

IRONWOOD FOREST NATIONAL MONUMENT

Record of Decision and Approved Resource Management Plan



BLM

Tucson Field Office

February 2013



Ironwood Forest National Monument

Record of Decision and Approved Resource Management Plan

Prepared by

U.S. Department of the Interior
Bureau of Land Management
Tucson Field Office
Arizona

MISSION STATEMENT

“The Bureau of Land Management is responsible for stewardship of our public lands. The BLM is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield of our Nation’s resources within the framework of environmental responsibility and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife habitat, wilderness, air, and scenic quality, as well as scientific and cultural values.”

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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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In Reply, refer to:
2000/2050

Dear Reader/Interested Party:

I am pleased to announce that after several years of hard work and collaboration, the Ironwood Forest National Monument (IFNM) Resource Management Plan (RMP) has been complete. The document will provide guidance for the management of approximately 128,400 acres of federal surface and mineral estate administered by the Bureau of Land Management (BLM) in Pima and Pinal counties in southern 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 published on September 29, 2011 and subject to a 30-day protest period that ended on October 29, 2011. Eight protests 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 BLM Director concluded the responsible planning team and decision-makers followed all applicable laws, regulations, policies, and pertinent resource considerations in developing the Proposed RMP/FEIS. 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 in Section 1.2.2 Clarifications and Modifications, but the protest review did not result in any significant changes from the Proposed RMP.

The approval of this ROD by the BLM Arizona State Director serves as the final decision for all land use plan decisions described in the attached Approved RMP. Implementation decisions are site-specific decisions in the Approved RMP, relating to route designations, geologic sites, and flood and erosion control measures. Implementation decisions are subject to appeal. Appeal procedures for these implementation level decisions are described in Section 1.4.2 of the attached ROD. Future implementation of land use plan decisions will not be undertaken without suitable further NEPA analysis, including public involvement.

Notification of the approval of this ROD/Approved RMP will be announced via local news releases and on the BLM website at http://www.blm.gov/az/st/en/fo/tucson_field_office.html. CD-ROM versions of the ROD/Approved RMP may be obtained by contacting the Tucson Field Office by phone at 520-258-7200; by sending a request by email to AZ_IFNM_RMP@blm.gov; or at the following address:

BLM Tucson Field Office,
3201 East Universal Way
Tucson, Arizona 85756

A limited number of hard copy documents will be available at a later date and may be requested from the same locations.

The BLM is pleased to provide this copy of the Ironwood Forest National Monument ROD/Approved RMP for your reference. We greatly appreciate the efforts of all who contributed to completion of this RMP, including the State of Arizona, Pima and Pinal County, the City of Tucson, the Town of Marana, 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 RMP.

Sincerely,

A handwritten signature in blue ink that reads "Brian Bellew".

Brian Bellew
Tucson Field Manager

Enclosure

2.2.1.1	Management Goals and Objectives.....	35
2.2.1.2	Management Actions.....	35
2.2.1.3	Administrative Actions	35
2.2.2	Geology and Cave Resources.....	36
2.2.2.1	Management Goals and Objectives.....	36
2.2.2.2	Management Actions.....	36
2.2.2.3	Administrative Actions	37
2.2.3	Soil and Water Resources	37
2.2.3.1	Management Goals and Objectives.....	37
2.2.3.2	Management Actions.....	38
2.2.3.3	Administrative Actions	38
2.2.4	Vegetation	40
2.2.4.1	Management Goals and Objectives.....	40
2.2.4.2	Management Actions.....	41
2.2.4.3	Administrative Actions	43
2.2.5	Wildlife and Wildlife Habitat.....	43
2.2.5.1	Management Goals and Objectives.....	43
2.2.5.2	Management Actions.....	44
2.2.5.3	Administrative Actions	45
2.2.6	Special Status Species.....	45
2.2.6.1	Management Goals and Objectives.....	45
2.2.6.2	Management Actions.....	46
2.2.6.3	Administrative Actions	49
2.2.7	Fire Ecology and Management	50
2.2.7.1	Management Goals and Objectives.....	50
2.2.7.2	Management Actions.....	50
2.2.7.3	Administrative Actions	51
2.2.8	Cultural Resources	51
2.2.8.1	Management Goals and Objectives.....	51
2.2.8.2	Management Actions.....	52
2.2.8.3	Administrative Actions	53
2.2.9	Paleontological Resources	56
2.2.9.1	Management Goals and Objectives.....	56
2.2.9.2	Management Actions.....	56
2.2.9.3	Administrative Actions	56
2.2.10	Scenic and Visual Resources	56
2.2.10.1	Management Goals and Objectives.....	56
2.2.10.2	Management Actions.....	57
2.2.10.3	Administrative Actions	58
2.2.11	Lands Managed to Protect Wilderness Characteristics	58
2.2.11.1	Management Goals and Objectives.....	58
2.2.11.2	Management Actions.....	58
2.2.11.3	Administrative Actions	61
2.2.12	Energy and Mineral Resources	61

2.2.12.1	Management Goals and Objectives.....	61
2.2.12.2	Management Actions.....	61
2.2.12.3	Administrative Actions	61
2.2.13	Livestock Grazing	61
2.2.13.1	Management Goals and Objectives.....	61
2.2.13.2	Management Actions.....	62
2.2.13.3	Administrative Actions	63
2.2.14	Recreation	64
2.2.14.1	Management Goals and Objectives.....	64
2.2.15	Recreation Management Zone Objectives:	64
2.2.15.1	Roaded Natural RMZ Objectives:.....	64
2.2.15.2	Semi-Primitive Motorized RMZ Objectives:.....	65
2.2.15.3	Semi-Primitive Non-Motorized RMZ Objectives:.....	66
2.2.15.4	Ragged Top Wildlife Viewing RMZ Objectives:	67
2.2.15.5	Primitive RMZ Objectives:	68
2.2.15.6	Management Actions.....	69
2.2.15.7	Administrative Actions	73
2.2.16	Lands and Realty.....	76
2.2.16.1	Management Goals and Objectives.....	76
2.2.16.2	Management Actions.....	76
2.2.16.3	Administrative Actions	77
2.2.17	Travel Management	77
2.2.17.1	Management Goals and Objectives.....	77
2.2.17.2	Management Actions.....	78
2.2.17.3	Implementation-Level Decisions	81
2.2.17.4	Administrative Actions	82
2.2.18	Special Designations	84
2.2.18.1	Management Goals and Objectives.....	84
2.2.18.2	Management Actions.....	84
2.3	PUBLIC INVOLVEMENT.....	84
2.4	MANAGEMENT PLAN IMPLEMENTATION	84
2.5	PLAN EVALUATION AND MAINTENANCE.....	85
2.5.1	Plan Evaluation	85
2.5.2	Plan Maintenance	85
2.6	MONITORING AND ADAPTIVE MANAGEMENT.....	85
2.6.1	Monitoring	86
2.6.2	Adaptive Management	86
GLOSSARY	87
CHAPTER 3.0	LIST OF PREPARERS.....	105
APPENDICES	107

LIST OF MAPS

Map 1	Location of the Ironwood Forest National Monument in Arizona.....	23
Map 2	Surface Management.....	24
Map 3	Wildlife Habitat Management.....	47
Map 4	Special Status Species Management	48
Map 5	Visual Resources Management	59
Map 6	Lands Managed to Protect Wilderness Characteristics	60
Map 7	Recreation Management Zones	71
Map 8	Rights-of-Way Authorizations	79
Map 9	Travel Management	80

LIST OF APPENDICES

Appendix A – Presidential Proclamation 7320
Appendix B – Conservation Measures
Appendix C – Arizona Guidelines for Grazing Administration
Appendix D – Route Inventory and Evaluation

LIST OF ACRONYMS AND ABBREVIATIONS

4WD	4 wheel-drive
ACEC	Area of Critical Environmental Concern
ADEQ	Arizona Department of Environmental Quality
AGFD	Arizona Game and Fish Department
ASLD	Arizona State Land Department
ATV	all-terrain vehicle
BLM	Bureau of Land Management
BMP	best management practice
BO	Biological Opinion
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act of 1976
GIS	geographic information system
IFNM	Ironwood Forest National Monument
LUP	land use planning
MOU	memorandum of understanding
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act of 1969
NLCS	National Landscape Conservation System
OHV	off-highway vehicle
Proclamation	Presidential Proclamation 7320
RMP	Resource Management Plan
RMZ	recreation management zone
ROD	Record of Decision
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
SRP	special recreation use permits
TMP	transportation management plan
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VHA	Vegetation Habitat Management Area
VRM	Visual Resource Management
WHA	Wildlife Habitat Management Area
WSA	wilderness study area

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CHAPTER 1.0 RECORD OF DECISION

1.1 INTRODUCTION

This Record of Decision (ROD) approves the Bureau of Land Management's (BLM) proposal to manage the BLM-administered public lands within the Ironwood Forest National Monument as presented in the attached Approved Resource Management Plan (Approved RMP).

The Ironwood Forest National Monument (IFNM) was established on June 9, 2000, with the signing of Presidential Proclamation 7320 (Proclamation) to protect objects of scientific interest, including geological, biological, and archaeological resources. The IFNM encompasses approximately 189,600 acres of land. The decisions in the Approved RMP apply to approximately 128,400 acres within the Monument boundaries which is public land administered by the BLM; the balance of the land consists of approximately 54,700 acres of State Trust land (administered by the Arizona State Land Department [ASLD]) and approximately 6,000 acres that are privately owned.

This ROD provides an overview of the alternatives considered, a summary of protests received and clarifications made in response, and the key decisions and types of decisions in the plan that will guide management of the IFNM. It also provides the considerations and rationale for the decisions and an overview of public involvement in the planning process.

1.2 THE DECISION

The decision of the BLM is to approve the attached document as the Approved RMP for BLM-administered public lands in the Ironwood Forest National Monument. The Approved RMP replaces relevant decisions in the 1989 Phoenix Resource Area RMP, as amended by the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management, and the 1987 Eastern Arizona Grazing Environmental Impact Statement (EIS). 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 EIS was prepared for this Approved RMP in compliance with the National Environmental Policy Act of 1969 (NEPA). Management decisions and guidance for public lands are presented in the Approved RMP attached to this ROD.

1.2.1 Protest Resolution

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

- ASARCO LLC
- Don Saba
- Name Withheld

- The Wilderness Society
- Arizona Game and Fish Department (AGFD)
- Western Watersheds Project
- National Rifle Association
- Friends of Ironwood Forest

Main protest points pertained to:

Issue 1. Range of Alternatives

ASARCO LLC and the Western Watershed Project felt that the Proposed RMP/Final EIS fails to analyze a reasonable range of alternatives regarding management of valid existing mining claims and management of livestock grazing.

Issue 2. Public Comments

Name Withheld and the National Rifle Association felt that the Proposed RMP should be rejected because a public comment was falsely attributed, misrepresenting several parties, and because the BLM failed to take oral comments at its first five public meetings.

Issue 3. Length of Protest Period

ASARCO LLC and Name Withheld felt the Proposed RMP should be rejected because the 30-day protest period is insufficient.

Issue 4. Accurate, Complete Information

The Western Watershed Project and Friends of Ironwood Forest felt that the Proposed RMP should be rejected because it relies on incomplete and inaccurate information regarding:

- Resource inventories and surveys,
- Threats of livestock grazing on the Sonoran desert tortoise, and
- Determinations of rangeland health.

Issue 5. Need for Supplemental EIS

The National Rifle Association felt that Appendix I of the Proposed RMP should have been included in a supplemental EIS, which would have allowed for public comments on Appendix I and on whether it supports or fails to support the stances taken with respect to recreational shooting in the EIS' four alternatives.

Issue 6. Impact Analysis

Name Withheld believed the BLM failed to perform an EIS prior to proposing this rule and did not perform NEPA analysis supporting the ephemeral classification of two allotments.

Issue 7. Presidential Proclamation

The Western Watersheds Project, National Rifle Association, and the Friends of Ironwood Forest felt the Proposed RMP should be rejected because:

- It fails to prioritize the management of the IFNM for the protection of the objects for which it was designated over traditional multiple use.
- It applies a more protective management standard to recreational shooting without also doing so for livestock grazing. This inconsistency is arbitrary.

Issue 8. Local Agencies

Name Withheld thought the BLM failed to coordinate and consult with the Pima Natural Resources Conservation District in preparing the Proposed RMP/Final EIS.

Issue 9. Climate Change

The Wilderness Society, Western Watersheds Project, and Friends of Ironwood Forest stated that the Proposed RMP does not satisfy the requirement of Secretarial Order 3289 to consider and analyze potential climate change impacts when undertaking long-range planning exercises.

Issue 10. Special Status Species

ASARCO LLC, Western Watersheds Project, and Friends of Ironwood Forest felt the Proposed RMP should be rejected because:

- It erroneously affords special status species protection to the cactus ferruginous pygmy owl and to those species identified by Pima County.
- It fails to include the Sonoran desert tortoise and the Tucson shovel-nosed snake as special status species and manage them as such.
- It fails to meet the protective standard laid out in its special status species policy for the Sonoran desert tortoise.

Issue 11. Livestock Grazing

The Western Watersheds Project felt that the Proposed RMP/Final EIS should be rejected because:

- Its use of the Standards and Guidelines assessments to make grazing management decisions and to assess everything from livestock impacts to cultural resources, wildlife, and sensitive species habitat, is improper and contrary to BLM policy.
- It fails to analyze the impacts of livestock grazing on cultural resources and on the spread of non-native vegetation (and the subsequent effect on special status species).
- It does not justify the exception to the prohibition on removal of vegetation for livestock grazing.
- It allows livestock grazing, a use not provided for as an object of the Proclamation, to continue despite potential impacts.

Issue 12. Recreation Target Shooting

Don Saba, AGFD, and National Rifle Association felt that the Proposed RMP's closure of the IFNM to recreational target shooting is inappropriate because:

- It fails to follow the Federal Lands Hunting, Fishing, and Shooting Sports Roundtable Memorandum of Understanding (MOU).
- It circumvents the BLM's responsibility to enforce existing laws and regulations by prohibiting the activity.
- It fails to consider mitigation measures to reduce shooting impacts instead of complete closure.
- It justifies the closure to protect Monument objects while arbitrarily finding that alternatives allowing continued firearm use will protect Monument objects and continues to allow hunting.
- It dismisses the public's recommendation to allow dispersed recreational target shooting.
- It is inconsistent with allowing other uses that harm Monument objects, such as livestock grazing.
- The assumption equating noise at recreational shooting sites to a shooting range is flawed.

Issue 13. Renewable Energy

ASARCO LLC and The Wilderness Society felt that the Proposed RMP should be rejected because:

- Solar energy development must be allowed in the IFNM because it is required by Section 302(a) of the FLPMA.
- BLM policy requires the IFNM to be an exclusion area for renewable energy development rather than an avoidance area as in the Proposed RMP.

Issue 14. Travel Management

The Wilderness Society felt the Proposed RMP would violate BLM policy by allowing motorized travel according to the BLM's multiple-use mandate without acknowledging the special status of the Monument.

Issue 15. Visual Resource Management

ASARCO LLC felt neither enhancement of visual resources within the IFNM nor BLM protection of vistas outside of the IFNM is appropriate.

Issue 16. Water

ASARCO LLC felt the Proposed RMP should be rejected because its statements that the BLM could pursue a Federal reserved water right are contrary to the Proclamation.

Issue 17. Wilderness Characteristics

ASARCO LLC, The Wilderness Society, and Name Withheld stated that the Proposed RMP should be rejected because:

- The BLM lacks authority to create wilderness characteristics or to manage the IFNM to protect wilderness characteristics. This management violates the 2003 settlement agreement between the Department of the Interior and the State of Utah.
- The BLM only documented the negative consequences as the rationale for not protecting additional lands with wilderness characteristics.
- Decisions allowing motorized uses in areas managed to protect wilderness characteristics are contrary to current policy guidance.

The BLM Director's decisions on the protests are summarized in the *Director's Protest Resolution Report*, available concurrently with release of the ROD and Approved RMP. The Director denied the protests from the eight protesting parties 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 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 changes to the Approved RMP.

1.2.2 Clarifications and Modifications

As the result of the protests and continuing internal review, the BLM made the following clarifications between the Proposed RMP/Final EIS and the Approved RMP:

- The species on Pima County's list of Priority Vulnerable Species are not BLM special status species. The BLM included this information in the Proposed RMP in the interest of coordinating with local governments as required by BLM planning regulations (see 43 CFR 1610.3-1).
- The Sonoran desert tortoise became a candidate species as of December 14, 2010. The Proposed RMP/Final EIS included the Sonoran desert tortoise as a special status species because it is a BLM sensitive species (see Chapter 3 page 3-28). The Proposed RMP designated 58,810 acres of Sonoran desert tortoise habitat categories I and II as priority habitat. The Proposed RMP also directs the BLM to implement measures to conserve Sonoran desert tortoise habitat (as prescribed in *Desert Tortoise Habitat Management on Public Lands: A Rangeland Plan*). Appendix E of the Proposed RMP/Final EIS also included specific conservation measures to be implemented for the benefit of the Sonoran desert tortoise. The Proposed RMP/Final EIS analysis of the effects of these management actions concluded that the disturbance to objects of the Monument resulting from management actions would range from undetectable to measureable at a local scale and would not cause the loss of special status species from the Monument (see Chapter 4 page 4-58). This management approach meets the protective standard laid out in the BLM's special status species policy. Appendix D of the Biological Assessment provides further technical assistance and analysis of the Sonoran desert tortoise.
- The IFNM proclamation states that it does not reserve water as a matter of Federal law. The water policy of the BLM is to acquire and perfect the water rights necessary to carry out public land

management purposes through State law and administrative claims procedures unless a Federal reserved water right is otherwise available. A Federal reserved water right is not available in this case. The statements in the response to comments that the BLM could pursue a Federal reserved water right are in error. Nevertheless, the management actions in Table 2-3 of the Proposed RMP do not propose to pursue such a right. The State of Arizona has primacy of control of water resources. The BLM will work closely with the Arizona Department of Water Resources concerning water use and water rights within the IFNM.

During the course of internal review, information came to the attention of the BLM that resulted in three modifications. The first modification revised implementation decisions for Soil and Water, Energy and Minerals, and Travel Management. The Soil and Water resources implementation decision 3 (Chapter 2 page 2-13) and Energy and Mineral Resources implementation decision 1 (Chapter 2 page 2-48) in the Proposed RMP were modified to administrative actions for each of these resources respectively. Recreation management actions 4, 6 (Chapter 2 page 2-61), and 7 (Chapter 2 page 2-62) in the Proposed RMP were also modified to administrative actions. Consistent with Arizona policy regarding the National Landscape Conservation System (NLCS), aspects of Travel Management implementation decision 1 (Chapter 2 page 2-80) regarding the reasonable use of the shoulder and immediate roadside and travel on all designated routes is subject to route-specific designations. Consistent with Arizona policy specific route designations are an implementation decision for type of use, functional class, maintenance level and route standard. This is consistent with BLM's land use planning, implementation decisions and administrative actions as describe in Section 1.4 of this ROD.

The second modification revises Lands and Realty management action 4 (Chapter 2 page 2-69) regarding the acquisition of surface and mineral estate. The management action was modified to more clearly indicate BLM would acquire surface and mineral estate concurrently, and where the mineral estate cannot be acquired, secure an MOU or conservation agreement to protect objects of the Monument.

The terms used in the Proposed RMP/Final EIS have been modified in the Approved RMP. The terminology used in the Travel Management implementation decision 1 (Chapter 2 page 2-80) of the Proposed RMP/Final EIS were modified from motorized and non-motorized to road, primitive road, and trail in the Approved RMP for consistency with BLM's 2012 Comprehensive Travel Management Policy and 2005 Travel Management Terminology.

In its conversion from the Proposed RMP/ Final EIS to the Approved RMP, the presentation of decisions was reformatted to include the Arizona Land Use Plan codes. Section 2.1.9 Policy of the Approved RMP contains a complete list of the codes. Throughout the Approved RMP, minor edits and modifications are made for clarification to descriptions of management actions and/or allowable uses, to improve readability, or to correct grammatical errors.

1.3 THE ALTERNATIVES

NEPA requires the development and consideration of a reasonable range of management alternatives, including a No Action Alternative, to analyze impacts and guide decision-makers in developing and selecting the RMP. All alternatives must be viable and reasonable. They must reflect the requirements of the Presidential Proclamation; be responsive to issues identified by the public, stakeholders, and BLM

specialists and managers during the scoping period; and meet established planning criteria, as well as applicable federal and state laws, regulations, and BLM policies.

1.3.1 Alternatives Considered, but Not Analyzed

The following alternatives and management options were considered as possible ways of resolving resource management issues and conflicts but were eliminated from detailed analysis; rationale for each alternative's elimination is provided under each heading.

Wilderness

BLM received suggestions from a citizen group that the new RMP establish new wilderness study areas (WSAs) within the IFNM.

Rationale: BLM has the authority under FLPMA Section 201 to inventory public land resources and other values, including “characteristics associated with the concept of wilderness identified as naturalness, solitude, and primitive, unconfined recreation.” The BLM Land Use Planning Handbook provides guidance on considering wilderness characteristics in the land-use planning process and directs BLM to identify decisions to protect or preserve wilderness characteristics. However, BLM has no authority to establish new WSAs or to report such areas to Congress.

Route Designations

BLM received a map proposing a route network within the IFNM from a coalition of citizen groups and a suggestion to designate all routes in the IFNM as closed to motorized traffic.

Rationale: This specific network was not considered as an alternative because it did not consider access to private inholdings or State Trust land, where BLM could be required to provide access. Closing all routes to motorized traffic was not considered because it would not allow BLM to meet the management goals and objectives established for the IFNM.

Visitor Facilities

Members of the public requested the construction of visitor facilities throughout the Monument, thereby allowing a greater level of access to restrooms, drinking water, and other essentials.

Rationale: This suggestion was not considered as an alternative because the IFNM is a unit within BLM's NLCS, and is managed, in part, to maintain the character of the existing setting.

1.3.2 Alternatives Considered in Detail

Four alternatives, including a No Action Alternative, were analyzed in detail in the Draft RMP/EIS (BLM 2007) and the Proposed RMP/Final EIS (BLM 2011). 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. Alternative A is a No Action Alternative; that is, it proposes no new plan. Under this alternative, management of public land within the IFNM would continue under existing planning documents/decisions, as modified by the Proclamation and additionally guided by the BLM's Interim Management Policy and Guidelines for

Lands Under Wilderness Review, H-8559-1. Alternatives B, C, and D (the “action alternatives”) would each effect more change in management—each includes proactive responses to existing conditions and circumstances which, in many cases, may have changed since the existing planning document now in force was written.

Each alternative had a management emphasis that reflects a different response to balance use and conservation of resources on public lands. All four alternatives are consistent with the Proclamation, including the protection of the objects of the Monument, and with all other applicable laws, regulations, and policies. Uses of land and resources that are not consistent with the Proclamation have been excluded from consideration.

Alternative A (No Action Alternative)

Alternative A, the No Action Alternative, would continue management of public land within the IFNM according to the management prescriptions of the 1989 Phoenix RMP and the Eastern Arizona Grazing EIS, as amended by the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management and the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. Alternative A would include modifications to management mandated by the Proclamation, which the BLM has already implemented with current management guidance for the IFNM.

Alternative B

The management theme of Alternative B is preservation—it is the most restrictive strategy, designed to protect the Monument’s resources by limiting use of the area’s resources to an allowable minimum. This alternative places more restrictions on motorized travel throughout the Monument and favors dispersed, non-motorized recreational activities over motorized recreational activities. The types of allowable uses and the intensity of those uses are restricted to provide the strongest reasonable protection for objects of historic, scientific, and aesthetic interest within the Monument—largely through preservation.

Alternative C (Proposed Plan)

The Approved RMP is the same as the Proposed RMP, with the exception that the ROD/Approved RMP selected the decision not to create utility corridors as analyzed in the Proposed RMP/Final EIS in Alternative B. It incorporates elements from each of the other alternatives to strike a balance between long-term conservation of Monument objects and resources within the IFNM and uses that have traditionally taken place on the land within the Monument, such as grazing and recreation. As a result, under Alternative C, the protection of Monument objects can be achieved at or near the level of protection afforded under Alternative B, while allowing for increased public uses in the Monument. Specifically, in sensitive resource areas, Alternative C would provide a higher level of resource protection and less public use; however, greater opportunities for public use would be allowed outside those areas.

Alternative D

The management theme of Alternative D is access—it emphasizes the maintenance of existing public access to Monument lands and resources. It identifies areas that are most appropriate to accommodate various uses—especially those identified as desirable during public scoping—and emphasizes those uses,

particularly with respect to transportation and recreation. It includes the most miles of routes designated for motorized use, would allow for the establishment of more recreational sites (e.g., campsites), and would make the entire Monument available for grazing. Though this alternative also protects Monument objects, additional mitigation efforts would likely be needed to achieve the level of protection that would be afforded under Alternatives B and C.

Environmentally Preferable Alternative

Alternative C, the Approved Resource Management Plan, is considered by the BLM to be the environmentally preferable alternative when taking into consideration the human (social and economic) environment as well as the natural environment. The U.S. Council on Environmental Quality (CEQ) has defined the environmentally preferable alternative as the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA. The six broad policy goals for all Federal plans, programs, and policies are listed below:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- 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.
- Achieve a balance between population and resource use, which will permit high standards of living and a wide sharing of life's amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

In comparison with the other alternatives analyzed, Alternative C meets the above NEPA goals for future management of the Monument. It provides long-term protection and resource conservation, and balances human use and influence with resource protection. Alternative C would provide a higher level of resource protection and less public use.

The No Action Alternative, Alternative A, would continue management of public land within the IFNM according to the management of the 1989 Phoenix Resource Management Plan and would have no specific management actions to protect objects of the Monument. Alternative A would have custodial management of recreation, which could increase opportunities for vehicle based camping and continued designation of utility corridors. Alternative A also did not identify areas to retain the existing character of the landscape. For these reasons, the No Action Alternative is not preferable from an environmental perspective.

Alternative B is the most restrictive alternative, designed to protect the Monument's resources by placing the greatest emphasis on limiting human use and influence. The types of allowable uses and the intensity of those uses are restricted to provide the strongest protection for Monument objects and resources.

Alternative B was not selected as the environmentally preferable alternative because it does not achieve a balance between visitor use/access and protection of Monument objects.

Alternative D focuses on the maintenance of existing public access to Monument lands and resources. It has the least amount of resource protections and would not achieve a balance between resource uses and preserving important historic, cultural, and natural aspects of the IFNM.

Alternative C, the Approved Plan, takes the best components of each of the four alternatives to ensure protection of Monument objects and resources while providing a wide range of beneficial uses. Alternative C best meets the requirements of Section 101 of NEPA and was thus selected as the environmentally preferable alternative by the BLM.

1.3.3 What the Decision/Approved RMP Provides

Many land use planning (LUP) decisions are implemented or become effective upon approval of the Approved RMP. According to the BLM Land Use Planning Handbook, LUP decisions are broad-scale decisions which guide future land management actions and subsequent site-specific implementation decisions. LUP decisions identify specific areas of public land or mineral resources where certain uses or management actions are allowed, are excluded, or may be restricted in order to achieve a desired future condition or to protect certain resource values. LUP decisions fall into two categories: Desired Future Conditions (Goals and Objectives) and Management Actions (Allowable Uses) to achieve outcomes. For each resource, additional guidance is presented in the form of Administrative Actions. Administrative Actions are not land use planning decisions, but are a key component of the overall RMP.

1.3.4 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 are discussed below.

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 Tucson Field Office.

Monitoring strategies to determine the effectiveness of these decisions in achieving plan goals and objectives. Monitoring strategies will be addressed in specific activity-based plans that will be completed to implement the Approved RMP.

1.4 LAND USE PLAN DECISIONS, IMPLEMENTATION DECISIONS, AND ADMINISTRATIVE ACTIONS

The Approved RMP provides overall direction for management of all resources on BLM-administered land in the Monument. Many land use plan decisions are implemented or become effective upon publication of the ROD for the Approved RMP and may include desired future conditions, land use allocations (allowable uses) or designations, and special designations. Implementation decisions and management actions that require additional site-specific project planning, as funding becomes available, will require further environmental analysis. Some implementation decisions (e.g., route designations) are finalized with this ROD and thus require no further environmental analysis. Administrative actions are not land use planning or implementation decisions, but are a key component of the overall plan because they describe the BLM's day-to-day actions to help meet desired future conditions. The BLM will continue to involve and collaborate with the public during implementation of the Approved RMP. Brief descriptions of the types of decisions are presented below.

1.4.1 Land Use Plan Decisions

Desired Outcomes

Land use plans identify desired outcomes expressed in terms of specific goals and objectives that protect and maintain Monument objects over time. Goals and objectives direct the BLM's actions in most effectively meeting legal mandates; numerous regulatory responsibilities; national policy, including the Department of the Interior Strategic Plan goals; State Director guidance (see 43 CFR 1610.0-4b); and other resource or social needs. Desired outcomes to protect Monument objects in accordance with the Monument Proclamation should be identified for and pertain to resources such as natural, biological, and cultural; resource uses such as energy and livestock grazing; and other factors such as social and economic conditions. Land use plans are designed to most effectively protect Monument objects and meet these desired outcomes through allowable uses, land use allocations, and management actions.

