person, group, or organization;
- Anyone collects a fee or receives other compensation that is not strictly a sharing of actual expenses, or exceeds actual expenses, incurred for the purposes of the activity, service, or use;
- There is paid public advertising to seek participants; or
- Participants pay for a duty of care or an expectation of safety.

Competitive Use: Any organized, sanctioned, or structured use, event, or activity on public land in which two or more contestants compete and either or both of the following elements apply -

- Participants register, enter, or complete an application for the event;

- A predetermined course or area is designated;

Or, one or more individuals contesting an established record such as for speed or endurance.

**Organized Group Activity and Event Use:** A structured, ordered, consolidated, or scheduled event on, or occupation of, public lands for the purpose of recreational use that is not commercial or competitive.

**Vending:** The sale of goods or services, not from a permanent structure, associated with recreation on the public lands or related waters, such as food, beverages, clothing, firewood, souvenirs, filming or photographs (video or still), or equipment repairs.

**PERSONAL INCOME :**

The sum of wage and salary payments, other labor income, proprietors' income, rental income of persons, personal dividend and interest income, and transfer payments to persons, less personal contributions for social insurance.

**PETROGLYPH:**

Pictures, symbols, or other art work pecked, carved, or incised on natural rock surfaces.

**PILT:**

See PAYMENTS IN LIEU OF TAXES (PILT) .

**PITHOUSE:**

A type of house built partly underground by prehistoric people.

**PLACER CLAIM:**

A mining claim located on surficial or bedded deposits, particularly for gold located in stream gravels.

**PLAN OF OPERATIONS:**

See MINING PLAN OF OPERATIONS .

**PLANT SUCCESSION :**

The process of vegetational development by which an area becomes successively occupied by different plant communities of higher ecological order.

**PLANT VIGOR :**

The relative wellbeing and health of a plant as reflected by its ability to manufacture enough food for growth and maintenance.

**PM<sub>2.5</sub> PARTICULATES :**

Tiny particles with an aerodynamic diameter of 2.5 microns or less. These particles penetrate most deeply into the lungs.

**PM<sub>10</sub> PARTICULATES :**

A criteria air pollutant consisting of small particles with an aerodynamic diameter of 10 microns or less. Their size allows them to enter the air sacs deep within the lungs where they may be deposited in have adverse health effects. These particles include dust, soot, and other tiny bits of solid materials in the air.

**POKER RUN :**

a noncompetitive off-highway vehicle ride where riders have a choice of two or more clearly marked loop courses and pass several checkpoints to the finish line. After finishing the course, participants will draw poker hands for cash or other prizes.

**POOL:**

A portion of a stream that has reduced current velocity and often water deeper than surrounding areas and that is frequently usable by fish for resting and cover.

**POPULATION:**

A group of interbreeding organisms of the same kind occupying a particular space; a group of individuals of a species living in a certain area.

**PORPHYRY COPPER :**

A disseminated replacement deposit in which copper minerals occur as discrete grains and veinlets throughout a large volume of rock; a large-tonnage, low-grade copper deposit.

**POTENTIAL NATURAL COMMUNITY (PNC) :**

The stable biotic community that would become established on an ecological site if all successional stages were completed without human interference under present environmental conditions. The PNC is the vegetation community best adapted to fully use the resources of an ecological site.

**PRESCRIBED FIRE (BURNING) :**

The planned applying of fire to rangeland vegetation and fuels under specified conditions of fuels, weather, and other variables to allow the fire to remain in a predetermined area to achieve such site-specific objectives as controlling certain plant species; enhancing growth, reproduction, or vigor of plant species; managing fuel loads; and managing vegetation community types.

**PRIMARY ROAD :**

See ROAD AND ROUTE TYPES - .

**PRIME FARMLAND :**

As defined by the Farmland Protection Policy Act of 1981, land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary of Agriculture. Prime farmland includes land with the above characteristics, but is being used to produce livestock and timber. It does not include land already in or committed to urban development or water storage. Also see UNIQUE FARMLAND .

**PRIMITIVE RECREATION :**

Recreation that provides opportunities for isolation from the evidence of humans, a vastness of scale, feeling a part of the natural environment, having a high degree of challenge and risk, and using outdoor skills. Primitive recreation is characterized by meeting nature on its own terms, without comfort or convenience of facilities.

**PRIMITIVE ROAD:**

A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not normally meet any BLM road design standards.

**PROPER FUNCTIONING CONDITION (RIPARIAN-WETLAND AREAS) :**

The condition where - (1) enough vegetation, landform, or large woody debris is present to dissipate the stream energy of high water flows, thereby reducing erosion and improving water quality; (2) sediments are filtered, bedload is captured, and floodplains develop; (3) flood water retention and ground water recharge are improved, root masses that stabilize streambanks against cutting action develop, and diverse ponding and channel characteristics are created to provide the habitat and the water depth, duration, and temperature needed for fish production, waterfowl breeding, and other uses; and (4) greater biodiversity is supported.

**PROSPECTIVELY VALUABLE FOR OIL AND GAS :**

Known or believed to contain oil and gas deposits that have, or at some time in the future, proven economic value.

**PUBLIC DOMAIN LANDS :**

Lands that are part of the original public domain and have never left federal ownership and lands in federal ownership that were acquired in exchange for public domain lands or for timber on public domain lands.

**PUBLIC LAND ORDER :**

An order effecting, modifying, or canceling a withdrawal or reservation. Such an order is issued by the Secretary of the Interior pursuant to powers of the President delegated to the Secretary by Executive Order No.9146 of April 24, 1943.

**PUBLIC LANDS :**

As defined by Public Law 94-579 (Federal Land Policy and Management Act of 1976), lands and interest in land owned by the United States and administered by the Secretary of the Interior through BLM, regardless of how the United States acquired possession. In common usage, public lands may refer to all federal land no matter what agency manages it. Also see ACQUIRED PUBLIC LANDS .

**PUBLIC USE LEVELS :**

Three sets of proposed management actions for the interpretive use of archaeological sites in the Agua Fria National Monument, varying in the intensity of development and number of facilities. Example actions for each of these levels can be found in the Cultural Resources discussion of the Management Common to the AFNM section of Chapter 2.

**PUEBLO:**

A Spanish word meaning "town" or "village" and used to describe an Indian village of apartment-type building with one or more stories. Pueblos are built of adobe or stone and have flat roofs.

**RANGE IMPROVEMENT :**

Any activity or program on or relating to the public lands designed to improve forage production, change vegetation composition, control use patterns, provide water, stabilize soil and water conditions, or provide habitat for livestock and wildlife. Range improvements may be structural or nonstructural. A structural improvement requires placement or construction to facilitate the management or control the distribution and movement of animals. Such improvements may include fences, wells, troughs, reservoirs, pipelines, and cattleguards. Nonstructural improvements consist of practices or treatments that improve resource conditions. Such improvements include seedings; chemical, mechanical, and biological plant control; prescribed burning; water spreaders; pitting; chiseling; and contour furrowing.

**RANGELAND:**

A kind of land on which the native vegetation, climax, or natural potential consists predominately of grasses, grasslike plants, forbs, or shrubs. Rangeland includes lands revegetated naturally or artificially to provide a plant cover that is managed like native vegetation. Rangelands may consist of natural grasslands, savannas, shrublands, moist deserts, tundra, alpine communities, coastal marshes, and wet meadows.

**RANGELAND ECOLOGICAL SITE :**

A distinctive kind of land that has specific physical characteristics and that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

**RANGE SITE :**

See ECOLOGICAL SITE (RANGE SITE) .

**RANGE SITE GUIDE :**

See ECOLOGICAL SITE DESCRIPTIONS (RANGE SITE GUIDE) .

**RAPTORS:**

Birds of prey.

**REACH:**

A relatively homogeneous section of a stream having a repetitious sequence of physical characteristics and habitat types.

**RECHARGE:**

See AQUIFER RECHARGE .

**RECLAIMING OR RECLAIMED (ROUTE) :**

See ROAD AND ROUTE TYPES - .

**RECORD OF DECISION :**

A document signed by a responsible official recording a decision that was preceded by the preparing of an environmental impact statement. Also see DECISION RECORD .

**RECREATION AND PUBLIC PURPOSES ACT of 1926 (44 Stat. 741, as amended; 43 U.S.C. 869 et seq.):**

An act of Congress that allows lease or acquisition of public land to be used for recreation or public purposes by local government entities (county or city governments) and nonprofit organizations.

**RECREATION MANAGEMENT ZONES (RMZs) :**

Areas within special recreation management areas (SRMAs) with a particular recreation management focus or resource challenges. See SPECIAL RECREATION MANAGEMENT AREAS (SRMAs) .

**RECREATION OPPORTUNITY SPECTRUM (ROS) :**

A planning process that provides a framework for defining classes of outdoor recreation environments, activities, and experience opportunities. In ROS, the setting, activities, and opportunities for experiences are arranged along a spectrum of six classes: primitive; semi-primitive non-motorized; semi-primitive motorized; roaded natural; rural; and urban. The resulting ROS analysis defines specific geographic areas on the ground, each of which encompasses one of the six classes.

**RECREATION SETTINGS :**

Settings described in the recreation opportunity spectrum (ROS) inventory method, reflecting degrees of remoteness, evidence of humans, and social qualities.

**RECREATION ZONE :**

A planned and delineated area with designated recreation opportunities, settings, and activities.

**RECRUITMENT:**

The increase in population caused by natural reproduction or immigration.

**REFUGIUM:**

An area that has remained unaffected by adverse environmental changes to the surrounding area, allowing a population to survive where others have perished.

**REPLACEMENT DEPOSIT :**

A mineral deposit formed by a new mineral of partly or wholly differing chemical composition growing in the body of an old mineral or aggregate.

**RESEARCH NATURAL AREA (RNA) :**

An area of critical environmental concern that is a physical or biological unit in which current natural conditions are maintained insofar as possible. In RNAs activities such as grazing and vegetation manipulation are prohibited unless they replace natural processes and contribute to protecting and preserving an area. Moreover, such recreation as camping and gathering plants is discouraged.

**RESEARCH DESIGN :**

A statement of proposed identification, documentation, evaluation, investigation, or other research that identifies the project's goals, methods and techniques, expected results, and the relationship of the expected results to other proposed activities or treatments.

**RESISTANCE TO CONTROL (WILDFIRE) :**

The relative difficulty of building and holding a fire control line as affected by fire behavior, fuel, topography, and soil.

**RESOURCE ADVISORY COUNCILS (RACs) :**

Advisory councils appointed by the Secretary of the Interior and consisting of representatives of major public land interest groups (e.g. commodity industries, recreation, environmental, and local area interests) in a state or smaller area. RACs advise BLM, focusing on a full array of multiple use public land issues. RACs also help develop fundamentals for rangeland health and guidelines for livestock grazing.

**RESOURCE CONSERVATION AREA (RCA) :**

A land management designation that provides management consideration to areas that have special resources but don't need the protection conferred by an area of critical environmental concern.

**RESOURCE MANAGEMENT PLAN (RMP) :**

(43 CFR 1601.0-5 (k)) "...a land use plan as described by the Federal Land Policy and Management Act. The resource management plan generally establishes in a written document

1. Land areas for limited, restricted or exclusive use; designation, including ACEC designation; and transfer from Bureau of Land Management Administration;
2. Allowable resource uses (either singly or in combination) and related levels of production or use to be maintained;
3. Resource condition goals and objectives to be attained;
4. Program constraints and general management practices needed to achieve the above items;
5. Need for an area to be covered by more detailed and specific plans;
6. Support action, including such measures as resource protection, access development, realty action, cadastral survey, etc., as necessary to achieve the above;
7. General implementation sequences, where carrying out a planned action is dependent upon prior accomplishment of another planned action; and
8. Intervals and standards for monitoring and evaluating the plan to determine the effectiveness of the plan and the need for amendment or revision.

It is not a final implementation decision on actions which require further specific plans, process steps, or decisions under specific provisions of law and regulations."

**REST:**

See GRAZING REST .

**RESTORATION (CULTURAL RESOURCE) :**

The process of accurately reestablishing the form and details of a property or portion of a property together with its setting, as it appeared in a particular period of time. Restoration may involve removing later work that is not in itself significant and replacing missing original work. Also see STABILIZATION (CULTURAL RESOURCE).

**REST-ROTATION GRAZING :**

A grazing system in which one part of the range is ungrazed for an entire grazing year or longer while other parts are grazed for a portion or all of a growing season.

**RIGHT-OF-WAY :**

A permit or easement that authorizes the use of lands for certain specified purposes, commonly for pipelines, roads, telephone lines, or powerlines.

**RILL:**

A narrow, very shallow (a few centimeters deep), intermittent water course having steep sides and formed as a result of erosion.

**RIPARIAN:**

Pertaining to or situated on or along the bank of streams, lakes, and reservoirs.

**RIPARIAN AREA :**

A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

**ROAD:**

(From BLM 9100 manual) ...a transportation facility used primarily by vehicles having four or more wheels, documented as such by the owner, and maintained for regular and continuous use.

**ROADSIDE:**

a general term denoting the area adjoining the outer edge of the road.

**ROAD AND ROUTE TYPES - :**

Primary Road - A regularly maintained route, paved or unpaved, wide enough for at least two vehicles to pass. Provides access between two major points. Serves a large area with many routes of lesser quality branching from it.

Secondary Road - Paved or unpaved, a regularly maintained one- to two-lane route with routes of lesser quality branching from it. Connects primary roads and major points.

Tertiary Road - Generally a two-track route that may or may not be usable by a two-wheel drive vehicle. Does not receive formal maintenance.

Single-Track Route - A route up to 1/2 meter wide upon which all-terrain vehicles or trucks are not allowed.

Way - A road-like feature used by vehicles having four or more wheels but not declared a road by the owner. A way receives no maintenance to guarantee regular and continuous use.

Spur - A route that exists for a specific purpose, such as access to a specific use or feature. Uses can be recreational or commercial. Features include campsites, mines, or range developments. A spur route is connected to another road or route type.

Reclaiming or Reclaimed (route) - A route that has had very little or no use, so that there is woody vegetation growing in the route that would be damaged by the passage of a vehicle. Erosion or vegetation may block the route and could damage a vehicle or cause it to get stuck.

**ROCK CRAWLING :**

The use of specialized motor vehicles for crossing difficult terrain. Also known as extreme technical trail driving.

**ROUTE :**

Any motorized, non-motorized, or mechanized transportation corridor. Corridor may either be terrestrial or waterway. "Roads" and "Trails" are considered routes.

**SALABLE MINERALS :**

Common variety minerals on public lands, such as sand and gravel, which are used mainly for construction and are disposed of by sales or special permits to local governments.

**SCIENTIFIC DATA RECOVERY :**

See CULTURAL RESOURCE DATA RECOVERY .

**SCOPING:**

An early and open process for determining the scope of issues to be addressed in an environmental impact statement and the significant issues related to a proposed action.

**SEASONAL GRAZING :**

Grazing restricted to a specific season.

**SECONDARY ROAD :**

See ROAD AND ROUTE TYPES - .

**SECTION:**

640 acres, 1 mile square.

**SECTION 404 PERMIT :**

A permit required by the Clean Water Act, under specified circumstances, when dredge or fill material is placed in the waters of the United States, including wetlands.

**SECTION 7 CONSULTATION :**

The requirement of Section 7 of the Endangered Species Act that all federal agencies consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service if a proposed action might affect a federally listed species or its critical habitat.

**SEGREGATION:**

The removal for a limited period, subject to valid existing rights, of a specified area of the public lands from the operation of the public land laws, including the mining laws, pursuant to the exercise by the Secretary of the Interior of regulatory authority to allow for the orderly administration of the public lands. See WITHDRAWAL.

**SENSITIVE SPECIES :**

All species that are under status review, have small or declining populations, live in unique habitats, or need special management. Sensitive species include threatened, endangered, and proposed species as classified by the U.S. Fish and Wildlife Service.