Special Designations

Special designations are designated by Congress for special protection. Such designations are not land use plan decisions; however, recommendations for designation can be made at the land use plan level. Congress may then act on these recommendations at a later time.

Administrative designations made by the BLM, such as Areas of Critical Environmental Concern (ACECs), are also considered special designations and can be made in the land use plan.

Allowable Uses (Land Use Allocations)

Land use plans must identify uses, or allocations, that are allowable, restricted, or prohibited on the public lands and mineral estate to protect Monument objects. These allocations identify surface lands or subsurface mineral interests where uses are allowed, including any restrictions that may be needed to meet goals and objectives and that protect Monument objects such as geologic, cultural, and visual resources, vegetation, wildlife and wildlife habitat. Land use plans also identify lands where specific uses are excluded to protect Monument objects and resources. Certain lands may be open or closed to specific uses based on legislative, regulatory, or policy requirements or criteria to protect Monument objects and sensitive resource values in accordance with the Monument Proclamation. If land use plan decisions close

areas of 100,000 acres or greater in size to a principal or major use for two years or more, Congress must be notified of the closure upon its implementation as prescribed in 43 CFR 1610.6.

Management Actions

Land use plans for National Monuments must identify the actions anticipated to achieve desired outcomes, including actions to protect Monument objects and maintain, conserve, protect, restore, or improve land health. These actions include proactive measures (e.g., measures that will be taken to enhance watershed function and condition), as well as measures or criteria that will be applied to guide day-to-day activities on public land. Land use plans also establish administrative designations such as ACECs, recommend proposed withdrawals, land tenure zones, and recommend or make findings of suitability for congressional designations such as components of the National Wild and Scenic Rivers System.

1.4.2 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 are site-specific project-level decisions. Some of the implementation decisions in the RMP can be implemented without further NEPA analysis, such as route designations. Examples of such implementation decisions in this RMP include:

- Designate approximately 42 miles of roads and 82 miles of primitive roads as open to motorized and mechanized vehicle travel for public and administrative purposes.
- Designate approximately 118 miles of primitive roads as open for administrative vehicles only, and open for non-motorized travel for public use. Designate approximately 90 miles of trails as open for non-mechanized travel only for public and administrative purposes. Designate approximately 17 miles of routes as closed for reclamation/restoration.

Implementation decisions and management actions that involve new surface disturbance will require additional site-specific project planning that are not included in this ROD. These site-specific project plans will be completed as funding becomes available, and will require further environmental analysis. A travel and transportation management plan (TMP) will be prepared to identify the route specific and site-specific implementation actions, and site-specific impacts, and/or mitigation.

Appeal Procedures for Implementation Decisions

Implementation decisions are not subject to protest under the planning regulations. However, any party adversely affected by an implementation decision may appeal such a decision to the Interior Board of Land Appeals after the ROD is signed. The following procedures describe the appeal process for the implementation decisions, which will be available for appeal immediately upon public release of this ROD/Approved RMP.

Any party adversely affected by an implementation decision may appeal within 30 days of receipt of this decision in accordance with the provisions of 43 CFR Part 4.4. The appeal must include a statement of reasons or file a separate statement of reasons must be filed within 30 days of filing the appeal. The

appeal must state if a stay of the decision is being requested in accordance with 43 CFR 4.21 and must be filed with the Tucson Field Manager at the following address:

Bureau of Land Management
Field Manager, Tucson Field Office
3201 East Universal Way
Tucson, AZ 85756

A copy of the appeal, statement of reasons, and all other supporting documents shall be sent to the Field Solicitor at the following address:

Field Solicitor
United States Department of the Interior
Office of the Solicitor
401 West Washington Street, SPC 44
Phoenix, AZ 85003

If the statement of reasons is filed separately, it must be sent to the following address:

United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
801 N. Quincy Street, Suite 300
Arlington, Virginia 22203

Request for Stay

Any party wishing to file a request for stay pending the outcome of an appeal of one or more implementation decisions must show sufficient justification based on the following standards under 43 CFR 4.21:

- The relative harm to the party if the stay is granted or denied
- The likelihood of the appellant's success on the merits of the stay
- The likelihood of immediate and irreparable harm if the stay is not granted
- Whether the public interest favors granting the stay

As noted above, the request for stay must be filed with the BLM Field Manager at the address listed above.

1.4.3 Administrative Actions

Although the BLM's intent and commitment to accomplish administrative actions is generally addressed in an EIS, such activities are neither management nor implementation decisions. Administrative actions are day-to-day activities conducted by the BLM, often required by FLPMA and other laws, but do not require NEPA analysis or a written decision by a responsible official. Examples of administrative actions include mapping, surveying, conducting inventory or monitoring, scientific research, other studies,

partnering and collaborating with partners, enforcement actions, developing educational materials, and working with local communities or interest groups.

1.5 MANAGEMENT CONSIDERATIONS FOR SELECTING THE APPROVED PLAN

The alternatives described in the Draft RMP/DEIS and public comment and input provided throughout this planning process were considered in preparing the RMP. The Approved RMP is based on the Preferred Alternative C described in the Proposed RMP (2011), which was based on Alternative C in the Draft RMP/DEIS (BLM 2007). Public comments and input received during all stages of planning resulted in fine tuning the RMP. The purpose and intent of the Monument Proclamation were considered at all stages and under all alternatives. The approach to managing the Monument, Alternative C without designation of utility corridors, optimally protects Monument objects from impacts on major utility corridor developments, while accommodating existing utility infrastructure. Prohibiting the use and discharge of firearms, except for permitted or authorized hunting activities in accordance with AGFD hunting regulations, was chosen because it: (a) most effectively accomplishes the overall objectives of protecting Monument objects, (b) best addresses the diverse community and stakeholder concerns in a balanced, fair, and equitable manner, and (c) provides the most workable framework for long-term protection of Monument objects.

The analysis in the PRMP/FEIS (2011) concluded that recreational target shooting is causing damage to protected Monument objects in localized areas, and is presenting safety conflicts with other users. Monitoring since the Monument was established has identified growing impacts from recreational target shooting at the existing sites, and new sites that have been created by users. Additional information related to recreational target shooting and impacts on Monument objects and public safety are found in the PRMP/FEIS Recreational Shooting Analysis in Appendix I.

1.6 MITIGATION MEASURES

The Approved RMP has incorporated the mitigation measures designed to avoid or reduce impacts within the management actions and supporting information in the Proposed RMP/Final EIS appendices. In developing the alternatives, the BLM used a variety of management methods and tools, including identifying allowable uses, temporal, spatial, and restrictions on uses, and specific actions needed to protect Monument objects. All practicable means to avoid or minimize impacts and environmental harm are incorporated into the Approved RMP. Additional measures to mitigate environmental impacts could be developed during subsequent NEPA analysis at the activity-level planning and project stages, or through consultations covering those proposed actions.

1.7 PLAN MONITORING

During the life of the RMP, 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 RMP, the BLM will integrate the data through a process called plan maintenance or updating. This process includes the use of an adaptive management strategy. As part of this process, the BLM will review management actions and the 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 adjustments of appropriate scope. Where the BLM considers taking or

approving actions which would alter or not conform with the overall direction of the RMP, the BLM will prepare a plan amendment and environmental analysis of appropriate scope to make will

1.7.1 Implementation Monitoring

Implementation monitoring is the most basic type of monitoring and is used to determine whether planned activities have been implemented in the manner consistent with the Approved RMP. This monitoring documents the BLM's progress toward full implementation of the land use plan decisions. There are no specific thresholds or indicators required for this type of monitoring, but progress towards plan compliance will be evaluated and reported at regular intervals from the date of plan approval.

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. Success is measured against the benchmark of achieving the objectives 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 regular intervals.

The BLM will monitor the implementation of 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. 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. 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.

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 priorities and available funds. The implementation of the Approved RMP will also occur in accordance with an adaptive management framework, and with appropriate levels of public involvement in project planning, and review of site-specific impacts for compliance with NEPA.

1.9 PUBLIC INVOLVEMENT

The BLM is committed to providing opportunities for meaningful participation in the resource management planning process. Throughout the preparation of this RMP, the BLM has maintained an extensive public participation process aimed at providing frequent opportunities for interaction with the public through a variety of media.

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 on April 24, 2002. The Notice of Availability of the Draft RMP/Draft EIS was published on March 2, 2007. The BLM facilitated public involvement through a

series of open houses and workshops in 2004 and 2005, and additional meetings were held in local communities to obtain comments on the DEIS in 2007. The Notice of Availability of the Proposed RMP/Final EIS was published on September 29, 2011. The public was provided 30 days to protest any portions of the Proposed RMP/Final EIS they felt did not follow established procedure, or did not consider relevant information in reaching proposed decisions, or the proposed decisions were not consistent with BLM policy, regulation, and statute, as defined in Appendix E of the BLM Land Use Planning Handbook.

The public will continue to be involved through collaborative efforts in preparing future implementation or activity plans needed for site-specific actions to achieve planned management objectives.

1.9.1 Agency Consultations – U.S. Fish and Wildlife Service and State Historic Preservation Office

Consistent with the requirements of Section 7 of the ESA, the BLM consulted with the U.S. Fish and Wildlife Service (USFWS) to ensure that the BLM's proposed action would not jeopardize the continued existence of any listed threatened, endangered, or proposed species or critical habitat. The Biological Opinion (BO) on the IFNM RMP/EIS project included six conservation recommendations to minimize or avoid possible adverse effects on listed species or their critical habitat. See Section 2.1.8, Consultation and Collaboration for additional details.

In accordance with the requirements of Section 106 of the National Historic Preservation Act, the BLM has consulted with and obtained comment from the Arizona State Historic Preservation Office (SHPO) concerning the content of this RMP. These comments have been taken into account by the BLM during the development of this RMP. Further consultation with the SHPO will take place as specific actions implementing the RMP are developed.

1.10 AVAILABILITY OF THE PLAN

Copies of the Record of Decision and the Ironwood Forest National Monument Resource Management Plan may be obtained by viewing or downloading the document from the BLM website located at http://www.blm.gov/az/st/en/fo/tucson_field_office.html; by obtaining a CD at the BLM Tucson Field Office, located at 3201 East Universal Way, Tucson, Arizona 85756; or by sending a request by e-mail to the following address: AZ_IFNM_RMP@blm.gov.

1.11 MONUMENT MANAGER RECOMMENDATION

Having considered a full range of reasonable alternatives, associated effects, and public input, I recommend adoption and implementation of the attached Ironwood Forest National Monument Resource Management Plan.



Claire Crow, Ironwood Forest National Monument Manager

2/15/13

Date

1.12 FIELD MANAGER CONCURRENCE

I concur with adoption and implementation of the attached Ironwood Forest National Monument Resource Management Plan.



Brian Bellew, Tucson Field Manager

2/15/13

Date

1.13 ACTING GILA DISTRICT MANAGER CONCURRENCE

I concur with adoption and implementation of the attached Ironwood Forest National Monument Resource Management Plan.



Kelly Castillo, Acting Gila District Manager

2/15/13

Date

1.14 STATE DIRECTOR APPROVAL

In consideration of the foregoing, I approve the Ironwood Forest National Monument Resource Management Plan.



Raymond Suazo, Arizona State Director

2/19/13

Date

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CHAPTER 2.0 APPROVED RESOURCE MANAGEMENT PLAN

2.1 INTRODUCTION

The BLM Tucson Field Office has prepared the IFNM RMP to provide comprehensive current and future management of BLM-administered lands in the IFNM. The Monument is located in Pinal and Pima Counties, Arizona, approximately 80 miles south of Phoenix and 25 miles northwest of Tucson, Arizona (Map 1). Its boundaries encompass 189,600 acres, including 128,400 BLM-administered acres, with the remaining lands consisting of privately owned and state-administered parcels (Map 2).

The RMP was prepared in compliance with the Ironwood Forest National Monument Proclamation (Proclamation 7320, “the Proclamation”) and the BLM’s planning regulations 43 CFR 1600 under the authority of the FLPMA. This document also meets the requirements of NEPA, the Council on Environmental Quality Regulations for Implementing the NEPA (40 CFR 1500-1508), and requirements of the BLM’s NEPA Handbook 1790-1.

This plan represents years of ongoing, coordinated efforts on the part of BLM Tucson Field Office, IFNM staff, the BLM Arizona State Office staff, representatives of communities near the Planning Area, cooperating agencies, special interest and user groups, and hundreds of concerned citizens. The decisions outlined in this document will enable the BLM to manage and protect the unique resources and Monument objects on public lands within the IFNM to achieve management actions and objectives in partnership with communities, organizations, and citizens.

2.1.1 Purpose and Need

The IFNM was designated to protect objects of scientific interest within the Monument, including the drought-adapted vegetation of the Sonoran Desert, geological resources such as Ragged Top Mountain, and abundant archaeological resources. The purpose of the IFNM is to preserve, protect, and manage the biological, cultural and geological resources, and other objects of this area for future generations, and to further our knowledge and understanding of these resources through scientific research and interpretation.

These objects are referred to as “Monument objects” in this document. Table 1 includes the text from Presidential Proclamation 7320 that identifies the Monument objects, and lists what those objects are. The table also identifies the specific indicators and thresholds for protection of Monument objects, and references the resource management category in which each of the objects are addressed in this plan.

Table 1: Protection of Objects Within the IFNM

Text from Presidential Proclamation 7320	Monument Object	Object Indicators and Protection Thresholds	Resource Management Category
<p>The landscape of the Ironwood Forest National Monument is swathed with the rich, drought-adapted vegetation of the Sonoran Desert. The Monument contains objects of scientific interest throughout its desert environment. Stands of ironwood, palo verde, and saguaro blanket the Monument floor beneath the rugged mountain ranges, including the Silver Bell Mountains. Ragged Top Mountain is a biological and geological crown jewel amid the depositional plains in the Monument.</p>	<p>Drought-adapted vegetation</p>	<ul style="list-style-type: none"> ▪ Maintain viable natural populations of ironwood, palo verde, saguaros, and other drought-adapted vegetation within the Monument. ▪ Prevent avoidable loss of unique vegetation communities on Ragged Top and other rugged mountain ranges. 	<p>Vegetation Special Status Species</p>
	<p>Rugged mountain ranges</p>	<ul style="list-style-type: none"> ▪ Maintain natural characteristics, processes, and scenic and wildlife values of geologic resources. 	<p>Geology and Caves Visual Resources</p>
<p>The Monument presents a quintessential view of the Sonoran Desert with ancient legume and cactus forests. The geologic and topographic variability of the Monument contributes to the area's high biological diversity.</p>	<p>View of the Sonoran Desert</p>	<ul style="list-style-type: none"> ▪ Maintain visual quality of landscapes from important viewing areas. 	<p>Visual Resources</p>
<p>Ironwoods, which can live in excess of 800 years, generate a chain of influences on associated understory plants, affecting their dispersal, germination, establishment, and rates of growth. Ironwood is the dominant nurse plant in this region, and the Silver Bell Mountains support the highest density of ironwood trees recorded in the Sonoran Desert. Ironwood trees provide, among other things, roosting sites for hawks and owls, forage for desert bighorn sheep, protection for saguaro against freezing, burrows for tortoises, flowers for native bees, dense canopy for nesting of white-winged doves and other birds, and protection against sunburn for night blooming cereus.</p>	<p>Ironwood trees</p>	<ul style="list-style-type: none"> ▪ Maintain viable natural populations of ironwood; prevent increased mortality of ironwood stands. 	<p>Vegetation</p>

Text from Presidential Proclamation 7320	Monument Object	Object Indicators and Protection Thresholds	Resource Management Category
<p>The ironwood-bursage habitat in the Silver Bell Mountains is associated with more than 674 species, including 64 mammalian and 57 bird species. Within the Sonoran Desert, Ragged Top Mountain contains the greatest richness of species. The Monument is home to species federally listed as threatened or endangered, including the Nichols Turk's head cactus and the lesser long-nosed bat, and contains historic and potential habitat for the cactus ferruginous pygmy-owl. The desert bighorn sheep in the Monument may be the last viable population indigenous to the Tucson basin.</p>	<p>Habitat for threatened, endangered, and rare wildlife and vegetative species</p>	<ul style="list-style-type: none"> ▪ Maintain a natural range of variation in vegetation communities to support rare species. ▪ Prevent avoidable loss of special status species. 	<p>Vegetation Wildlife and Wildlife Habitat Special Status Species</p>
<p>In addition to the biological and geological resources, the area holds abundant rock art sites and other archaeological objects of scientific interest. Humans have inhabited the area for more than 5,000 years. More than 200 sites from the prehistoric Hohokam period (600 A.D. to 1450 A.D.) have been recorded in the area. Two areas within the Monument have been listed on the National Register of Historic Places, the Los Robles Archeological District and the Cocoraque Butte Archeological District. The archaeological artifacts include rhyolite and brown chert chipped stone, plain and decorated ceramics, and worked shell from the Gulf of California. The area also contains the remnants of the Mission Santa Ana, the last mission constructed in Pimeria Alta.</p>	<p>Archaeological objects of scientific interest</p>	<ul style="list-style-type: none"> ▪ Reduce threats and resolve conflicts from natural or human-caused deterioration of rock art and other prehistoric sites, Archeological Districts on the National Register of Historic Places, artifacts, and remnants of Mission Santa Ana. 	<p>Cultural Resources</p>

The Monument proclamation assigns responsibility to protect objects for which the Monument was established and requires that an RMP be prepared to ensure that the management actions needed to do so are identified and implemented. The Monument Proclamation is the principal direction for management of the IFNM; all other considerations are secondary to that edict. In the absence of such a plan, current management for the IFNM falls under BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review, H-8559-1, and the various existing RMPs and amendments. These documents do not address many management issues and direction given in the Presidential Proclamation. To address these issues, the BLM needed to prepare the IFNM RMP.

The purpose of the IFNM RMP is to provide guidance for managing the use of BLM-administered lands and to provide a framework for future land management actions within the National Monument. The IFNM RMP will consolidate and replace the current management guidance for the IFNM.

2.1.2 Decision Area Description

The IFNM lies in the heart of the Sonoran Desert ecosystem in southern Arizona, and is a unique scenic area of rolling desert and ironwood woodlands including the Silver Bell, Waterman, Sawtooth, and Roskrige Mountains. Much of the vegetation in the area is classic Sonoran Desert upland habitat dominated by cacti such as saguaro, Bigelow's cholla, and staghorn cholla. Other common plants include ironwood, palo verde, creosote, brittlebush, triangle-leaf bursage, ocotillo, and white thorn acacia. The upper slopes of the Silver Bell Mountains possess a chaparral community dominated by jojoba. The lower bajadas contain interbraided streambeds that carry water after heavy rains. Large ironwood, blue palo verde, and mesquite trees characterize these desert wash habitats. Within these natural environments, the IFNM contains habitat for two endangered species, including the lesser long-nosed bat and Nichol Turk's head cactus, as well as several other species of concern.

In addition to the natural environment, abundant cultural resources occur within the IFNM. The IFNM includes a site listed in the National Register of Historic Places (National Register), two archaeological districts listed in the National Register, historic mining camps, and other cultural resources that are eligible for listing in the National Register.

Public lands within the IFNM provide for various uses including grazing, land use authorizations (such as rights-of-way for utilities), and dispersed recreational opportunities.

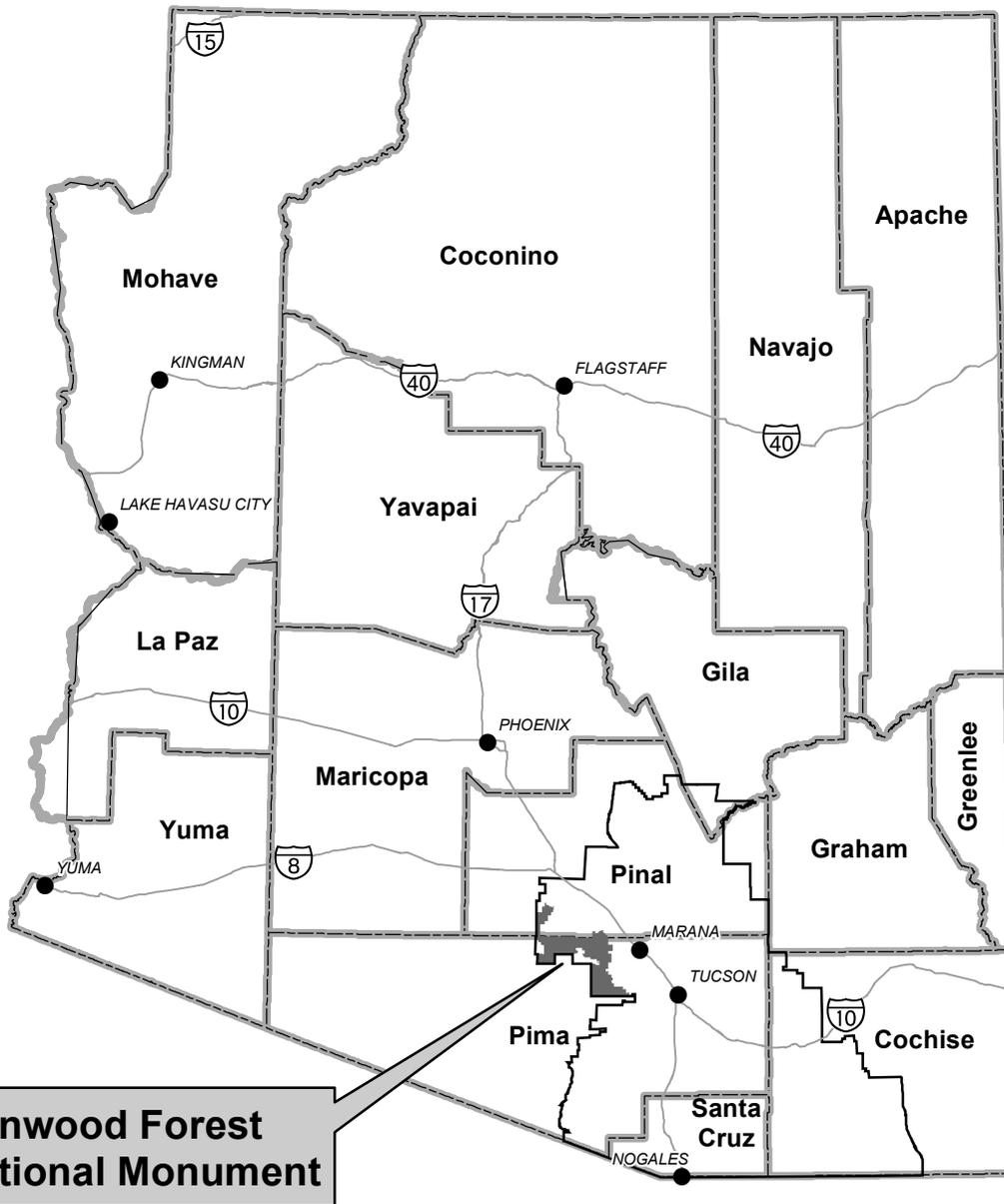
2.1.3 Scoping Issues

Development of this RMP was formally initiated with publication of a Notice of Intent in the Federal Register on April 24, 2002 (67 Federal Register 20157, April 24, 2002 [AZ-400-02-1610-DO-089A]). Following scoping, the BLM held six public workshops throughout the Tucson Field Office, which includes the IFNM, to collaborate on planning criteria, RMP goals and objectives, the range of alternatives, and preliminary alternatives. One of the most important outcomes of the scoping process was the identification of significant issues to be addressed in the planning effort. For planning purposes, an "issue" is defined as a matter of controversy or dispute over potential land and resource allocations, levels of resource use, production, and related management practices. Issues help determine what decisions will be made in the RMP and what the EIS must address as required by NEPA.

2.1.4 Issues Addressed

Planning issues are derived from scoping, which takes place in the preliminary stages of the planning process to solicit public and agency input to help identify the relevant issues and define the range of environmental analysis to be undertaken for the plan.

The planning issues identified through the scoping process included a variety of resources and resource uses. The comments and issues identified assisted in determining the scope of the studies completed and addressed in this plan.



Ironwood Forest National Monument

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Legend

Planning Area

-  Ironwood Forest National Monument Planning Area
-  Tucson Field Office Boundary

General Reference

-  County Boundary
-  Interstate

Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum



Location of the Ironwood Forest National Monument in Arizona



Surface Management

Ironwood Forest National Monument ROD/Approved RMP

Legend

Surface Management

- Bureau of Land Management
- National Park Service
- Bureau of Reclamation
- American Indian Reservation
- Military Reservation
- State Trust Land
- State, County, City; Wildlife, Park and Outdoor Recreation Area
- Private
- Pima County

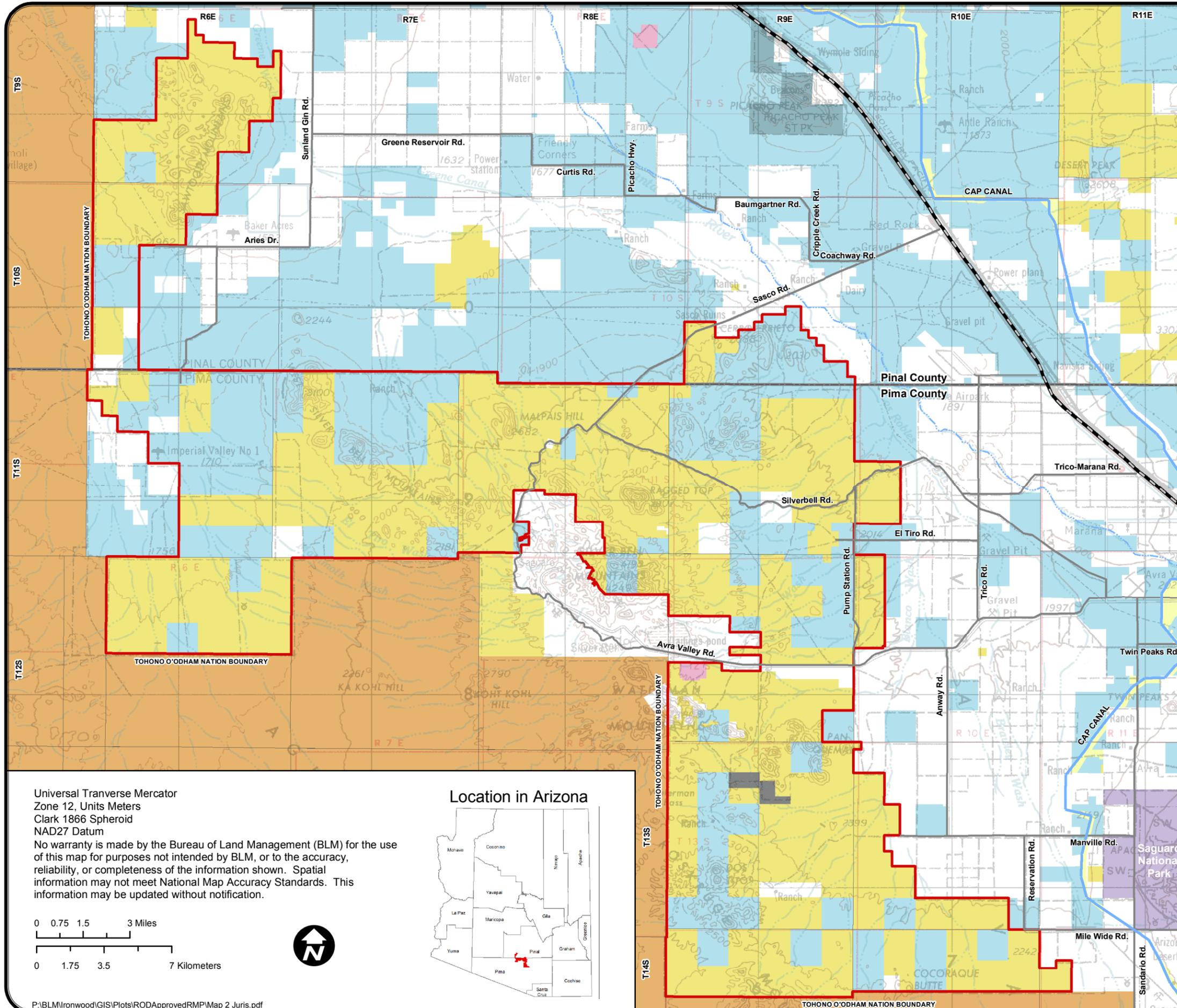
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Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

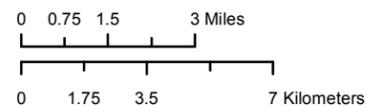
- County Boundary
- Central Arizona Project (CAP) Canal
- River
- Interstate 10
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum
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Location in Arizona



Key planning issues considered for developing alternatives in this plan included the following:

Vegetation

- What management actions will provide for preservation of existing plant communities and biodiversity?
- How will BLM manage potential impacts on plants from recreation, land development on State Trust land and private inholdings, grazing, and areas where there are existing mining claims?
- How will grazing and off-highway vehicle (OHV) use be managed for preventing the introduction and spread of noxious weeds into and within the IFNM?

Wildlife and Wildlife Habitat

- What management actions will protect wildlife and wildlife habitat?
- How will nearby human activity be managed to limit adverse impacts on the desert bighorn sheep population and lambing habitat?
- How will BLM manage potential conflicts with habitat and wildlife corridors from grazing, recreational shooting, camping activities, OHV use, land development on State Trust land and private inholdings, grazing, and areas where there are existing mining claims?

Special Status Species

- How will BLM give precedence to protection and restoration of habitat for threatened and endangered species and wildlife of special concern (as listed by the AGFD) species identified by local governments?

Cultural Resources

- How will BLM manage public access to potentially sensitive cultural resource sites?

Visual Resources

- How will BLM manage threats to scenic values of the IFNM from visitor facilities and OHV use?

Wilderness Characteristics

- How will BLM manage areas within the IFNM to protect wilderness characteristics?

Energy and Mineral Resources

- What management actions will be conducted to avoid potential impacts on wildlife, vegetation, water quality, and soil resources from ground-disturbing activities within the IFNM, including mining where valid existing rights occur?

Grazing/Livestock Management

- How will BLM manage grazing to be compatible with multiple uses within the IFNM?

Recreation (including visitor facilities)

- What management actions will be conducted to limit recreational activities (e.g., hiking, horseback riding, biking, camping, hunting, and recreational shooting) to protect resources within the IFNM from degradation?
- What visitor facilities should BLM provide within the IFNM?

Lands and Realty

- How will BLM evaluate and/or prioritize land acquisitions of private and State Trust land within the IFNM boundaries?

Travel Management

- How will BLM manage access into the IFNM from adjacent lands and communities (e.g., State and private inholdings and Tohono O’odham Nation lands)?

2.1.5 Issues Considered but Not Further Analyzed

The issues identified during public scoping (discussed in Section 2.1.4) shaped the alternatives carried forward in the RMP process. Other issues identified during public scoping were also considered but were not analyzed further in the planning process because they fell outside of BLM jurisdiction or were beyond the scope of the RMP. The issues and the rationale for not analyzing them further are provided below.

Wilderness

BLM received suggestions from a citizen group that the new RMP establish new WSAs within the IFNM.

Rationale: BLM has the authority under FLPMA Section 201 to inventory public land resources and other values, including characteristics associated with the concept of wilderness identified as naturalness, solitude, and primitive, unconfined recreation. The BLM Land Use Planning Handbook provides guidance on considering wilderness characteristics in the land-use planning process and directs BLM to identify decisions to protect or preserve wilderness characteristics. However, BLM has no authority to establish new WSAs or to report such areas to Congress.

Livestock Grazing

BLM received comments recommending the elimination of livestock grazing from the IFNM.

Rationale: BLM considered but eliminated an alternative that would immediately remove livestock grazing from the IFNM because it was determined to be unreasonable in terms of costs to BLM and IFNM lessees, manageability, enforcement, and various other issues.

Route Designations

BLM received a map proposing a route network within the IFNM from a coalition of citizen groups and a suggestion to designate all routes in the IFNM as closed to motorized traffic.

Rationale: This specific network was not considered as an alternative because it did not accommodate access to existing facilities and improvements and allowable uses, and did not consider access to private inholdings or State Trust land, where BLM could be required to provide access. Closing all routes to motorized traffic was not considered because it would not allow BLM to meet the management goals and objectives established for the IFNM.

Visitor Facilities

Members of the public requested the construction of visitor facilities throughout the Monument, thereby allowing a greater level of access to restrooms, drinking water, and other essentials.

Rationale: This suggestion was not considered as an alternative because the IFNM is a unit within BLM's NLCS, and is managed, in part, to maintain the character of the existing setting.

2.1.6 Planning Criteria

Planning criteria are the standards, rules, and guidelines that helped guide the RMP/EIS process. The BLM developed planning criteria principally from FLPMA and other applicable laws and, in the case of the IFNM, from Presidential Proclamation 7320, as well as collaboration with partner agencies, Native American tribes, and the public. The planning criteria were provided to the public for review during the scoping process and were included in the scoping report. General planning criteria and criteria specific to planning in the IFNM are presented below.

General Planning Criteria

- The planning process will include an EIS that will comply with NEPA standards. One record of decision will be issued for the IFNM Decision Area.
- The RMP will be completed in compliance with FLPMA, the Endangered Species Act (ESA) (16 United States Code 1531 et seq.), NEPA, the Archaeological Resources Protection Act, and all other relevant federal laws and executive orders, as well as the management policies of the BLM.
- Planning decisions will be made in the context of the best-available data, including information specific to public lands. Regional contextual data may also be used to identify the regional importance of public lands for resource use and protection.
- The planning team will work collaboratively with the State of Arizona; Pinal and Pima counties; tribal governments; municipal governments; other federal agencies; the Resource Advisory Council; and all other interested groups, agencies, and individuals. Decisions in the plan will strive to be compatible with existing plans and policies of adjacent local, state, tribal, and federal agencies, consistent with federal law and regulations. Opportunities to coordinate management with adjoining landowners for resource protection and public uses will be considered.
- The RMP will be developed to be flexible and adaptable to new and emerging issues and opportunities. During implementation of the RMP, the BLM will continue to work in partnership with the public and with local, state, and tribal governments and agencies to identify priority implementation projects and to identify and resolve emerging issues.

- Native American tribes will be consulted in accordance with policy, and tribal concerns will be given due consideration. The planning process will include the consideration of any impacts on Indian trust assets.
- Consultation with the U.S. Fish and Wildlife Service (USFWS) will take place throughout the planning process in accordance with Section 7 of the ESA and the National Memorandum of Agreement (August 30, 2000) to identify conservation actions and measures for inclusion in the plans.
- Coordination with the Arizona State Historic Preservation Office (SHPO) will be conducted throughout the planning process.
- The plan will recognize the state's authority to manage wildlife populations, including hunting and fishing, within the Planning Area. Coordination with AGFD will occur in accordance with the statewide memorandum of understanding (MOU; August 2007).
- The plan will set forth a framework for managing recreational and commercial activities in order to maintain existing natural landscapes and to provide for the enjoyment and safety of the visiting public.
- The lifestyles of area residents, including the wide variety of uses of the public lands, will be considered in the RMP.
- Any lands, or interests therein, acquired by the BLM within the Planning Area boundary will be managed consistently with the RMP, subject to any constraints associated with the acquisition.
- The RMP will recognize valid, existing rights.
- Federal Geographic Data Committee standards and other applicable BLM standards will be followed in the development and management of data.

Criteria Specific to IFNM

Planning criteria for the IFNM were derived from Presidential Proclamation 7320. The proclamation states that the BLM will manage the Monument “pursuant to applicable legal authorities, to implement the purposes of the proclamation.” Thus, any BLM planning criteria developed for the IFNM were inextricably tied to protecting the objects identified in the proclamation. The following IFNM criteria were used in addition to the general planning criteria noted above:

- The IFNM RMP will establish guidance upon which the BLM will manage the IFNM and will replace and supersede all other BLM RMPs for the lands covered by the IFNM RMP.
- The IFNM RMP will meet the requirements of the Presidential Proclamation 7320, dated June 9, 2000, to conserve, protect, and restore the objects of geological, archaeological, historical, and biological value within the Monument.
- In accordance with the proclamation, acquired lands and interests within the Monument's boundary will be added to the Monument and will be managed consistently with the IFNM RMP.
- To maintain the existing natural and cultural landscapes of the IFNM to the maximum extent possible, facilities will be located outside the Monument's boundary or in neighboring communities. Facilities that must be located within the Monument's boundaries will be placed in such a way that they are unobtrusive, to the extent practicable.

- The IFNM RMP will not address Monument boundary adjustments or proposals to change the Proclamation.

2.1.7 Planning Process

The IFNM RMP was initiated under the authority of Section 202(f) of FLPMA and guided by BLM planning regulations in 43 CFR 1600. Additionally, the EIS is subject to Section 202(c) of NEPA and guided by the Council on Environmental Quality regulations in 40 CFR 1500.

BLM uses a multi-step planning process when developing RMPs as required by 43 CFR Part 1600 and illustrate in the BLM's Land Use Planning Handbook (H-1601-1). The planning process is designed to help BLM identify the uses of BLM-administered lands desired by the public and to consider these uses to the extent they are consistent with the laws established by Congress and the policies of the executive branch of the federal government. The planning process is issue-driven. The BLM used the public scoping process to identify planning issues, noted above, to direct the development of the IFNM RMP. The scoping process also was used to introduce the public to the planning criteria.

Title II, Section 202, of FLPMA directs BLM to coordinate planning efforts with Native American tribes, other federal departments, and agencies of the state and local governments as part of its land use planning process. The BLM is also directed to integrate NEPA requirements with other environmental review and consultation requirements to reduce paperwork and delays (40 CFR Part 1500.4-5). The BLM accomplished coordination with Native American tribes, other agencies, and consistency with other plans through ongoing communications, meetings, and collaborative efforts with an interdisciplinary team, which includes BLM specialists and federal, state, and local agencies.

2.1.8 Consultation and Collaboration

BLM land use planning regulations (43 CFR 1610.3), FLPMA (43 United States Code 1712), and regulations for implementing NEPA (40 CFR 1501.5 and 1501.6) guide the BLM in coordinating and cooperating with other federal and state agencies, local governments, and Native American tribes during the land use planning process. This collective guidance instructs the BLM to:

- Stay informed of federal, state, local, and tribal plans;
- Ensure that it considers these plans in its own planning;
- Help resolve inconsistencies between such plans and BLM planning; and
- Cooperate with other agencies and tribal governments during the development of RMPs and NEPA analysis.

The USFWS reviewed the biological assessment and developed a Biological Opinion (BO), the purpose of which is to prevent unacceptable harm to an ESA-listed species or its habitat. A BO is a scientific judgment about a proposed action, not a policy document. The BO on the IFNM Proposed RMP/EIS project included six conservation recommendations to minimize or avoid possible adverse effects on listed species or their critical habitat. In addition to the conservation measures included in Appendix B, the USFWS recommended the following conservation measures:

Lesser Long-nosed Bat

1. BLM continue to monitor disturbance, such as expansion of campsite areas and expansion of road corridors, to monitor effects of recreation activities to lesser long-nosed bat foraging habitat and recruitment of forage plants and to adaptively manage recreational activities to address impacts. BLM continue utilization of photogrammetric analysis of satellite imagery in a geographic information system (GIS) based platform.
2. BLM survey IFNM lands and work with others to survey private and ASLD managed lands within IFNM for roosts utilized by lesser long-nosed bats.

Nichol Turk's Head Cactus

1. BLM continue to monitor disturbance, such as expansion of campsite areas and expansion of road corridors, to monitor effects of recreation activities to Nichol Turk's Head Cactus habitat and to adaptively manage recreational activities to address impacts. BLM continue utilization of photogrammetric analysis of satellite imagery in a GIS based platform.
2. BLM establish a systematic monitoring protocol for Nichol Turk's Head Cactus to more effectively evaluate the status of the subspecies on IFNM and work collaboratively with others to evaluate the status of the subspecies across its known range. BLM establish a database with geo-referenced locations of stands of Nichol Turk's Head Cactus and digital images of those stands to provide a means to evaluate survivorship and assess threats such as OHV impacts.
3. BLM work with others to survey private and ASLD managed lands within IFNM to prioritize lands to acquire or secure for conservation of Nichol Turk's Head Cactus.
4. BLM work with the Tohono O'odham Nation to survey Nichol Turk's Head Cactus on the tribal lands.

Agency coordination efforts included reviewing numerous plans that provide the policies and guide the activities of these agencies and governments.

The BLM has coordinated with federal, state, and county agencies throughout the planning and EIS process. The BLM gathered issues, ideas, and concerns, and discussed the role of agencies in the process. A full listing of the agencies that the BLM coordinated with can be found in the Scoping Report (available from the BLM Tucson Field Office).

A letter introducing the RMP/EIS, identifying data-gathering efforts, and offering agencies the opportunity to become cooperating agencies in the planning efforts was sent to more than 200 agencies, followed by a cooperating agency meeting at the Arizona State Office. The meeting agenda included discussions on the BLM's planning process, collaborative planning, the meaning and responsibilities of cooperating agency status, and opportunities for involvement in the BLM's planning process without becoming a cooperating agency. The BLM's goal was to encourage involvement by all interested parties using whatever methods the parties wished.

For those agencies choosing to be a cooperating agency, MOUs were developed that outlined the roles and responsibilities of the cooperating agencies and the BLM throughout the planning process. The BLM signed an MOU with the AGFD which is discussed below.

Specific Agreements

The BLM and AGFD have agreed to work cooperatively to manage wildlife resources on public lands throughout Arizona. The master MOU (AZ-930-0703) between the BLM's Arizona State Office and the Arizona Game and Fish Commission, which sets policy for the management, preservation, and harvest of wildlife and fish resources, establishes the BLM's responsibility for managing wildlife habitat on public lands and the AGFD's public trust responsibility to manage fish and wildlife populations through the authority of the Commission. As stated in the MOU, the BLM and the AGFD "consider the management of fish and wildlife resources as a high priority and agree to work cooperatively to achieve a shared goal to actively manage, sustain, and enhance those resources."

Tribal Government-to-Government Consultation

The BLM has a long history of consultation on this RMP. Beginning in 2002 until late in 2011, BLM staff and managers held and documented seven face-to-face meetings with tribal staff, legislative council members, or tribal council members about the RMP.

The BLM began by contacting the following tribes to initiate consultation, and invite them to the scoping meetings at the start of the RMP process as well as to participate as a cooperating agency in the planning process:

- Ak-Chin Indian Community
- Gila River Indian Community
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- Tohono O'odham Nation
- Pascua Yaqui Tribe

The BLM met with interested tribes to describe and discuss the planning process and Planning Area. Three formal letters were sent to the Tribal Chairs with courtesy copies sent to the cultural staff at each and every tribal government. These were sent with return receipt requested. A few reply letters from some tribes were received. Follow-up telephone calls were made to tribal staff in order to make sure that the letters and accompanying documents arrived and to inquire whether there were any concerns that needed to be addressed. The BLM offered field tours for Tribal staff and elders attended. These field tours allowed time for discussion of planning issues at particular sites and particular broad landscapes.

Topics covered during consultation included formal consultation, cooperating agency status, and community involvement and collaboration. Tribal staff emphasized the importance of ongoing and regular consultation, and voiced concerns regarding protection of cultural and natural resources, grazing management, law enforcement with regard to cultural resource site protection, route access, undocumented immigrants, and drug smuggling, and possible land exchanges and acquisitions. The BLM kept the tribes informed on RMP development throughout the planning process via meetings, telephone conversations, letters, faxes, email, personal communication, and news releases, including how to participate in commenting on the Draft RMP/EIS and notification of the publication of the Proposed RMP

in September 2011. These important topics are issues that will continue to be worked on with the tribes throughout Plan implementation.

Section 7 Consultation

In accordance with the requirements of Section 7 of the ESA, the BLM consulted with the USFWS to ensure that the BLM's proposed action will not jeopardize the continued existence of any listed threatened, endangered, or proposed species or critical habitat.

BLM wrote a Biological Assessment and held a meeting with the USFWS to explain the proposed action and the format used for the effects determinations. The assessment discussed the effects on two listed species in the IFNM Biological Assessment from the Proposed RMP. The BLM delivered the completed Biological Assessment to the USFWS for comments and clarification.

The USFWS reviewed the Biological Assessment and developed a BO; the purpose of a BO is to prevent unacceptable harm to an ESA-listed species or its habitat: it is a scientific judgment about a proposed action, not a policy document. The BO on the IFNM RMP/EIS project included conservation recommendations to minimize or avoid possible adverse effects on listed species or their critical habitat. It also imposed conservation measures needed to minimize any harmful impacts, and required monitoring and reporting to ensure adequate protection and compliance.

Section 106 Consultation

In accordance with the requirements of Section 106 of the National Historic Preservation Act, the BLM coordinated with and solicited input from the Arizona SHPO. The BLM and Arizona SHPO followed the coordination protocols in the Arizona Protocol relating to resource management plans; the protocol provides for a phased consultation process related to historic, traditional, and cultural resources for an EIS and subsequent activities that could tier from a ROD. Per these procedures, the Arizona BLM initiated consultation with the Arizona SHPO by written correspondence in 2003. The letter described the IFNM RMP/EIS and specified the need to consult on information presented in the EIS.

Over the course of the planning process, the BLM met with or contacted the SHPO to share updates and information on the planning effort. In February 2007, the BLM sent a letter to the SHPO detailing the history of the planning effort and requesting review and comment on the Draft RMP/EIS by the SHPO. In July 2010, the BLM received the SHPO's comments on the Draft RMP/EIS noting comments regarding impacts on cultural resources and associated mitigation outlined in the plan.

Federal Coordination

The BLM also worked with the Borderlands Management Taskforce, which coordinates all federal agencies involved with borderlands management. The BLM's responsibility is to manage and protect natural resources, protect employees and public land users, and coordinate with all other law enforcement agencies (e.g., county, state, and federal agencies, including Immigration and Customs Enforcement). Issues discussed included impacts related to undocumented immigration, drug and human trafficking, and coordinated management and mitigation measures.

Arizona Governor's Office Coordination

The BLM coordinated and consulted with the Arizona governor and governor's office and other state agencies. The Arizona governor was given the opportunity to identify any inconsistencies between the proposed plan and state or local plans, policies, and programs, and to provide recommendations in writing during a 60-day consistency review period, a requirement of the BLM's planning process. The Governor's Office did not note any inconsistency with state policies or plans.

Local Government

The BLM coordinated and consulted with local governments throughout the planning process. The BLM reviewed numerous county planning documents, including the Pima County Comprehensive Plan, the Pinal County Open Space and Trails Master Plan, and the Sonoran Desert Conservation Plan. The BLM's planning guidance notes that RMPs shall be consistent with other federal, state, and local plans to the maximum extent consistent with federal law and FLPMA provisions, and ensure that consideration is given to those state and local plans relevant to the development of land use plans for public lands. The BLM has reviewed these county plans for consistency and found that the actions in the RMP are consistent with the intent and actions in the county plans.

Local governments submitted scoping comments when BLM initiated the planning effort and reviewed and commented on the Draft RMP/EIS. The BLM will continue to coordinate with local governments after the ROD is signed.

Public Outreach and Local Constituency Groups

In an effort to provide outreach to the local communities in the Planning Area, the BLM contacted constituency groups with interests in several of the planning issues. The BLM contacted several shooting groups to discuss the target shooting analysis, including the Pima County Shooting Sports Program Manager, and the AGFD. The Arizona State Rifle and Pistol Association provided feedback on the shooting analysis, including areas that will remain open for shooting activities and information on safe shooting practices and distances.

2.1.9 Policy

This plan is consistent with and incorporates requirements identified in various laws, regulations, and policy. These include Executive Orders, legislative designations, and court settlements and 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.

The management decisions (Management Goals and Objectives and Management Actions) under the Approved RMP are numbered and arranged by specific resources and resource uses consistent with BLM Arizona Land Use policy. Each decision as well as Administrative Actions, are assigned one of the following codes:

AA	Administrative Actions	VR	Scenic and Visual Resources
AQ	Air Quality	WC	Lands Managed to Protect Wilderness Characteristics
GR	Geology and Cave Resources	MI	Energy and Mineral Resources
SW	Soil and Water Resources	LM	Livestock Grazing
VH	Vegetation	RR	Recreation
WH	Wildlife and Wildlife Habitat	LR	Lands and Realty
TE	Special Status Species	TM	Travel Management
FM	Fire Ecology and Management	SD	Special Designations
CL	Cultural Resources		
PL	Paleontological Resources		

2.2 MANAGEMENT DECISIONS

As described in the proclamation the “Monument contains objects of scientific interest throughout its desert environment. Stands of ironwood, palo verde, and saguaro blanket the Monument floor beneath the rugged mountain ranges, including the Silver Bell Mountains. Ragged Top Mountain is a biological and geological crown jewel amid the depositional plains in the Monument. In addition to the biological and geological resources, the area holds abundant rock art sites and other archeological objects of scientific interest. For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes.” The goals, objectives, and management actions were developed to protect Monument objects.

This section of the RMP presents the Goals, Objectives, Land Use Allocations, and Management Actions established for BLM-administered lands in the IFNM. Most of the management actions are long-range in nature and will not be achieved immediately, but will 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.

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. Examples of implementation decisions described in Chapter 2 include:

- Designate approximately 42 miles of roads and 82 miles of primitive roads as open to motorized and mechanized vehicle travel for public and administrative purposes.
- Designate approximately 118 miles of primitive roads as open for administrative vehicles only, and open for non-motorized travel for public use. Designate approximately 90 miles of trails as open for non-mechanized travel only for public and administrative purposes. Designate approximately 17 miles of routes as closed for reclamation/restoration.

Implementation decisions and management actions that require additional site-specific project planning, as funding becomes available, and will require further environmental analysis.

The RMP also includes Administrative Actions that 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.

2.2.1 Air Quality

2.2.1.1 *Management Goals and Objectives*

AQ-001: Reduce fugitive dust production and manage uses to maintain Federal and State air quality standards.

AQ-002: Implement measures to reduce fugitive dust within the Monument, especially as they pertain to unpaved roads and other disturbed areas to less than 50 tons of particulate matter equal to or less than 10 microns in diameter dust per year.

2.2.1.2 *Management Actions*

AQ-003: Control fugitive dust emissions from unpaved roads and disturbed areas (e.g., parking pull-offs) regularly accessed by the public for various purposes (e.g., recreation) by using appropriate control methods, such as:

- Posting signs or creating obstacles to speed (e.g., speed bumps)
- Applying dust suppressants or gravel
- Implementing road-use restrictions

2.2.1.3 *Administrative Actions*

AA-001: Work with local businesses that have non-major permits within 6 miles (10 kilometers) of the IFNM to establish an understanding of the potential impacts their operations may have on the Monument.

AA-002: Attend work group meetings pertaining to new or revised regulations that will impact the IFNM, with fugitive-dust regulations being a priority, and provide comments as necessary and appropriate.

AA-003: Establish interpretive displays in recreationally used portions of the Monument with themes based on the importance of improving or maintaining the existing visibility and air quality conditions in the Monument.

AA-004: Promote the study of air quality conditions at the Monument, including the effects of ozone, acid deposition, and other related pollutants on plants and the supporting ecosystems, with academic institutions and other interested parties.

AA-005: Enlist volunteers and partners to assist with environmental education and public awareness campaigns related to air quality.

AA-006: Work with permitting authorities to ensure that the IFNM is treated as a pseudo “affected state” for the purposes of major-source air quality permitting for facilities within 100 kilometers of the IFNM. This would allow BLM to review applications for major source permits, in conjunction with the permitting agency, to determine the potential air quality impacts a proposed major source could have on the IFNM and Monument objects.

AA-007: Work with permitting authorities to ensure BLM has an opportunity to review non-major-source permits within 6 miles (10 kilometers) of the IFNM to determine their effects on air quality and Monument resources.

AA-008: Work with Federal, State, and local agencies to install air quality and/or meteorological monitors in the IFNM. Recommended air quality monitors include those that measure visibility, particulate matter, ozone, and acid deposition. Use the data collected to identify air quality trends that could impact the IFNM.

AA-009: Keep informed of the compliance status of minor and major sources near the IFNM, and inform the applicable permitting agency of potential violations if necessary.

AA-010: Coordinate with adjoining land managers and county or municipal authorities for specific measures to mitigate air quality effects on the IFNM (e.g., controlling fugitive-dust emissions from unpaved roads, construction sites, or other activities within the vicinity of the IFNM).

AA-011: Include stipulations for controlling dust in right-of-way grants.

AA-012: Follow the development of new and revised State regulations and designations of nonattainment area to determine what public lands will be affected.

2.2.2 Geology and Cave Resources

2.2.2.1 *Management Goals and Objectives*

GR-001: Manage geologic features to protect natural characteristics and processes for public access and enjoyment where access does not conflict with other resource goals (as opposed to mining or mineral potential).

GR-002: Unique or unusual geologic and cave resources are managed to protect their visual, wildlife habitat, or other values in accordance with the proclamation.

2.2.2.2 *Management Actions*

GR-003: If geologic resources are discovered that warrant special management, identify appropriate management actions, allowable uses, and allocations for the resource or site.

GR-004: Prohibit collection of geologic resources unless officially authorized by written permit and allow collection and removal of geologic resources for legitimate scientific research or educational uses.

2.2.2.3 Administrative Actions

AA-013: Interpret unique geologic features for their scientific and educational value and for protection of those features.

AA-014: Establish liaison with local and regional scientific and academic communities to promote opportunities to study the unique geologic features found in the Monument.

AA-015: Provide administrative and logistical support for detailed scientific studies of unique geologic features in the Monument.

AA-016: Identify and inventory unique geologic features, assess potential impact from human visits, and evaluate impact from uses of other resources.

AA-017: Conduct field surveys for cave locations on IFNM land with potential for caves, prior to any ground-disturbing activities, and to develop an inventory of cave locations within the Monument.

AA-018: Conduct surveys where, based on geology, caves may occur. If a cave is located, evaluate the discovery for cultural, scientific, biological, geological, hydrological, educational, and recreational values and management related to primary cave values.

AA-019: Establish a database for the inventory of caves on the Monument, including information to assess the quality of the caves. This may include locations that should remain confidential (adequate protection must be developed for these data entries) until a time, as determined by the BLM Director, from advisement of resource staff that the cave has been evaluated and methods of protection from human entry established, if suitable.

AA-020: Establish MOUs for cooperative agreements with appropriate scientific organizations, caving groups, and other Federal and State agencies to allow for discovery and inventory of cave locations, and assessment of cave condition.

AA-021: Establish criteria to assess the quality of the cave, including cultural, geological, biological, hydrological, educational, and recreational values.

2.2.3 Soil and Water Resources

2.2.3.1 Management Goals and Objectives

SW-001: Conserve sensitive soils, desert pavement, and biological soil crusts.

SW-002: Manage land uses to protect the water supply needs of the biota and other natural resources.

SW-003: Manage watersheds to maintain healthy conditions and restore degraded areas.

SW-004: Manage land uses such that erosion and sedimentation rates are appropriate to natural conditions, and so that areas returning to natural conditions, or areas under active restoration meet, or are making progress towards meeting, Land Health Standards within five years.

SW-005: Conserve areas of biological soil crusts and desert pavement with minimum disturbance so that stability of soil crusts and desert pavement is maintained.

SW-006: Limit fugitive-dust pollution by reducing disturbance to soils.

2.2.3.2 Management Actions

SW-007: Minimize surface disturbance during construction, reconstruction, or maintenance of facilities (including structures for recreation, livestock grazing, transportation, or any other structure within the IFNM). Develop mitigation plans, restore surfaces, and stabilize soils in accordance with resource management and/or restoration objectives.

SW-008: Maintain and improve soil cover and productivity through erosion prevention measures and land treatments, and incorporate salinity control measures into erosion prevention strategies and rehabilitation treatments.

SW-009: In areas of sensitive or fragile soils, allow new and continuing ground disturbing activities with mitigation.

SW-010: Prohibit surface water diversions and groundwater pumping that removes water within the Monument boundary to outside its boundary, or adversely affects the Monument's values.

SW-011: Discontinue the Agua Blanca Ranch Multiple Resource Management Area.

SW-012: Discontinue the Cocoraque Butte-Waterman Mountains Multiple Resource Management Area.

2.2.3.3 Administrative Actions

AA-022: Complete functionality analysis to maintain or remove existing flood and erosion control structures.

AA-023: Work with appropriate State authorities to ensure that any water resources needed for Monument purposes are available.

AA-024: Address erosion, and consider soil types and measurable factors that compare conditions to Rangeland Health Standards when making land management decisions.

AA-025: Use best management practices (BMPs) for road maintenance and other allowed and authorized surface disturbances to limit soil loss and erosion.

AA-026: Determine the current existence, location, and condition of desert pavement and biological soil crusts.

AA-027: Identify and evaluate sensitive areas that may require special management to prevent soil loss, soil destruction, and excessive erosion.

AA-028: Work with the U.S. Geological Survey (USGS) and Arizona Department of Environmental Quality (ADEQ) to identify the groundwater and surface water quality parameters most likely to be impacted by the current and forecast public land uses in the Monument.

AA-029: Identify locations where groundwater and surface water can be sampled for analysis under the ADEQ ambient monitoring program.

AA-030: Develop an MOU, or an amendment of the existing State non-point-source monitoring program MOU, to support ADEQ monitoring of groundwater and surface water at selected locations in the Monument.

AA-031: Identify locations within the Monument where groundwater levels can be monitored. Begin to develop cooperative agreements with the USGS to compare and analyze groundwater data on the public land.

AA-032: Develop a water quantity database to assess the current and forecast water needs of the Monument and to evaluate impairments to public land water resources from other water users.

AA-033: Identify, quantify, and secure legal entitlement for existing and future water sources on public lands within the Monument by acquiring surface water rights/well permits, when possible, to ensure water availability to meet the purposes of the Monument.