**SHARED USE TRAIL :**

A trail shared for a variety of uses such as motorized and non-motorized uses; a combination of non-motorized uses such as hiking, horseback riding, and bicycling; or a combination of motorized uses such as dirt bikes and small and large four-wheel-drive vehicles.

**SHOULDER:**

The portion of the roadway contiguous to the travelway for accommodation of stopped vehicles.

**SIKES ACT OF 1974:**

A Federal law that promoted federal-state cooperation in managing wildlife habitats on both BLM and Forest Service lands. The act requires BLM to work with State wildlife agencies to plan the development and maintenance of wildlife habitats and has as its main tool the habitat management plan.

**SMALL TRACT LANDS :**

Parcels of public lands of 5 acres or less that have been found to be chiefly valuable for sale or lease as home, cabin, camp, recreational, convalescent, or business sites under the Act of June 1, 1938.

**SINGLE TRACK ROUTE :**

See ROAD AND ROUTE TYPES - .

**SOCIAL TRAIL :**

An unplanned random trail made by first visitors and then followed by others.

**SOIL PRODUCTIVITY :**

The capacity of a soil in its normal environment to produce a specified plant or sequence of plants under a specified system of management.

**SOIL STABILITY :**

A qualitative term used to describe a soil's resistance to change. Soil stability is determined by intrinsic properties such as aspect, depth, elevation, organic matter content, parent material, slope, structure, texture, and vegetation.



**SOIL STRUCTURE :**

The physical constitution of soil material as expressed by size, shape, and the degree of development of primary soil particles and voids into naturally or artificially formed structural units.

**SPECIAL CULTURAL RESOURCE MANAGEMENT AREA (SCRMA) :**

An area containing cultural resources that are of special importance for public use, scientific use, traditional use or other uses as defined in BLM Manual 8110.4.

**SPECIAL LAND USE PERMIT (SLUP) :**

A permit granted for purposes neither authorized nor forbidden by law.

**SPECIAL RECREATION MANAGEMENT AREAS (SRMAs) :**

Areas of intensive recreation use that will be managed to retain recreation opportunities while protecting other resources and reducing user conflicts. See RECREATION MANAGEMENT ZONES (RMZs) .

**SPECIAL RECREATION PERMIT (SRP) :**

An authorization that allows for specific nonexclusive permitted recreational uses of the public lands and related waters. SRPs are issued to control visitor use, protect recreational and natural resources, provide for the health and safety of visitors, and accommodate commercial recreational uses.

**SPECIAL STATUS SPECIES :**

Plant or animal species listed as threatened, endangered, candidate, or sensitive by the Federal Government or state governments.

**SPLIT-ESTATE :**

Land whose surface rights and mineral rights are owned by different entities.

**STABILIZATION (CULTURAL RESOURCE):**

Protective techniques usually applied to structures and ruins to keep them in their existing condition, prevent further deterioration, and provide structural safety without significant rebuilding. Capping mud-mortared masonry walls with concrete mortar is an example of a stabilization technique. Also see RESTORATION (CULTURAL RESOURCE) .

**STABILIZATION (SOIL):**

Chemical or mechanical treatment to increase or maintain the stability of a mass of soil or otherwise improve its engineering properties.

**STAGING AREA:**

An area where participants in an activity gather and make final preparations for the activity.

**STANDARDS AND GUIDELINES FOR RANGELAND HEALTH:**

See ARIZONA STANDARDS FOR RANGELAND HEALTH AND GUIDELINES FOR GRAZING ADMINISTRATION

**STATE HISTORIC PRESERVATION OFFICER (SHPO):**

The official within and authorized by each state at the request of the Secretary of the Interior to act as liaison for the National Historic Preservation Act. Also see NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED (NHPA) .

**STATE IMPLEMENTATION PLAN (SIP):**

A detailed description of the programs a state will use to carry out its responsibilities under the Clean Air Act. SIPs are collections of the regulations used by a state to reduce air pollution.

The Clean Air Act requires that the Environmental Protection Agency approve each SIP.

**STATE TRUST LANDS:**

Lands granted to Arizona by the Federal Government at territorial establishment and at statehood. Totaling 9.4 million acres, these lands are managed by the Arizona State Land Department to yield revenue over the long term for the 14 trust beneficiaries. The chief beneficiary consists of the public schools. Whenever Arizona sells or leases these lands and

their natural resources, it must pay the beneficiaries. Revenues from land sales are maintained in a permanent fund managed by the State Treasurer, and interest from this fund is paid to the beneficiaries.

**STOCKING RATE :**

The number of specific kinds and classes of animals grazing or using a unit of land for a specific time period. Stocking rates may be expressed as a ratio, such as of animal units/section, acres/animal unit, or acres/animal unit month.

**STOCK TANK (POND) :**

A water impoundment created by building a dam, digging a depression, or both, to provide water for livestock or wildlife.

**STREAMBANK:**

The portion of a stream channel that restricts the sideward movement of water at normal water levels. The streambank's gradient often exceeds 45 ° and exhibits a distinct break in slope from the stream bottom.

**STREAMBANK STABILITY :**

A streambank's relative resistance to erosion, which is measured as a percentage of alteration to streambanks.

**SUBSURFACE:**

Of or pertaining to rock or mineral deposits which generally are found below the ground surface.

**SUCCESSION:**

See PLANT SUCCESSION .

**SUPPLEMENTAL FEED :**

Concentrates or harvested feed that is fed to livestock to correct the deficiencies of a range diet.

**SUPPLEMENTAL WILDERNESS VALUES :**

Resources not required for an area to be designated a wilderness but that are considered in assessing an area's wilderness potential. Such values include ecological, geologic, and other features of scientific, educational, scenic, or historical value.

**SUSTAINED YIELD :**

Achieving and maintaining a permanently high level, annual or regular period production of renewable land resources without impairing the productivity of the land and its environmental values.

**TAKE:**

As defined by the Endangered Species Act, "...to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or attempt to engage in any such conduct..."

**TARGET SPECIES :**

Plant species to be reduced or eliminated by a vegetation treatment. Also see VEGETATION TREATMENTS .

**TERRESTRIAL SPECIES :**

Ground-dwelling plants and animals.

**TERTIARY ROAD :**

See ROAD AND ROUTE TYPES - .

**THREATENED SPECIES :**

Any plant or animal species likely to become endangered within the foreseeable future throughout all or a part of its range and designated by the U.S. Fish and Wildlife Service under the Endangered Species Act. Also see ENDANGERED SPECIES .

**TRAIL:**

(Interagency definition) Linear route managed for human powered, stock, or off highway vehicle forms of recreation or for historic or heritage values. Trails are not generally managed for use by four wheel drive or high clearance vehicles.

**TRAILHEAD:**

The terminus of a hiking, horse, or bicycle trail accessible by motor vehicle and sometimes having parking, signs, a visitor register, and camping and sanitary facilities.

**TREAD LIGHTLY :**

A not-for-profit organization whose mission is to increase awareness of ways to enjoy the great outdoors while minimizing human impacts.

**TRIALS :**

Off-road competitions in which the rider has to surmount obstacles. Points are deducted if the rider puts his feet on the ground, goes outside the marked course, or fails to clear an obstacle.

**UNAUTHORIZED USE :**

Any use of the public lands not authorized or permitted.

**USABLE FORAGE :**

That portion of the forage that can be grazed without damage to the basic resources; may vary with season of use, species, and associated species.

**UNGULATES:**

Hoofed animals including ruminants but also horses, tapirs, elephants, rhinoceroses, and swine.

**UNIQUE FARMLAND :**

As defined by the Farmland Protection Policy Act of 1981, land other than prime farmland that is used for producing specific high-value food and fiber crops, as determined by the Secretary of Agriculture. Unique farmland has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables. Also see PRIME FARMLAND .

**UNIQUE WATER :**

A water body determined by the Arizona Department of Environmental Quality as an outstanding water resource of the state because of exceptional recreational or ecological significance, such as important geology, flora, fauna, water quality, aesthetic values, or wilderness characteristics.

**UPLANDS:**

Lands at higher elevations than the alluvial plain or low stream terrace; all lands outside the riparian-wetland and aquatic zones.

**URBAN INTERFACE (WILDLAND-URBAN INTERFACE) :**

The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation. This interface creates conflicts and complicates fighting wildfires and conducting prescribed burns, as well as all other natural resource management activities.

**UTILIZATION (FORAGE) :**

The proportion of the current year's forage consumed or destroyed by grazing animals. Utilization is usually expressed as a percentage.

**VALID EXISTING RIGHTS :**

Locatable mineral development rights that existed when the Federal Land Policy and Management Act (FLPMA) was enacted on October 21, 1976. Some areas are segregated from entry and location under the Mining Law to protect certain values or allow certain

uses. Mining claims that existed as of the effective date of the segregation may still be valid if they can meet the test of discovery of a valuable mineral required under the Mining Law. Determining the validity of mining claims located on segregated lands requires BLM to conduct a valid existing rights determination.

**VANDALISM (CULTURAL RESOURCE) :**

Malicious damage or the unauthorized collecting, excavating, or defacing of cultural resources. Section 6 of the Archaeological Resources Protection Act states that "no person may excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands...unless such activity is pursuant to a permit issued under section 4 of this Act."

**VEGETATION STATES :**

The different plant communities produced by an ecological site.

**VEGETATION STRUCTURE :**

The composition of an area's vegetation--plant species, growth forms, abundance, vegetation types, and spatial arrangement.

**VEGETATION TREATMENTS :**

Treatments that improve vegetation condition or production. Such treatments may include seedings; prescribed burning; or chemical, mechanical, and biological plant control.

**VEGETATION TYPE :**

A plant community with distinguishable characteristics.

**VIEWSHED:**

The entire area visible from a viewpoint.

**VISITOR DAY :**

12 visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more people.

**VISUAL ASPECT :**

The visual first impression of vegetation at a particular time or seen from a specific point.

**VISUAL RESOURCE MANAGEMENT (VRM):**

The planning, design, and implementing of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities.

**VISUAL RESOURCE MANAGEMENT (VRM) CLASSES :**

Classes with specific objectives for maintaining or enhancing scenic quality including the kinds landscape modifications that are acceptable to meet the objectives.

Class I - (Preservation) provides for natural, ecological changes only. This class includes wilderness areas, some natural areas, some wild and scenic rivers, and other similar sites where landscape modification should be restricted.

Class II - (Retention of the landscape character) includes areas where changes in any of the basic elements (form, line, color, or texture) caused by management activities should not be evident in the characteristic landscape.

Class III - (Partial retention of the landscape character) includes areas where changes in the basic elements caused by management activities may be evident in the characteristic landscape. But the changes should remain subordinate to the existing landscape character.

Class IV - (Modification of the landscape character) includes areas where changes may subordinate the original composition and character. But the changes should reflect what could be a natural occurrence in the characteristic landscape.

**VOLATILE ORGANIC COMPOUNDS (VOCs) :**

Carbon-containing compounds that with few exceptions evaporate into the air. Often having odors, VOCs contribute to the forming of smog and may themselves be toxic. Some examples of VOCs are gasoline, alcohol, and solvents used in paints.

**WATER DEVELOPMENTS :**

Construction of artificial, or modification of natural water sources to provide reliable, accessible water for livestock, wildlife, or people.

**WATERSHED (CATCHMENT) :**

A topographically delineated area that is drained by a stream system, that is, the total land area above some point on a stream or river that drains water past that point. The watershed is a hydrologic unit often used as a physical-biological unit and a socioeconomic-political unit for planning and managing natural resources.

**WATERSHED CONDITION (WATERSHED HEALTH) :**

The comparison of watershed processes to normal or expected measurements of properties such as soil cover, erosion rate, runoff rate, and groundwater table elevation; an assessment or categorization of an area by erosion conditions, erosion hazards, and the soil moisture/temperature regime.

**WATERSHED FUNCTION :**

The combination of processes attributed to watersheds as part of the hydrologic cycle, including interception of rain by plants, rocks, and litter; surface storage by the soil; groundwater storage; stream channel storage; soil evaporation; plant transpiration; and runoff. These processes affect the following properties of the watershed: runoff rate, water infiltration rate, soil building rate, soil erosion rate, groundwater recharge rate, groundwater discharge rate, water table elevation, and surface water discharge. These properties in turn affect plant communities through soil attributes, including soil parent material, soil moisture, and nutrients; stream and rivers through flooding duration and magnitude, as well as sediment load, which structures the dimension, pattern, and profile of channels; and lakes and reservoirs through sedimentation and nutrient input.

**WAY:**

See ROAD AND ROUTE TYPES - .

**WEED:**

Any plant that interferes with management objectives. A weed may be native or non-native, invasive or passive, or non-noxious.

**WETLAND :**

An area that is inundated or saturated by surface or ground water often and long enough to support and that under normal circumstances supports a prevalence of vegetation typically adapted for life in saturated soil. Wetlands include marshes, shallows, swamps, lake shores, bogs, muskegs, wet meadows, estuaries, cienegas, and riparian areas.

**WILD AND SCENIC RIVER CORRIDOR :**

See NATIONAL WILD AND SCENIC RIVERS SYSTEM .

**WILDERNESS CHARACTERISTICS :**

BLM Instruction Memorandum 2003-275 Change 1 defines Wilderness Characteristics as, "Features of the land associated with the concept of wilderness that may be considered in land use planning when BLM determines that those characteristics are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and are practical to manage.

**Naturalness.** Lands and resources exhibit a high degree of naturalness when affected primarily by the forces of nature and where the imprint of human activity is substantially

unnoticeable. BLM has authority to inventory, assess, and/or monitor the attributes of the lands and resources on public lands, which, taken together, are an indication of an area's naturalness. These attributes may include the presence or absence of roads and trails, fences and other improvements; the nature and extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats.

**Solitude and Primitive/Unconfined Recreation.** Visitors may have outstanding opportunities for solitude, or primitive and unconfined types of recreation when the sights, sounds, and evidence of other people are rare or infrequent, where visitors can be isolated, alone or secluded from others, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered."

**WILDCAT ROAD :**

A nonpermitted road on federally managed land.

**WILDFIRE :**

Any wildland fire that is not meeting management objectives and therefore requires a suppression response.

**WILDLAND FIRE :**

Any nonstructure fire, other than prescribed fire, that occurs in the wildland.

**WILDLAND-URBAN INTERFACE (WUI) :**

Areas where urban fuels directly meet natural fuels. This interface occurs mainly within 66 to 200 feet of houses, where fire most directly threatens houses and where a defensible zone can be developed.

**WILDLIFE:**

A broad term that includes birds, reptiles, amphibians, and nondomesticated mammals.

**WILDLIFE MANAGEMENT AREAS (WMAs) :**

General areas that are managed to enhance the habitat of one or more wildlife species.

**WING FENCE :**

Fencing extending out from a corral and serving to help funnel livestock into the corral.

**WITHDRAWAL:**

Withholding an area of federal land from settlement, sale, location, or entry under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of federal land, other than property governed by the Federal Property and Administrative Services Act, from one department, bureau, or agency to another department, bureau, or agency. Also see SEGREGATION.

**XERO-RIPARIAN :**

An area in a drainage that supports plant species more characteristic of uplands than wetlands, but that is more densely vegetated than areas removed from the drainage. Any flows in these channels are characteristically ephemeral but water may also be subsurface and the drainage may not flow.

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*Note: A more extensive list of planning references is included in the Proposed RMP/Final EIS.*

*Note: References cited as “USDI BLM” or “USDOI BLM” are listed here under “Bureau of Land Management.”*

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# Appendix A. Administrative Actions and Standard Operating Procedures

This appendix includes Administrative Actions and Standard Operating Procedures by program area. The information that follows pertains to BLM-administered public lands managed by the Hassayampa Field Office in the Bradshaw-Harquahala Planning Area. The BLM will maintain the practices, procedures, and policies listed below.