AA-034: Ensure that land management practices and policies protect the water supply by exercising existing land management authorities under NEPA to protect and maintain all available water and natural flows in the Monument.

AA-035: Determine BLM interests and needs for a surface and groundwater protection agreement with the State of Arizona.

AA-036: Begin a dialog with appropriate State of Arizona policy, legal, and water resources staff on the development of a cooperative agreement on the protection of water resources within the Monument. Conclude this process with a formal agreement between the State and BLM that supports the objectives and preserves the resources listed in the IFNM enabling proclamation.

AA-037: Develop, with range conservation staff, a data collection protocol for specific watershed metrics that can be routinely collected during watershed health assessments.

AA-038: Develop and maintain an electronic database of watershed health metrics that is useful for rapidly identifying trends and prescribing management corrections when problems are apparent.

AA-039: Increase public awareness and appreciation of water resources and healthy watersheds through interpretive displays as part of the public outreach program and visitor facilities planning for the Monument.

AA-040: Work with ADEQ to apply the non-point-source pollution MOU within the guidance for public land health (both grazed and ungrazed). Use this cooperative approach to evaluate water quality impacts

to impaired waters of the United States (303d List) and pollutant load reductions to any future listed streams. Use rangeland health BMPs, as suggested in the Arizona Standards and Guidelines and any new land health guidance developed by BLM.

AA-041: Track data from the existing state water quality database that could indicate impairment to resources of the planning area.

AA-042: Review regional water level data on an annual basis to determine if a monitoring program is needed.

AA-043: Review Pima County Flood Control District surface-water monitoring stations and suggest a new site close to the planning area.

AA-044: Develop a historical database of water quality data from the planning area and adjacent regions.

AA-045: Develop a database from watershed assessments information. Maintain with data as problems are addressed.

AA-046: Work with existing research programs to identify and map desert pavement and biological soil crusts, and develop a conservation strategy for these areas.

AA-047: Develop and require implementation of BMPs for road maintenance and other allowed and/or authorized surface disturbances to limit soil loss from erosion and minimize impacts on natural water flow patterns.

2.2.4 Vegetation

2.2.4.1 *Management Goals and Objectives*

VM-001: Assure adequate vegetative cover with an approximate mix of natural plant species that meet acceptable range health standards based on current ecological conditions.

VM-002: Manage to protect, enhance, and restore as appropriate vegetation communities to maintain their natural range of variation in plant composition, structure, and function. Communities within the Monument include (1) palo verde–cacti-mixed scrub; (2) jojoba chaparral; (3) creosotebush–white bursage; (4) curly mesquite grass-scrub; and xeroriparian.

VM-003: Manage grazing, off-highway vehicles, and other uses to prevent the introduction and spread of noxious weeds and invasive species into and within the IFNM.

VM-004: Manage allowable and authorized uses of the Monument to minimize potential impacts on vegetation.

VM-005: Limit the impact of invasive species and noxious weeds on natural resources and processes by reducing the distribution and abundance of these species. Reduce known infestations by 10 percent annually.

VM-006: Priority habitats, vegetation assemblages, and species will be managed to maintain the vegetative community complex while recognizing valid existing rights and appropriate catastrophic wildfire dangers.

VM-007: Manage collection and/or salvage of desert vegetation for personal and commercial uses (including firewood) in accordance with Monument objectives and the State of Arizona Native Plant Law, while taking into consideration potential traditional and/or cultural uses.

VM-008: Manage activities on the Monument to maintain the following priority species and habitats: (1) dense or large ironwoods; (2) cholla forest; (3) cactus dunes; (4) creosote rings; (5) xeroriparian vegetation; (6) curly mesquite grassland; (7) jojoba chaparral; (8) the Ragged Top vegetation assemblage; and (9) Nichol Turk's head cactus; and special status species. Ensure no net loss of high priority species and habitats throughout the IFNM.

VM-009: Restore the diversity and distribution of existing natural plant communities in disturbed areas to their ecological site potential, with conditions moving toward ecological site potential within 5 to 10 years.

2.2.4.2 Management Actions

VM-010: Minimize surface disturbance that results in loss of existing vegetation cover. Restrict surface-disturbing activities to methods that allow for re-sprouting of tree and shrub species unless permanent construction is required.

VM-011: Removal and/or use of living or dead and down native plant material is prohibited, with the following exceptions, when specifically authorized: (1) non-commercial Native American traditional use/collection, (2) seed collection and transplant for revegetation projects within IFNM, (3) collection for scientific purposes as authorized with a BLM Special Use Permit, (4) administrative vegetation treatment to ensure adequate side and overhead clearance along designated routes, (5) hazard fuels reduction, and (6) consumption by wildlife.

VM-012: Pursue an integrated weed management approach to prevent the introduction of and control invasive species and noxious weeds using methods including mechanical, chemical, and biological treatments. Use biological control methods to control invasive plant species if appropriate safety measures are applied, and in coordination with appropriate Federal, State, County, municipal and tribal agencies.

VM-013: Assign priority to the control of invasive species and noxious weeds that have a substantial and apparent impact on native plant communities and wildlife. When infestations are identified, they will be evaluated for their potential threat. Prioritize treatment of species that are identified as aggressive invasive species or are considered noxious weeds, and are located within priority vegetative habitats. Schedule other species for action in coordination with partners.

VM-014: Restore disturbed areas based on restoration plan to be developed within five years following RMP approval. Include the following elements in the restoration plan:

- Identification of disturbed areas
- Inventory and description of the history of areas to be restored
- Objectives and success criteria for the restoration efforts at each site
- Restoration strategies to be implemented at each site
- Duration and severity of restricted uses after restoration activities are implemented
- Monitoring protocol to be used to assess restoration efforts against the objectives and success criteria
- Adaptive management strategies to address situations where success criteria are not met
- Priorities for restoration

VM-015: Emphasize passive restoration by natural processes to return sites to their desired resource conditions and hydrological functions; use active reclamation practices to stabilize and reclaim sites that are likely to be successfully reclaimed using active management methods due to their ecological characteristics, and that are:

- severely damaged, rapidly deteriorating, or rapidly expanding
- placing adjacent resources at risk
- prone to invasion by nonnative species
- heavily disturbed, such as mining sites
- capable of improving habitat for special status species
- a management priority and require accelerated restoration to meet a selected management objective, such as obliterating a route to effectively implement a route closure or restoring an important habitat function
- identified as having high visual resource values that are being affected
- located in priority vegetative habitats

VM-016: Use a variety of vegetation reclamation methods, as appropriate, to restore and promote a natural range of native plant associations. Methods may include mechanical, chemical, and biological treatments.

VM-017: Use native plants for all restoration projects.

VM-018: Fence along designated routes, as necessary, to prevent damage to sensitive and unique vegetation and minimize the spread of invasive species and noxious weeds. Fencing will be designed and installed consistent with the procedures and configurations described in BLM Manual H-1741, Fencing.

VM-019: Avoid projects or activities that could disturb priority species or habitats. Require mitigation when avoidance is not possible.

2.2.4.3 Administrative Actions

AA-048: Monitor the Ragged Top vegetation assemblage and Nichol Turk's head cactus population within the IFNM.

AA-049: Monitor vegetation and progress toward achieving desired outcomes with an emphasis on invasive species and noxious weed treatment areas and reclaimed and restored areas.

AA-050: Identify and monitor areas of invasion by nonnative, invasive species and noxious weeds.

AA-051: Support and/or implement public education programs addressing management of invasive species and noxious weeds by developing a volunteer or docent program to control these species and interpret related issues to visitors, providing literature on nonnative, invasive species and noxious weed issues to visitors, and constructing permanent graphics at selected points along the roadways of the Monument.

AA-052: Monitor the effects of fire suppression activities on the spread of nonnative species.

AA-053: Develop monitoring plans for establishing sample plots within each of the unique or important vegetation associations. The monitoring plan will identify key areas within each community where monitoring will be conducted. Permanent photo points will be established for long-term monitoring.

AA-054: Collect monitoring information on one-half of the sample plots within vegetation associations or key areas every year, ensuring that all vegetation associations or key areas are monitored every 2 years.

AA-055: Implement a long-term monitoring program that includes rainfall and temperature gauges, permanent photo points, plant plots, mammal trapping transects, bird call points, and wildlife/plant community surveys (emphasis on herpetofauna).

AA-056: Monitor invasive species and noxious weed treatment areas for at least three years to evaluate population trends and establish a baseline for evaluating the results of management actions; identify resurgence of treated species; evaluate the effectiveness of control treatments; and determine if re-treatment is necessary.

2.2.5 Wildlife and Wildlife Habitat

2.2.5.1 Management Goals and Objectives

WH-001: Sustain ecological conditions within the IFNM that continue to support the wildlife populations and achieve AGFD wildlife management goals.

WH-002: Conserve, enhance, and, where appropriate, restore native wildlife and wildlife habitats.

WH-003: Maintain or enhance wildlife corridors between blocks of habitat.

WH-004: Manage wildlife habitat in cooperation with adjacent land owners to minimize degradation, loss, and fragmentation throughout the Monument.

WH-005: Manage and/or conserve areas identified as important for the viability of priority species and bighorn sheep populations, including, but not limited to lambing areas and movement corridors. Within 10 years, enhance habitat conditions in movement corridors so they are conducive to wildlife movement.

WH-006: Manage for wildlife water availability to sustain optimal wildlife population sizes as determined by AGFD. Minimize adverse impacts of current and potential waters on all wildlife species.

WH-007: Manage access and transportation, and implement use restrictions to protect wildlife habitat values, decrease human-wildlife conflicts, and reduce and/or minimize fragmentation of habitat.

WH-008: Manage allowable activities and uses to protect the following priority species: game species, bighorn sheep, mule deer, javelina, burrowing owls, migratory birds, and special status species to sustain healthy populations.

2.2.5.2 Management Actions

WH-009: Priority habitats for wildlife are bighorn sheep habitat (as allocated for the Wildlife Habitat Management Area [WHA] below), xeroriparian habitat, and desert tortoise habitat categories I and II (desert tortoise are discussed further in Section 2.2.6, Special Status Species).

WH-010: Discontinue the 41,470 acres Silver Bell Desert Bighorn Sheep Management Area. Instead, approximately 29,820 acres are allocated for the Desert Bighorn Sheep WHA (as shown on Map 3) to protect habitat, lambing areas, and movement corridors. The WHA will be managed in conjunction with appropriate agencies.

WH-011: For the Desert Bighorn Sheep WHA: In coordination with AGFD, implement closures to human entry from January 1 through April 30, as needed, based on information and monitoring data gathered on lambing areas within the WHA, as identified by available information and monitoring data. Lambing areas are closed to sheep and goats year-round.

WH-012: As appropriate, BLM will coordinate the evaluation and implementation of proposals to enhance wildlife populations through partnerships with the AGFD and other agencies as necessary to determine what levels of wildlife introductions or habitat enhancements are appropriate for each desired plant community.

WH-013: Dogs must be leashed when on public land within the Monument, except when being used for hunting or when being used for livestock operations.

WH-014: Evaluate and implement, as appropriate, proposals for wildlife waters including selecting sites and installing new waters; modifying, replacing, and/or repairing existing waters; and removing nonfunctioning waters. Coordinate with AGFD for this action. Any new or modified waters will be designed consistent with current standards for wildlife and public safety.

WH-015: Remove fences, roads, and facilities that are no longer necessary for transportation, wildlife management, Monument administration, or other purposes in their present locations.

WH-016: Construct or modify fences as necessary to maintain safe, unrestricted travel by wildlife. Fencing will be designed and installed consistent with the procedures and configurations described in BLM Manual H-1741, Fencing.

2.2.5.3 Administrative Actions

AA-057: Develop, implement, and update wildlife habitat management through the use of wildlife habitat management plans, developed in cooperation with AGFD.

AA-058: Coordinate with AGFD for species-specific management to achieve desired outcomes (e.g., coordinate during development of any habitat management plans).

AA-059: Coordinate with AGFD to conduct population monitoring and movement studies on bighorn sheep, javelina, and mule deer.

AA-060: Identify and describe disturbed and degraded areas throughout the Monument, and describe their potential for restoration.

AA-061: Support research by qualified biologists from other agencies, and academic and private groups.

AA-062: Coordinate with outside entities to identify and protect wildlife corridors that extend beyond the boundaries of the Monument.

AA-063: Compile observation data on roadkills from Monument employees, visitors, residents, and other volunteers.

AA-064: Support and/or implement public education program(s) addressing management of wildlife and wildlife habitat.

AA-065: Develop and implement a cooperative program with agency, academic, and private groups to assist with research and monitoring of wildlife habitats.

AA-066: Conduct extensive literature review of past and present studies (wildlife movements), and compile in a summary format, updating, as appropriate.

AA-067: Mitigate for wildlife habitat degradation, loss, and fragmentation if and when such effects are unavoidable.

2.2.6 Special Status Species

2.2.6.1 Management Goals and Objectives

TE-001: Conserve special status species (including Federally listed species, Arizona's Wildlife of Special Concern, BLM Sensitive Species, and Arizona Department of Agriculture); where necessary, enhance or restore their habitats. Priority Vulnerable Species in Pima County will not be considered BLM special status species.

TE-002: Manage land uses to sustain adequate habitat for special status species.

TE-003: Restore large disturbed areas (> 1 acre) within priority special status species habitats within 10 years, including roads and other habitat alterations.

2.2.6.2 Management Actions

TE-004: Priority special status species habitats include: (1) 2,240 acres of Nichol Turk's head cactus habitat; (2) 58,810 acres of desert tortoise habitat categories I and II; and (3) lesser long-nosed bat foraging habitat (the IFNM in its entirety).

TE-005: Manage approximately 2,240 acres of Nichol Turk's head cactus habitat on BLM-administered public land as the Waterman Mountains Vegetation Habitat Management Area (VHA) for the protection of this species (Map 4).

TE-006: Within Waterman Mountains VHA:

- Prohibit land use authorizations except along routes designated for motorized use.
- Acquire non-Federal land, which, upon acquisition will be managed as part of the VHA
- Revise and implement the 1986 Habitat Management Plan.
- Allow camping within the VHA (Section 2.2.15.6, Recreation Management Actions [RR-013] for more information regarding camping).

TE-007: Approximately 6,780 acres are allocated as the Ragged Top VHA as shown on Map 4.

TE-008: Within Ragged Top VHA:

- Acquire non-Federal land, which upon acquisition will be managed as part of the VHA.
- Allow camping within the VHA (refer to Section 2.2.15.6, Recreation Management Actions [RR-013] for more information regarding camping).

TE-009: Implement the applicable conservation measures found in the Lesser Long-nosed Bat Recovery Plan (USFWS 1994), including measures to protect columnar cacti and agaves. Refer to Appendix B.

TE-010: Implement measures to conserve desert tortoise habitat, as prescribed in *Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan*. Refer to Appendix B.

TE-011: Minimize livestock impacts on listed or candidate plants by providing water sources away from existing populations. Move or replace livestock waters that are found to be causing habitat deterioration near rare plants.

TE-012: Implement the Nichol Turk's head cactus recovery plan to increase soil cover, reduce sediment yield, and improve ecological site conditions.

TE-013: Implement conservation measures (refer to Appendix B) during fire suppression operations to reduce the effects of fire management actions on threatened and endangered species.

Wildlife Habitat Management

Ironwood Forest National Monument ROD/Approved RMP

Legend

-  Desert Bighorn Sheep Wildlife Habitat Management Area
- Surface Management**
-  Bureau of Land Management
-  National Park Service
-  Bureau of Reclamation
-  American Indian Reservation
-  Military Reservation
-  State Trust Land
-  State, County, City; Wildlife, Park and Outdoor Recreation Area
-  Private
-  Pima County

Note:
Land use allocations, designations, and management prescriptions apply only to public lands administered by the BLM. If non-Federal lands are acquired, they would be managed according to the allocations depicted on the map.

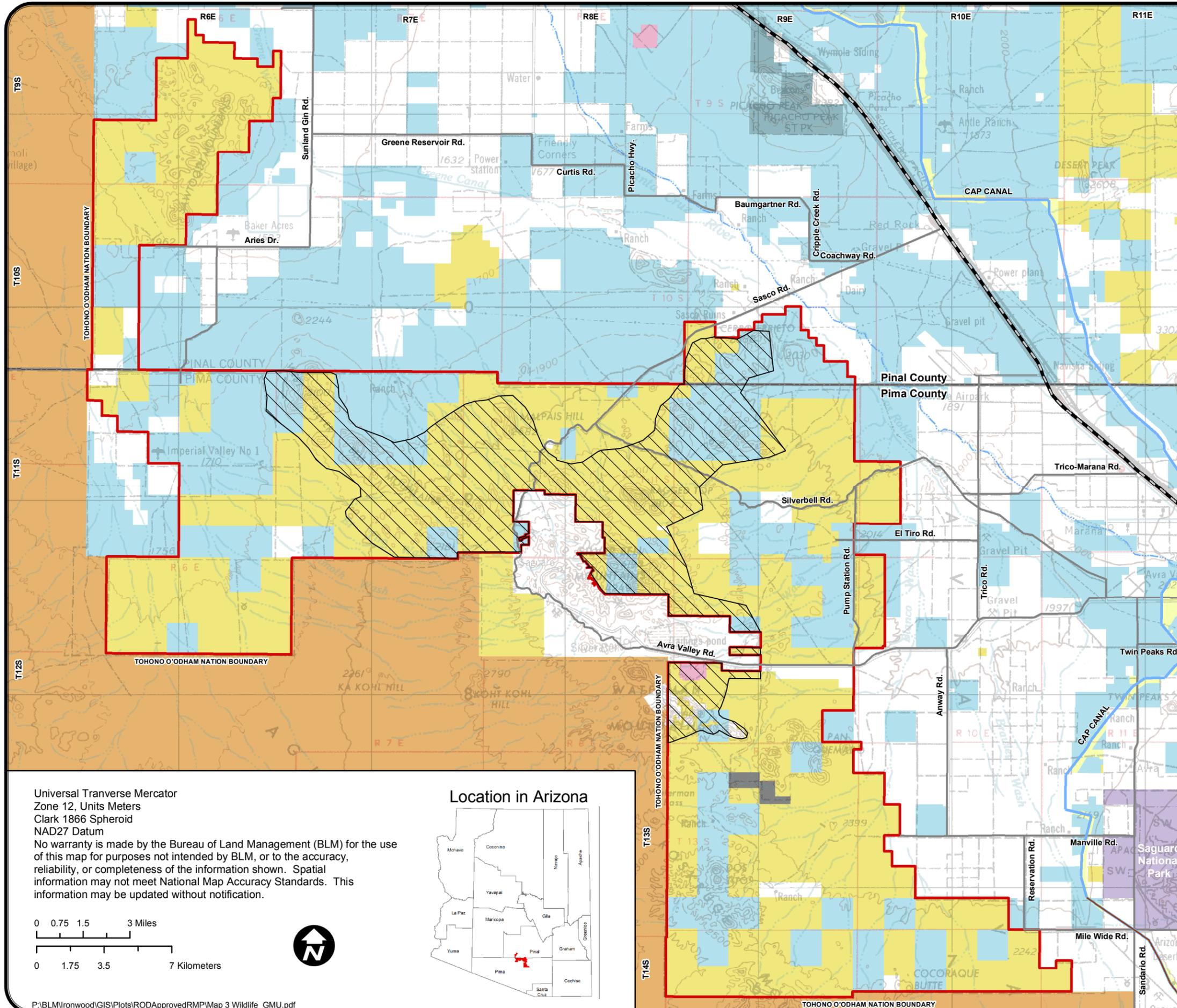
Data Source:
Habitat Alternative: BLM 2005
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

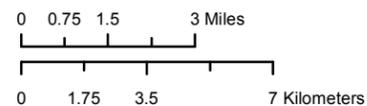
-  County Boundary
-  Central Arizona Project (CAP) Canal
-  River
-  Interstate 10
-  Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

-  Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum
No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by BLM, or to the accuracy, reliability, or completeness of the information shown. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.



Location in Arizona



Special Status Species Management

Ironwood Forest National Monument
ROD/Approved RMP

Legend

-  Vegetation Habitat Management Area (VHA)
- Surface Management**
-  Bureau of Land Management
-  National Park Service
-  Bureau of Reclamation
-  American Indian Reservation
-  Military Reservation
-  State Trust Land
-  State, County, City, Wildlife, Park and Outdoor Recreation Area
-  Private
-  Pima County

Note:
Land use allocations, designations, and management prescriptions apply only to public lands administered by the BLM. If non-Federal lands are acquired, they would be managed according to the allocations depicted on the map.

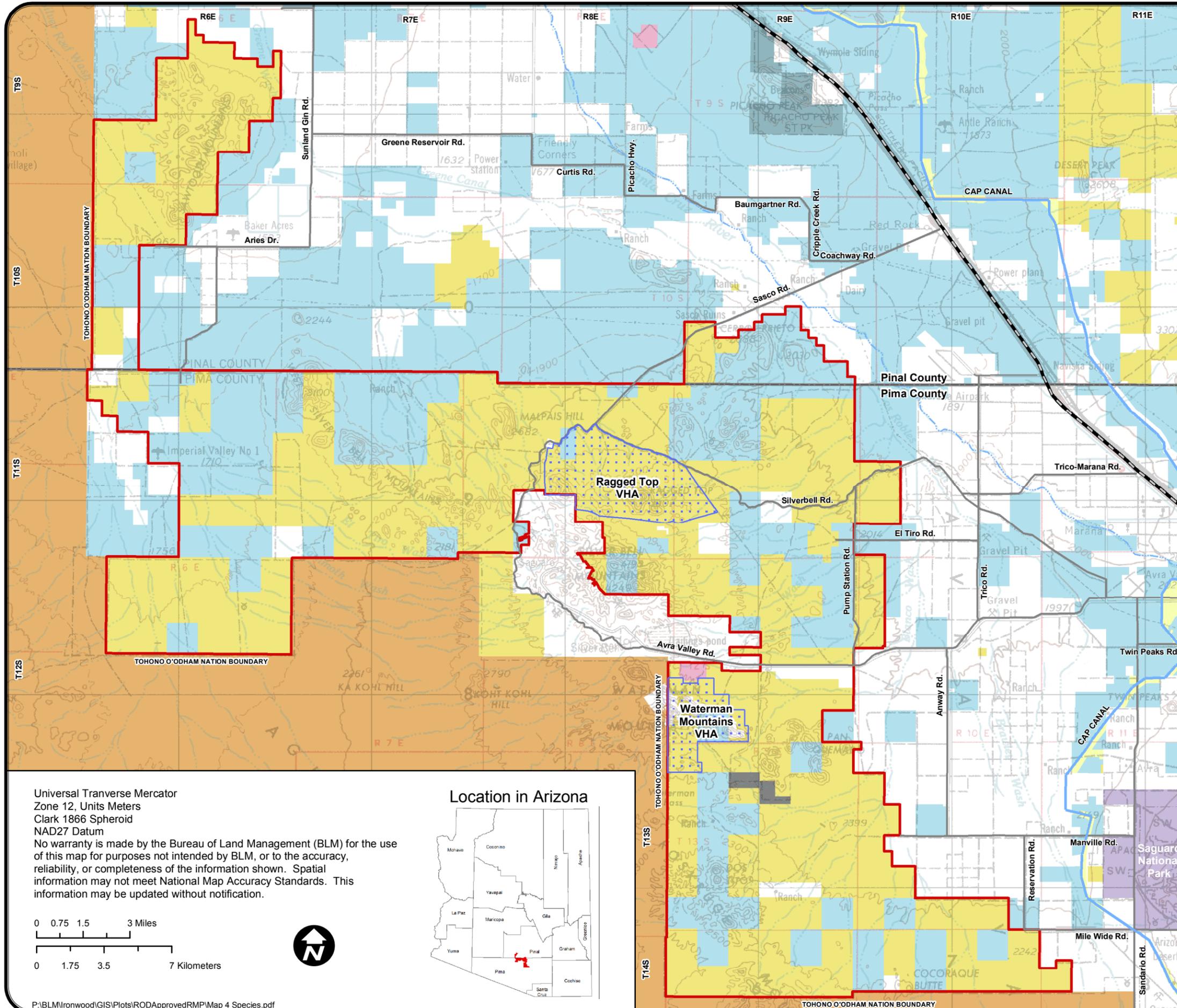
Data Source:
VHMA Alternatives: BLM 2005
Base Information: BLM 2003
Quadrangle Image: US Geological Survey 1977 Tucson

General Reference

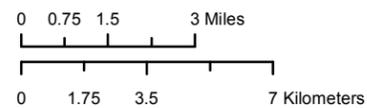
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Location in Arizona



2.2.6.3 Administrative Actions

AA-068: For the Nichol Turk's head cactus, coordinate with USFWS and the State of Arizona to enforce existing regulations under the ESA, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Lacey Act, and Arizona Native Plant Law.

AA-069: Continue to actively participate in regional planning efforts, such as Pima County's Sonoran Desert Conservation Plan and the Town of Marana's Habitat Conservation Plan, and other conservation efforts.

AA-070: Monitor the effectiveness of conservation measures associated with issuance of BLM authorizations, including rights-of-way, easements, and special use permits.

AA-071: Actively participate in the recovery of, and any revision of the recovery plan for, listed plant species on BLM lands.

AA-072: Monitor the effects of fire suppression activities on all populations of listed plants.

AA-073: Fund, aid, or establish research or study projects regarding fire ecology and conservation listed plant species on BLM lands.

AA-074: Educate employees and public users about listed plant species.

AA-075: Support and/or implement public education programs addressing management of special status species by developing a volunteer or docent program to interpret information on such species to visitors, providing literature on special status species issues to visitors, and constructing permanent graphics at selected points along the roadways of the Monument.

AA-076: Support research by qualified biologists from other agencies, universities, or private organizations.

AA-077: Develop increased awareness of tortoises on the public lands.

AA-078: Develop and maintain effective coordination and cooperation with outside agencies and BLM constituents concerning tortoise population and habitat management.

AA-079: Provide training by BLM and cooperators on data gathering according to protocols and methods.

AA-080: Refine data on distribution and densities of Nichol Turk's head cactus in or near the habitat management plan area.

AA-081: Continue to assist USFWS and other organizations to gather biological data and meet objectives and goals of species recovery plans.

AA-082: Monitor populations of Nichol Turk's head cactus occurring on BLM land for at least 10 years.

AA-083: Develop a resource monitoring and evaluation plan for special status species to evaluate population stability and habitat condition in habitat area-wide annually using field surveys and site inspection of habitat.

AA-084: Implement a monitoring program for federally listed species, Arizona Wildlife of Special Concern, and BLM Sensitive Species.

AA-085: Continue support of conservation efforts (including monitoring) of species occurring within the Monument and designated by other agencies (Pima County, Arizona Department of Agriculture) as rare, sensitive, protected, vulnerable, or other special status, and consider each for addition to the BLM Sensitive Species list.

AA-086: Evaluate species for addition to BLM Sensitive Species list every fourth year beginning in the fourth year after the completion of the baseline inventory.

AA-087: Provide for a monitoring program for special status species through partnerships that would include completing baseline survey and inventory, data review and evaluation, threat analysis and response, and monitoring. Where monitoring identifies threats to these populations, take actions (based on the best available data and science) to protect the special status species and their habitats.

2.2.7 Fire Ecology and Management

2.2.7.1 *Management Goals and Objectives*

FM-001: Maintain fuels in the wildland-urban interface at levels to provide for public and firefighter safety.

FM-002: Maintain each vegetation community within its natural range of variation in plant composition, structure, and function, and maintain fuel loads below levels that are considered to be hazardous.

FM-003: All fuels treatment actions will prioritize public and firefighter safety.

FM-004: Maintain characteristics of Fire Regime Condition Class 1 (vegetation composition, structure, and fuels are similar to those of the historical regime and do not pre-dispose the system to risk of loss of key ecosystem components; wildland fires are characteristic of the historical fire regime behavior, severity, and patterns; disturbance agents, native species habitats, and hydrologic functions are within the historical range of variability; smoke production potential is low in volume).

FM-005: Suppress wildfire in the shortest practical time using minimum impact suppression tactics, while minimizing suppression costs.

2.2.7.2 *Management Actions*

FM-006: IFNM is allocated to Non-Wildland Fire Use (areas not suitable for wildland fire use for resource benefit). This allocation requires mitigation and suppression to prevent direct threats to life or property. It includes areas where fire never played a large role, historically, in the development and maintenance of the ecosystem, and some areas where fire return intervals were very long. It also includes

areas (including some wildland urban interface areas) where an unplanned ignition could have negative effects to the ecosystem unless some form of mitigation takes place.

FM-007: Maintain full suppression in all areas in accordance with applicable conservation measures (refer to Appendix B).

FM-008: Implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques.

FM-009: Where fuel loading is high, use biological, mechanical or chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires, and meet resource objectives. Use of prescribed fire is prohibited.

FM-010: A Resource Advisor with local knowledge will be present on all fires within the IFNM.

2.2.7.3 Administrative Actions

AA-088: Undertake education, enforcement, and administrative fire prevention mitigation measures.

2.2.8 Cultural Resources

2.2.8.1 Management Goals and Objectives

CL-001: Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations.

CL-002: Recognize the potential public and scientific uses of the cultural resources on Monument lands, and manage those resources so that their values are not diminished, but rather are maintained and enhanced.

CL-003: Allocate cultural resources to one of five use categories: (1) scientific use, (2) conservation for future use, (3) traditional use, (4) public use, (5) experimental use, or classify as discharged from management, according to the BLM Cultural Resource Manual 8110.

CL-004: Protect the variety of cultural resources on Monument lands to preserve their integrity and historic and prehistoric context.

CL-005: On sites not allocated for scientific or public use, cultural resources are undisturbed, with any changes only attributable to natural causes.

CL-006: Research activities in the Monument yield additional and new information regarding cultural resources and improve management and protection.

CL-007: Educational activities enhance public understanding and appreciation of cultural resources, and further protection of cultural resources.

2.2.8.2 *Management Actions*

CL-008: The following prehistoric site is allocated to scientific use:

- the Santa Ana de Cuiquiburitac Mission site (640 acres)

CL-009: Allow scientific and historical studies, including excavation if warranted, by permitted qualified researchers at selected sites allocated to scientific use. Assign the highest priority for study to sites that are threatened with damage from human activities or natural processes, areas of scientific interest, sites eligible for the National Register of Historic Places, and areas where research may inform management actions or otherwise benefit IFNM management and resources. Use historic contexts and research designs to provide guidance for scientific studies.

CL-010: Sites managed for public use will be protected and developed as interpretive exhibits in place, or for related educational and recreational uses. Sites allocated to public use include:

- a. Segments of the Historic Sasco Railroad located on public land
- b. Historic sites associated with Silver Bell Mine on public land
- c. Historic ranching sites
- d. Certain agricultural use areas within the existing Avra Valley

CL-011: Restrict visitor access, group tours, and group size as needed to prevent any damage from visitor use. Require commercial tour operators to receive Arizona Site Steward training and provide appropriate educational information on archaeological site etiquette and resource conservation to their customers if cultural sites are included on tours. Require tour operators to report vandalism or damage to sites.

CL-012: Allocate sites to traditional use that are important in maintaining the identity, heritage or well-being of American Indian tribes or other cultural groups. Sites allocated for traditional use are managed in ways that recognize the importance ascribed to them and seek to accommodate their continuing traditional use.

CL-013: Allocate sites to traditional use based on consultation with affiliated Indian tribes and consideration of other public uses.

CL-014: Continue to consult with American Indian tribes to identify places of traditional importance and associated access needs. Develop measures for managing and protecting places that might be identified by tribes during the life of the plan. Honor tribal requests to protect the confidentiality of sensitive information, to the extent permitted by law.

CL-015: Allocate sites to the conservation for future use category that are of singular historic importance, architectural interest or cultural importance. Their unusual significance makes them unsuitable for scientific or historical study that would result in their physical alteration. No sites are allocated for conservation for future use at this time.

CL-016: Sites would be conserved for the future until specified provisions were met such as the discovery of new information about the site, the development of new scientific techniques capable of fully

realizing the research potential of the site, or damage to the site's integrity from vandalism or natural processes.

CL-017: Sites best suited for controlled experimental studies that would improve management of other sites would be allocated to the experimental use category.

CL-018: Sites in the experimental use category will be considered for studies such as testing and measuring natural or human-caused deterioration, testing the effectiveness of certain protection measures, and testing the effects of fire. Studies would develop new research or interpretation methods or would generate similar kinds of practical management information. Experimental study would not be applied to cultural properties with strong research potential, traditional cultural importance, or valid public use potential if it would significantly diminish those values. Justifications would be made in terms of weighing the benefits of specific information to be gained versus the loss of cultural attributes or data that may occur during the experiment or study.

CL-019: Discontinue the designation of the Avra Valley as a Cultural Resource Management Area.

2.2.8.3 Administrative Actions

AA-089: Sites would be allocated and re-allocated according to the BLM Cultural Resource Manual 8100 using the criteria pertinent to the specified use listed below and in response to changing resource conditions, public use, research opportunities, and other reasons.

AA-090: Sites that are most important for the scientific or historical information they contain are allocated to scientific use. Sites are allocated to this category based on the following criteria:

- significance and uniqueness of site
- potential to contribute toward scientific understanding
- capability of currently available scientific methods to achieve research goals
- appropriate research proposal that will further scientific understanding or resource management
- existing threats to site, including vandalism, erosion, or other types of disturbance

AA-091: The following general sites classes may be allocated to scientific use. Classes of prehistoric sites:

- village sites, camp sites, agricultural sites, rock shelters or cave sites
- lithic scatters, artifact scatters
- groundstone manufacturing sites
- rock features and alignments
- food and other resource processing sites, roasting pits
- hunting blinds and ambush sites
- trail sites
- tinaja and spring sites

- petroglyph sites, pictograph sites
- intaglio sites

Classes of historic sites:

- ranches, homesteads, and associated features and components
- livestock raising related sites, agricultural features
- mines and prospecting sites
- settlements and camps
- roads, trails, and driveways, railroads and associated features, stage stops and stations
- public works sites, military camps and sites
- rock features and walls
- facilities used in commerce
- wells and water developments, water control features
- artifact scatters
- historic aboriginal sites
- historic rock art
- trash dumps

AA-092: Other sites may be allocated to public use based on the following criteria:

- the ability of the site to support public use while protecting Monument objects
- presence of aboveground features, such as structures or rock art, landscape characteristics, or other features 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 travel routes;
- visitor safety
- compatibility of other land uses and site values, such as traditional use by Native Americans
- feasibility of regular inspections by BLM staff and volunteers
- partnership opportunities for interpretive and educational projects
- unique site(s) and/or interpretive opportunity not available in the surrounding area

AA-093: Continue to participate in Arizona Archaeology Awareness Month events and other educational outreach, to highlight the values of cultural resources and the need to protect these resources.

AA-094: Promote use of volunteers to enhance cultural resource values, including site documentation, research, protection, and educational projects.

AA-095: Promote and increase patrol and monitoring of sites by site stewards, BLM staff, cooperating organizations, and agencies, to the extent possible and practicable.

AA-096: Plan and conduct future inventories, focusing efforts in areas important for understanding the cultural history of the Monument or where significant resources could be degraded by uses of the Monument or erosion.

AA-097: Provide pamphlets and brochures containing information about sites allocated to public use.

AA-098: Consider management practices to achieve desired plant communities protection and conservation of known cultural resources, including historical sites, and prehistoric sites and plants of significance to Native American peoples.

AA-099: Coordinate with tribal groups and other interested groups to inventory any traditional cultural resources.

AA-100: Continue the program of monitoring archaeological and historical sites, and implement adaptive management responses to identified threats, including but not limited to; signing, fencing, trash removal, road closures, erosion control measures, backfilling, stabilization, restrictions on other land uses, and law enforcement if warranted.

AA-101: Provide educational and interpretive opportunities to enhance public understanding and appreciation of the cultures that created the archaeological and historical resources within the Monument (discretionary). Topics could include (1) prehistoric adaptations to the Sonoran Desert, (2) Tohono O'odham interactions with past, present, and future landscapes, and (3) historic mining and ranching.

AA-102: Provide opportunities for the public to actively participate in volunteer programs that protect, preserve, conserve, and interpret cultural resources on the Monument.

AA-103: Promote public interpretation of selected cultural resources (those allocated to public use) in partnership with other organizations pursuing heritage tourism.

AA-104: Promote cultural resource research through partnerships and cooperative programs.

AA-105: Develop cultural resource project plans for special status resources. These could include (1) portions of Los Robles Archaeological District within IFNM, (2) Cocoraque Butte Archaeological District, and (3) Santa Ana de Cuiquiburitac Mission Site (discretionary).

AA-106: Coordinate with the agencies, tribes, and private landowners that manage cultural resources on adjacent lands.

AA-107: Identify and evaluate opportunities to acquire non-Federal lands with significant cultural resources in the planning area. Potential acquisitions could include lands within the Los Robles Archaeological District (discretionary).

AA-108: Complete Class II (sample) and Class III (intensive) field inventories to identify cultural resources and evaluate the condition of sites, in accordance with the National Historic Preservation Act. Priorities for inventory will be determined based on resource use and protection priority areas and sites.

AA-109: Develop a monitoring scheme to evaluate the condition of cultural resources. Where adverse effects are occurring, implement protection measures to stop, limit, or repair damage to sites.

AA-110: Develop a cultural resource management plan for the IFNM based on the criteria in Section 110 of the National Historic Preservation Act.

2.2.9 Paleontological Resources

2.2.9.1 *Management Goals and Objectives*

PL-001: Protect paleontological resources.

PL-002: Manage paleontological resources for their scientific, educational and recreational values.

2.2.9.2 *Management Actions*

PL-003: The collection of any objects, including paleontological resources will not be permitted, except where intended for legitimate scientific uses for which documentation is provided to the satisfaction of the responsible management official.

PL-004: Require field surveys for paleontological resources prior to any ground-disturbing activities on IFNM lands and mitigate according to BLM guidelines.

2.2.9.3 *Administrative Actions*

AA-111: Establish Memoranda of Understanding for Cooperative Agreements with a museum(s), university(ies), or other appropriate scientific organizations to allow for evaluation, collection, mitigation, curation, and protection of paleontological resources discovered on the Monument and surrounding BLM lands.

AA-112: Evaluate paleontological resources, as they are discovered, considering their scientific, educational and recreational values. Adjust the appropriate paleontological sensitivity class and determine appropriate management and monitoring.

AA-113: Develop, maintain, and/or contribute information to a database for known and discovered paleontological sites within the Monument and BLM administered lands.

2.2.10 Scenic and Visual Resources

2.2.10.1 *Management Goals and Objectives*

VR-001: Preserve the Monument's natural scenic and visual values, and where appropriate, rehabilitate disturbed areas that impact important views.

VR-002: Maintain or enhance opportunities to view those landscapes of the Monument that may be valued for scenic, cultural, biological, recreation, or other reasons. Preserve the visual quality of those landscapes visible from important viewing areas or key observation points, which may include:

- specific scenic road corridors
- recreational sites and areas (characterized by Recreation Management Zones [RMZs])
- designated motorized and non-motorized trails
- cultural and historic areas
- residences in and near the Monument
- other sites/areas with identified place-based values

VR-003: Prioritize disturbed areas for rehabilitation based on the following criteria:

- Amount of visual contrast with the surrounding area
- Distance the area is visible
- Proximity to high recreation and/or visitor use areas or scenic routes and overlooks
- High scenic quality

VR-004: Apply best management practices and visual design guidelines to minimize visual contrast of proposed projects to achieve Visual Resource Management (VRM) objectives to the greatest extent possible.

VR-005: Manage the transportation system to provide a variety of sightseeing opportunities.

2.2.10.2 Management Actions

VR-006: Consistent with visual resources values and other resources and resource use allocations, manage visual resources on IFNM lands according to the following VRM class allocations:

- Class II: 124,900 acres
- Class III: 3,420 acres
- Class IV: 80 acres

The VRM Classes are shown on Map 5.

VR-007: Rehabilitate existing disturbed areas, as feasible, that attract attention to achieve visual contrast level consistent with designated VRM class.

VR-008: Manage activities that result in fugitive-dust (e.g., road route system) to protect visual quality in the Monument (see also alternatives for air quality and transportation).

2.2.10.3 Administrative Actions

AA-114: Coordinate with adjacent jurisdictions and planning authorities to manage visual resources consistently on lands adjacent to the Monument lands.

AA-115: Conduct visual resource contrast ratings in accordance with Bureau VRM Handbook H-8321 for all projects. Require measures to mitigate visual impact exceeding VRM Class visual contrast thresholds.

2.2.11 Lands Managed to Protect Wilderness Characteristics

2.2.11.1 Management Goals and Objectives

WC-001: Protect wilderness characteristics where they provide for the greatest opportunities for a combination of naturalness, opportunities for solitude, and/or opportunities for unconfined recreation.

WC-002: Allow land uses and authorizations compatible with wilderness characteristics and consistent with resource management objectives.

WC-003: Manage lands identified for protecting wilderness characteristics to preserve the following qualities:

- *Naturalness:* Lands and resources exhibit a high degree of naturalness when affected by the forces of nature and where the imprint of human activity is substantially unnoticeable. Naturalness attributes may include the presence or absence of roads and trails, fences and other improvements; the nature and extent of landscape modification; the presence of native vegetation communities; and the connectivity of habitats. Wildlife populations and habitats are recognized as important aspects of the naturalness and will be managed actively.
- *Solitude:* Visitors may have outstanding opportunities for solitude when the sights, sounds, and evidence of other people are rare or infrequent, where visitors can be isolated, alone or secluded from others.
- *Primitive and Unconfined Recreation:* Visitors may have outstanding opportunities for primitive and unconfined types of recreation where the use of the area is through non-motorized, non-mechanical means off designated routes and as specifically excepted, and where no or minimal developed recreation facilities are encountered.

2.2.11.2 Management Actions

WC-004: Manage 9,510 acres of IFNM to protect wilderness characteristics, as shown on Map 6.

WC-005: Visual changes from allowable uses and management activities to the characteristic landscape on lands managed to protect wilderness characteristics (9,510 acres, as shown on Map 6) must be low and retain existing character consistent with VRM Class II objectives.

WC-006: Recreation setting conditions (particularly solitude, remoteness, facilities, encounters among visitors, evidence of use, and accessibility) in areas managed to protect wilderness characteristics will be in accordance with the Primitive RMZ objectives (as defined in Section 2.2.14.1).

Visual Resources Management

BLM Administered Land Only
Ironwood Forest National Monument
ROD/Approved RMP

Legend

Visual Resource Management Class

- Class II
- Class III
- Class IV

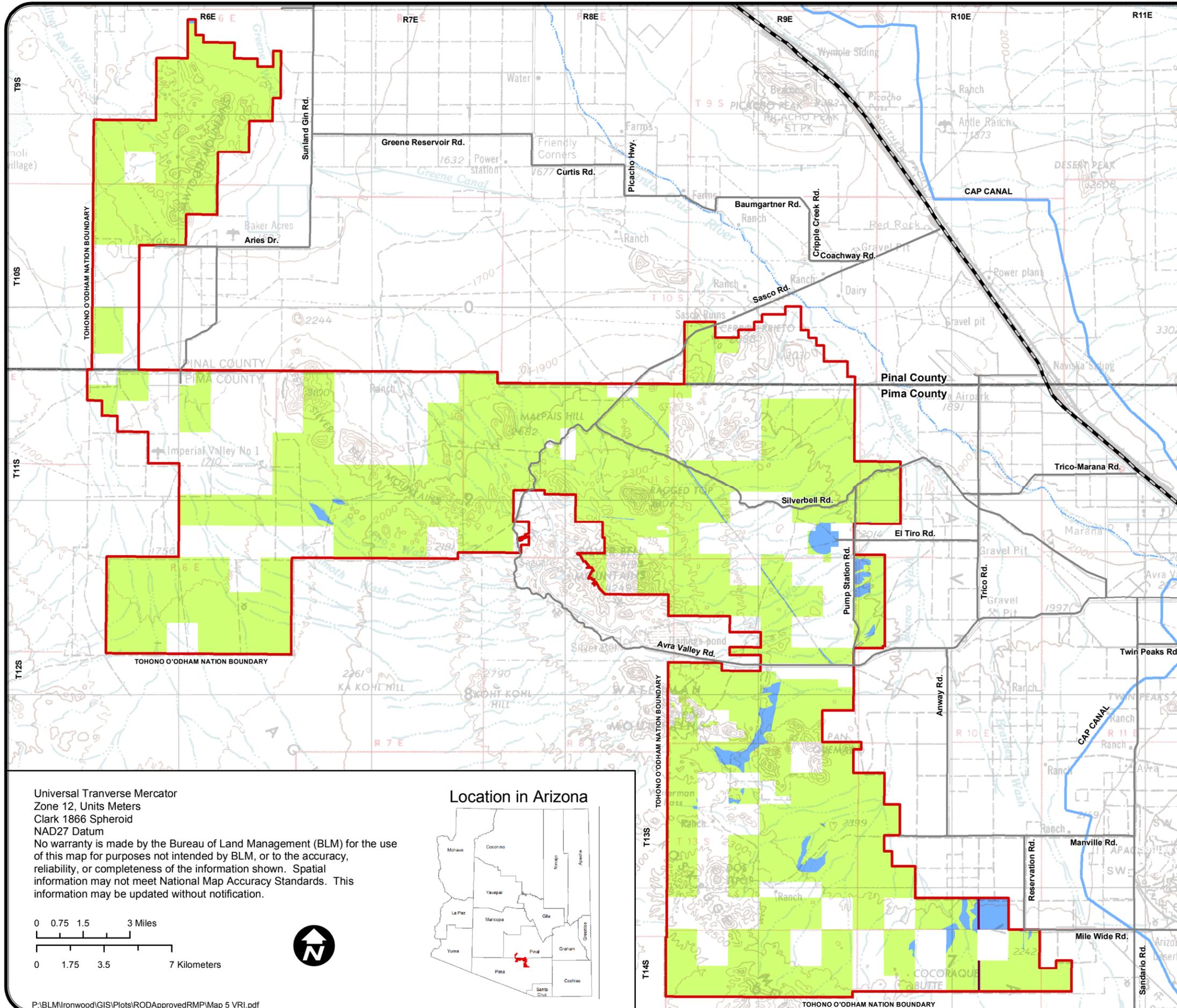
Data Source:
VRM Alternative: URS 2006
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

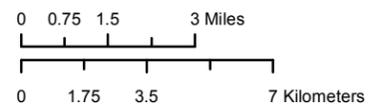
- County Boundary
- Central Arizona Project (CAP) Canal
- River
- Interstate 10
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum
No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by BLM, or to the accuracy, reliability, or completeness of the information shown. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.



Location in Arizona



Lands Managed to Protect Wilderness Characteristics

Ironwood Forest National Monument
ROD/Approved RMP

Legend

-  Lands Managed to Protect Wilderness Characteristics
-  Existing Mining Claim
(Areas would be removed from management to protect wilderness characteristics upon validity of the claim.)

Surface Management

-  Bureau of Land Management
-  National Park Service
-  Bureau of Reclamation
-  American Indian Reservation
-  Military Reservation
-  State Trust Land
-  State, County, City; Wildlife, Park and Outdoor Recreation Area
-  Private
-  Pima County

Note:
Land use allocations, designations, and management prescriptions apply only to public lands administered by the BLM. If non-Federal lands are acquired, they would be managed according to the allocations depicted on the map.

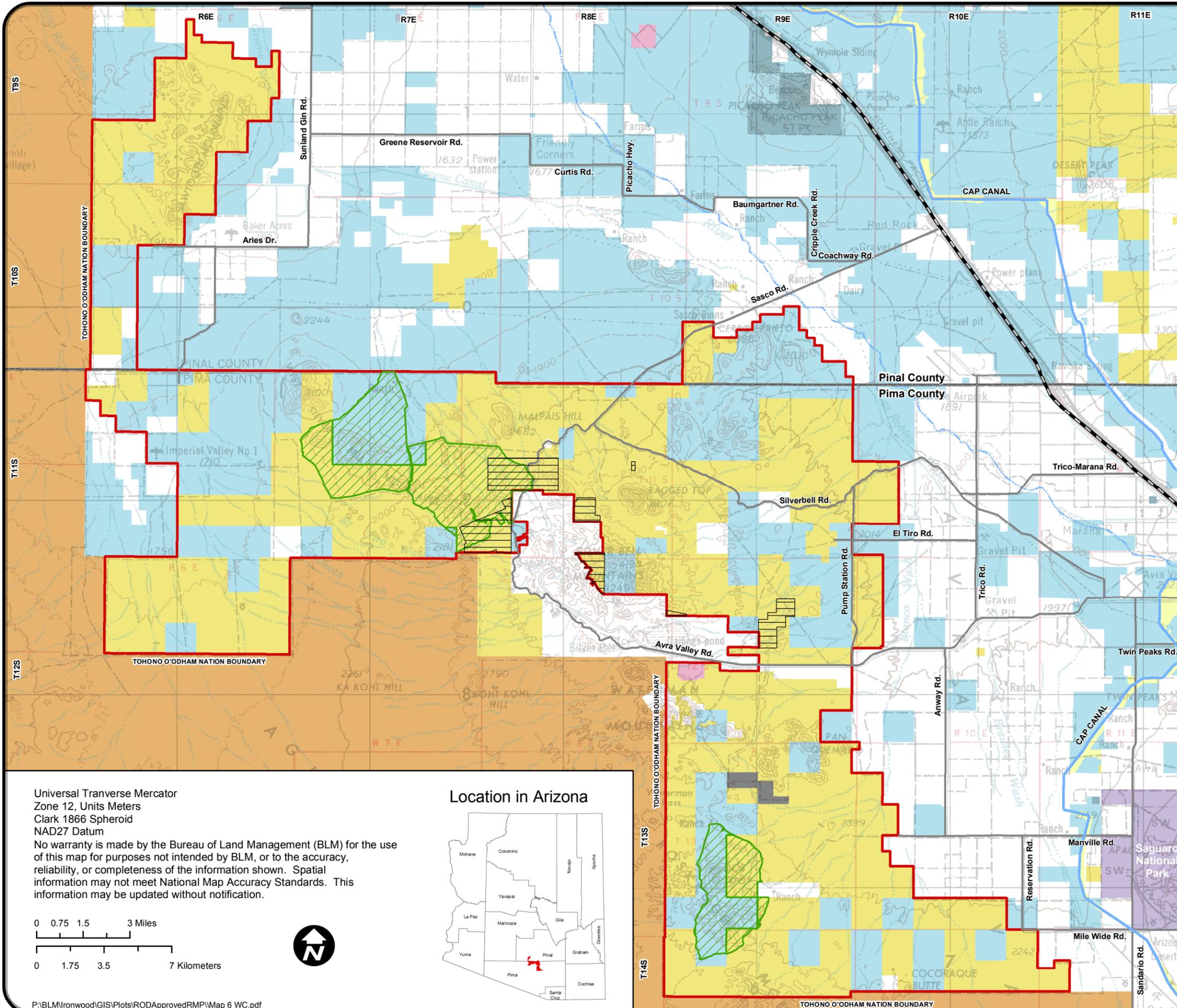
Data Source:
Wilderness Characteristics Alternative: BLM 2005
Mining Claims: BLM 2003
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

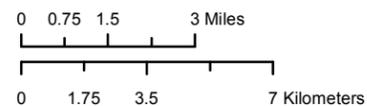
-  County Boundary
-  CAP Canal
-  River
-  Interstate 10
-  Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

-  Ironwood Forest National Monument



Universal Transverse Mercator
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Location in Arizona



2.2.11.3 Administrative Actions

AA-116: Coordinate with adjacent jurisdictions and planning authorities to manage visual resources consistently on lands adjacent to the Monument lands.

AA-117: Conduct visual resource contrast ratings in accordance with Bureau VRM Handbook H-8321 for all projects. Require measures to mitigate visual impact exceeding VRM Class visual contrast thresholds.

2.2.12 Energy and Mineral Resources

2.2.12.1 Management Goals and Objectives

MI-001: Manage mining on the Monument where valid existing rights occur. Where lands covered by mining claims are withdrawn from future entries “subject to valid existing rights,” the withdrawal attaches, as of the date of the segregation or withdrawal, to all land described by the withdrawal, including the lands covered by the mining claims. So as long as the claims are valid, the withdrawal is ineffective as to the lands embraced by the claims. For additional information see the Glossary term Valid Existing Rights.

MI-002: Prevent unnecessary and undue degradation from mining activity on grandfathered mining claims that have established valid existing rights.

2.2.12.2 Management Actions

MI-003: Mining activities within the IFNM will continue to be administered on a case-by-case basis for valid mining claims. (New mining claims, mineral leases and mineral material sales are prohibited in the IFNM; refer to Appendix A.)

MI-004: Reclaim abandoned mines having the greatest and immediate risk to human health or convert to another use protective of other resources.

2.2.12.3 Administrative Actions

AA-118: If areas are identified with potential physical and chemical hazards related to mines, BLM will mitigate these hazards to protect objects of the Monument.

2.2.13 Livestock Grazing

2.2.13.1 Management Goals and Objectives

LM-001: Manage and monitor livestock grazing, in areas open for this use, consistent with the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (Appendix C), and with protection of Monument objects.

LM-002: Manage grazing and range resources toward best possible ecological conditions for the local area given past uses and current potential.

LM-003: Acknowledge the cultural, historical and economic values of ranching through interpretive efforts.

LM-004: Manage grazing and range resources to limit the amount of ephemeral forage used by livestock to no more than 30 percent of annual production.

LM-005: Manage grazing to maintain the integrity of Monument objects over time, such that noticeable impacts are measurable only in small and localized areas.

2.2.13.2 Management Actions

LM-006: All public lands within 11 allotments (approximately 128,400 acres) are available for grazing.

LM-007: Classify Agua Blanca, Agua Dulce, Blanco Wash, Claflin, Cocoraque, King, Old Sasco, Sawtooth Mountains, and Silver Bell allotments as perennial (refer to Appendix D for classification criteria). Morning Star and Tejon Pass allotments continue to be classified ephemeral.

- If the resource conditions within an allotment change due to implementation of management decisions or other factors, an allotment may be recategorized based on those conditions.

LM-008: Following cancellation or voluntary relinquishment of a grazing lease, BLM will determine if conditions within the associated allotment(s) are satisfactory based on applicable management objectives. If BLM determines that livestock grazing is preventing or hindering progress towards the achievement of applicable management objectives, BLM may decide to discontinue livestock grazing use on the allotment(s) if this action will help promote attainment of these objectives. Even if BLM initially decides to discontinue livestock use on some or all of an allotment, it may later decide to resume livestock use if it determines, based on its subsequent evaluation of ecological conditions and other pertinent factors, that it is appropriate to do so.

LM-009: Allow only those new range improvements for livestock in (Desert Tortoise) Category I and II Habitat Areas that will not create conflicts with tortoise populations. Mitigation for such conflicts is permissible to make the net effect of the improvements positive or neutral to desert tortoise populations. Conflicting existing improvements will be eliminated as opportunities arise.

- Where range improvements are necessary and/or permitted, access and activities will be located and implemented to minimize additional disturbance to resources.

LM-010: Provide additional (stock) water sources in the Twin Tanks and Cocoraque Pastures. All stock waters will be constructed to accommodate all wildlife species that might benefit from them. Current stock waters will be evaluated, and modified as necessary, to provide the maximum benefit and minimum adverse impact on wildlife.

LM-011: Maintain yearlong water sources in all pastures for livestock to ensure safe availability of water to wildlife. Minimize livestock impacts on priority plant species and habitats by providing water sources away from existing populations. Move or replace livestock waters that are found to be causing habitat deterioration near rare plants.

LM-012: Use of motorized vehicles by authorized users (livestock grazing, wildlife management activities, rights-of-way and special use permits) is subject to the OHV use and travel route designations, unless specifically authorized in writing on a case-by-case basis.

- Administrative access to fence lines, corrals, wells, and water infrastructure for inspection and maintenance will be granted, as necessary, provided measures are taken to protect Monument objects.

2.2.13.3 Administrative Actions

AA-119: Enforce against trespass grazing.

AA-120: Inventory and monitoring data will be collected on a regular basis as needed to determine achievement of Land Health Standards, or progress toward achieving standards.

AA-121: Include information on the role of ranching in interpretive materials generated for the Monument.

AA-122: Evaluate existing enclosures, and as needed, establish new livestock/wildlife and livestock-only enclosures in each vegetation association in each allotment found within the Monument. Enclosures will meet standard design configurations from manual H-1741-1.

AA-123: Integrate into existing educational materials information explaining cultural, economic, and ecological role and impacts of ranching and proper grazing management.

AA-124: Form a team of land and resource management agencies, and BLM staff to develop a monitoring plan based on best available methodologies.

AA-125: Coordinate with AGFD, USFWS, SHPO, and others to remove range improvements if they are not necessary for management or conservation of other resources (e.g., cultural and wildlife resources, recreation, etc.). If removed, the owner shall be compensated at fair market value. Land Health Assessments, evaluations and re-evaluations will be tied to lease renewal schedules.

AA-126: Range improvement standards and design will meet specifications in BLM Manual 1740 or be designed to provide the maximum benefit and minimum adverse impact to wildlife and special status species.

AA-127: The extent, location and timing of range improvements will be based on allotment-specific management objectives adopted through the evaluation process, interdisciplinary development and analysis of proposed actions, and funding.

AA-128: BLM will consult with AGFD on the design and location of new fences.

AA-129: Existing fences that create wildlife movement problems will be modified.

AA-130: Stock pond sites will be selected based on available watershed and hydrologic information. All applicable state laws and regulations will be followed.

AA-131: 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 ground water will be observed.

AA-132: Provisions regarding access to range improvements for inspection, maintenance, and operation activities will be amended or added to existing grazing permits.

2.2.14 Recreation

2.2.14.1 *Management Goals and Objectives*

RR-001: Manage Monument lands to produce a variety of quality recreation experiences in largely natural settings, while protecting natural and cultural resources, and promoting safety and harmony among users.