**Administrative Actions** are neither land use plan decisions nor implementation-level management decisions. Instead, these are day-to-day non-ground disturbing activities and are an important component when considering program activities. These activities are often required by FLPMA but do not require NEPA analysis or a written decision by a responsible official to be accomplished. Examples include mapping, surveying, inventorying, monitoring, and collecting needed information through research and studies.

**Standard Operating Procedures** are based on laws, regulations, executive orders, BLM planning manuals, policies, instruction memoranda, and applicable planning documents.

## A.1. Air Quality

### A.1.1. Administrative Actions

Coordinate with the Maricopa County Air Quality Department to conduct studies, assess effectiveness, and implement dust suppression measures in conjunction with travel management and other potentially dust-generating activities.

Initiate steps with the Arizona Department of Environmental Quality (ADEQ) and Maricopa County Air Quality Department to install and operate air pollution monitors near Lake Pleasant, or an alternate location that is experiencing high emission rates of particulate matter (PM<sub>10</sub>).

### A.1.2. Standard Operating Procedures

The Clean Air Act of 1970 and the 1990 amendments govern air quality. The objective of the BLM air resource program is to maintain and/or improve air quality as established by the National Ambient Air Quality Standards, achieve State Implementation Plan goals for non-attainment areas, and reduce emissions from point/non-point sources. Within Arizona, air quality is regulated as follows:

**Open Areas, Dry Washes, and Riverbeds:** The control of airborne dust from open areas, dry washes, and river beds is addressed in Arizona Rules and Regulations for Air Pollution Control, R9-3-404 A-C, as amended.

**Roadways and Streets:** Regulation R9-3-405 A prohibits the use, repair, building, or rebuilding of roadways without taking reasonable dust abatement measures.

**Fire Management:** Regulations R9-3-402 and 403 direct BLM to follow permitting procedures before conducting any prescribed burning projects, to ensure that smoke from fires does not degrade air quality. Section 118 of the Clean Air Act (49.501 of the Arizona Laws Relating to

Environmental Quality) charges ADEQ to protect the health and welfare of Arizona residents from adverse impacts of air pollution. Those wishing to conduct prescribed burns must contact ADEQ.

The objective is to implement RMP management decisions in a manner that meets the requirements of the General Conformity Rule and State Implementation Plans.

## **A.2. Biological Resources**

### **A.2.1. Administrative Actions**

#### **Special Status Species Management**

- Comply with Section 7 (a) of the Endangered Species Act by carrying out positive actions promoting the recovery of listed and proposed populations, and by assuring that BLM actions do not jeopardize the continued existence of threatened and endangered species.
- Cooperate with other agencies to actively manage, protect, and/or improve special status species habitat to maintain and/or increase populations to achieve common goals and objectives. Wildlife habitat, both aquatic and terrestrial, will be managed in cooperation with the state and federal wildlife agencies and other interested parties to conserve or improve the habitat of all sensitive and native species.
- Participate with other agencies in recovery, conservation, research, management, monitoring, and educational activities relating to special status species.
- Acquisition of non-federal lands will be prioritized based on the potential to enhance the conservation and management of threatened or endangered species habitat, riparian habitat, desert tortoise habitat, key big game habitat, or the overall manageability of wildlife habitat.
- Coordinate with the Southwestern Bald Eagle Management Committee to support implementation of the guidelines set forth in the Arizona Conservation Assessment and Strategy Plan for the bald eagle in Arizona.
- Continue to support federal and state agencies efforts to protect and enhance bald eagle breeding areas.

#### ***Administrative Actions - Desert Tortoise***

- Desert tortoise habitat will be compensated in accordance with the Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona 1996 and subsequent updates.
- When possible employ a precautionary principle in desert tortoise habitat management using the best available information until site-specific research can be conducted.
- Avoid impacts on individual tortoise and their burrows.
- Maintain and develop a proactive public education program on the desert tortoise and its habitat requirements, including participation in public events with tortoise habitat information. Update the existing tortoise brochure every five years or as needed.
- Assure that all personnel working within desert tortoise habitat on public lands are knowledgeable about tortoises and their habitat and are trained in appropriate procedures when they encounter tortoises.
- Continue to work with and support other agencies and public entities in desert tortoise conservation.

#### ***Administrative Actions - Gila Topminnow, Gila Chub, and Desert Pupfish***

- In coordination with the Arizona Game and Fish Department, monitor all Gila topminnow, Gila chub, and desert pupfish populations annually.
- Monitor for mortality of Gila topminnow, Gila chub, and desert pupfish populations following significant runoff events within a year of treating the watershed with prescribed burns.
- All monitoring results will be shared with the U.S. Fish and Wildlife Service annually.
- BLM will coordinate all fire suppression actions in watersheds occupied by Gila topminnow, Gila chub, and desert pupfish with the U.S. Fish and Wildlife Service (FWS). If incidental take of these species is likely to occur due to suppression actions, BLM will cooperate with appropriate agencies to collect and salvage fish, if collection and salvage operations can be accomplished safely. BLM will renovate/restore the population site(s) and aid in the re-establishment of the species into the original site(s). If repatriation is not possible due to extreme effects at the site, BLM will coordinate with the FWS to locate or restore a substitute site. Once conditions are suitable for the fish or a substitute site has been selected, the salvaged fish shall be reintroduced. BLM shall coordinate the salvage and release with the FWS and USFWS.
- The BLM will monitor the effects of fire suppression actions on Gila topminnow, Gila chub, and desert pupfish using approved protocols. Where fire suppression actions may have resulted in fish mortality, the BLM will investigate fire suppression related fish mortality and determine if there have been measurable reductions in abundance from that previously determined by status reviews. The BLM will monitor post-fire levels of sediment, debris, and fire-fighting chemicals and water quality at Gila topminnow, Gila chub, and desert pupfish sites to ensure the habitat remains capable of supporting these fish. Water quality data will include temperature, pH (acidity), dissolved oxygen, total dissolved solids, and turbidity. This monitoring will occur as soon as practicable after the fire and will be coordinated with FWS.
- BLM will provide a brief report of monitoring results to the FWS by February of each year following monitoring efforts along with the Wildfire Suppression Documentation forms which will contain the data agreed upon (see FWS File # 02-21-03-F-0210).

## **Fish and Wildlife Habitat Management**

- Initiate, collaborate, and/or support projects related to conservation measures set forth in the following plans: the Migratory Bird Executive Order 13186, Arizona Partners in Flight Bird Conservation Plan, Partners in Flight Desert and Riparian Bird Conservation Plans, and USFWS North American Waterfowl Management Plan.
- Through cooperative partnerships with USFWS and other State and private entities, BLM will conserve, enhance, and restore wildlife habitats, including natural springs, wetlands, and streams. Wildlife habitat improvement projects will be implemented where necessary to stabilize or improve unsatisfactory or declining wildlife habitat condition.
- Continue to implement wildlife habitat management through Habitat Management Plans, developed in cooperation with AGFD to meet the requirements of the Sikes Act and address site-specific habitat management objectives. Existing HMPs will be used until new plans are developed.
- Identify and reduce adverse impacts to natural plant and animal communities associated with invasive species. Efforts to control or eradicate invasive wildlife species will be carried out in cooperation and collaboration with AGFD .
- Following guidance in BLM's Handbook H-1741, construction and modification of fences to meet fence standards will include coordination with livestock operators, interested conservation organizations, and other Federal, State, or local governments as appropriate.

- Establish collaborative research partnerships with academic institutions, professional and non-profit organizations, and other governmental entities.
- Provide opportunities for training and utilization of volunteers.

## **Vegetation and Riparian Management**

- The BLM will cooperate on a landscape basis with other authorities to educate the community to the risks to the environment from invasive and noxious species. In cooperation with other authorities, the BLM will research the means of control, monitor the resources affected, and implement control actions when needed.
- A monitoring, management, and educational program will be established to reduce the spread of plants classified as invasive by the U.S. Department of Agriculture (USDA).
- To help stop the spread of invasive or noxious weeds, the BLM will provide educational material to equestrian users on the use of certified weed-free hay, straw, pellets, hay cubes, and processed grains.

### **A.2.2. Standard Operating Procedures**

The Bradshaw-Harquahala area provides valuable habitat for special status species. The diverse habitats throughout the area also support a wide variety of more common game and non-game wildlife species. The BLM's Fundamentals of Rangeland Health (43 CFR 4180) addresses habitats that have been restored or may make significant progress towards restoration, as well as those that are actively being maintained for federally listed threatened, endangered, proposed, and candidate species, and other special status species. The BLM Arizona's Standards for Rangeland Health include provisions for ensuring that productive and diverse upland and riparian wetland plant communities of native species exist and are maintained.

### **Special Status Species Management**

No activities or projects that would jeopardize the continued existence of federally listed threatened or endangered plant or wildlife species, or species proposed for listing, will be permitted on BLM-administered lands.

The Endangered Species Act (ESA) of 1973, as amended, provides for the protection of threatened, endangered and proposed threatened or endangered species of plants and animals.

The following requirements are prescribed in the BLM's Manual 6840:

1. The BLM shall conserve T/E species and the ecosystems upon which they depend and shall use existing authority in furtherance of the purposes of the ESA. Specifically the BLM shall:
  - a. Determine, to the extent practical, the occurrence and distribution of all T/E species on lands administered by BLM, and evaluate the significance of lands administered by BLM in the conservation of those species.
  - b. Identify land administered by BLM that is essential habitat and designated Critical Habitat of T/E species, and prescribe management for the conservation of these habitats in land use plans.
  - c. Develop and implement management plans that will ensure the conservation of T/E species and their habitats.
  - d. Evaluate ongoing management activities to ensure T/E species conservation objectives are being met.

- e. Ensure that all activities affecting the populations and habitats of T/E species are designed to be consistent with recovery needs and objectives.
2. The BLM shall ensure that all actions authorized, funded, or carried out by the BLM are in compliance with the ESA. To accomplish this, the BLM shall:
  - a. Screen all proposed actions to determine if T/E species or their habitat may be affected. Normally the environmental analysis process is used.
  - b. Initiate consultation with the FWS/NMFS, as appropriate, for those actions that may affect T/E species or their habitats.
  - c. Not carry out any actions that would cause any irreversible or irretrievable commitment of resources or reduce the future management options for the species involved until the consultation proceedings are completed and a final decision has been reached.
  - d. Ensure that no BLM action will adversely affect the likelihood of recovery of any T/E species.
3. The BLM shall cooperate with the FWS/NMFS in planning and providing for the recovery of T/E species. To accomplish this BLM shall:
  - a. Participate on recovery teams and in recovery plan preparation, as well as State or regional working teams responsible for T/E species recovery.
  - b. Review technical and agency review drafts of recovery plans for species affected by BLM management to ensure that proposed actions assigned to BLM are technically and administratively feasible and consistent with BLM's mission and authority.
  - c. Ensure that the decisions, terms, and conditions of Resource Management Plans, and more detailed site-specific plans, prepared for lands covered by previously approved recovery plans are consistent with meeting recovery plan objectives.
4. The BLM shall retain in Federal ownership all habitats essential for the survival or recovery of any T/E species, including habitat used historically by these species.
5. Species proposed for listing as T/E and proposed Critical Habitat shall be managed with the same level of protection provided for T/E species except that formal consultations are not required. The BLM shall confer with the FWS/NMFS on any action that will adversely affect a proposed species or proposed critical habitat.
6. Candidate species will be managed so as not to contribute to the need for them to become listed as threatened or endangered.

## **Fish and Wildlife Habitat Management**

The State of Arizona establishes regulations and enforcement concerning fish and wildlife on all lands administered by the BLM. Nothing will be construed as affecting the jurisdiction or associated responsibilities of the USFWS . Hunting and trapping are allowable activities on these lands.

This BLM is responsible for managing wildlife habitat, while AGFD , through the authority of the Arizona Game and Fish Commission, has public trust responsibility to manage fish and wildlife. The BLM has a Master Memorandum of Understanding (MOU) with the AGFD which establishes protocols that direct the cooperative working relationship between the agencies. The MOU provides context to better enable both agencies to work in partnership and to make decisions in a consistent manner across the state. The guidelines established in the MOU apply to implementation of this RMP .

Any permit system or restriction of use or access would include coordination with other state and federal entities that issue use permits on federal lands to assure that authorized permittees have fair and reasonable access to their permitted activity. For example, should a permit system be implemented, the BLM will coordinate with AGFD to enable coordination of access for hunters with valid hunting licenses and permits for the affected hunting unit. Coordination with AGFD during development of habitat management plans and enhancement of wildlife habitat, species diversity, riparian health, and other activities to achieve the optimum health of wildlife species and populations will continue. Administrative access will be allowed for AGFD staff for law enforcement, natural resource management, and other purposes.

The BLM will conserve, enhance, and restore wildlife habitats, including conservation of natural springs, wetlands, and streams through cooperative partnerships with the AGFD, Tonto National Forest, Prescott National Forest, Yavapai County, and other governmental and private entities.

The BLM will coordinate and cooperate with federal and state agencies, along with partners, to assess the need to maintain, improve, and/or adjust the density or distribution of wildlife waters throughout the planning area to maintain the presence of water for wildlife populations across their range.

The development of springs and seeps, or other projects affecting water and associated resources, will be designed to protect ecological functions and processes and to continue to provide habitat at the source for endemic invertebrates that may be present.

Water developments for purposes other than wildlife will include design features that will ensure safe and continued access to water by wildlife.

On BLM-managed lands, the Animal and Plant Health Inspection Service—Wildlife Services (APHIS-WS) and the AGFD manage animal damage control, predator management, control of exotic wildlife species, and feral, non-permitted livestock on BLM-managed lands. A 1995 MOU recognizes the legal authority of APHIS-WS to conduct wildlife damage management on BLM-managed lands. The BLM acknowledges that authority and will continue close coordination with APHIS-WS and AGFD, as well as the State Land Department, State Brand Inspector, and other affected agencies on animal damage control efforts within the AFNM.

## **Vegetation and Riparian Management**

- Impacts to vegetation from construction, recreation, and other activities will be avoided or mitigated. Where successful restoration is feasible, vegetative rehabilitation with suitable seed mix or root stock will follow.
- The removal of cacti or other plants may be approved by the BLM if needed to maintain the safe operation of existing utility lines.
- The use and perpetuation of native plant species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, non-intrusive, non-native plant species are appropriate for use where native species: (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

## **Vegetation Treatment**

*Appendix A Administrative Actions and Standard  
Operating Procedures  
Standard Operating Procedures*

*April 22, 2010*

Standard operating procedures and treatment methods will be used to achieve desired future conditions for vegetation management. BLM policies and guidance for public land treatments will be followed in implementing all treatment methods. Many guidelines are provided in BLM Handbook H-1740-1, Renewable Resource Improvement and Treatment Guidelines and Procedures (1987); in BLM Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration (1997); in BLM programmatic documents such as Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States, Including Alaska (1991) and Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States, Programmatic Environmental Impact Statement (2007); and in other general and specific program policy, procedures, and standards pertinent to implementation of renewable resource improvements. The standard approaches to manual, chemical, mechanical, biological, and fire treatment methods are described in detail below. The specific methods applied would depend on area-specific management objectives with an assessment of environmental impacts.

### **Manual Vegetation Treatment**

Hand-operated power tools and hand tools are used to cut, clear, or prune herbaceous and woody plants. In manual treatments workers do the following:

- cut plants above ground level,
- pull, grub, or dig out plant root systems to prevent later sprouting and regrowth,
- scalp at ground level or remove competing plants around desired vegetation, and
- place mulch around desired vegetation to limit the growth of competing vegetation.

Hand tools such as the handsaw, axe, shovel, rake, machete, grubbing hoe, mattock (combination of axe and grubbing hoe), brush hook, and hand clippers are used in manual treatments. Axes, shovels, grubbing hoes, and mattocks can dig up and cut below the surface to remove the main roots of plants such as prickly pear and mesquite that have roots that can quickly resprout in response to surface cutting or clearing. Workers also may use power tools such as chainsaws and power brush saws.