RR-002: Manage recreation resources and visitor services to facilitate production and protection of appropriate recreation opportunities, activities, experiences and benefits derived from the Monument, and that are important to individuals and the communities affected.

RR-003: Make visitor information available to the public to aid in visitor use, and foster compliance with use restrictions, management objectives, and appreciation for resources.

RR-004: Coordinate visitor information, signing, and management with ASLD, AGFD, counties, private land owners, and other interests to achieve desired recreation outcomes.

RR-005: Intensively manage the IFNM with an undeveloped recreation-tourism market strategy to sustain its distinctive undeveloped setting character, and produce targeted recreation opportunities, experiences and benefits.

RR-006: Identify Recreation Management Zones (RMZs) based on resource capability and accessibility, and prescribe the required settings to produce targeted recreation opportunities, experiences and benefits representing the range of opportunities currently available.

RR-007: When recreation use conflicts arise, promote communication, collaboration, and coordination among users to address them.

2.2.15 Recreation Management Zone Objectives:

2.2.15.1 *Roaded Natural RMZ Objectives:*

1. ***Recreation Niche:*** Scenic Sonoran Desert touring on improved roads for viewing the natural landscape, with wayside stops for interpretation of the Monument's natural and cultural history, and access to dispersed recreation opportunities.
2. ***Recreation Management Objective:*** This zone provides opportunities for visitors to engage in scenic road tours in a variety of modes of travel, and in interpretive programs available, with at least 75 percent of visitors realizing the targeted outcomes and/or benefits within the life of the RMP.

3. **Primary Activities:** Driving passenger car and a variety of other motorized recreational vehicles for viewing scenery and points of interest. Stopping at wayside interpretive sites and overlooks to view scenery or wildlife. Driving to and staging for access to more remote and primitive settings.
4. **Experiences:** Enjoying the natural Sonoran desert landscape and climate with family or friends; learning about the Monument's natural and cultural history; taking low risks.
5. **Benefits:** Enhanced sensitivity, awareness and appreciation of the Monument's natural and cultural resources. High sense of personal responsibility for protecting Monument objects.

Recreation Setting Character Required to Produce Recreation Management Outcomes:

1. **Remoteness:** Areas are readily accessible with low sense of remoteness due to their location along collector or local improved and maintained roads that are accessible by passenger and recreational vehicles.
2. **Naturalness:** Largely natural with a few developments in the foreground view, as needed for allowable IFNM land uses (range improvements, recreation sites, parking areas, signs, etc.)
3. **Facilities:** Stabilized, improved and maintained roads and trails, parking turnouts, traffic control, interpretive signs/exhibits, trailheads to side trails. Minimal improvements provided for visitor convenience, and public health and safety.
4. **Contacts:** Daily average no more than 50 parties passing along the road, and no more than 25 other parties at activity areas.
5. **Group size:** Parties of 50 persons or more with special permit only, 100 persons maximum.
6. **Evidence of use:** Maintained roads, parking turnouts, trailheads or staging areas, signs (portal, directional, informational, other), fence crossings without gates, stabilized or improved activity areas, intersections with side roads, or more primitive roads.
7. **Accessibility:** Motorized vehicles and non-motorized vehicles licensed and insured to operate on a public road under Arizona law (Arizona Revised Statute Title 28). Design vehicle is passenger car and recreational vehicle. Recreation sites and/or activity areas barrier free for persons with mobility impairments.
8. **Management Controls:** Vehicle use and recreation activity areas limited to designated sites. Rules of conduct for developed sites implemented. Regulatory signs, other visitor control devices installed.
9. **Visitor Services:** Regular visitor contact patrols by official personnel, with frequency depending on time of year. Regular law enforcement patrols. Regular clean-ups and trash collection. Self service on-site visitor information at recreation activity areas, special purpose sites, and access points to more remote settings.

2.2.15.2 Semi-Primitive Motorized RMZ Objectives:

1. **Recreation Niche:** Scenic Sonoran Desert touring on semi-primitive routes for viewing the natural and cultural landscape by a variety of off-highway vehicles, and access to dispersed recreation opportunities and more remote settings.
2. **Recreation Management Objective:** This zone provides opportunities for visitors to engage in semi-primitive road touring on off-highway motorized vehicles (4 wheel-drive [4WD], all-terrain vehicle [ATV], and trail motorcycle), with at least 75 percent of sampled visitors realizing the targeted outcomes and/or benefits within the life of the RMP.

3. **Primary Activities:** Driving off-highway vehicles (4WD, ATVs, and trail motorcycles). Vehicle based semi-primitive camping and/or picnicking, hunting, viewing scenery and wildlife, access to more remote settings.
4. **Experiences:** Enjoying self-directed desert adventure, exploring, taking moderate risks.
5. **Benefits:** Self-reliance for survival and comfort. Improved or practicing outdoor recreation ethics and skills. Enhanced sensitivity, awareness, and appreciation of the Monument's natural and cultural resources. Greater sense of personal responsibility for protecting Monument objects.

Recreation Setting Character Required to Produce Recreation Management Outcomes:

1. **Remoteness:** Areas where physical access may require special equipment providing for a moderate sense of remoteness. Areas are located along resource access roads accessible to off-highway vehicles (high clearance, 4WD, ATV, trail-bike) and at least 0.5 mile away from maintained collector roads and/or county roads.
2. **Naturalness:** Natural landscape with some modifications, consistent with VRM objectives.
3. **Facilities:** Stabilized, minimally maintained single lane roads, trails. Rustic parking turnouts, traffic control, signs and trailheads. No visitor conveniences at recreation areas. Minimal public health and safety hazard mitigation.
4. **Contacts:** Daily average, no more than 15 other parties passing along the road, and no more than 10 other parties at activity areas.
5. **Group size:** Parties of 50 persons or more with special permit only, 100 persons maximum.
6. **Evidence of use:** Single lane, semi-primitive roads, rustic parking turnouts, well worn and lightly worn activity areas, and signs.
7. **Accessibility:** Motorized vehicles and non-motorized vehicles limited to routes designated for that use. Typical design vehicle is full size high clearance utility vehicle, with trailer combination vehicles for special purposes. Some recreation sites and/or activity areas barrier free for persons with mobility impairments.
8. **Management Controls:** Regulatory signs and other visitor control devices installed. Regular law enforcement patrols.
9. **Visitor Services:** Periodic patrols by BLM visitor services personnel, with frequency depending on time of year, on at least a bi-weekly basis during high use season. On-site visitor information at recreation activity areas, access points and special purpose sites, and access points to more remote settings.

2.2.15.3 Semi-Primitive Non-Motorized RMZ Objectives:

1. **Recreation Niche:** Scenic Sonoran Desert touring for viewing the natural and cultural landscape by a variety of non-motorized travel.
2. **Recreation Management Objective:** This zone provides opportunities for visitors to engage in non-motorized touring (hiking, equestrian, mountain bike), with at least 75 percent of sampled visitors realizing the targeted outcomes and/or benefits within the life of the RMP.

3. **Primary Activities:** Hiking, horseback riding, mountain biking, and riding livestock-pulled wagons to view scenery, access semi-primitive camping and picnicking, hunting, viewing landscape or wildlife, and access more remote settings.
4. **Experiences:** Enjoying self-directed desert adventure, exploring, and taking moderately high risks.
5. **Benefits:** Self-reliance for survival and comfort. Improved or practicing outdoor recreation ethics and skills. Enhanced sensitivity, awareness, and appreciation of the Monument's natural and cultural resources. Greater sense of personal responsibility for protecting Monument objects.

Recreation Setting Character Required to Produce Recreation Management Outcomes:

1. **Remoteness:** Areas located along routes limited to non-motorized travel that are at least 0.5 mile away from resource access roads.
2. **Naturalness:** Natural landscape with some modifications, consistent with VRM objectives.
3. **Facilities:** Stabilized designated trails. Rustic parking turnouts, traffic control, signs and trailheads. No visitor conveniences at recreation activity areas. Minimal public health and safety hazard mitigation.
4. **Contacts:** Daily average, no more than 15 other parties encountered along travel routes, and no more than 10 other parties at activity areas.
5. **Group size:** Parties of 25 persons or more with special permit only, 50 persons maximum.
6. **Evidence of use:** Single-track trails, converted use roadways, unimproved activity areas, and minimal signs.
7. **Accessibility:** Only by non-motorized travel, including non-motorized mechanized vehicles, on single track trails or converted single lane roadways. Typical design vehicles are equestrian and mountain bike, with full size utility vehicle for special administrative purposes. Some routes and recreation sites and/or activity areas with some barriers for persons with mobility impairments, requiring assistance, special equipment or exceptional ability.
8. **Management Controls:** No restrictions on hiking and equestrian use, or dispersed camping and picnicking and other dispersed recreation activities, except as needed to mitigate potential impacts to fragile, sensitive resources. Mechanized vehicles (including mountain bikes) restricted to routes designated for that purpose. Regulatory signs and other visitor control devices installed at access points. Minimal law enforcement presence; regular patrols at access points.
9. **Visitor Services:** Periodic patrols by BLM visitor services personnel with frequency depending on time of year; monthly basis or as needed for follow-up. On-site visitor information at access points and special purpose sites along travel route.

2.2.15.4 Ragged Top Wildlife Viewing RMZ Objectives:

1. **Recreation Niche:** Viewing and learning about a variety of desert wildlife in their natural habitat, in the most diverse and rugged Sonoran Desert mountain setting found in the IFNM.
2. **Recreation Management Objective:** This zone provides opportunities for visitors to engage in wildlife viewing and nature study in a naturally appearing landscape with at least 75 percent of sampled visitors realizing the targeted outcomes and/or benefits within the life of the RMP.

3. **Primary Activities:** Hiking, horseback riding, roadside or trailside stopping to view wildlife and the natural landscape, rough trekking, and mountain climbing.
4. **Experiences:** Learning about the Sonoran Desert ecology and wildlife. Enjoying the natural desert landscape. Enjoying self-directed desert adventure, exploring, and taking moderately high risks.
5. **Benefits:** Enhanced awareness and appreciation of the Monument's wildlife and natural habitat resources. Increased self-reliance for survival and comfort. Greater sense of personal responsibility for protecting Monument objects. Improved or practicing outdoor recreation ethics and skills.

Recreation Setting Character Required to Produce Recreation Management Outcomes:

1. **Remoteness:** Areas where access is by way of walking or riding along trails, and by driving vehicle only along perimeter of area.
2. **Naturalness:** Natural landscape with few modifications, consistent with VRM objectives.
3. **Facilities:** No facilities within the area's interior, except gates at fences and interpretive signs. Rustic parking turnouts, trailheads, traffic control, interpretive signs, and informational and other signs on the area's perimeter access points, or along the trails.
4. **Contacts:** Daily average, no more than 15 other parties encountered along travel routes, and no more than 10 other parties at activity areas.
5. **Group size:** Parties of 25 persons or more with special permit only, 50 persons maximum.
6. **Evidence of use:** Paths and unimproved single-track trails, converted use roadways, parking turnouts, and signs.
7. **Accessibility:** Foot, horse and mountain bike travel on designated trails. Passenger car access to area's perimeter. Interior not accessible due to natural barriers for persons with mobility impairments. Perimeter accessible to persons with mobility impairments.
8. **Management Controls:** Seasonal restrictions on hiking, equestrian use camping, and picnicking may apply as needed to mitigate potential impacts to fragile, sensitive resources. Regulatory signs and other visitor control devices installed at access points. Infrequent law enforcement presence; regular patrols at access points.
9. **Visitor Services:** Regular patrols by BLM visitor services personnel with frequency depending on time of year. Weekly presence during high use season. On-site visitor information and interpretive sites at access points and special sites along travel routes.

2.2.15.5 Primitive RMZ Objectives:

1. **Recreation Niche:** Hiking and riding excursions into the most remote, rugged and naturally appearing Sonoran Desert landscape found in the Monument.
2. **Recreation Management Objective:** This zone provides opportunities for visitors to engage in primitive recreation activities with a sense of remoteness and solitude, in a naturally appearing landscape with at least 75 percent of sampled visitors realizing the targeted outcomes and/or benefits within the life of the RMP.

3. **Primary Activities:** Hiking, horseback riding, trailside semi-primitive camping and/or picnicking, hunting, viewing scenery, and wildlife.
4. **Experiences:** Enjoying self-directed desert adventure, exploring, and opportunities for taking high risks.
5. **Benefits:** Self-reliance for survival and comfort. Improved or practicing outdoor recreation ethics and skills. Enhanced sensitivity, awareness, and appreciation of the Monument's natural and cultural resources. Greater sense of personal responsibility for protecting Monument objects.

Recreation Setting Character Required to Produce Recreation Management Outcomes:

1. **Remoteness:** Areas where access is by way of walking, horseback riding, and cross-country or non-motorized trail travel. Areas are located at least 0.5 mile away from local and resource access roads.
2. **Naturalness:** Natural landscape with few modifications, consistent with VRM objectives.
3. **Facilities:** No facilities within the area's interior, except gates on fences. Rustic parking turnouts, traffic control, signs and trailheads on boundary along perimeter.
4. **Contacts:** Daily average, no more than 1 other party encountered along travel routes, and no more than 1 other party at activity areas.
5. **Group size:** Parties of 10 persons or more with special permit only, 25 persons maximum.
6. **Evidence of use:** Paths and unimproved single-track trails, and converted use roadways.
7. **Accessibility:** Foot and horse cross country travel, no non-motorized mechanized vehicles. Not accessible due to natural barriers for persons with mobility impairments without extraordinary measures or risks.
8. **Management Controls:** Seasonal restrictions on hiking, equestrian use, dispersed camping and picnicking, and other dispersed recreation activities may apply as needed to mitigate potential impacts to fragile, sensitive resources. Regulatory signs and other visitor control devices installed at access points. Minimal law enforcement presence; regular law enforcement presence at access points.
9. **Visitor Services:** Periodic patrols by BLM visitor services personnel with frequency depending on time of year. Presence limited to case-by-case condition surveys or follow up activities. On-site visitor information at access points and special purpose sites along travel route.

2.2.15.6 Management Actions

RR-008: Allocate the entire IFNM (approximately 128,400 acres) as a Special Recreation Management Area (SRMA). The SRMA is managed with a strategy targeting the local undeveloped recreation-tourism market. This market demands a variety of distinctive kinds of dispersed recreation opportunities produced by settings in open spaces with an undeveloped character, and a high degree of self-reliance. As non-Federal land in-holdings are acquired, they will be added to this allocation.

RR-009: Recreation Management Zones

1. Allocate Monument land to RMZs as follows (approximate BLM acreages):
 - Roaded Natural = 18,380 acres
 - Semi-Primitive Motorized = 36,230 acres
 - Semi-Primitive Non-Motorized = 57,450 acres
 - Ragged Top Wildlife Viewing = 6,780 acres
 - Primitive 9,510 acres

The RMZs are shown on Map 7.

RR-010: Resources

1. Implement recreation actions as necessary that sustain specific setting characteristics and achieve targeted outcomes for each RMZ.

RR-011: Marketing

1. For all RMZs, concentrate marketing strategies on delivering visitor information and other services once visitors arrive in the local area. Publicity is not attempting to position the Monument as a major destination for a large volume of tourism or recreational use. Coordinate marketing efforts among the various providers.

RR-012: Visitor Services

1. The level of visitor services within the IFNM will vary by zone, with the greatest presence of BLM staff within the roaded natural RMZ. Visitor center facilities will be provided offsite in coordination with the local communities.

RR-013: Camping

1. Allow wood campfires only when firewood is from a non-Monument source.
2. Allow overnight vehicle-based camping (including recreational vehicles) at identified sites only. Specific sites identified as open and/or available for camping will be periodically reviewed and modified based on public demand and resource protection needs within the IFNM. Approximately 100 sites potentially will be identified, subject to additional site-specific analysis and monitoring.
3. Allow overnight, dispersed, non-motorized camping throughout the Monument unless camping in an area is specifically prohibited for protection of resource values (e.g., signed sensitive closure areas, which could vary over time).
4. Large group camping is allowed at identified group sites only. Special permit required for groups larger than prescribed by RMZ. Group size maximum varies depending on RMZ (see RMZ objectives above). Group camping could only occur at three identified large campsites located at Manville Road (within the roaded natural RMZ), Reservation Road (within the roaded natural RMZ), and near the West Silver Bell Mountains (within the semi-primitive motorized RMZ) (Map 7). Site-specific locations and improvement plans will be determined during implementation project planning.

Recreation Management Zones

BLM Administered Land Only
Ironwood Forest National Monument
ROD/Approved RMP

Legend

Recreation Management Zone (RMZ)

- Routed Natural (RN)
- Semi-Primitive Motorized (SPM)
- Semi-Primitive Non-Motorized (SPNM)
- Ragged Top Watchable Wildlife
- Primitive

Recreation Sites

- Campsite with Motorized Access on BLM Land
- Group Campsite with Motorized Access on BLM Land
- Primary Access Points

Route Designations

- Primitive Road
Primitive road open to all motorized use
- Road
Road open to all motorized vehicle use.
(Includes county routes across IFNM and BLM routes)
- Primitive Road, Administrative
Primitive road open for administrative motorized vehicles
and public non-motorized and mechanized use.
- Trail
Open for administrative and public non-motorized
and non-mechanized use only
- Road, Administrative
Road open only for El Tiro Gliderport lease
administrative use.
- Closed for Restoration

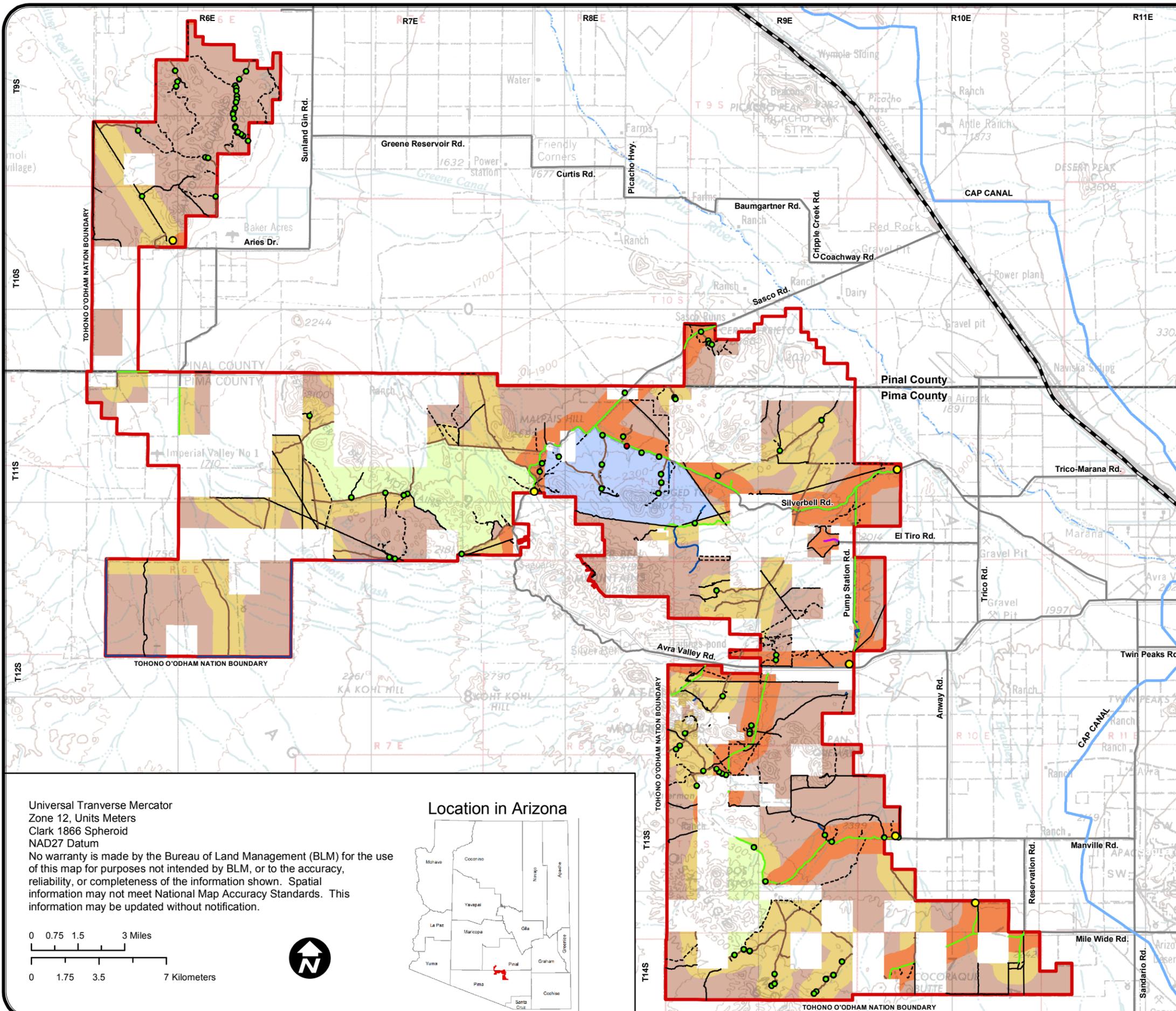
Data Source:
RMZ Alternative: URS 2008
Transportation Alternatives: BLM 2012
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

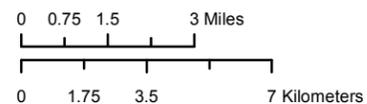
- County Boundary
- Central Arizona Project (CAP) Canal
- River
- Interstate 10
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum
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Location in Arizona



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RR-014: Use and Discharge of Firearms/Target Shooting

1. Prohibit the use and discharge of firearms within the IFNM, except for lawful or authorized hunting activities conducted in accordance with AGFD hunting regulations. Additional information related to recreational target shooting and Monument objects are found in the Proposed RMP/Final EIS Recreational Target Shooting Analysis in Appendix L, which was conducted during preparation of this RMP.

RR-015: Equestrian Use

1. Provide access and/or staging areas for equestrian uses. Allow equestrian use cross country, on roads, primitive roads, administrative roads, and non-motorized trails, unless specifically prohibited and posted. Refer to Section 2.2.17.2, Travel Management Action TM-010 for more information regarding equestrian use.

RR-016: Collection of Objects

1. Prohibit collection of any renewable resources (such as flowers, berries, nuts, seeds, cones and leaves); nonrenewable resources (such as rocks, mineral specimens, fossils and semiprecious gemstones); mineral materials (such as stone, sand and gravel); forest/woodland products (such as firewood, posts, poles), except as specifically authorized in writing to accommodate valid existing rights (such as mining claims), research, scientific, educational, or native American traditional purposes furthering Monument management objectives.

RR-017: General Recreation

1. Discontinue the CRMA and RCA allocations.

NOTE: BLM will seek cooperative management of the IFNM through administrative actions (refer to Appendix B).

2.2.15.7 Administrative Actions

AA-133: Manage for camping activities in accordance with the following regulations: (1) allow camping on all lands open to public use to meet management objectives and standard operating procedures, except within 0.25 mile of wildlife waters as required by State law, or in areas closed to camping to meet management objectives per 43 CFR §83641.1; (2) maintain the 14-day camping limit on dispersed camping within a 25-mile radius of one location on public lands; (3) ensure compliance with 43 CFR §8360, Visitor Services, and §8365, Rules of Conduct for the protection of public lands and resources, and for the protection, comfort and well-being of the public in its use of recreation areas, sites and facilities on public lands; (4) ensure that recreation services, programs, and facilities are Americans with Disabilities Act compliant except where substantial harm to the cultural or natural features might occur or they might be compromised; compliance will alter the nature of the setting; or where compliance will not be feasible due to terrain or prevailing construction practices.

AA-134: Allow large-group camping outside of identified sites for administrative purposes, such as for volunteer work groups, on a case-by-case basis provided the locations are suitable for such activity

without new surface disturbance (clearing or grubbing) or improvement, as needed to accomplish a planned action that is consistent with other management objectives.

AA-135: Include camp stove and campfire safety and etiquette materials in public outreach materials developed and distributed for the IFNM, noting restrictions within the IFNM.

AA-136: Manage for the use and discharge of firearms in accordance with applicable Arizona Game and Fish Commission Rules 17-301, 309, 312, and 12-4-303 (relating to hunting), and in accordance with 43 CFR §8364.1 relating to order issuance for land closures to protect persons, property, public lands and resources.

AA-137: Visitor center establishment is in accordance with 43 CFR §8360, Visitor Services, and §8365, Rules of Conduct for the protection of public lands and resources, and for the protection, comfort and well-being of the public in its use of recreation areas, sites and facilities on public lands.

AA-138: Management of sight-seeing, driving for pleasure, vehicle touring, and OHV recreation in accordance with the existing route network and BLM's National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands.

AA-139: Manage non-motorized, mechanized recreational activities according to the BLM's National Mountain Biking Strategic Action Plan.

AA-140: Use limits of acceptable change monitoring and adaptive management methods to minimize potential impacts to sensitive natural and cultural resources.

AA-141: Develop a multi-faceted adaptive management process.

AA-142: Identify standards for achieving and maintaining the desired recreational resource settings, social settings, managerial conditions, accessibility, visitor services and facilities.

AA-143: Promote public safety by taking physical management actions where practicable and by providing the public with adequate information regarding potential risks.

AA-144: Manage special recreation use permits to accommodate a variety of recreation opportunities consistent with land use allocations and management objectives.

AA-145: Manage commercial/group vehicle touring opportunities in accordance with special recreation use permits (SRPs).

AA-146: Manage SRPs in accordance with 43 CFR §2930 Special Recreation Permits requirements for: (1) commercial, (2) competitive, (3) vending, (4) individual or group use in special areas, and (5) organized group activity and event use, and on a case-by-case basis, and to achieve recreation management objectives.

AA-147: Limit issuance of SRPs based on the potential for resource damage and conflicts with other uses.

AA-148: Provide maintenance and minimal improvement to prevent resource damage at large group campsites.

AA-149: Ensure recreation tours remain on the designated route system.

AA-150: Coordinate with the BLM State Office and other agencies for managing emerging recreation issues.

AA-151: Enlist volunteers to assist in monitoring, maintenance (including litter cleanup), and education, thereby potentially lessening recreation use conflicts.

AA-152: Under Alternative B, C, or D, BLM may conduct the following administrative actions related to recreation:

- Provide minimal improvements and maintenance to accommodate allowable uses in accordance with RMZ objectives.
- Establish restrictions pursuant 43 CFR 8340 and 43 CFR 8360, as appropriate, to limit motorized vehicle use, non-motorized use, non-motorized mechanized use to designated routes, and limit recreation use to designated sites in accordance with RMZ objectives and prescriptions.
- Install regulatory, informational, identification, and interpretive signing as needed.
- Install visitor and traffic control devices.
- Provide regular or periodic visitor contact and law enforcement patrols, with frequency depending on RMZ and or time of year.
- Provide litter and trash clean up as needed.
- Coordinate recreation management with the ASLD and other adjacent land owners.
- Establish or develop partnerships or local volunteer resources to assist in implementing monitoring, maintenance and improvement projects to achieve recreation management objectives.

AA-153: For all RMZs, provide on-site signing, where needed, for visitor information, regulatory, or interpretation purposes in accordance with RMZ setting prescriptions; provide portal information facilities at Monument access points (such as informational kiosks); maintain facilities to levels appropriate to the RMZ; and, develop materials and designs to blend in with the natural landscape.

AA-154: Provide interpretive exhibits, signs or programs on-site at suitable locations in all RMZs. On-site programs may include BLM-sponsored field trips or events, commercial interpretive or educational field trips or events, etc. Participate in off-site interpretive or educational events with Monument related themes.

AA-155: Conduct baseline and follow-up intensive surveys of recreation sites and activity areas. Conduct resource condition, recreation use, and visitor surveys to determine if recreation and RMZ objectives are being achieved, and setting prescriptions are being maintained.

2.2.16 Lands and Realty

2.2.16.1 *Management Goals and Objectives*

LR-001: Secure non-Federal land and interests in land to further the natural and cultural resource and public and administrative access goals for the Monument.

LR-002: Manage rights-of-way to avoid or minimize impacts on Monument objects.

LR-003: Acquire lands and interest in land from willing sellers to further protection of Monument objects and/or achieve management objectives. Priority lands for consideration (1) contain ecologically or administratively important areas (e.g., riparian areas and wildlife movement corridors); (2) expand undisturbed blocks of public land; (3) protect existing blocks of habitat; or (4) provide legal access to Monument lands.

LR-004: Construction and maintenance activities for utilities occur in locations that utilize established rights-of-way and corridors (if applicable) so that they do not conflict with the natural and cultural resource goals for the Monument.

LR-005: Manage land use authorizations to accommodate use, maintenance, and operation with minimal impacts to Monument objects.

2.2.16.2 *Management Actions*

LR-006: Retain all Federal land (surface and subsurface) except in special instances where land exchanges could be used to further the natural and cultural resource goals of the Monument.