Although manual vegetation treatment is labor intensive and costly, compared to prescribed burning or herbicide application, it can be extremely species selective and can be used in areas of sensitive habitats or areas that are inaccessible to ground vehicles. Manual treatment of undesired plants would be used on sites where fire (prescribed or naturally ignited) is undesirable or where significant constraints prevent widespread use of fire as a management tool. These sites comprise a range of vegetation communities or habitat types. They include areas where there may be wildlife concerns, yet it is deemed beneficial to remove trees, shrubs, or other fuel-loading vegetation. Manual vegetation treatments cause less ground disturbance and generally remove less vegetation than prescribed fire or mechanical treatments.

### **Mechanical Vegetation Treatment**

Mechanical vegetation treatments employ several different types of equipment to suppress, inhibit, or control herbaceous and woody vegetation. The goal of mechanical treatments is to kill or reduce the cover of undesirable vegetation and thus encourage the growth of desirable plants. BLM uses wheeled tractors, crawler-type tractors, mowers, or specially designed vehicles with attached implements for mechanical vegetation treatments. Mechanical equipment is used to reduce fuel hazards in accordance with BLM established procedures. Re-seeding after mechanical treatments is important to help ensure that desirable plants and not weedy species will become established on

the site. Mechanical treatment and reseeding should occur at a time to best control the undesirable vegetation and encourage the establishing of desirable vegetation. The best mechanical method for treating undesired plants in a particular location depends on the following factors:

- characteristics of the undesired species present, such as plant density stem size, woodiness, brittleness, and resprouting ability,
- need for seedbed preparation, revegetation, and improved water infiltration rates,
- topography and terrain,
- soil characteristics such as type, depth, amount and size of rocks, erosion potential, and susceptibility to compaction,
- climatic and seasonal conditions, and
- potential cost of improvement as compared to expected results.

Bulldozing consists of a wheeled or crawler tractor with a heavy hydraulic controlled blade. Bulldozers push over and uproot vegetation and leave it in windrows or piles. Bulldozing is best adapted to removing scattered stands of large brush or trees. Several different kinds of blades can be used, depending of the type of vegetation and goals of the project. The disadvantage of bulldozing is that it disturbs soil and may damage non-target plants.

Disk plowing in its various forms can be used for removing shallow-rooted herbaceous and woody plants. Disk plows should only be used where all of the vegetation is intended to be killed. Several different kinds of root plows are specific for certain types of vegetation. In addition to killing vegetation, disk plowing loosens the soil surface to prepare it for seeding and to improve the rate of water infiltration. The disadvantage of disk plowing is that it may be expensive and usually kills all species. Also, plowing is usually not practicable on steep slopes (> 35-45 percent slope) or rocky soil. Plant species that sprout from roots may survive.

Vegetation is chained and cabled by dragging heavy anchor chains or steel cables hooked to tractors in a U-shape, half circle, or J-shaped manner. Effective on rocky soils and steep slopes, chaining and cabling are best used to control non-sprouting woody vegetation such as small trees and shrubs. Desirable shrubs may be damaged in the process. This control method normally does not injure herbaceous vegetation. It is cost effective because it can readily treat large areas. The chains or cables also scarify the soil surface in anticipation of seeding desirable species. The disadvantage is that weedy herbaceous vegetation can survive this treatment.

Various tractor attachments are used for mowing, beating, crushing, chopping, or shredding vegetation, depending on the nature of the plant stand and goals of the project. The advantage in using this type of equipment is that selective plants may be targeted to achieve specific goals. For example, mowing is effective in reducing plant height to a desirable condition, and mowing usually does not kill vegetation. Mowing is more effective on herbaceous than woody vegetation. On the other hand, a rolling cutter leaves herbaceous vegetation but can kill woody nonsprouting vegetation by breaking stems at ground level. Mowing, beating, crushing, chopping, or shredding usually does not disturb soil. Rocky soil and steep slopes may limit the use of this equipment.

Debris management after a mechanical treatment is critical in fuels reduction projects. Vegetation material that is left on a site will dry and may become more hazardous than before the treatment. Herbaceous material is usually not a problem because it will decompose relatively fast, depending on soil moisture, ambient humidity, and temperature. Woody vegetation should be piled and burned under acceptable fire management practices.

## **Biological Vegetation Treatment**

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Biological methods of vegetation treatment employ living organisms to selectively suppress, inhibit, or control herbaceous and woody vegetation. This method is viewed as one of the more natural processes because it requires the proper management and plant-eating organisms, and precludes the use of mechanical devices, chemical treatments, or burning.

The use of biological control agents will be conducted in accordance with procedures in BLM Manual 9014, Use of Biological Control Agents of Pests on Public Lands (BLM 1990b). Insects, pathogens, and grazing by cattle, sheep, or goats would be used as biological control methods under all Alternatives, but these methods can control only a few plant species. Insects are the main natural enemies now being used. Other natural enemies include mites, nematodes, and pathogens. This treatment method will not eradicate the target plant species but merely reduces the target plant densities to more tolerable levels. This method also reduces competition with the desired plant species for space, water, and nutrients. This treatment method will be used on larger sites where the target plant has become established and is strongly competitive. Gradually, biological methods using cattle, sheep, or goats would avoid erosion hazard areas, areas of compactable soils, riparian areas susceptible to bank damage, and steep erodible slopes.

Biological control using cattle, sheep, or goats would be applied to treatment areas for short periods. In using grazing animals as effective biological control measures, several factors will be considered:

- target plant species present,
- size of the infestation of target plant species,
- other plant species present,
- stage of growth of both target and other plant species,
- palatability of all plant species present,
- selectivity of all plant species present by the grazing animal being considered for use,
- availability of that grazing animal within the treatment site area,
- type of management program that is logical and realistic for the treatment site, and
- potential impacts to native wildlife and their habitat.

These factors will be some of the options taken when developing the treatment for a site.

Cattle, sheep, and goats can be used to control the top growth of certain noxious weeds. The following are some advantages of using livestock, mainly sheep or goats, for noxious weed control:

- They use weeds as a food source;
- After a brief adjustment period, they sometimes consume as much as 50% of their daily diet of certain noxious weed species;
- Average daily gains of offspring grazing certain weed-infested pastures can sometimes be significantly higher than average daily gains of offspring grazing grass pastures; and
- Sheep or goats can be used in combination with herbicides.

Following are some of the disadvantages of using livestock:

- They also use non-target plants as food sources;
- The use of domestic animals, like sheep or goats, may require a herder or temporary fencing;
- The animals may be killed by predators such as coyotes;
- Heavy grazing of some weed species, such as leafy spurge, tends to loosen the stool of grazing animals;
- Most weed species are less palatable than desirable vegetation, and overgrazing would result;
- Livestock may accelerate movement of non-native plants by ingesting and excreting seeds; and

- Livestock may transmit parasites or pathogens to resident native wildlife species.

Particular insects, pathogens, or combinations of these biological control agents may also be introduced into an area of competing or undesired vegetation to selectively feed upon or infect target plants and eventually reduce their density within that area. Only on rare occasions will one biological control agent reduce the target plant density to the desired level of control. Therefore, a complex of biological control agents is most often needed to reduce the target plant density to a desirable level. Even with a complex of biological control agents, often 15 to 20 years are needed to bring about an economic control level, especially on creeping perennials. In most circumstances, biological control agents are not performing control. They are only creating stresses on weeds, which is not the same as control.

Some advantages of using natural enemies to control weeds are as follows:

- They are self-perpetuating;
- They can be comparatively economical once studied and established;
- They can be highly selective;
- They offer a high degree of environmental safety; and
- They do not require fossil fuel energy.

Biological control does have the following limitations:

- It is a slow process;
- It does not achieve eradication but merely reduces weed densities to more tolerable levels;
- It is highly selective, attacking one weed existing among a complex of other weeds;
- It cannot be used against weeds that are valued in some situations because insects or pathogens do not recognize boundaries;
- It cannot be used against weeds that are closely related to beneficial plants because the insects or pathogens may be unable to discriminate between related plant species; and
- It cannot be used against weeds when the biological control agent requires an alternate host that may be a beneficial plant.

To develop a biological weed control program, the following steps must be taken:

1. Identify weed species and determine origin.
2. Determine if any natural enemies occur at the point of origin.
3. If possible, collect natural enemies.
4. Hold preliminary screening trials on the natural enemies of the weed in the United States.
5. Hold further screening trials in the United States.
6. Raise biological control agents before the first release.
7. Release biological control agents for the first time onto selected sites.
8. If biological control agents survive and increase in numbers, collect agents and release onto other sites of weed infestation.

Usually a complex of at least three to five different biological agents, such as insects, must be used to attack a weed infestation site. Even with a complex of biological agents, often 15 to 20 years are needed to bring about an economic control level, especially on creeping perennial plants.

## **Chemical Vegetation Treatment**

Chemical treatment would be used to control unwanted vegetation, and in some instances would be followed by a prescribed burn. Treatments would be conducted in accordance with BLM procedures and would meet or exceed individual State label standards. The chemicals can be

applied by many different methods, and the selected technique depends on several variables, including the following:

- treatment objective (removal or reduction),
- accessibility, topography, and size of the treatment area,
- characteristics of the target species and the desired vegetation,
- the location of sensitive areas in the immediate vicinity (potential environmental impacts),
- expected costs and equipment limitations, and
- meteorological and vegetation conditions of the treatment area at the time of treatment.

Herbicide applications are scheduled and designed to minimize potential impacts on nontarget plants and animals, while remaining consistent with the objective of the vegetation treatment program. The rates of application depend on the target species, presence and condition of nontarget vegetation, soil type, depth to the water table, presence of other water sources, and the requirements of the label.

Often the type, schedule, and rate of application of the chosen herbicide may differ from the most ideal application for maximum control of the target plant species. Application procedures may need to be adjusted to minimize damage to other plant species or to ensure minimum risk to human health and safety.

The chemicals would be applied aurally with helicopters or fixed-wing aircraft or on the ground using vehicles or manual application devices. Helicopters are more expensive to use than fixed-wing aircraft. They are more maneuverable and effective in areas with irregular terrain and in treating specific target vegetation in areas with many vegetation types. Manual applications are used only for treating small areas or areas inaccessible by vehicle. The typical and maximum application rates of each chemical would vary, depending on the program area being treated.

### **Prescribed Burning**

Prescribed burning is the planned application of fire to wildland fuels in their natural or modified state, under specific conditions of fuels, weather, and other variables, to allow the fire to remain in a predetermined area and to achieve site-specific fire and resource management objectives.

Management objectives of prescribed burning include the following:

- controlling of certain species,
- enhancing growth, reproduction, or vigor of certain species,
- managing fuel loads, and
- maintaining vegetation community types that best meet multiple use management objectives.

Treatments would be implemented in accordance with BLM's procedures in Prescribed Fire Management (BLM 2000c).

Before conducting a prescribed burn, a written plan must be prepared. The plan must:

- consider existing conditions (amount of fuel, fuel moisture, temperatures, terrain, weather forecasts), and
- name the people responsible for overseeing the fire.

Also, natural fire that is allowed to burn needs to be carefully monitored to ensure that it will not threaten communities, ecosystems, and other values to be protected. This monitoring may require special expertise such as fire-use management teams that support the overall fire management

program. Planning and implementation for a specific prescribed fire project entails the following four phases:

Phase One: Information/assessment includes the following:

- determining the area to be treated,
- inventorying and assessing site-specific conditions (live and dead vegetation densities, dead and down woody fuel loadings, soil types),
- analyzing historic and present fire management,
- identifying resource objectives from land use plans, and
- conducting NEPA analysis and compliance.

Phase Two: Prescribed fire plan development includes the following:

- developing the site-specific prescribed fire plan to BLM's standards,
- reviewing the plan, and
- obtaining plan approval from local BLM's field office administrators.

Phase Three: Implementation includes the following:

- preparing the prescribed fire boundary to ensure that the fire remains within prescribed boundaries,
- preparing the site, which may include building firelines, and improving vehicle routes and wildlife and stock trails by limbing trees and clearing debris, and
- igniting the fire according to the plan's prescribed parameters.

Phase Four: Monitoring and evaluation includes assessment and long-term monitoring of the fire treatment to ensure that the prescribed fire has met the objectives of the approved prescribed fire plan.

## **A.3. Cultural Resources**

### **A.3.1. Administrative Actions**

- Continue to regularly communicate with the State Historic Preservation Office to share information and obtain technical advice on issues relating to compliance with Sections 106 and 110 of NHPA, in accordance with the Arizona State Protocol.
- Continue to consult with the Yavapai Prescott Indian Tribe, the Salt River Pima-Maricopa Indian Community, the Gila River Indian Community, the Hopi Tribe, and other interested Indian tribes to identify places of traditional importance and associated access needs. Develop measures for management and protection of such places that may be identified by tribes during the life of the Approved RMP .
- Identify sacred areas in consultation with Indian tribes and, where practicable, limit land uses to those that do not conflict with ascribed values.
- Honor tribal requests to protect the confidentiality of sensitive information to the extent permitted by law.
- Provide opportunities for participation by Indian tribes in research and interpretation.
- Specific management prescriptions for sites allocated to Traditional Use will be developed in consultation with the Indian tribes to which they are culturally important.
- Restrict public information about the specific locations of sites that are not allocated to Public Use (selected for interpretive and educational uses).

- Complete Class II (sample) and Class III (intensive) field inventories to identify cultural resources and evaluate the condition of sites, in accordance with Section 110 of NHPA. Use the information obtained through these archaeological surveys to allocate sites to appropriate use categories, develop protection measures, and integrate survey results into research designs and interpretation efforts.
- Focus proactive (Section 110) inventories on areas defined as Special Cultural Resource Management Areas. Complete at least 200 acres of proactive survey, distributed among one or more of these areas during each fiscal year.
- Complete Class III surveys on 10 percent of zones above 3,500 feet in elevation, which are the target areas for prescribed burns and other fuels treatment projects. Focus surveys on areas that are most likely to contain flammable historic structures, as identified by documentary research, to develop measures to protect these sites during treatment projects.
- Complete documentary research and oral histories to gain a better understanding of cultural resources associated with homesteading, mining, ranching, and other historical period activities.
- Establish collaborative research partnerships with academic institutions, professional and non-profit organizations, and avocational organizations.
- Provide opportunities for training and participation in site documentation, research, protection, and educational projects by students and volunteers. Ensure adequate professional oversight of work conducted by students and volunteers.
- Continue support of the Arizona Site Steward Program.
- Continue to monitor at least 25 sites, which are at greatest risk from vandalism or disturbance, with assistance from partners such as site steward volunteers.
- Continue to participate in Arizona Archaeology Awareness Month and other educational outreach efforts that highlight the values of cultural heritage resources and the need to protect these resources.
- Require that holders of special recreation permits provide site visitors with appropriate educational information on archaeological site etiquette and resource conservation.
- Complete interpretive plans for sites allocated to Public Use through interpretive development.
- Conduct mapping and site documentation prior to interpretive development or use for commercial tours to the extent needed to preserve archaeological data, plan for interpretive facilities, and provide a baseline condition assessment for monitoring changes associated with visitor use.
- Implement procedures for systematic monitoring of all sites developed or authorized for public visitation. If needed, restrict visitor access or group tours to prevent damage from visitor use.
- The BLM will develop Cultural Resource Project Plans for protection or interpretation projects that require precise descriptions of implementation procedures, workforce, scheduling, equipment, and supplies. Project planning will be implemented following guidance in BLM's Manual 8130, *Planning for Uses of Cultural Resources*.

## A.4. Standard Operating Procedures

- Ensure that all undertakings and authorizations for land and resource use are reviewed and conducted in compliance with Section 106 of NHPA, the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and other applicable laws.
- Reviews of proposed land use authorizations and surface disturbing activities will include records searches and field inventories, at the appropriate levels of intensity defined in BLM's Manual 8110, *Identifying and Evaluating Cultural Resources*.

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- Land use authorizations will include stipulations requiring users/operators to cease work and notify the BLM in the event of a discovery of cultural resources.

## **A.5. Fire Management**

### **A.5.1. Standard Operating Procedures**

The appropriate management response concept represents a range of available management responses to wildland fires. Responses range from full fire suppression to managing fires for resource benefits (fire use). Management responses applied to a fire will be identified in the fire management plan and will be based on objectives derived from the area's land use allocation, as determined in the *Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management* (BLM 2004); relative risk to resources, the public, and firefighters; potential complexity; and the ability to defend management boundaries. Any wildland fire can be aggressively suppressed and any fire that occurs in an area designated for fire use can be managed for resource benefits if it meets the prescribed criteria from an approved fire management plan.

Fire suppression will be carried out in a manner consistent with Interagency Standards for Fire and Aviation Operations, which is updated on an annual basis by the National Interagency Fire Center. Logistical support, operation and coordination, and policies and procedures for mobilization of fire fighting resources are outlined in the Southwest Area Mobilization Guide. This guide provides direction for Federal and State agencies in Arizona, New Mexico, and Texas.

The following constraints to fire suppression actions are applicable:

- Use suppression tactics that limit damage or disturbance to the habitat and landscape. Use no heavy equipment (such as dozers) unless approved.
- Use fire retardants or chemicals next to waterways in accordance with the Environmental Guidelines for Delivery of Retardant or Foam near Waterways (Interagency Standards for Fire and Aviation Operations Task Group 2004).
- Protect all known cultural resources from disturbance.
- In wilderness areas when suppression is required, use Minimum Impact Suppression Tactics (MIST) and coordinate with wilderness area management objectives and resource advisors.
- Implement general and species-specific conservation measures to the extent possible to minimize harm to federally listed, proposed, or candidate species within the action area.

Fire management will continue to avoid the physical disturbance of known archaeological sites or sites found during fire management activities. Fires will not be intentionally started at known sites. Archaeologists will serve as resource advisors for fire management and help develop and implement fire and fuels management plans, which would address effects on cultural resources. Fire crews will be educated about the need to protect cultural resources.

## **A.6. Lands and Realty Management**

### **A.6.1. Administrative Actions**

BLM will, as appropriate, coordinate communication-related planning efforts with the Federal Communications Commission (FCC).

BLM will continue to cooperate as a partner (with the Forest Service, Arizona Public Service, and Salt River Project, in Arizona) in the Western Utility Group, whose mission is to facilitate an exchange of information and coordinate planning between Federal agencies and utility providers throughout the western United States.

## **A.6.2. Standard Operating Procedures**

### **Land Tenure Adjustments**

Consolidate land ownership to achieve management efficiency with regard to the following considerations:

- Consider and evaluate the overall combination of all resource values and factors including wildlife habitat, riparian areas, wetlands, cultural resources, recreation opportunities, scenic value, watershed protection, timber and mining resources, rangelands, public access and a broad array of recreation uses;
- Consider the use of patent reservations and habitat management plans when conveying lands from Federal ownership; and
- Consider and evaluate making public land available for disposal to local governments and non-profits under the Recreation & Public Purposes Act.
- Obtain reasonable public and administrative access to BLM-managed lands in the following ways:
  - Require reciprocal access easements to meet specific program needs;
  - Consider and manage the use of public lands for rights-of-way, right-of-way reservations, easement, permits, leases, licenses, agreements, etc, except for those areas identified exclusion areas; and
  - Secure access easements as needed to prevent closing of access to public lands.
- Consider and evaluate in land adjustment actions (including disposal, acquisition, sale, donation) the following:
  - Reduction of BLM administrative costs and improvement of management efficiency;
  - Identify for disposal relatively small, isolated, inaccessible tracts of BLM that do not meet resource management needs; and
  - Consider and evaluate conveyances or acquisitions that would reduce conflicts between BLM and non-Federal landowner objectives, especially when conflicts are adversely affecting BLM management.

Consider opportunities to acquire non-Federal lands by purchase or exchange (willing seller) where lands are valuable for achieving BLM resource management objectives. Evaluate the following:

- key wildlife habitat, fisheries management areas and habitat for threatened, endangered, or sensitive species,
- designated wilderness and other special management areas,
- lands with historical or important heritage resources, outstanding scenic values, or critical ecosystems when these resources are threatened by change of use, or when management may be enhanced by public ownership,
- lands with water frontage, such as lakes, streams, flood plains, wetlands, and associated riparian ecosystems,

- land with important value for outdoor recreation purposes,
- land needed for visual resource protection,
- lands needed to bring existing BLM land into consolidated geographical units,
- lands that will maintain or stabilize the economies of local government,
- lands where BLM programs will provide the best insurance against existing or potential uses that are incompatible with effective watershed management,
- consider partial interest acquisitions , such as access, minerals, water rights or conservation easements to benefit public land management,
- consider public/private land management and stewardship opportunities to assist in the management of BLM-managed lands, and
- consider disposal of Federal subsurface estate under non-Federal surface estate on a case-by-case basis. Seek opportunities to consolidate surface and mineral ownership.

## Utility and Transportation Corridors and Communication Sites

Corridors to be designated in the Resource Management Plans (RMPs) and EIS should be considered on the basis of their suitability to accommodate right-of-way for facilities of particular threshold sizes or volumes. A corridor is defined only if it contains or is planned for one or more of the following major facilities:

- natural gas and other pipelines are at least 10 inches in diameter,
- electric transmission facilities have a capacity of 115 kV lines or greater voltage,
- significant canals are those which provide delivery of water to urban areas, and
- transportation facilities are those formally defined as Current or Proposed Roads of regional Significance or Current or Proposed Major Arterials (functional class) identified by a local government jurisdiction as regionally significant and projected to carry 20,000 or more vehicles per day by the year 2015.

Utilities, whether interstate, intrastate, or local, should be co-located in designated corridors to the maximum degree possible to minimize impacts to BLM-administered lands.

Transportation routes, whether interstate, intrastate, or local, should be co-located with utilities in designated corridors to the maximum degree possible to minimize impacts to BLM-administered lands.

BLM will strive to coordinate applicable transportation-related planning efforts for the Bradshaw-Harquahala Planning Area with the Arizona Department of Transportation (ADOT), the Maricopa County Department of Transportation (MCDOT), and the Maricopa Association of Governments (MAG), and Yavapai County.

Smaller utility lines needed for local service in the vicinity of the corridors should be co-located within a corridor unless doing so would limit the opportunity to add additional major utility lines in the corridor.

Avoidance of sensitive or special resources is a primary consideration in future planning and designation of utility corridors.

BLM's planning should promote, whenever possible, optimal energy transfer efficiency and support alternative energy sources such as use of photovoltaic cells (solar energy) and wind power.

In February 2003, the Department of Homeland Security (DHS) issued the National Strategy for the Physical Protection of Critical Infrastructures and Key Assets (DHS 2003) which summarized



the initial assessment of, and planning to protect against, vulnerabilities to the terrorist threat. As DHS continues to carry out its mandate, the designation of utility and transportation corridor location and the planning and maintenance of utilities, railroads, and Federal, State, and interstate highways that cross BLM-administered lands, will be consistent with any directives, policies, and procedures that DHS may institute to minimize vulnerabilities to the energy grid.

Whenever possible, utility transmission lines will be designed and/or routed so as to minimize adverse visual impacts to the surrounding lands and vistas.

BLM's utility corridor designations must be consistent with authority granted under FLPMA Title V, Sections 501–511 (43 USC 1761–1771), the Mineral Leasing Act of 1928 (CFR 2880), and the BLM Right-of-Way Manual, Sections 2801.11 and 2801.12. In accordance with Executive Order No. 13212, the Energy Project Streamlining process (signed May 18, 2001), Federal energy-related planning must serve to expedite the production, transmission, or conservation of energy.

BLM will continue to cooperate as a full partner (with U.S. Forest Service, APS, and SRP , in AZ) in the Western Utility Group, whose mission is to facilitate an exchange of information and coordinate planning efforts between Federal agencies and utility providers throughout the western U.S.

BLM will, as appropriate, coordinate communication-related planning efforts with the Federal Communications Commission (FCC).

BLM's planning related to telecommunication infrastructure must, in accordance with the Telecommunications Act of 1996, help facilitate implementation of wireless telephone systems, in compliance with existing law, by making Federal lands and facilities available for communication sites.

## **Land Uses Requiring Permits**

The common land uses requiring permits are commercial photography, apiaries, geological and hydrological testing, and some military activities. The recipients of R leases or patents are State and local governments and qualified nonprofit organizations.

## **A.7. Law Enforcement**

### **A.7.1. Standard Operating Procedures**

The priorities of the law enforcement program include vandalism, illegal dumping, violations of the Archaeological Resource Protection Act, closure violations, camping limit violations, vegetative damage and theft, OHV use violations, hazardous materials incidents, and human-caused wildland fires. Law enforcement supports the safety of BLM employees, volunteers, and the public.

Law enforcement priorities are accomplished by rangers through routine patrols of high-use areas and known locations of repeated violations. Reports of violations by resource specialists and the public result in a significant portion of the investigative leads and enforcement actions by the ranger staff.

Numerous other agencies with law enforcement missions cooperate with BLM rangers on a wide variety of enforcement actions. These agencies include, but are not limited to, the Arizona Department of Public Safety, Yavapai County Sheriff's Department, Maricopa County Sheriff's Department, and Arizona Game and Fish Department.

## **A.8. Mineral Resources**

### **A.8.1. Standard Operating Procedures**

Unless otherwise restricted, all Federal mineral estates administered by BLM within the Planning Area are available for orderly and efficient development of mineral resources. Mineral exploration and development is generally encouraged on public land in keeping with BLM's multiple resource concepts. Overall guidance on the management of mineral resources appears in the *Mining and Minerals Policy Act of 1970*, Sec.102(a)(120) of FLPMA, *National Materials and Minerals Policy, Research and Development Act of 1980* and *BLM's Mineral Resources Policy of May 29, 1984*.

Exploration and development of all mineral resources will be conducted in accordance with all applicable laws and regulations.

Acquired lands will be opened to mineral entry unless critical resource values (threatened and endangered species, riparian habitat, scenic values, etc.) or public health and safety require closure. Upon approval of proposed regulations at 43 CFR 2201.8-2(b), newly acquired lands would automatically be open to operation of the public lands and mineral laws within a specified timeframe after acceptance of title unless critical resource values such as those listed above require closure.

Issuing rights-of-way where there are active mining claims is routine and covered by legislation and regulation. The right-of-way purchaser or permittee is informed of the rights of the mining claimant. Mining might intermittently or temporarily obstruct the right-of-way.

### **Locatable Minerals**

The 43 CFR 3715 and 3809 regulations provide for the management of surface disturbance associated with mineral exploration and development including mining claim use and occupancy. The BLM reviews mining notices and plans in the time allotted as identified in the regulations. For notice level operations, if time permits, a site visit would be conducted for lands identified in a mining notice by the geologist, and an archeologist and biologist if they are available. A site visit would always be conducted by BLM during the processing of a plan of operations.

Mining plans and notice level operations when mining claim occupancy is proposed are required to have the proper NEPA documentation prepared. BLM will work with operators to ensure that notices and plans are processed efficiently and in a timely manner. Reclamation plans and bonds are required for each notice and mining plan according to the applicable regulations. Bond amounts are calculated for the full cost needed to complete 100% of reclamation, matching the amount the BLM would require to hire an independent contractor to complete the work.

In addition to the requirements of 43 CFR 3715 and 43 CFR 3809, State and Federal law provides for numerous other permits including, but not limited to: an Aquifer Protection Permit and a

NPDES permit both issued by the Arizona Department of Environmental Quality, a Section 404 permit issued by the Army Corps of Engineers and a flood control permit issued by the county. Also, Arizona State law requires mining claimants to keep mining property in a safe condition. The State Mine Inspector's Office is responsible for enforcing this law. BLM will cooperate with all interested agencies to ensure that operations conducted on BLM-administered lands are in full compliance with all Federal, State and local health, safety and environmental laws as required by 43 CFR 3715.5.

All occupancy of mining claims must meet the requirements of 43 CFR 3715 and must meet the specific requirements of 43 CFR 3715.2. At a minimum, all occupancies will meet the requirements and standard stipulations for occupancy contained in the BLM Arizona Programmatic EA for Mining Claim Use and Occupancy.

Surface disturbing activities at a level greater than casual use in wilderness areas, national monuments, areas of critical environmental concern and other areas identified in 43 CFR 3809.11 will require a plan of operations before mining can begin. Operations proposed for lands that are withdrawn from mineral entry will cause BLM to initiate a validity examination and will be allowed only on claims with a valid discovery and location existing before designation. Before BLM can approve mining plans of operation submitted for work in areas withdrawn from mineral entry, a BLM mineral examiner must verify that a valid claim exists. The mineral examination and mineral report must confirm that minerals have been found and the evidence is of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine.

## **Leasable Minerals**

Lease applications will be considered on a case-by-case basis. Leases will be issued with needed restrictions to protect resources. Stipulations to protect important surface values will be based on interdisciplinary review of individual proposals and environmental analysis.

## **A.9. Paleontological Resources**

### **A.9.1. Administrative Actions**

BLM will analyze the potential for paleontological resources and do the following:

- Develop a sensitivity map for paleontological resources and require screening for all proposed activities against potential for the project to impact vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils.
- Allocate all lands within the area to Paleontological Sensitivity Class 1, 2, 3, or 4. Formal descriptions of these classes are given in Management Decisions--Paleontological Resources, and Land Use Allocations.
- When evaluating proposed actions on public lands, apply the following goals and objectives:
  - Identify areas and geological units (e.g., formations, members) containing paleontological resources.
  - Evaluate the potential of these areas to contain vertebrate fossils or noteworthy invertebrate or plant fossils.

- Develop management recommendations (including mitigation measures in specific locations) to promote the scientific, educational, and recreational uses of fossils on public lands.
- The BLM will include paleontological resources in its cultural resources public education programs. These programs will provide information on procedures to be followed if fossilized items are found; types of fossils that cannot be collected without an applicable permit; and penalties for removing fossilized items from BLM-administered lands without a permit.
- A records search for paleontological resources will be conducted on all land use actions as appropriate. Surveys prior to, or monitoring during, ground-disturbing land uses will be conducted as necessary to protect significant paleontological values.
- Newly identified vertebrate localities will be evaluated to assess their importance and the potential threat of loss. These findings will be used to determine and implement an adequate monitoring program.

### **A.9.2. Standard Operating Procedures**

Management of paleontological resources conforms to the provisions of the Paleontological Resources Protection Act of 2009 (Public Law 111-011) (PRPA).

The law does not change the BLM's basic policy for allowing casual collecting of reasonable amounts of common invertebrate and plant fossils from public lands for personal use without a permit. Nor does the PRPA change the prohibition on bartering or selling common invertebrate and plant fossils. Section 6301(1) of the PRPA states that casual collecting must take place "either by surface collection or the use of non-powered hand tools resulting in only negligible disturbance to the Earth's surface and other resources."

The PRPA does not change BLM's requirement for issuance of a paleontological resources use permit for the collection of vertebrate and other paleontological resources of interest by qualified researchers. Section 6301(4) defines a paleontological resource as "...any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth...."

For all authorized surface disturbing activities:

- Inventories will be conducted on a case-by-case basis, as deemed necessary by the authorized officer, for each proposed surface-disturbing activity to ensure maintenance or integrity of paleontological values.
- User/operators shall be responsible for informing all persons associated with a project that they shall be subject to prosecution for damaging, altering, excavating, or removing any vertebrate or noteworthy occurrences of invertebrate or plant fossils on site.
- If vertebrate or noteworthy occurrences of invertebrate or plant fossils are discovered, the user/operator shall suspend all operations that further disturb such materials and immediately contact the authorized officer.
- User/operators shall not resume until written authorization to proceed is issued by the authorized officer.
- Within five working days, the authorized officer will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant scientific values.
- The user/operator shall be responsible for the cost of any mitigation required by the authorized officer.