- Acquire non-Federal land or interests in land within the boundaries of the IFNM from willing sellers by purchase, exchange, or donation, as opportunities arise.
 - Where land cannot be acquired, secure conservation easements.
- Acquire through exchange, or other means, non-Federal mineral estate underlying Federal surface holdings throughout the Monument.
- Acquire surface and mineral estate concurrently.
 - Where mineral estate cannot be acquired, secure MOU or conservation agreement to protect Monument objects.
- Military withdrawals exist on approximately 300 acres; if and when the land is returned to BLM the area will be managed consistent with the management of adjacent public land.
- Recreation and Public Purposes Act leases (existing at the time of Monument designation) will be renewed at the discretion of BLM to protect Monument objects. (NOTE: No new Recreation and Public Purposes Act leases will be granted within the Monument per the Proclamation.)

Rights-of-Way

LR-007: All rights-of-way for access and utilities, including for inholdings, will be considered and issued on a case-by-case basis consistent with the protection of the Monument objects. No utility corridors will be designated within the Monument.

LR-008: Avoidance and Exclusion Areas

1. The entire Monument is an avoidance area; however, valid pre-existing authorizations (i.e., rights-of-way) will be recognized. Existing rights-of-way may be renewed in accordance with 43 CFR 2800.
2. As part of the land use authorization process, construction and maintenance activities will include protective measures to minimize the following:
 - spread of noxious weeds
 - soil erosion
 - air quality degradation
 - water quality degradation (e.g., limited disturbance in washes)
 - vegetation disturbance and/or removal
 - extensive or loud noise from heavy equipment
 - impacts on wildlife (i.e., wildlife-friendly design)
 - disturbance of cultural resources
 - visual intrusions

A reclamation plan will be required on a site-specific basis. In addition, communication site plans will be updated as necessary.

3. Land use authorizations for permits and easements will be considered on a case-by-case basis, consistent with protection of the Monument objects.
4. Upon acquisition of land, designate that land as avoidance area for rights-of-way.

2.2.16.3 Administrative Actions

AA-156: Where the BLM manages the surface estate, and the subsurface estate is owned by the State of Arizona or private entities either acquire the surface and subsurface estate or develop an MOU or conservation agreement with the subsurface estate owner to establish procedures to protect objects of the Monument.

AA-157: The Pan Quemado communication site is located on 2 acres and includes one facility with one tower; the Confidence Peak communication site is located on 3 acres and includes one multi-user right-of-way with one facility. No additional facilities such as towers and buildings will be allowed.

2.2.17 Travel Management

2.2.17.1 Management Goals and Objectives

TM-001: Provide a comprehensive transportation system for the Monument that is protective of Monument objects.

TM-002: Provide adequate, legal, and safe access for allowable public use and administrative purposes while protecting Monument objects.

TM-003: Improve on-the-ground travel management operations and maintenance programs to protect Monument objects, and to manage visitor access, safety, and recreation opportunities and experiences.

TM-004: Give priority to establishing, improving, or maintaining designated routes or access points to protect Monument objects and accommodate allowable uses.

TM-005: Secure legal and safe access, appropriate for achieving and maintaining Monument management objectives, for both motorized and non-motorized entry into the Monument. Provide and maintain connectivity of the IFNM transportation system with the surrounding public highway system (interstate, Federal, State and county roads).

2.2.17.2 Management Actions

TM-006: OHV Area Designations

1. Monument lands are designated as open, limited, or closed in accordance with definitions and criteria in 43 CFR 8340. Area designations to manage motorized vehicle use will be as follows:
 - a. Open: 0 acres.
 - b. Limited to designated routes: 117,520 acres
 - c. Closed: 10,880 acres, including:
 - 9,900 acres to protect wildlife habitat
 - 340 acres to protect cultural resources at Cocoraque Butte
 - 640 acres to protect other cultural resources

These area designations are shown on Map 9. As non-Federal lands are acquired, lands will be designated for OHV use consistent with protection of Monument objects and designations on adjacent lands and the maps presented in the RMP.

TM-007: Public Access Locations

1. Public access is subject to route designations, travel restrictions, and acquisition of legal access. Public access onto IFNM from non-IFNM lands or from routes without public legal access is subject to easement acquisition, or acquisition of the non-Monument land inholding.

TM-008: Development of New Routes and Rehabilitation of Closed Routes

1. Develop new routes only when a new segment is needed to provide legal public access to Monument lands or provide access to a non-Federal land inholding or other locations specified in a land use authorization or if needed for administrative use or to meet a specific management objective. Construction of new routes will be considered on a case-by-case basis.
2. Rehabilitate or restore identified routes using the most appropriate method based on ecological site conditions.

Rights-of-Way Authorizations

BLM Administered Land Only
Ironwood Forest National Monument
ROD/Approved RMP

Legend

- Communication Site
 - Existing Electrical Transmission Line
 - Existing Natural Gas Pipeline
- ### Surface Management
- Bureau of Land Management
 - National Park Service
 - Bureau of Reclamation
 - American Indian Reservation
 - Military Reservation
 - State Trust Land
 - State, County, City; Wildlife, Park and Outdoor Recreation Area
 - Private
 - Pima County

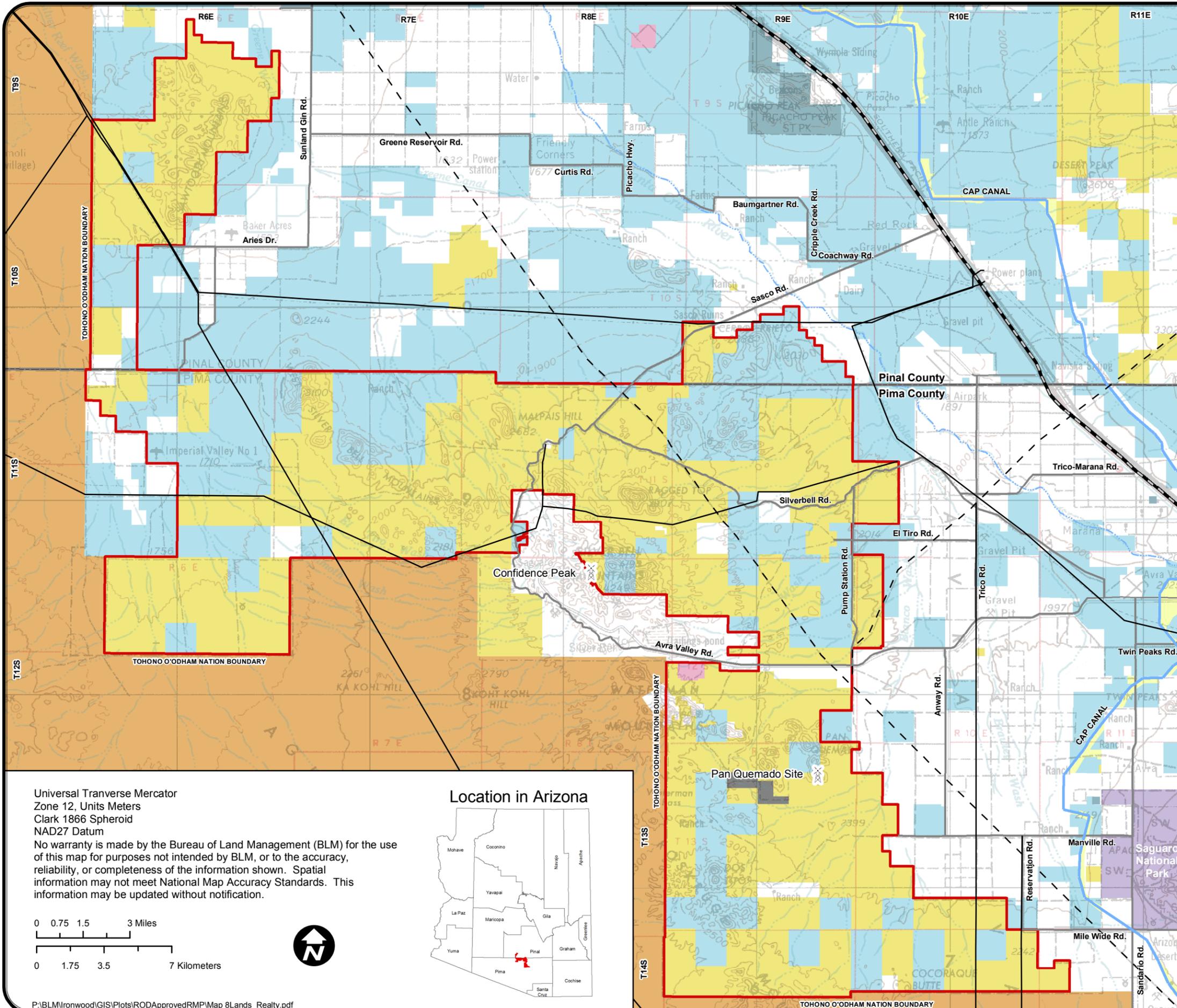
Data Source:
Utility and Corridor Alternatives: BLM 2005
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

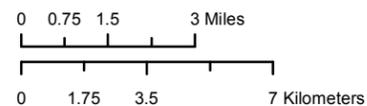
- County Boundary
- CAP Canal
- River
- Interstate 10
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



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Location in Arizona



Travel Management

BLM Administered Land Only
Ironwood Forest National Monument
ROD/Approved RMP

Legend

Off-highway Vehicle Designations

- Limited to Designated Roads and Trails
- Closed

Route Designations

- Primitive Road
- Primitive road open to all motorized use
- Road
- Road open to all motorized vehicle use. (Includes county routes across IFNM and BLM routes)
- Primitive Road, Administrative
- Primitive road open for administrative motorized vehicles and public non-motorized and mechanized use.
- Trail
- Open for administrative and public non-motorized and non-mechanized use only
- Road, Administrative
- Road open only for El Tiro Gliderport lease administrative use.
- Closed for Restoration

Surface Management

- Bureau of Land Management
- National Park Service
- Bureau of Reclamation
- American Indian Reservation
- Military Reservation
- State Trust Land
- State, County, City; Wildlife, Park and Outdoor Recreation Area
- Private
- Pima County

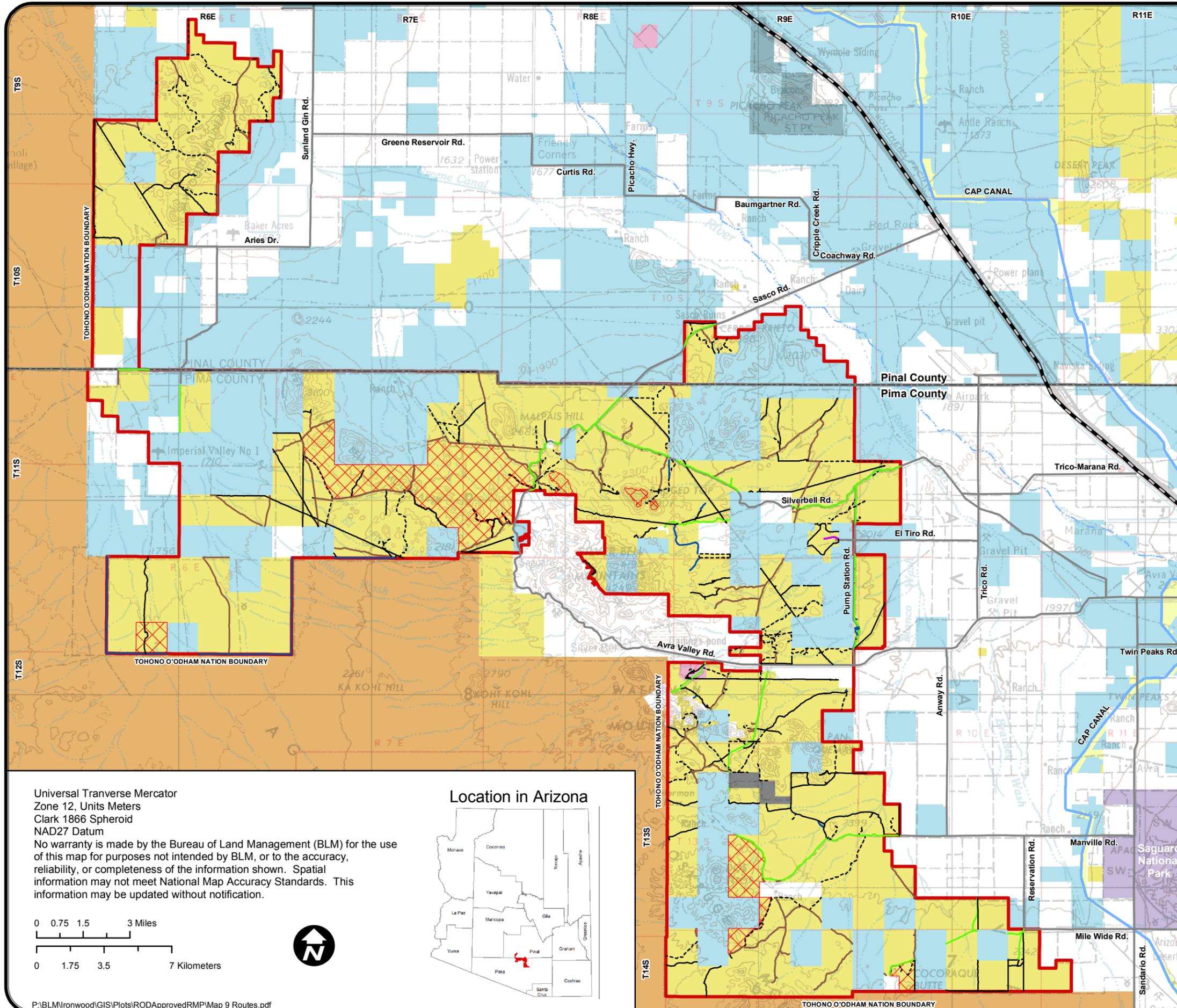
Data Source:
OHV Alternative Designations: BLM 2006
Route Alternative Designations: BLM 2012
Base Information: BLM 2003
Quadrangle Image: U.S. Geological Survey 1977 Tucson

General Reference

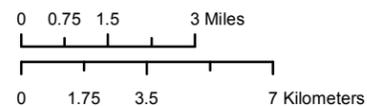
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Location in Arizona



TM-009: Recreational Access

1. Allow motorized, mechanized, and recreational livestock access into the IFNM from areas of urban interface only via public or community access points to be designated through the travel management planning process. Types of access (i.e., motorized or non-motorized) will depend on the RMZ. New access will be considered on a case-by-case basis.
2. Provide minimum improvements for, and maintain Monument access staging areas or facilities, to accommodate multi-mode access to Monument lands consistent with RMZ objectives.
3. Take measures or install appropriate barriers to promote compliance with travel route use designations and restrictions consistent with RMZ objectives.
4. Provide signing along travel routes for directional, informational, regulatory purposes consistent with RMZ objectives.

TM-010: Equestrian Use

1. Allow equestrian uses on routes designated as motorized or non-motorized; cross-country equestrian travel is allowed in all areas of the Monument open to public use. New trails for equestrian uses will be considered on a case-by-case basis. Equestrian uses may be restricted where BLM has determined through inventory and monitoring that such use is adversely impacting Monument objects.

TM-011: Non-Motorized, Mechanized Use

1. Use of non-motorized hand-powered wheeled game carriers to retrieve lawfully taken game is allowed in all areas of the Monument. Retrieval of downed game by cross-country motor vehicle use is prohibited.

TM-012: As Per Arizona National Land Conservation System Policy

1. Motorized use will be required to keep within the designated route with reasonable use of the shoulder and immediate roadside, allowing for vehicle passage, and emergency stopping or parking, unless otherwise posted.
2. Travel on all designated routes is subject to route-specific designations for type of use, functional class, maintenance level and route standard (refer to Appendix G of the Proposed RMP/Final EIS for route inventory and evaluation information).

2.2.17.3 Implementation-Level Decisions

TM-013: Motorized and Non-Motorized Use Route Designations

1. Travel route designations:
 - a. Designate approximately 42 miles of roads and 82 miles of primitive roads as open to motorized and mechanized vehicle travel for public and administrative purposes.
 - b. Designate approximately 118 miles of primitive roads as open for administrative vehicles only, and open for non-motorized and non-motorized mechanized travel for public use.

- c. Designate approximately 90 miles of trails as open for non-motorized non-mechanized travel only for public and administrative purposes.
- d. Approximately 17 miles of existing routes will be closed for reclamation/restoration.

Route designations are shown on Map 9 (NOTE: mileage shown above is for BLM land only) and Appendix G from the Proposed RMP/Final EIS contains the route inventory and evaluation. Transportation designations are implementation level decisions that will be finalized in an implementation plan to be prepared after the RMP decisions are finalized, with additional public involvement.

2.2.17.4 Administrative Actions

AA-158: Take corrective action including maintenance and repairs to remedy damage to resource concerns and safety hazards along the designated transportation system routes.

AA-159: Enlist volunteers and partners to assist in fieldwork and other stewardship functions, such as monitoring and maintaining routes.

AA-160: Maintain an ongoing monitoring system and database to track and measure motorized and non-motorized use and prescribe route maintenance.

AA-161: Provide signing, mapping, and travel information to visitors that reinforces protection of Monument resources.

AA-162: Expand and pursue partnerships for sources of funding for travel and transportation management.

AA-163: Enforce route designation restrictions for all users, including permittees (e.g., hunters, wood gatherers, livestock operators) and authorize exceptions for motorized vehicle travel on a case-by-case basis, provided measures are taken to protect Monument objects.

AA-164: Allow AGFD the use of motorized and mechanized equipment off designated routes in suitable locations (as agreed to in writing by AGFD and BLM) for such purposes including, but not limited to the following: law enforcement activities, wildlife water supplementation, collar retrieval, capture and release of wildlife, telemetry, surveys, habitat evaluation, and research activities.

AA-165: Establish supplementary rules pursuant to 43 CFR 8340 and 43 CFR 8365 as needed to implement OHV area and travel route designations.

AA-166: Authorize motorized administrative use on non-motorized routes subject to physical condition of the route, and on a case-by-case basis.

AA-167: Manage OHV use and travel activities, and implement best management practices according to the Arizona BLM Guidelines for OHV Recreation Management referenced in the IFNM Proposed RMP (BLM 2007 Report).

AA-168: Allow non-motorized non-mechanized access to active mining claims for casual use activities. Require a plan of operations to use motor vehicles on areas or routes closed to vehicle use.

AA-169: Seek access agreements, easements or rights-of-way, or adjudication of existing physical access for routes across non-federal land needed to access Monument lands for administrative purposes or public use.

AA-170: Limit motorized vehicle use to the designated route travelway, with reasonable use of the shoulder and immediate roadside, allowing for vehicle passage, and emergency stopping or parking unless otherwise posted.

AA-171: Prepare an implementation plan to define maintenance and operational activities needed to carry out the Travel Management decisions established in this RMP/Final EIS. Identify initial on-the-ground measures for closures and access restrictions, maintenance and repair work, and work needed for a sustainable long-term transportation system. Define monitoring and maintenance standards or guidelines and schedules. Define the designated access point and route system for both motorized and non-motorized uses of public lands. BLM will pursue partnerships with Federal, State, local, and educational agencies and institutions, and users in developing and adapting the ongoing operations plan. The implementation plan will provide the basis for initial ground work and ongoing adaptive management and activities. At a minimum, it will address:

- initial condition surveys for each road and trail, and describe corrective or stabilization, maintenance and repair work needed;
- traffic counter monitoring system to sample the amount and pattern of use of the network;
- schedule for periodic condition surveys with intervals depending on the type of route, condition and use;
- initial site surveys for road or trailside turnouts and activity areas, describe baseline footprint for monitoring change in ground conditions, and for defining limits of acceptable change. Describe thresholds for adaptive management action, consistent with RMZ objectives;
- user and traveler sampling to describe users experience (as part of recreation management program studies);
- design and maintenance guidelines and procedures for managing access points, roads and trails, consistent with the route's access purpose and design vehicle;
- guidelines and procedures for adjustments to route designations and the transportation plan. (Note: Because route designations are implementation-level decisions, these can be modified without amending to the RMP). Adjustments to the route designations will be subject to appropriate NEPA review;
- maintenance schedule for each route (road or trail), consistent with its maintenance intensity designation; and
- site-specific route analysis to determine if a new route needs to be created, or an existing route needs to be re-routed to prevent damage to resources, alleviate safety problems, avoid conflicts with other land uses, or if there is no other means of securing legal access.

2.2.18 Special Designations

2.2.18.1 *Management Goals and Objectives*

SD-001: Manage special designations, as applicable, to protect resources for which they are established.

SD-002: No Land Use Plan-level objectives for special designations have been developed.

2.2.18.2 *Management Actions*

SD-003: Remove the ACEC designation.

2.3 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, the BLM will inform the public of new and ongoing management actions and site-specific planning, and provide opportunities and timeframes for comment and other participation. The public is encouraged to contact the BLM and request that their name be placed in the field office mailing list along with their specific area of interest (e.g., wildlife, cultural resources, etc.) for plan implementation. The public may also make this request by calling (520) 258-7200.

The BLM will also continue to coordinate, both formally and informally, with the numerous federal and state agencies, Native American tribes, local agencies, and officials interested and involved in the management of public lands in the IFNM.

2.4 MANAGEMENT PLAN IMPLEMENTATION

The RMP will be implemented as funding and workforce allow. Most of the land use plan decisions are effective upon approval of this document. However, some decisions will take a number of years to be fully implemented. Implementation monitoring will track which decisions have been implemented and when.

After issuing the ROD/Approved RMP, the BLM will establish implementation strategy consistent with guidance in Section IV E of the BLM Land Use Planning Handbook. The implementation planning process will assist BLM managers and staff in preparing budget requests and in scheduling work priorities. However, the proposed schedule must be considered tentative and will be affected by future funding, changing program priorities, nondiscretionary workloads, and cooperation by partners and the public. Periodic review of the implementation plan will provide consistent tracking of accomplishments and provide information that can be used to develop annual budget requests to continue implementation. Plan implementation is a continuous and active process.

Interdisciplinary impact analysis on implementation actions will be based on the Proposed RMP/Final EIS and other applicable environmental analyses and studies. If the analysis prepared for site-specific projects finds potential for significant impacts not already described in an existing EIS, another EIS or a supplement to an existing EIS may be warranted.

Site-specific environmental analyses and documentation, including the use of categorical exclusions and determinations of NEPA adequacy where appropriate, may be prepared for one or more individual

projects in accordance with management objectives and decisions established in the approved land use plan. In addition, the BLM will ensure that the environmental review process complies with Council on Environmental Quality regulations on NEPA and applicable BLM guidance including consultations with Tribes, USFWS Section 7 and coordination with SHPO.

2.5 PLAN EVALUATION AND MAINTENANCE

2.5.1 Plan Evaluation

Plan evaluation is a process in which the plan and monitoring data are reviewed to determine if management goals and objectives are being met and if management direction is sound. Land use plan evaluations determine if decisions are being implemented, if mitigation measures are satisfactory, if there are significant changes in the related plans of other entities, if there is new data of significance, and if decisions will change through amendment or revision. Monitoring data gathered over time is examined and used to determine whether management actions are meeting objectives. 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 RMP objectives.

BLM will use land use plan evaluations to determine if the decisions in the RMP, supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Evaluation of the RMP will generally be conducted every five years, unless unexpected actions, new information, or significant changes in other plans, legislation, or litigation triggers an evaluation.

2.5.2 Plan Maintenance

Land use plan decisions and supporting information can be maintained to reflect minor changes in data, but maintenance is limited to refining, documenting, and 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, or demographic changes); and
- Applying an existing solid mineral lease stipulation to a new area prior to the lease sale based on new inventory data (e.g., applying an existing protective stipulation for tortoise to a newly discovered tortoise habitat area.)

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions.

2.6 MONITORING AND ADAPTIVE MANAGEMENT

Monitoring is the repeated measurement of activities and conditions over time, with the implied purpose of using these measurements to adjust management, if needed, in order to achieve or maintain established objectives. The primary objective of monitoring in the IFNM is to detect change in the condition of

Monument objects, and to use this information to ensure continued protection of Monument objects and to meet other resource objectives as identified in this plan. Two levels of monitoring will be used to meet this objective: implementation monitoring and effectiveness monitoring.

2.6.1 Monitoring

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. Monitoring the RMP involves tracking the implementation and effectiveness of land use plan decisions (implementation monitoring) identified in Section 2.2, Management Decisions. Implementation monitoring tracks the completion of land use plan decisions whereas effectiveness monitoring helps determine whether completion of land use plan decisions achieves anticipated desired outcomes. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary.

Management actions identified for the IFNM are based on studies and the best scientific and commercial information available. However, conditions may change over time. Experience has shown that implemented management actions can be improved as new technology and new information become available. It is also possible that changes in land use will require a different management action to protect the resources. To address the changing conditions and provide management flexibility using best management practices, the IFNM staff will monitor and evaluate the RMP using a process that provides the optimum means of checking the effectiveness of management actions. This process will measure the effectiveness of existing actions by monitoring these actions and applying the results of new scientific research. The process will analyze the current resource conditions resulting from implemented actions and identify and recommend alternatives or modified actions, as necessary, to reach established objectives and goals.

Because the capability to conduct monitoring and analysis at the optimum level can vary from year to year, the actions to be monitored will be prioritized. If monitoring indicates the goals and objectives are not being met, the adaptive management process will be implemented to adjust actions and improve resource condition.

2.6.2 Adaptive Management

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 to re-evaluate the outcomes. The IFNM managers will implement the adaptive management process for decisions appropriate to be adapted in order to meet resource goals and objectives. Monitoring, reports, documents, and timelines associated with the adaptive management process will be subject to the Monument's budget and staffing constraints.

GLOSSARY

A

Administrative Actions: The day-to-day activities required to serve the public and provide optimum management of the resources within the planning area. These actions are allowable and do not require authorization within an RMP, but may require site-specific analysis under the National Environmental Policy Act of 1969 (NEPA).

Agency: Any Federal, State, or county government organization participating with jurisdictional responsibilities.

Air Pollutant: Generally, an airborne substance that could, in high enough concentrations, harm living things or cause damage to materials. From a regulatory perspective, an air pollutant is a substance for which emissions or atmospheric concentrations are regulated or for which maximum guideline levels have been established due to potential harmful effects on human health and welfare.

Air Quality: The cleanliness of the air as measured by the levels of pollutants relative to standards or guideline levels established to protect human health and welfare. Air quality is often expressed in terms of the pollutant for which concentrations are the highest percentage of a standard (e.g., air quality may be unacceptable if the level of one pollutant is 150% of its standard, even if levels of other pollutants are well below their respective standards).

Air Quality Standard: Levels of air pollutants prescribed by regulations that may not be exceeded during a specified time in a defined area.

Allotment (range): A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under management of an authorized agency. An allotment generally consists of Federal rangelands, but may include intermingled parcels of private, State, or Federal lands. BLM and the Forest Service stipulate the number of livestock and season of use for each allotment.

Ambient (air): The surrounding atmospheric conditions to which the general public has access.

Analysis: An examination of existing and/or recommended management needs and their relationships in order to discover and display the outputs, benefits, effects, and consequences of initiating a proposed action.

Animal Unit Month (AUM): The amount of forage needed to sustain one cow, five sheep, or five goats, for a month. A full AUM's fee is charged for each month of grazing by adult animals if the animal (1) is weaned, (2) is 6 months old or older when entering public land, or (3) will become 12 months old during the period of use. For fee purposes, an AUM is the amount of forage used by five weaned or adult sheep or goats or one cow, bull, steer, heifer, horse, or mule. The term AUM is commonly used in three ways:

- (1) stocking rate as X acres per AUM,
- (2) forage allocation as in X AUMs in allotment A, and
- (3) utilization as in X AUMs consumed from Unit B.

Aquifer: A groundwater bearing rock unit (unconsolidated or bedrock) that will yield water in a usable quantity to a well or spring.

Archaeology: The scientific study of the life and culture of past, especially ancient, peoples, by excavation of ancient cities, relics, artifacts, etc.

Archaeological Site: A discrete location that provides physical evidence of past human use.

Area of Critical Environmental Concern (ACEC): An area of public lands designated by BLM for special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life/provide safety from natural hazards. Areas designated as ACECs have met criteria for importance and relevance that are outlined in 43 CFR 1610.7-2(b).

Artifact: A manmade object.

Attainment Area: An area that the Environmental Protection Agency has designated as being in compliance with one or more of the National Ambient Air Quality Standards (NAAQS) for sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter. An area may be in attainment for some pollutants but not for others.

Avoidance area: An environmentally sensitive area where rights-of-way may be granted only when no feasible alternative route is available.

B

Basin: A depressed area having no surface outlet (*topographic basin*); a physiographic feature or subsurface structure that is capable of collecting, storing, or discharging water by reason of its shape and the characteristics of its confining material (*water*); a depression in the earth's surface, the lowest part often filled by a lake or pond (*lake basin*); a widened part of a river or canal (*drainage, river, stream basin*).

Basin and Range: A geological and geographical landform common to western North America and characterized by a series of tilted-fault-block mountain ranges and broad intervening basins.

Biodiversity: The variety of life and its processes, and the interrelationships within and among various levels of ecological organization. Conservation, protection, and restoration of biological species and genetic diversity are necessary to sustain the health of existing biological systems. Federal resource management agencies must examine the implications of management actions and development decisions on regional and local biodiversity.