- Upon verification from the authorized officer that the required mitigation has been completed, the operator shall be allowed to resume operations.

## **A.10. Public Safety**

### **A.10.1. Standard Operating Procedures**

#### **Hazardous Materials**

The BLM will comply with all federal, state, and local environmental, health, and safety laws and regulations governing storage, handling, use, and of hazardous materials and/or waste. BLM will minimize releases of hazardous materials, and when such materials are released into the environment, will assess their impacts on each resource and determine the appropriate response, removal, and remedial actions to take.

BLM employees or the public may encounter solid waste and hazardous materials while on BLM-administered lands. Such materials or waste may include clandestine drug lab waste, domestic solid waste dumping, and transportation accidents, including hazardous material incidents on Interstate 17 and major roads. BLM employees who may encounter such situations while in the field will be trained as mandated by the BLM and the Occupational Safety and Health Administration (OSHA) requirements to recognize, retreat, and report any discovery. The BLM will notify state and federal agencies responsible for hazardous materials or waste responses and cleanups.

Other procedures include:

- Cooperate with other agencies which have expertise or jurisdiction in efforts to remove and remediate any hazardous materials that are illegally dumped on public land. These efforts will be carried out only by adequately trained and qualified personnel or contractors.
- Identify parties responsible for contamination who will be liable for cleanup and resource damage costs, as prescribed by law.
- Complete site-specific inventories when lands are being acquired. It is departmental policy to minimize potential liability of the Department and its bureaus by acquiring property that is not contaminated unless directed by Congress, court mandate, or as determined by the Secretary.
- Educate the public about the risks associated with waste dumping and hazardous materials through signs, bulletin boards, and/or kiosks.

#### **Abandoned Mine Lands**

- Inventory abandoned mine lands to determine old mining features that pose the greatest risk to public health and safety.
- Inspect abandoned mine land sites to identify all physical hazards presenting a safety risk to the public, and take appropriate action to mitigate any hazards and prevent public access to abandoned mine land contaminated areas.
- Where surveys indicate the potential for important bat habitat, the BLM and its partners will take appropriate actions, such as bat gates, to preserve the habitat while addressing the public hazards.
- In cases where abandoned mine land remediation actions may affect biological, cultural, or historical resources, the impacts are mitigated by recording the resources, relocating the

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resources, or stabilizing significant resources, consistent with reducing the threat to public health and safety. Methods of closure will vary and be identified during site-specific NEPA analysis.

## **A.11. Rangeland Management**

### **A.11.1. Standard Operating Procedures**

#### **Land Health Standards**

Desired plant community objectives will be quantified for each allotment through the rangeland monitoring and evaluation process. Ecological site descriptions available through the National Resource Conservation Service and other data will be used as a guide for addressing site capabilities and/or potentials for change over time. These desired plant community objectives are vegetative values that the BLM is managing over the long term. Once established, desired plant community objectives will be updated and monitored based on indicators for Land Health Standard 3. This standard is derived from the Arizona Standards for Rangeland Health, developed through a collaborative process with the Arizona Resource Advisory Council, and identifies the characteristics of and management actions needed to promote and sustain healthy ecosystems on public lands.

Monitoring studies will be used to determine conformance with the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration*. Monitoring studies generally include actual use, utilization, trend, and climate. The three management categories will be used to set priorities. These studies will be analyzed through the evaluation process to determine management actions needed to achieve standards and meet multiple-resource management objectives.

Livestock management changes may be made when sufficient assessment, inventory, or monitoring data are available.

Management actions outlined in the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration will be applied to identify and correct potential erosion problems that could negatively impact other resources. Prioritized emphasis will be placed on those sites that might directly impact species that have been listed as threatened, endangered, or candidate species by USFWS.

#### **Grazing Practices**

Rest rotation, deferred rotation, seasonal or short duration use, or other grazing management systems may be implemented where the need has been identified through monitoring. Also, monitoring will be used to assess the effectiveness of changes brought about by new management practices.

Intensity, season and frequency, and distribution of grazing use should provide for growth and reproduction of the plant species needed to reach desired plant community objectives.

Consider deferment of livestock where possible in cooperation with lease and permit holders. This deferment may allow for the use of prescribed fire or other vegetative treatments, or the use of the area as a grass bank to allow for rest in other grazing allotments.

Administrative vehicular access to repair range improvements by the grazing lessee is assured through issuance of the grazing permit.

One time travel to access sick or injured livestock away from designated routes is authorized to transport the animal to a medical facility.

Any compensation for a loss of range improvements within these pastures will be made in accordance with 43 CFR 4120.3-6.

## **Typical Range Improvements**

Following is a discussion of typical design features, construction practices, and implementation procedures for range improvements that could be constructed in a manner consistent with the protection of monument values. The extent, location, and timing of such actions will be based on allotment-specific management objectives adopted through the evaluation process, interdisciplinary development and analysis of proposed actions, and funding.

### **Fences**

All new fences will be built to BLM manual specifications. Fences will normally be constructed to provide exterior allotment boundaries, divide allotments into pastures, protect streams or other riparian areas, and control livestock. Most fences will be three-wire or four-strand with steel posts spaced 16.5 feet apart with intermediate wire stays. Existing fences that create wildlife movement problems will be modified to facilitate movement. Proposed fence lines will usually not be bladed or scraped. Gates or cattle guards will be installed where fences cross existing roads.

### **Pipelines**

Wherever possible, water pipelines will be buried. The trench will be excavated by a backhoe, ditch witch, or similar equipment. Plastic pipe will be placed in the trench and the excavated material will be used to backfill. Most pipelines will have water tanks spaced as needed to achieve proper livestock distribution.

### **Wells**

Well sites will be selected based on geologic reports that predict the depth to reliable aquifers. All applicable state laws and regulations that apply to groundwater will be observed.

### **Supplemental Feed Authorization**

Supplemental feed must be authorized in advance. Supplemental feed means a feed that supplements the forage available from the public lands and is provided to improve livestock nutrition or rangeland management.

If used, salt should be placed at least 0.25 mile from water sources to disperse impacts.

## A.12. Recreation Management

### A.12.1. Administrative Actions

- Encourage “” and “Leave No Trace” travel and camping techniques.
- Adopt measures to increase visitor responsibility for campfire etiquette and to reduce proliferation of campfire rings.
- Implement procedures for systematic monitoring of all sites developed or authorized for public visitation. Restrict visitor access or group tours if necessary to prevent any damage from visitor use.
- Determine specific areas where comprehensive site assessments would be initiated to do determine existing physical and social impacts of recreation activities, to define desired conditions and standards, and to establish monitoring plans to manage camping and other uses.
- Develop and maintain partnerships, and identify cooperative and sustainable recreation and tourism-based economic opportunities with nearby communities.
- Develop and maintain partnerships with local clubs and organizations to help maintain and monitor motorized and non-motorized trails.
- Post applicable toll-free phone numbers on kiosks, maps, brochures, permits, and other public outreach conveyances to keep the public involved in reporting emergencies and criminal activities, including damage to resources.
- Require that holders of Special Recreation Permits (SRP s) give site visitors suitable educational information on archaeological site etiquette and resource conservation.
- SRP applicants will be strongly encouraged to have a working knowledge of Leave No Trace and principles. Additionally, applicants will be asked to incorporate Leave No Trace and principles into their tour, program, or event activities.
- Allow cultural and natural resource interpretation signs and facilities where needed for visitor enjoyment or resource protection. Interpretive developments must be compatible with recreation management objectives, desired recreation settings, and VRM standards.
- Pursue interpretation and environmental educational opportunities, outreach development, and implementation of on-site and off-site programs for adults and children.
- Develop school curricula focusing on the BLM’s mission with staffs from schools, school districts, and other learning institutions.
- Pursue multicultural interpretation and environmental education opportunities, outreach, development, and implementation of programs for adults and children. Apply learning modalities and incorporate various learning styles in program design and delivery. Encourage the use of multiple intelligence or other theories for program presentations.
- Support existing educational and interpretive programs and initiatives such as Project Archaeology, Leave No Trace, Tread Lightly, Project Learning Tree, and other proven national, State, regional, and local programs.
- Develop websites and distribute brochures, maps, access guides, and information sheets to provide information on recreational opportunities, interpreted sites, resource protection, designated trails and travel routes, safe travel, and safe shooting practices.

#### ***Black Canyon SRMA***

- Continue to work with the Black Canyon Trail Coalition and other groups to build and maintain the trail. Engage motorized vehicle organizations and other interested groups to build and maintain a parallel motorized route.



- Engage a diverse group of stakeholders in a collective effort to conserve the scenery, open space, and recreation values of the Black Canyon SRMA. Promote citizen involvement and partnerships as an integral component to the SRMA management. Empower community workgroups to carry out stewardship and resource management activities.
- Collaborate with the AGFD, Prescott and Tonto National Forests, Maricopa and Yavapai Counties, Lake Pleasant Regional Park, and land managers of other trails to link to trails on BLM's land.
- Develop and implement collaborative management partnerships with the Maricopa County Parks and Recreation Department and the communities to share recreation management of the SRMA areas within Maricopa County. These efforts will ensure consistent management across boundaries, where appropriate; maintain open space to provide a natural gateway into Maricopa County; and facilitate completion of the Maricopa County Regional Trails System Plan.
- Develop a long-term Black Canyon Hiking and Equestrian Trails master plan within 2 years of plan approval. Define proposed trail alignments, trailheads, linking trails, and other alignments within 1 year of plan approval.

### ***Castle Hot Springs SRMA***

- Intensively manage all recreation uses with a significant BLM ground presence by using signing, facilities, law enforcement, and volunteers.
- Establish a citizen, government, and organization-based partnership to guide management of the SRMA, including community groups, the City of Peoria, Maricopa and Yavapai Counties, user groups, and other interested parties.
- Work closely with law enforcement authorities with the Arizona Game and Fish Department, Yavapai County, Maricopa County, City of Peoria, and other agencies with jurisdiction to enhance visitor and resident safety, improve resource protection, and ensure compliance with applicable laws.

### ***Hassayampa SRMA***

- Establish a working group to provide recommendations for managing the SRMA, including community groups, the Town of Wickenburg, Maricopa County, civic organizations, user groups, and other interested parties.
- Complete a comprehensive strategy and trails plan to select and develop new single- and multi-use hiking, equestrian, and OHV trails for all lands in the Wickenburg Community RMZ.
- Revise the existing Red Top Trail Project Plan, in cooperation with the local community and interested user groups, to expand the non-motorized Red Top Trail network. The revised plan would address actions to meet the high demand for non-motorized recreation.
- Establish partnerships with the Town of Wickenburg, Yavapai County, and community groups to pursue management endeavors in this area. Such endeavors include developing and implementing a site plan to guide recreation use.
- Create a volunteer service and community partnership program to aid in visitor outreach efforts and organize community cleanup efforts.
- Develop and conduct monitoring as facilities are built or designated so that suitable use limits can be set for picnic areas and campsites.
- Develop a site management and interpretation plan for the Vulture City Cemetery.

### ***Upper Agua Fria River Basin SRMA***

- Work with citizen volunteer groups to complete a comprehensive strategy and trails plan for selecting and developing new single- and multi-use hiking, equestrian, and OHV trails for all

lands in the SRMA. Collaborate with the Arizona Game & Fish Department, Prescott National Forest, Yavapai County, Yavapai County Trails Association, and land managers of other trails. Complete this master plan within 2 years of RMP approval.

- Establish a citizens' working group to help with trail and facility sites, designs, and management. Develop a Black Canyon Trail management and partnership plan with community and citizen input in conjunction with the Black Canyon Trail Plan for the Black Canyon SRMA. Within one year of plan approval, define proposed trail alignments, trailheads, linking trails, and other alignments.

## A.13. Standard Operating Procedures

### Accessibility Standards

To the greatest extent possible, all new construction and modifications for recreation facilities, outdoor developed areas, and any related programs and activities will be accessible to people with disabilities in accordance with the Architectural Barriers Act of 1968 and Section 504 of the Rehabilitation Act of 1973, with later amendments. Guidance, requirements, and standards applicable to conform to the above legislation may be found in the following sources:

Uniform Federal Accessibility Standards.

Americans with Disabilities Act Accessibility Guidelines.

ADA-ABA Accessibility Guidelines (use whichever guidance is most stringent).

Proposed Outdoor Developed Areas Guidelines-U.S. Access Board found at [www.access-board.gov](http://www.access-board.gov) and 43 CFR Part 17, Subpart E found at <http://www.gpoaccess.gov/cfr/index.html>.

### Special Recreation Permits

Special Recreation Permits (SRP s) are authorizations allowing specific recreation uses of public lands and related waters. SRP s are issued to manage visitor use and protect natural and cultural resources while avoiding user conflicts. The legal authorities are the Federal Land Policy and Management Act, 43 USC 1701 *et seq.*, and the Land and Water Conservation Fund Act, as amended, 16 USC 4601–6a. BLM Handbook H-2930-1 Recreation Permit Administration application process contains applicable laws, policy, rules and regulations and conformance with resource planning decisions. The decision to authorize a proposed use depends on potential resource impacts, conflicts with other users, any public health and safety issues, past or present performance of the applicant with the BLM or other agencies, and BLM receiving a complete SRP application in a timely manner to process and administer the permit.

#### Types of Permits

1. Commercial Use: recreational use of the public lands and related waters for business or financial gain.
2. Competitive Use: any organized sanctioned or structured use, event or activity on public land and related waters in which two or more participants compete and (a) participants register, enter and/or complete an application; (b) a predetermined course or area is designated; or (c) participants contest an established record such as speed or endurance.

3. Organized Group Activity or Event: a structured, ordered, consolidated, or scheduled event or occupation of public lands for recreational purposes not considered commercial or competitive.
4. Vending Use: use permitted to market, sell, or rent recreation-related goods or services including but not limited to, food, beverages, clothing, firewood, tool or equipment repair on public lands or related waters.

Some commercial and organized group uses requiring SRP s have little to no resource impacts, user conflicts, or health and safety concerns, and may require little monitoring. Examples of such uses are hunting outfitter and guide operations, motorized tours, photography tours, nature hikes, dual-sport rides, horseback rides, and organized club campouts. Special stipulations for SRP s have been developed to protect natural resources, reduce user conflicts, and minimize health and safety risks. These stipulations are included with all authorized SRP s and must be followed to keep the permit valid. Final decisions for permit issuance will be based on other valid concerns, including the following:

- prior performance;
- conflicting activities such as hunting seasons;
- BLM's ability to process the permit in a timely manner; and/or
- other unforeseen circumstances.

The permittee must also comply with any special allocations or restrictions. Proposed SRP s are subject to environmental analysis in accordance with NEPA .

## Standards for Recreation Settings

Standards for Recreation Settings referred to in this document are as follows:

**Recreation Settings** - Settings described in the recreation opportunity spectrum (ROS) inventory method. Descriptions of the settings follow:

### Primitive Settings:

Remoteness: An area designated by a line generally three miles from all open roads, railroads, and motorized trails . Evidence of Humans: Setting is essentially an unmodified natural environment.

Evidence of humans would be unnoticed by an observer wandering through the area.

Evidence of trails is acceptable but should not exceed standard to carry expected use.

Structures are extremely rare.

Social: Usually less than six parties per day encountered on trails and less than three parties visible at campsites.

Managerial: Onsite regimentation is low with controls primarily offsite.

### Semi-primitive Non-motorized Settings:

Remoteness: An area designated by a line generally 1/2 mile from any road, railroad, or trail open to public motorized use. (The guideline for applying the 1/2 mile criterion is to use 1/2 mile except where topographic or physical features closer than 1/2 miles adequately screen out the sights and sounds of humans and make access more difficult and slower. For example, if a ridge is 1/4 mile from the road, use the ridge instead of the 1/2 mile).

Any roads, railroads, or trails within the semi-primitive non-motorized areas will have the following characteristics:

- Closed to public motorized use, and
- Are reclaimed, or in the process of reclaiming (when reclaiming will harmonize with the natural appearing environment). Some examples are old logging roads, old railroad beds, old access routes to abandoned campsites, temporary roads, and gated roads that are used for occasional administrative access.

Evidence of Humans: Natural setting may have subtle modifications that would be noticed but not draw the attention of an observer wandering through the area.

Little or no evidence of primitive roads and the motorized use of trails and primitive roads.

Structures are rare and isolated.

Social: Usually 6-15 parties per day encountered on trails and six or fewer parties visible from campsite.

Managerial: Onsite regimentation and controls present but subtle.

### **Semi-Primitive Motorized Settings:**

Remoteness: An area designed by a line generally 1/2 mile from open primitive roads. (The guideline for applying the 1/2 mile criterion is to consistently use 1/2 mile where topographic or physical features closer than 1/2 mile adequately screen out the sights and sounds of humans, e.g. a ridge 1/4 mile from the road.)

Contains open primitive roads that are not maintained for the use of standard passenger-type vehicles, normally OHVs and high-clearance vehicles, e.g. an old pickup with high clearance. These open roads are generally tracks, ruts, or rocky-rough surface and ungraded and not drained. The roadbeds and cuts are mostly vegetated with grass or native material unless they are too rocky for vegetation. The roads harmonize with the natural environment. Examples include old logging roads from before specified road years, old revegetated railroad beds, old access roads to abandoned home-sites, temporary logging roads that are revegetated, and low standard administrative roads (normally used for access to wildlife openings).

Evidence of Humans: Natural setting may have moderately dominant alterations but would not draw the attention of motorized observers on trails and primitive roads within the area. Any closed improved roads must be managed to revegetate and harmonize with the natural environment.

Strong evidence of primitive roads and the motorized use of trails and primitive roads.

Structures are rare and isolated.

Social: Low to moderate contact frequency.

Managerial: Onsite regimentation and controls present but subtle.

### **Roaded Natural Settings:**

Remoteness: No criteria

Evidence of Humans: Natural setting may have modifications, which range from being easily noticed to strongly dominant to observers within the area. But from sensitive travel routes and use areas, these alterations would remain unnoticed or visually subordinate.

There is strong evidence of designed roads, highways, or both.

Structures are generally scattered, remaining visually subordinate or unnoticed to the sensitive travel route observer. Structures may include utility corridors or microwave installations.

Social: Frequency of contact is - Moderate to high on roads; Low to Moderate on trails and away from roads.

Managerial: Onsite regimentation and controls are noticeable but harmonize with the natural environment.

### **Rural Settings:**

Remoteness: No criteria

Evidence of Humans: Natural setting is culturally modified to the point that it is dominant to the sensitive travel route observer. This setting may include pastoral, agricultural, intensively managed wildland resource landscapes, or utility corridors. Pedestrian or other slow-moving observers are constantly within view of culturally changed landscape.

There is strong evidence of designed roads, highways, or both.

Structures are readily apparent and may range from scattered to small dominant clusters, including utility corridors, farm buildings, microwave installations, and recreation sites.

Social: Frequency of contact is - Moderate to High developed sites, on roads and trails, and water surfaces; Moderate away from developed sites.

Managerial: Regimentation and controls obvious and numerous, largely in harmony with the human-made environment.

### **Urban Settings:**

Remoteness: No criteria

Evidence of Humans: Setting is strongly structure dominated. Natural or natural appearing elements may play an important role but be visually subordinate. Pedestrian and other slow moving observers are constantly within view of artificial enclosure of spaces.

There is strong evidence of designed roads and/or highways and streets.

Structures and structure complexes are dominant.

Social: Large numbers of users onsite and in nearby areas.

Managerial: Regimentation and controls obvious and numerous

**Implementation:** Projects requiring environmental analysis will include an analysis to determine compatibility or consistency with the settings as described above. This analysis will be conducted consistent with current accepted practice and documented in the project record.

## **Operating Procedures in Special Recreation Management Areas and Recreation Management Zones**

- Allow for increased recreation use in appropriate areas, while protecting natural and cultural resources through limitations in sensitive areas. Preserving a healthy, properly functioning, and natural appearing landscape is essential.
- Engage a diverse group of stakeholders in a collective effort to conserve the ecological, cultural, open space, and recreation values of the area so that it remains a place where people want to live, work, and recreate.
- Initiate land acquisitions or easements to secure recreational opportunities through private land exchanges, conservation or access agreements, or purchases of rights-of-way or use permits.
- Assist local community efforts to work with the Arizona State Land Department for recreation easements across State land.
- Form citizen, agency, and government working groups to identify non-public (private and State) lands with high-value biological, cultural, scenic, open space, access or recreation resources that should be protected. Deliver recommendations and objectives on land, access, and open space conservation to BLM or the appropriate entity early enough so objectives can be met.
- Maintain scenic and natural landscape settings while offering visitors a diverse array of recreation opportunities, including both human-powered and motorized-based activities. Emphasis would be placed on maintaining rural and natural settings, and protecting visual resources.
- Enter into Recreation and Public Purposes Act leases or patents with qualified entities when appropriate to achieve resource objectives.
- Avoid vehicle and recreation uses/access to areas with known listed, sensitive, threatened, and/or endangered species (plant and wildlife).

- Minimize recreation use and vehicular traffic when the soils are wet or during high-fire threat conditions.
- Form partnerships with government agencies, communities, and user groups to prevent and restore areas impacted by litter/dumping.
- Complete comprehensive trails planning to select and develop new single-use and multi-use, hiking, equestrian, and OHV trails where appropriate to meet resource objectives.
- Work with private property owners to reduce conflicts between private owners and recreational activities.
- Manage the lands within SRMAs/ RMZ sfor multiple uses, including livestock grazing and OHV uses.
- Evaluate roads, routes, and trails on a case-by-case basis for permitted events, and determine suitability for closure, re-routing, rehabilitation, upgrading, or authorization as an approved permitted course.
- Develop brochures, maps, access guides, and information sheets and disseminate off-highway and special recreation vehicle information to the public.
- Develop, produce, and distribute brochure guides for developed recreation sites.
- Plan, designate and develop single- or multiple use off-highway and special recreation vehicle areas, loops, tours, routes, and management strategies through interdisciplinary plans, with community and user input.
- Evaluate and plan, as needed, the installation of improvements for camping areas, off-highway vehicle use areas, toilets, scenic turnouts, interpretive sites, kiosks, non-motorizedtrails, road and portal signage, and road maintenance. Work with agency staff, user groups, and communities to identify the needs and plan for improvements.

## **A.14. Soil and Water Resources**

### **A.14.1. Standard Operating Procedures**

#### **Watershed Management**

FLPMA defines the BLM's mission to include protection of watersheds. FLPMA requires that public lands be managed to protect scientific, environmental, air and atmospheric, and water resources. FLPMA also requires that BLM land use plans comply with state and federal air, water, and pollution standards. In addition, BLM Manual 7000 and executive orders provide field guidance in managing soil, water, and air.

Management is done in compliance with these and other relevant laws:

- Soil Conservation and Domestic Allotment Act of 1935
- Watershed Protection and Flood Control Act of 1954
- Wild and Scenic Rivers Act of 1968
- Federal Pollution Control Act with amendments of 1972
- Clean Water Act of 1989
- Safe Drinking Water Act of 1977

#### **Water Resource Management Program**

The BLM's water resource program consists of the following mandates:

- To ensure the physical presence and legal availability of water on public lands.

*Appendix A Administrative Actions and Standard  
Operating Procedures  
Soil and Water Resources*

- To ensure that those waters meet or exceed federal and state water quality standards for specific uses.
- To mitigate activities to prevent water quality degradation.

The water resource program is divided into three parts: water inventory, water rights, and monitoring.

BLM policy is to inventory all water resources on public lands it administers and to document and store this data in its Water Data Management System; and to file for water rights on all water sources on public and acquired lands in accordance with State of Arizona water laws.

BLM policy is to monitor water quality to assess resource impacts from specific activities and to obtain baseline resource information.

## **A.15. Special Designations**

### **A.15.1. Administrative Actions**

#### **Wilderness Areas**

- Develop and implement guidance for the application of non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws.
- Encourage the practice of Leave No Trace principles.
- Reduce unauthorized vehicle use through the use of kiosks or other means of visitor education outside of wilderness boundaries; construction of trailheads; installation of vehicle barriers; and/or restoration of areas affected by unauthorized use.
- Implement management actions in accordance with existing laws, regulations, BLM manuals, and wilderness management plans as they exist or are completed.
- Implement management set forth in the following plans:
  - Hassayampa River Canyon Wilderness Management Plan (1996)
  - Hell's Canyon Wilderness Management Plan (1995)

## **A.16. Travel Management**

### **A.16.1. Administrative Actions**

- Improve legal access to public lands by identifying access needs across non-federal lands and recommending acquisition and funding strategies to address these needs.
- Provide reasonable access to private inholdings surrounded by public lands.
- Inform the public about requirements for access on or across state, county, and private lands adjacent to BLM-administered lands.
- Be consistent with the Americans with Disabilities Act and develop improved access for the physically challenged.
- Set guidelines for managing roads and trails to protect resource values, promote public safety, and improve public compliance on designated routes.
- Develop monitoring procedures sufficient to detect and evaluate related public safety or natural resource impacts so that management changes can occur, if needed.



- Incorporate the effective use of volunteers to provide “on the ground” information and route marking/signing for the public.
- Develop maps, brochures, access guides and information sheets for public distribution.
- Increase public involvement in the establishment, monitoring, and protection of routes/trails on public lands. Continue to work with Arizona State Parks and other partners to support the OHV Ambassadors volunteer program.
- To comply with legal requirements for management of airborne particulates, BLM will develop site-specific planning to conform to those rules. BLM will manage and conduct activities in a manner as to not contribute to fugitive pollutants that exceed thresholds. Monitoring and mitigation will be developed for site-specific activities within the Maricopa County non-attainment areas, focusing on potential dust producing activities, especially motorized recreation.
- Coordinate route designations with adjoining field offices and land management agencies.
- Establish relationships and enter into agreements with local interest groups and the business community for long-term route maintenance and community support for the ongoing management of the route system and its funding.
- BLM’s completed route inventory for any subject area will constitute the routes open and available for vehicle travel prior to the completion of the route evaluation and designation process. Vehicle use in areas or on “routes” not included as part of the inventoried route network will be considered as illegal and unauthorized off-road or cross-country travel, subject to citations and other enforcement actions regardless of the presence of signing. Citations may also be issued for vehicle travel on inventoried and pre-existing motorized routes when the routes are signed as closed to motorized travel. In accordance with BLM Instructional Memorandum 2005-07, vehicles may not pull off a designated route more than 100 feet.

### **Travel Management Plans**

- Develop comprehensive Travel Management Plans to implement route designations, technical vehicle sites, non-motorized trails, and other activities associated with travel management. Travel Management Plans (TMPs) will be completed for each Management Unit or for areas covered by activity-level plans, such as Recreation Management Zones.
- Use a systematic, well-documented evaluation process to develop designated route systems and TMPs based on inventory data and resource management priorities defined in the Approved RMP. Involve BLM interdisciplinary teams, agencies, citizens, and stakeholders in developing TMPs.
- TMPs will address the following topics:
  - Maps depicting the final decisions for route designations, including all modes of travel and primary uses.
  - Identification of routes and trails intended for motorized and non-motorized travel on public lands.
  - Guidance for seeking active public involvement throughout the TMP implementation process.
  - Guidance for using an interdisciplinary approach to identifying and mitigating resource impacts.
  - Definitions and additional limitations for specific roads and trails (defined in 43 CFR 83400-5(g)).
  - Creating a catalog for each individual route’s Travel Management Objective (TMO) sheets.
  - Indicators of changes in conditions of existing routes and areas.
  - Risk management.

- Coordination with adjoining jurisdictions.
- Identification of routes suitable for connectivity with adjoining jurisdictions for long-distance touring.
- Identification of Special Recreation Management Zones where Technical Four Wheel Drive activities are authorized.
- Criteria and procedures for making additions and deletions from the route system.
- Signing plans and sign inventories.
- Facility development (engineering).
- Guidelines for education and enforcement.
- Guidelines for system monitoring and compliance.
- Coordination with BLM's Facility and Asset Management System (FAMS).
- Dust management plans.
- Indicators to guide future plan maintenance, amendments, or revisions related to the travel management network.
- Needed improvements, signing, trailheads, and staging areas.
- Needed maintenance intensity and easements or rights-of-way to maintain the existing or proposed road and trail network providing public land access.
- Guidelines for periodic review of the TMP and triggers for making plan updates and/or maintenance.
- Identification of existing roads, primitive roads, trails, and related facilities (baseline inventory data).
- Other topics as necessary to manage travel.

## **A.16.2. Standard Operating Procedures**

### **Restoration of Closed Routes**

The BLM's strategy for restoring closed routes or trespasses will be accomplished as rapidly as funding permits. Sensitive resources in immediate danger or those that have been damaged by vehicle trespass would be a high priority for restoration. Typically, the restoration will be limited to that portion of the route or trespass that is in line of sight from an open route. The proposal for restoration will include:

- Not repairing washed-out routes.
- Using natural barriers, such as large boulders.
- Using rocks and dead and down wood to obscure the route entryway.
- Employing vertical mulching and pitting.
- Ripping up the route bed and reseeding with vegetation natural to that area.
- Utilizing fences or barriers.
- Providing signage, including information to OHV users, on the need and value of resource protection.

Each route will be evaluated, and the least intrusive method will be used based on local topography, soils, hydrology, and vegetation; and protection of natural and cultural resources.

### **Overflights**

Aircraft overflights, including low-level helicopter and fixed-wing overflights by other agencies, and other use of the airspace over public lands, are not regulated by the BLM. These uses occur now and would continue.

## **A.17. Visual Resource Management**

### **A.17.1. Standard Operating Procedures**

VRM Class objectives will help the BLM apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. A visual contrast rating process will be used for analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. Visual design consideration will be incorporated into all surface-disturbing projects regardless of size or potential impact. Emphasis is placed on the BLM providing inputs during the initial planning and design phase to minimize costly redesign and mitigation at later phases of a project. The overall goal of VRM analysis is to minimize visual impacts through development of mitigating measures.

The BLM will analyze all proposed activities and projects according to the guidelines and procedures provided in BLM Manual 8431-1, Visual Resource Contrast Rating. Visual simulations could be used in evaluating the visual resource effects of a project. These projects will be assessed for the degree of visual contrast from the landscape using the elements of form, line, color, and texture. Proposed projects may be evaluated from Key Observation Points for the following factors:

1. distance (project from Key Observation Points)
2. angle of observation
3. length of time the proposed project would be in view
4. relative size or scale
5. season of use
6. light conditions
7. recovery time
8. spatial relationships
9. atmospheric conditions
10. motion

## **A.18. Wild Burro Management**

### **A.18.1. Administrative Actions**

- Coordinate with the AGFD and other affected interests during evaluation of any proposals for burro management. BLM will continue to work collaboratively with AGFD to resolve burro-related issues.
- Information on wild burros will be included on bulletin boards and kiosks within Herd Management Areas.

## **A.18.2. Standard Operating Procedures**

- Continue to monitor burro numbers and habitat conditions in the Lake Pleasant Herd Management Area.
- During times of high water levels in Lake Pleasant, relocate burros trapped on temporary islands if they are in danger, or if there is insufficient habitat for survival.
- Continue to respond to requests for management of “nuisance” animals.
- All burro-related activities will be conducted in a manner that ensures the safety of the burros and personnel involved.

## **A.19. Wilderness Characteristics**

### **A.19.1. Administrative Actions**

- Sites and areas affected by human activities will be reclaimed when such locales or sites are no longer needed by authorized land uses.
- Conduct detailed inventories to determine current levels of disturbance. From this baseline data, establish standards to maintain proper levels of recreational use and other activities to attain or maintain the desired future conditions.
- A permit system would be applied, if needed, for the following purposes:
  - to conserve solitude and primitive recreation opportunities,
  - to preserve desired social and managerial settings,
  - to safeguard resources, and
  - to mitigate resource impacts.

Any permit system would include coordination with other State and Federal entities that issue use permits on Federal lands to assure that authorized permittees have fair and reasonable access to their permitted activity. For example, should a permit system be implemented, BLM will coordinate with AGFD to allow access for hunters with valid hunting licenses.

- Develop and adopt measurement standards for limits of acceptable change for the following:
  - trail conditions,
  - visitor-to-visitor encounters,
  - vegetation changes,
  - applying Arizona Land Health Standards, and
  - approved motorized and mechanized activities.

# Appendix B. Lands Available for Sale or Exchange

**Table B.1. LANDS AVAILABLE FOR EXCHANGE ONLY**

Township	Range	Section	Aliquot	Acreage	Total
12 N	05 W	09	Lots 3-4 W $\frac{1}{2}$ SE $\frac{1}{4}$	164.20 80.00	
12 N	05 W	16	Lots 1-4 NW $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$	331.44	
12 N	5 W	22	Lots 3-4 S $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$	513.81	
11 N	5 W	21	Unpatented land in Sec. 21 delineated in segregation survey approved 08/23/1939)		
11 N	04 W	1	Lot 1 SE $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$	240.36	
11 N	04 W	11	Lots 3-6 Inclusive (Plus portions of MS 4659 A & B) W $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$		

Township	Range	Section	Aliquot	Acreage	Total
11 N	04 W	12	Lots 1-13 NE $\frac{1}{4}$ NW $\frac{1}{4}$  (Plus portions of MS 1323 B and MS 4659 A & B)		
11 N	04 W	13	Lots 1-8  SE $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$  (Plus portions of unpatented MS parcels)	195.66  200.00	395.66
11 N	04 W	14	Lots 1-4	34.88	34.88
11 N	04 W	22	Lots 5, 6, 11, 12	166.86	166.86
11 N	04 W	23	Lots 1-9  NE $\frac{1}{4}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$	302.01  120.00	422.01
11 N	04 W	24	Lots 1-4, 7, 8, 9  (Plus unpatented MS)  NE $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$	233.58  200.00	433.58
11 N	04 W	25	Lot 4  SW $\frac{1}{4}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$	174.05	175.05
11 N	04 W	26	Lots 1-3  NE $\frac{1}{4}$ , NW $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$	99.66  480.00	579.66

Township	Range	Section	Aliquot	Acreage	Total
11 N	04 W	27	Lots 1-3, 5, 6 SE $\frac{1}{4}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$	191.14 400.00	591.14
11 N	04 W	28	Lots 7, 8, 13	120.26	126.26
11 N	04 W	36	W $\frac{1}{2}$ W $\frac{1}{2}$	160	160.00
11 N	03 W	06	Lots 3-7 SE $\frac{1}{4}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$	188.21 120.00	308.21
11 N	03 W	07	Lots 1-4 E $\frac{1}{2}$ W $\frac{1}{2}$ (Excluding Patent 31583)	308.42	308.42
11 N	03 W	18	Lots 1-4 E $\frac{1}{2}$ W $\frac{1}{2}$	149.12 160.00	309.12
10 N	06 W	10	NW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ (Less ME patents and patent 73778)	240.00	350.00
10 N	06 W	11	Lots 2-4 inclusive SW $\frac{1}{4}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$		130.50
10 N	06 W	15	Lots 1-4 inclusive W $\frac{1}{2}$ E $\frac{1}{2}$ , W $\frac{1}{2}$ (Less Mineral Entry patents/patented lands)		

Township	Range	Section	Aliquot	Acreage	Total
10 N	06 W	16	Lots 1-2, 4-7 Inclusive S½NE¼ (Less ME patents) SE¼SW¼	295.12	295.12
10 N	06 W	22	Lots 1-4 (Less ME patents) NW¼ (Less ME patents) S½ (Less ME patents)	480.00	480.00
10 N	06 W	23	Lots 2-3, 9-19 Inclusive, 21 Portions of MS 2901 S½SE¼	463.64	463.64
10 N	06 W	24	W½NW¼, SW¼ (Less ME patent/patent 453373)	220.00	220.00
10 N	07 W	18	S½NE¼, SE¼	240.00	240.00
03 N	12 W	16	ALL	640.00	640.00

**Table B.2. LANDS AVAILABLE FOR DISPOSAL**

Township	Range	Section	Aliquot	Acreage	
14 N	01 W	28	NE¼NE¼	40.00	40.00
14 N	01 W	31	Lots 17, 18, 21, 22, 23, 25, 26	29.48	29.48
14 N	01 W	33	W½W½NW¼	40.00	40.00



Township	Range	Section	Aliquot	Acreage	
14 N	03 W	31	Lots 6, 7	83.94	83.94
14 N	04 W	25	SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$	80.00	80.00
14 N	04 W	35	SW $\frac{1}{4}$	160.00	160.00
13 N	04 W	1	Lots 1-6  SW $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$	227.23  280.00	507.23
13 N	04 W	12	ALL	640.00	640.00
13 N	04 W	13	Lots 1 – 19  SW $\frac{1}{4}$ SW $\frac{1}{4}$ , E $\frac{1}{2}$ SE $\frac{1}{4}$	554.62  120.00	674.62
13 N	04 W	24	ALL	640.00	640.00
13 N	04 W	25	ALL	640.00	640.00
13 N	04 W	26	ALL  Less the following: 02-80-0009  02-80-0007  02-84-0031  02-80-0008		
13 N	04 W	27	ALL	640.00	640.00

Township	Range	Section	Aliquot	Acreage	
13 N	04 W	28	ALL	640.00	640.00
13 N	04 W	33	N½	320.00	320.00
11 N	03 W	04	SW¼SE¼	40	40.00
11 N	03 W	08	Lots 2-3, 5-7, 9, 11 SW¼SE¼ Portion of unpatented mineral surveys	107.16 40.00 ~80.00	227.16
11 N	03 W	17	Unpatented Mineral Survey	~20.00	~20.00
11 N	03 W	18	Portions of unpatented mineral survey	~ 5.00	~ 5.00
10 N	04 W	11	E½SE¼ (Less mineral survey 4323/Patent 1133466)		139.339
10 N	04 W	12	W½SW¼ (Less mineral survey 4323/Patent 1133466)		
10 N	04 W	16	NE¼NE¼	40.00	40.00
12 N	03 W	31	Lots 6 & 7, N½SE¼	171.60	171.60
12 N	03 W	32	Lots 3 & 4, N½SW¼	169.08	169.08

Township	Range	Section	Aliquot	Acreage	
08 N	07 W	01	Lots 1-4 S½	206.24 320.00	526.24
08 N	07 W	10	S½SE¼	80.00	80.00
08 N	07 W	11	S½SW¼, SW¼SE¼	120.00	120.00
08 N	07 W	14	NW¼NE¼, NW¼, N½SW¼	280.00	280.00
08 N	07 W	15	NE¼, E½SE¼	240.00	240.00
07 N	07 W	16	ALL	640.00	640.00
07 N	07 W	33	NW¼	160.00	160.00
07 N	06 W	17	S½NW¼SW¼, N½SW¼SW¼	40.00	40.00
07 N	06 W	18	SE¼NE¼SE¼, NE¼SE¼SE¼	20.00	20.00
07 N	06 W	27	N½, SW¼, NE¼SE¼, W½SE¼	600.00	600.00
07 N	06 W	34	N½NW¼	80.00	80.00
07 N	02 E	15	NE¼NE¼, W½NE¼, SE¼	280.00	280.00
07 N	02 E	26	S½NW¼NE¼, NE¼NW¼	60.00	60.00

Township	Range	Section	Aliquot	Acreage	
07 N	02 E	27	Lots 1, 16, 33, 42-45, 47, 49-50, 52-53, 56-58, 61-63, 65-67  W $\frac{1}{2}$ E $\frac{1}{2}$ NE $\frac{1}{4}$	50.51 40.00	90.51
07 N	02 E	34	W $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$	40.00	40.00
06 N	03 E	35	E $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$		
06 N	04 W	01	SE $\frac{1}{4}$	160.00	160.00
06 N	04 W	12	NE $\frac{1}{4}$	160.00	160.00
06 N	04 W	14	Lot 2  SE $\frac{1}{4}$ SE $\frac{1}{4}$	23.46 40.00	63.46
06 N	04 W	23	NW $\frac{1}{4}$ NE $\frac{1}{4}$	40.00	40.00
06 N	04 E	01	S $\frac{1}{2}$ SW $\frac{1}{4}$		
06 N	04 E	11	NE $\frac{1}{4}$ (less MS 4334)		
06 N	04 E	12	NW $\frac{1}{4}$ (less MS 4334)		
05 N	03 E	01	SE $\frac{1}{4}$ NE $\frac{1}{4}$	40.00	40.00
05 N	04 E	06	SW $\frac{1}{4}$ NE $\frac{1}{4}$	40.00	40.00
05 N	01 E	28	SW $\frac{1}{4}$ NE $\frac{1}{4}$	40.00	40.00

Township	Range	Section	Aliquot	Acreage	
05 N	01 E	29	E $\frac{1}{2}$ E $\frac{1}{2}$	160.00	160.00
05 N	01 E	30	S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$	60.00	60.00
05 N	01 W	13	Lot 16	66.10	66.10
05 N	01 W	14	Lot 11	39.04	39.04
05 N	01 W	15	Lot 11	54.64	54.64
04 N	1 E	06	Lots 8, 18-21 Inclusive, 29-31 Inclusive,  SW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$	39.44  130.00	169.44
04 N	1 E	07	Lots 5, 25  E $\frac{1}{2}$ W $\frac{1}{2}$	10.00  160.00	170.00
04 N	1 E	12	W $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	10.00	10.00
04 N	1 E	23	W $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$	10.00	10.00
04 N	2 W	07	Lots 1-2	76.50	76.50
04 N	1 W	24	NW $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$	160.00	160.00
04 N	11W	30	NE $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$	200.00	200.00

Township	Range	Section	Aliquot	Acreage	
04 N	11W	32	N $\frac{1}{2}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ S $\frac{1}{2}$	240.00	240.00
03 N	11 W	02	Lots 1-4 Inclusive S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$	160.56 480.00	640.56
03 N	10 W	08	ALL	640.00	640.00
03 N	09 W	31	Lots 1-2 E $\frac{1}{2}$ NW $\frac{1}{4}$	76.45 80.00	156.45
03 N	06 W	13	Lots 4-5, 7 E $\frac{1}{2}$ NE $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$  Identified disposal lands are those that lie east of right-of-way boundary AZA-23351 (centerline questionable)	Approx. 320.00	Approx. 320.00
03 N	06 W	24	Lots 1, 4, 5 E $\frac{1}{2}$ SE $\frac{1}{4}$		
03 N	05 W	14	NE $\frac{1}{4}$ , E $\frac{1}{2}$ SE $\frac{1}{4}$	240.00	240.00
03 N	05 W	17	Lots 2-3, 8	240.45	240.45
03 N	05 W	18	Lots 1-3 Inclusive, 5-8 Inclusive, 11 NE $\frac{1}{4}$ NE $\frac{1}{4}$ , W $\frac{1}{2}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$	350.29 200.00	550.29

Township	Range	Section	Aliquot	Acreage	
03 N	05 W	19	Lot 7	27.73	27.73
03 N	05 W	22	ALL	640.00	640.00
03 N	05 W	23	S½	320.00	320.00
03 N	05 W	25	ALL	640.00	640.00
03 N	05 W	26	W½	320.00	320.00
03 N	05 W	27	ALL	640.00	640.00
03 N	05 W	34	W½	320.00	320.00
03 N	05 W	35	W½	320.00	320.00
02 N	01 W	13	SW¼SE½	40.00	40.00
02 N	01 W	24	NW¼NE¼	40.00	40.00
02 N	01 W	25	W½NE¼NW¼NE¼, NW¼NE¼NE¼, SW¼NW¼NE¼	25.00	25.00
02N	03W	14	E½	320.00	320.00
02N	03W	26	N½	320.00	320.00
02 N	05 W	36	N½N½SW¼, S½NW¼SW¼, SW¼NE¼SW¼, SW¼SW¼, W½SE¼SW¼	130.00	130.00

Township	Range	Section	Aliquot	Acreage	
02 N	07 W	17	W $\frac{1}{2}$ NW $\frac{1}{4}$	80.00	80.00
01 N	03 W	03	S $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$	20.00	20.00
01 N	03 W	07	W $\frac{1}{2}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$	160.00	160.00
01 N	04 W	01	Lots 1-4 Inclusive S $\frac{1}{2}$ N $\frac{1}{2}$	160.64 160.00	320.64
01 N	04 W	11	SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$	200.00	200.00
01 N	04 W	12	ALL	640.00	640.00
01 N	04 W	13	NE $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , N $\frac{1}{2}$ N $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$	120.00	120.00
01 N	04 W	14	N $\frac{1}{2}$ NE $\frac{1}{4}$	80.00	80.00



## Appendix C. List Of Preparers

**Table C.1. List Of Preparers**

<b>Name</b>	<b>Education</b>	<b>Role</b>
Steven Cohn	Ph.D., Wildland Resource Science	Field Manager; Hassayampa Field Office
Chris Horyza	B.S., Range Management	Arizona State Planning and Environmental Coordinator; Planning Team Leader 2002-2006
Connie Stone	Ph.D., Anthropology	Cultural Resources; Planning Team Leader 2007-2009
Rem Hawes	B.A., Communications	Agua Fria National Monument Manager
Tim Hughes	B.S., Wildlife Biology	Biological Resources
Penny Foreman	B.S., Recreation and Tourism Management	Recreation
Pamela Mathis	A.A., Political Science	External Affairs
Mary Skordinsky	M.A., Recreation	Recreation
Dave Eddy	B.S., Geology	Mineral Resources
Clay Templin	B.S., Range Management	Rangeland Management
Matt Plis	M. Eng. , Mining Engineering	Mineral Resources
Helen Graham	B.S., Biology	Fire Management
Bill Crollly	A.S., Forestry	Fire Management

James Maes	B.S., Mechanical Engineering	Hazardous Materials and Air Quality
Jim Andersen	B.S., Natural Resource Management	Lands and Realty
JoAnn Goodlow	M.A., Project Management	Lands and Realty
Lin Fehlmann	B.S., Secondary Education	Water Rights
Tom Bickauskas	B.S., Manufacturing Engineering Technology	Transportation Management
Jameson Belke	B.S.,	Geographic Information Systems
J. A. Vacca	B.S., Biology and Chemistry	Biological Resources

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**Map 15e. Bradshaw-Harquahala Planning Area — Route Network for Upper Agua Fria River Basin Area**

**Map 16. Agua Fria National Monument / Bradshaw- Harquahala Planning Area — Visual Resource Management**

**Map 17. Bradshaw-Harquahala Planning Area — Burro Herd Areas**

**Map 18. Bradshaw-Harquahala Planning Area — Wilderness Characteristics**

**Map 19. Black Canyon Management Unit — Multiple Resource Allocations**

**Map 20. Bradshaw-Harquahala Planning Area — Black Canyon Utility Corridor Cordes Junction to Black Canyon City**

**Map 21. Castle Hot Springs Management Unit — Multiple Resource Allocations & Special Area Designations**

**Map 22. Hassayampa Management Unit Multiple Resource Allocations & Special Area Designations**

**Map 23. Yarnell Hang Gliding Area**

**Map 24. Harquahala Management Unit — Multiple Resource Allocation & Special Area Designations**

**Map 25. Harcuvar Management Unit — Multiple Resource Allocations**

**Map 26. Bradshaw-Harquahala Planning Area — Upper Agua Fria River Basin Management Unit Multiple Resource Allocation**

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