Biological Soil Crust: A living community of lichen, cyanobacteria, algae, and moss growing on the soil surface, creating a crust of soil particles bound together by organic materials. Biological soil crusts are also known as cryptogamic, microbiotic, cryptobiotic, and microphytic crusts and are commonly found in semiarid and arid environments throughout the world.

Border Patrol: The mobile law enforcement arm of the Immigration and Naturalization Service that detects and prevents illegal entry of aliens into the United States.

Browse: Leaf and twig growth of shrubs, woody vines, trees, cacti, and other non-herbaceous vegetation available for animal consumption.

C

Carbon Monoxide: A colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels including gasoline, oil and wood. Carbon monoxide is also produced from incomplete combustion of many natural and synthetic products.

Cave: Any naturally occurring void, cavity, recess, or system of interconnected passages that occurs beneath the surface of the earth or within a cliff or ledge (including any cave resource therein, but not including any vug [a small cavity in a rock], mine, tunnel, aqueduct, or other manmade excavation) which is large enough to permit an individual to enter, whether or not the entrance is naturally formed or manmade. Such term includes any natural pit, sinkhole, or other feature that is an extension of the entrance.

Characteristic: That which constitutes a character; that which characterizes; a distinguishing trait, feature, or quality; a peculiarity.

Clean Air Act: Federal legislation governing air pollution. The Clean Air Act established NAAQS for carbon monoxide, nitrogen dioxide, ozone, particulate matter, sulfur dioxide, and lead. Prevention of Significant Deterioration classifications define the allowable increased levels of air quality deterioration above legally established levels. They include the following:

- Class I – minimal additional deterioration in air quality (certain national parks and wilderness areas)
- Class II – moderate additional deterioration in air quality (most lands)
- Class III – greater deterioration for planned maximum growth (industrial areas)

Clean Water Act (CWA): Federal legislation governing water quality. The CWA refers to a series of Federal laws and regulations that attempt to restore the beneficial uses of surface waters of the United States (also referred to as “waters of the U.S.”). The CWA regulates such programs as the National Pollutant Discharge Elimination System, a permit-based set of regulations that control the discharge of pollution to U.S. waterways from an individual point (for example, the end of a pipe) and the discharge of concentrated storm water from highways, cities, and other built environments. The CWA also regulates the placing of fill in streams and washes for the construction of road crossings, pipelines, and power lines. The U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, which in some cases have extended responsibilities to the individual states, regulate these programs.

Community (ecological): The living part of an ecosystem. Communities change with succession, thereby forming distinctive ecological units both in time and space. The plant community and the animal community together form the biotic community. Size of area is not implied (i.e., organisms associated with a decaying log or with an entire forest each represent communities).

Compaction: The process of packing firmly and closely together; for example, mechanical compaction by vehicular, human or livestock activity. Soil compaction results from particles being pressed together so that the volume of the soil is reduced. It is influenced by the physical properties of the soil, moisture content, and the type and amount of compactive effort.

Composition: The proportions of various plant species in relation to the total on a given area. It may be expressed in terms of cover, density, weight, etc.

Contrast: Diversity of adjacent parts, as in color, tone, or emotions. The closer the juxtaposition of two dissimilar perceptions, in time or space, the more powerful the appeal to the attention.

Corridor: A wide strip of land within which a proposed linear facility (e.g., pipeline, transmission line) could be located. A corridor may also be a strip of land that is set aside for conservation purposes, particularly to provide wildlife an area of use to move between patches of habitat.

Corrosivity: A characteristic defining a hazardous waste. Solid waste that is defined as corrosive demonstrates the capability to destroy gradually by chemical action.

Criteria Pollutant: An air pollutant that is regulated by NAAQS. The Environmental Protection Agency must describe the characteristics and potential health and welfare effects that form the basis for setting, or revising, the standard for each regulated pollutant. Criteria pollutants include sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and two size classes of particulate matter, less than 10 micrometers (0.0004 inch) in diameter, and less than 2.5 micrometers (0.0001 inch) in diameter. New pollutants may be added to, or removed from, the list of criteria pollutants as more information becomes available. (See National Ambient Air Quality Standards.)

Critical Habitat: Habitat essential to the conservation of an endangered or threatened species that has been designated as critical by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

Cultural Resources: A cultural resource is any definite location of past human activity, occupation, or use, identifiable through inventory, historical documentation, or oral evidence. Cultural resources include archaeological, historical, or architectural sites, structures, places, objects, and artifacts.

D

Decibel: A unit of sound pressure level, abbreviated dB.

dBA: Unit of sound level. The sound pressure level weighted by the use of the “A” metering characteristic and weighting specified in American National Standards Institute (ANSI) Specifications for Sound Level Meter. Used to represent the response of the human ear to loudness.

Decision Area: BLM-administered public land and private split-estate (i.e., private surface acreage overlying federally owned minerals) within the planning area are referred to in this document as the decision area.

Desert Pavement: A surface of angular, interlocking fragments of pebbles, gravel, or boulders found in arid and semiarid environments. These surfaces are found on level or gently sloping desert flats, fans, or bajadas, and lake and river terraces. Desert pavement forms under the influence of daily thermal expansion and contraction as sandy particles slowly sort downward, leaving the larger stones at the surface.

Desired Plant Community: An objective regarding a group of compatible plant species, including the desired percentage of occurrence, considered ideal to meet land-management goals for the area.

Developed Recreation: Recreation that requires facilities that result in further concentrated use of the area. For example, off-road vehicles require parking lots and trails. Campgrounds require roads, picnic tables, and toilet facilities.

Distance Zones (views/visual resources): A subdivision of the landscape based on the distance from viewers along travel routes or other observation points. Viewing distance zones include the foreground, middleground, background, and seldom seen.

Foreground-Middleground Zone: The area that can be seen from each travel route for a distance of 3 to 5 miles where management activities might be viewed in detail. The outer boundary of this distance zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape.

Background Zone: The remaining area that can be seen from each travel route to approximately 15 miles. In order to be included within the distance zone, vegetation should be visible at least as patterns of light and dark.

Seldom-Seen Zone: Areas that are not visible within the foreground-middleground and background zones due to screening primarily by topographic or terrain features, and areas beyond the background zones.

E

Easement: A right or privilege one may have on another's land.

Ecological Site: A distinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community.

Ecosystem: Any area or volume in which there is an exchange of matter and energy between living and nonliving parts; that is, the biotic community together with soil, air, water, and sunlight form an ecosystem. Ecosystems are the best units for studying the flow of energy and matter.

Endangered Species: Plants or animals that are in danger of extinction through all or a significant portion of their ranges and that have been listed as endangered by the U.S. Fish and Wildlife Service following the procedures outlined in the Endangered Species Act and its implementing regulations.

Enhance: To improve the productivity or quality of resources or resource uses.

Environmental Assessment: A concise public document for which a Federal agency is responsible. An EA serves (1) to briefly provide enough evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact; and (2) to aid an agency's compliance with the National Environmental Policy Act when no EIS is needed; and (3) to facilitate preparation of an EIS when one is needed.

Environmental Impact Statement: An analytical document that portrays potential impacts on the human environment of a particular course of action and its possible alternatives. The document is released to the public for review and comment. Required by the National Environmental Policy Act, an EIS is prepared for use by decision makers to assess the environmental consequences of a potential decision. An EIS must meet the requirements of the National Environmental Policy Act, the Council on Environmental Quality, and the directives of the agency responsible for the proposed action.

Environmental Justice: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative

environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, State, local, and tribal programs and policies. Executive Order 12898 directs Federal agencies to make achieving environmental justice part of their missions by identifying and addressing disproportionately high and adverse effects of agency programs, policies, and activities on minority and low-income populations.

Erosion: Detachment or movement of soil or rock fragments by water, wind, or gravity. Accelerated erosion is much more rapid than normal, natural or geologic erosion, primarily as a result of the influence of surface-disturbing activities of people, animals or natural catastrophes.

Exclusion area: An environmentally sensitive area where rights-of-way will be granted only in cases where there is a legal requirement to provide such access.

Extraction: The removal of mineral resources from the land by mining, quarrying, or excavation.

F

Federal Lands: Lands, or interests in lands (such as easements and rights-of-way), owned by the United States.

Federal Undertaking: A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency including those carried out on or on behalf of the agency, those carried out with Federal financial assistance, those requiring a Federal permit, license or approval, and those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.

Fire Frequency: A general term referring to the recurrence of fire in a given area over time. It is sometimes stated as number of fires per unit time in a designated area. It is also used to refer to the probability of an element burning per unit time

Fire Intensity: derived from the energy content of the fuel, the mass of fuel consumed, and the rate of spread of the fire. The units of fireline intensity reflect energy release (kW) per unit length (m) of the fireline: energy release along a linear front. The length of the flames of a fire can be related to its intensity.

Fire Regime: The characteristics of fire in a given ecosystem, including factors such as frequency, intensity, severity, and patch size. The terms used for the different fire regimes are Nonlethal, Mixed 1, Mixed 2, and Lethal. Nonlethal fires are generally of the lowest intensity and severity with the smallest patches of mortality, while lethal fires are generally of the highest intensity and severity with the largest patches of mortality. The others fall in between.

Fire Regime Condition Classes: Fire Regime Condition Classes are a qualitative measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire exclusion, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects and disease, or other management activities.

Forage: All browse and herbaceous growth available and acceptable to grazing animals or that may be harvested for feeding purposes. Forage includes pasture, rangelands, and crop aftermath. Feed includes forage, hay and grains.

Forb: An herbaceous plant that is not a grass, sedge, or bush.

Form: The mass or shape of an object or objects which appear unified.

G

Game Species: Any species of wildlife or fish that is managed for hunters.

Goal: The desired state or condition that a resource management policy or program is designed to achieve. Broader and less specific than objectives, goals are usually not measurable and may not have specific dates by which they must be reached. Objectives are developed by first understanding and defining goals.

Grazing: Consumption of native forage from rangelands or pastures by livestock or wildlife.

Grazing Allotment: An area where one or more livestock operators graze their livestock. An allotment generally consists of Federal public land but may include parcels of private or State-owned land.

Grazing Fee: A charge, usually on a monthly basis, for grazing a specific kind of livestock.

Grazing Permit: An authorization that allows grazing on public lands. Permits specify class of livestock on a designated area during specified seasons each year.

Groundwater: Water below the ground surface in a zone of saturation.

Guidelines: Management approaches, methods, and practices that are intended to achieve a standard. Guidelines typically (1) identify and prescribe methods of influencing or controlling specific public land uses, (2) are developed and applied consistent with the desired condition and within site capability, and (3) may be adjusted over time.

H

Habitat: A specific set of physical conditions in a geographic area(s) that surrounds a single species, a group of species, or a large community. In wildlife management, the major components of habitat are food, water, cover, and living space.

Habitat Management Plan: A written and officially approved plan for a specific geographical area of public land that identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

Hazardous Materials: Substances or mixtures of substances that have the capability of either causing or significantly contributing to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or posing a substantial present or potential risk to human health or the environment. Hazardous wastes are defined as wastes or combination of wastes that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an

increase in mortality or an increase in serious irreversible illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous wastes are products or by-products of hazardous materials. In order to be classified as hazardous, wastes must either appear on a series of lists compiled by the U.S. Environmental Protection Agency or demonstrate the characteristics of ignitability, corrosivity, reactivity, or toxicity.

Hazardous Waste: The Resource Conservation and Recovery Act defines hazardous waste as a solid waste that may cause an increase in mortality or serious illness or pose a substantial threat to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. A waste is hazardous if it exhibits characteristics of ignitability, corrosivity, reactivity, and/or toxicity.

Haze: An atmospheric aerosol of sufficient concentration to be visible. The particles are so small that they cannot be seen individually, but are still effective in scene distortion and visual range restriction.

Historic Fire Regime: A classification of the effects of ecosystem disturbance caused by fire over time and space. Generally encompasses the period between 1500 to late 1800, before extensive settlement by European-Americans in many parts of North America, before intense conversion of wildlands for agricultural and other purposes, and before fire suppression effectively reduced fire frequency in many areas. Sometimes referred to as “presettlement” fire regimes.

I

Illegal Immigration: The entrance into the United States of an alien (non-citizen) without government permission.

Infiltration: The downward entry of water into soil or other material.

Interdisciplinary Team: A team of varied land use and resource specialists formed to provide a coordinated, integrated information base for overall land use planning and management.

J

Jurisdiction: The legal right to control or regulate use of land or a facility. Jurisdiction requires authority, but not necessarily ownership.

K

Key Observation Points: Locations with views of the planning area that are used to characterize the scenery for visual resource inventory purposes, and the locations from which visual impact assessments are conducted for proposed projects.

L

Land Use Plan: Any document developed to define the kinds of use, goals and objectives, management practices, and activities that will be allowed to occur on an individual parcel or group of land parcels.

Landform: A discernible natural landscape that exists as a result of geological activity, such as a plateau, plain, basin, or mountain.

Landscape: An aggregate of different but interacting landforms, sometimes united by a cultural attribute (e.g., a mosaic of farmland, including tilled fields, woodlots, stock ponds, swales, and fencerows). Landscape ecology generally operates at a scale of at least many acres/hectares or, more often, several square miles/square kilometers.

Leasable Minerals: Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulfur, potassium, and sodium minerals, and oil, gas, and geothermal resources.

Lease: An authorization or contract by which one party (lessor) conveys the use of property, such as real estate, to another (lessee) in return for rental payments. In addition to rental payments, lessees also pay royalties (a percentage of value) to the lessor from resource production.

Line: The path, real or imagined, that the eye follows when perceiving abrupt differences in form, color, or texture or when objects are aligned in a one-dimensional sequence. Usually evident as the edge of shapes or masses in the landscape.

Locatable Mineral: Any valuable mineral that is not saleable or leasable including gold, silver, copper, uranium, etc., that may be developed under the General Mining Law of 1872.

Low-income populations: Defined in terms of Bureau of the Census annual statistical poverty levels (Current Population Reports, Series P-60 on Income and Poverty), may consist of groups or individuals who live in geographic proximity to one another or who are geographically dispersed or transient (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

M

Management Actions/Practices: Actions or practices that improve or maintain basic soil and vegetation resources. Rangeland practices typically consist of watershed treatments (planting, seeding, burning, rest, vegetation manipulation, grazing management) in an attempt to establish desired vegetation species or communities.

Maintenance Intensity Definitions: Transportation management designations used to indicate priorities for maintenance of roads and trails depending on their access purpose, type and volume of use.

Level 0 Maintenance Description: Existing routes that will no longer be maintained or declared as routes. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Level 1 Maintenance Description: Routes where minimal (low-intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Level 3 Maintenance Description: Routes requiring moderate maintenance because of low-volume use (e.g., seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access, but are intended to generally provide resources appropriate for keeping the route in use for the majority of the year.

Level 5 Maintenance Description: Routes for high (Maximum) maintenance because of year-round needs, high-volume traffic, or significant use. Also may include routes identified through management objectives as requiring high intensities of maintenance or to be maintained open year-round

Mechanized Travel: Moving by means of mechanical devices such as a bicycle; not powered by a motor.

Minimum Impact Suppression Techniques: A set of strategies utilized by wildland firefighters to suppressing wildfire while causing the fewest possible impacts to natural and/ or cultural resources in the vicinity.

Minority Populations: Minority populations exist where either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than in the general population or other appropriate unit of geographic analysis (such as a governing body's jurisdiction, a neighborhood, census tract, or other similar unit). "Minority" refers to individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Minority populations include either a single minority group or the total of all minority persons in the affected area. They may consist of groups of individuals living in geographic proximity to one another or a geographically dispersed / transient set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

Minimum Impact Suppression Techniques (MIST): A Set of strategies utilized by wildland firefighters to suppressing wildfire while causing the fewest possible impacts to natural and/or cultural resources in the vicinity.

Motorized Travel: Synonymous with off-highway vehicle (OHV). Examples of this type of vehicle include all-terrain vehicles (ATV), Utility Type Vehicle (UTV), Sport Utility Vehicle (SUV), motorcycle, and snowmobiles.

Multiple Use: Multiple use as defined by the Multiple Use – Sustained Yield Act 1960 means (1) the management of all the various renewable surface resources so that they are used in the combination that will best meet the needs of the American people, (2) making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions, (3) that some land will be used for less than all of the resources, and (4) harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will be given the greatest dollar return or the greatest unit output.

N

National Ambient Air Quality Standards (NAAQS): The allowable concentrations of air pollutants in the air specified by the Federal Government. The air quality standards are divided into primary standards (based on the air quality criteria and allowing an adequate margin of safety and requisite to protect the public health) and secondary standards (based on the air quality criteria and allowing an adequate margin of safety and requisite to protect the public welfare) from any unknown or expected adverse effects of air pollutants.

National Environmental Policy Act of 1969 (NEPA): An Act that encourages productive and enjoyable harmony between man and his environment and promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches understanding of the ecological systems and natural resources important to the Nation, and established the Council on Environmental Quality.

National Register of Historic Places (National Register): The official list of the Nation's cultural resources that are worthy of preservation. The National Park Service maintains the list under direction of the Secretary of the Interior. Buildings, structures, objects, sites, and districts are included in the National Register for their importance in American history, architecture, archeology, culture, or engineering. Properties included on the National Register range from large-scale, Monumentally proportioned buildings to smaller scale, regionally distinctive buildings. The listed properties are not just of nationwide importance; most are significant primarily at the State or local level.

Native Species: With respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

Naturalness: A characteristic of lands where the imprint of human activity is substantially unnoticeable. Imprints of human activity typically include travel routes or trails, fences, and other landscape modifications.

Nonattainment Area: An area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) any of the Federal primary or secondary ambient air quality standards for the pollutant.

Non-motorized Travel: Moving by foot, stock or pack animal (or other animal-powered travel), boat, or mechanized vehicle such as a bicycle.

Noxious Weeds: Plant species that have been legally designated as unwanted or undesirable. This includes national, State and county or local designations. According to the Federal Noxious Weed Law, native plant species are not designated "noxious." Native plant species that may be of a management concern, such as poisonous plants or desert shrub and subshrub species, are not considered priorities for noxious weed work or funding.

Nutrient Cycle: The process of use, release, and reuse of elements by plants and animals through uptake by incorporation into and decomposition of organisms. Elements involved in nutrient cycling remain in the vicinity of the earth's surface.

O

Objectives: The planned results to be achieved within a stated time period. Objectives are subordinate to goals, more narrow in scope, and shorter in range. Objectives must specify time periods for completion, and products or achievements that are measurable.

Off-Highway Vehicle (OHV) or Off-Road Vehicle: Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

Off-Highway Vehicle (OHV) Designations:

Open: An area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in 43 CFR Subparts 8341 and 8342.

Limited Area: An area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions. In areas limited to designated routes, motorized uses are allowed on the designated routes, with reasonable use of the shoulder and immediate roadside, allowing for vehicle passage, emergency stopping, or parking, unless otherwise posted.

Closed: An area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer.

Ozone (O₃): A gas that is a variety of oxygen. The oxygen gas found in the air consists of two oxygen atoms stuck together; this is molecular oxygen. Ozone consists of three oxygen atoms stuck together into an ozone molecule. Ozone occurs in nature; it produces the sharp smell you notice near a lightning strike. High concentrations of ozone gas are found in a layer of the atmosphere—the stratosphere—high above the earth. Stratospheric ozone shields the earth against harmful rays from the sun, particularly ultraviolet B. Smog's main component is ozone; this ground-level ozone is a product of reactions among chemicals produced by burning coal, gasoline, and other fuels, and chemicals found in products including solvents, paints, hairsprays, etc.

P

Particulate Matter: Includes dust, soot, and other tiny bits of solid materials that are released into and move around in the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing and application of fertilizers and pesticides, road construction, industrial processes such as steel making, mining operations, agricultural burning (field and slash burning), and operation of fireplaces and woodstoves.

Permit: Permits are one of three forms of a land use authorization (the others are leases and easements). Permits are short-term, revocable authorizations to use public lands for specific purposes that involve either little or no land improvement, construction, or investment that can be amortized within the term of the permit. A permit conveys no possessory interest. The permit is renewable at the discretion of the authorized officer and may be revoked in accordance with its terms and applicable regulations.

pH: A number used by chemists to express the acidity of solutions, including water. A pH value lower than 7 indicates an acidic solution, a value of 7 is neutral, and a value of higher than 7 indicates an alkaline solution. Most groundwater in the United States has pH values ranging from about 6.0 to 8.5.

Planning Area: As used in this document, includes all land within the planning area boundaries regardless of jurisdiction or ownership.

Preference: Grazing preference or preference means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee.

Prevention of Significant Deterioration (air): A Clean Air Act requirement to include a permit review process applicable to the construction and operation of new and modified stationary sources in attainment areas.

Primary Access Points: Areas provided to accommodate parking and staging activities at or near the Monument entrance. These sites may have parking for trailer towing vehicles, informational kiosks and associated minor improvements consistent with the Resource Management Zone.

Primitive Recreation: Includes non-motorized, nonmechanical forms of recreation, such as hiking or bird watching, in areas without or with minimal developed recreation facilities.

Primitive Road: A linear route managed for four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards.

Primitive Routes: Any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

Priority Habitat: Unique vegetation type with a dominant plant species of primary importance to wildlife. A priority habitat may be described as an area having unique or significant value to many wildlife species, a successional stage, or a specific habitat element (e.g., columnar cacti) that is of key value to wildlife.

Q

R

Range Improvement: An authorized physical modification or treatment designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; and restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses, burros, fish and wildlife. The term includes, but is not limited to, the structure, treatment projects, and use of mechanical devices, or modifications achieved through mechanical means.

Rangeland: A type of land on which the native vegetation or natural potential consists predominantly of grasses, grass-like 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, shrub lands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

Reclamation: Rehabilitation of a disturbed area to make it acceptable for designated use. This normally involves regrading, replacement of topsoil, revegetation and other work necessary to restore it for use.

Resource Management Plan (RMP): A land use plan that establishes land use allocations, multiple-use guidelines, and management objectives for a given planning area. The RMP planning system has been used by the BLM since 1980.

Restore Habitat: Return the quantity and quality of habitat to a previous, naturally occurring condition, most often a baseline considered suitable and sufficient to support self-sustaining wildlife populations.

Restore/Restoration: The process of returning an ecosystem as closely as possible to the pre-disturbance condition and function. Note: restoration involves restoring a site to a specific point in time.

Revegetate: The replacement of vegetation into a disturbed area with little or no concern for ecological conditions or functions.

Right-of-Way: Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project, pursuant to a right-of-way authorization.

Riparian: Situated on or pertaining to the bank of a river, stream, or other body of water, including areas of transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence.

Riparian Habitat: Riparian habitat is an ecological transition between an in-stream community of plants and animals and the adjacent, upland community. Normally the term is used for perennial, or year-round flowing streams. However, in Arizona the term xeroriparian habitat is used to describe the distinct plant and animal communities that concentrate around dry washes and are sustained by desert storms.

Road: Linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

Route: Multiple roads, trails and primitive roads; a group or set of roads, trails, and primitive roads that represents the BLM transportation system. Generically, components of the transportation system are described as 'routes.'

S

Salable Minerals: Minerals that may be sold under the Material Sale Act of 1947, as amended. Included are common varieties of sand, stone, gravel, and clay.

Saturated: When referring to soil, the maximum amount of water that can be held either when the soil is frozen or the spaces between the soil particles are filled with water. Any additional seepage over saturated soil will result in runoff.

Scale: The proportionate size relationship between an object and the surroundings in which it is placed.

Scenic Quality: The relative worth of a landscape from a visual perception point of view. Seven factors (landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications) are examined to evaluate the scenic quality of a landscape. The relative scenic quality (A, B, or C) assigned a landscape by applying the scenic quality evaluation key factors; scenic quality A being the highest rating, B a moderate rating, and C the lowest rating. The scenic quality-rating unit is defined as a portion of the landscape, which displays primarily homogenous visual characteristics of the basic landscape features (land and water form, vegetation, and structures).

Scoping: An early and open process for determining the scope of issues to be addressed in an environmental impact statement and for identifying the significant issues related to a proposed action.

Sensitive and Fragile Soils: Soils that are located on steep topography, are highly susceptible to wind and/or water erosion, have high potential for mass failure, are shallow to bedrock, are saline or alkaline, or soils that are virtually impossible or extremely difficult to reclaim.

Sensitive Species: Species not yet officially listed but that are undergoing status review for listing on the U.S. Fish and Wildlife Service's official threatened and endangered list; species whose populations are small and widely dispersed or restricted to a few localities; and species whose numbers are declining so rapidly that official listing may be necessary.

Solid Minerals: Solid minerals can be categorized into four types: (1) coal, (2) leasable minerals, (3) hardrock (locatable) minerals, and (4) common variety materials.

Solitude: Occurs in areas where the sights, sounds, and evidence of human activity are rare or infrequent and where visitors can be isolated, alone, or secluded from others.

Special Status Species: Plant or animal species listed as threatened, endangered, candidate, or sensitive by State governments or the Federal government.

Soil Compaction: The pressing of soil particles closer together, reducing the soil's capacity to hold organic matter, organisms, water, and air, all of which are essential for optimal plant growth.

Standards: Goals for the desired condition of the biological and physical components and characteristics of rangelands. Standards (1) are measurable and attainable; and (2) comply with various Federal and State statutes, policies, and directives applicable to BLM rangelands.

Structural Diversity: The diversity of the composition, abundance, spacing, and other attributes of plants in a community.

Sulfur Dioxide (SO₂): A gas produced by burning coal, most notably in power plants. Some industrial processes, such as production of paper and smelting of metals, produce sulfur dioxide. Sulfur dioxide is closely related to sulfuric acid, a strong acid. Sulfur dioxide plays an important role in the production of acid rain.

Surface Disturbance: The physical disturbance, which alters the structure and composition of vegetation and topsoil/ subsoil.

Surface Water: All bodies of water on the surface of the earth and open to the atmosphere, such as rivers, lakes, reservoirs, ponds, seas, and estuaries.

Sustained Yield: The concept of steady-state management of timber, wildlife, and many other natural resources. Consumption is matched by production.

T

Texture: The aggregation of small forms or color mixtures into a continuous surface pattern; the aggregated parts are enough that they do not appear as discrete objects in the composition of the scene.

Total Dissolved Solids: The total quantity (reported in milligrams per liter) of dissolved materials in water.

Toxicity: A characteristic defining a hazardous waste. Toxicity refers to the ability of a material to produce injury or disease on exposure, ingestion, inhalation, and assimilation by a living organism.

Trail: 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.

Transportation Asset: Term utilized to describe roads, primitive roads, and trails that comprise the transportation system. Transportation assets are designated in transportation plans, with a defined functional class, maintenance intensity, and type of access depending on their purpose and use, with maintenance standards for their physical and geometric requirements.

Trend: The direction of change over time, either toward or away from desired management objectives.

U

Uplands: Land at a higher elevation than the alluvial plain or low stream terrace; all lands outside the riparian-wetland and aquatic zones.

V

Valid Existing Rights: Locatable mineral development rights (mining claims) that existed as of the date of the Monument Proclamation (June 9, 2000) are presumed to be valid unless they fail to 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 the BLM to conduct a valid existing rights determination. These valid existing rights may be forfeit if the claimant fails to timely pay annual claim maintenance fees or timely file a maintenance fee waiver certificate.

Where lands covered by mining claims are withdrawn from future entries “subject to valid existing rights,” the withdrawal attaches, as of the date of the segregation or withdrawal, to all land described by the withdrawal, including the lands covered by the mining claims. So as long as the claims are valid, the withdrawal is ineffective as to the lands embraced by the claims.

Such lands are subject to the valid existing rights of the claimants, and in order to have valid existing rights, a claim must contain a discovery as of the date of the withdrawal as well as at the date of any validity determination. The claimant must demonstrate that he/she has made a discovery in each mining claim. To do this he/she must meet both the Prudent Man Rule and the Marketability Tests. The claimant must have made a physical exposure of the valuable mineral deposit within the limits of each claim. These exposures must contain mineralization of sufficient quantity and quality to justify a prudent man in expending both labor and money in developing a paying mine. U.S.v. Feezor, 74 IBLA 56, 90 I.D. 262 (1983). If a discovery is not physically exposed within the limits of the claim before the date of withdrawal, the claim is void. U.S. Gunsight Mining Co., 5 IBLA 62 (1972).

Anyone intending to develop mineral resources on the public lands must submit a mining plan of operations, and obtain Bureau of Land Management’s (BLM) approval, 43 CFR 3809.11. The BLM policy is that validity examinations are not automatically performed when a mining plan of operation is filed, unless the mining operation is within an area that is withdrawn or segregated, 43 CFR 3809.100; or a mineral examination report is required to determine if the minerals are uncommon varieties, 43 CFR 3809.101.

If a claimant files a mining plan of operations pursuant to 43 CFR 38009.11, BLM will not approve a plan of operations until BLM has prepared a mineral examination report to determine whether the mining claim was valid before the withdrawal, and whether it remains valid. If the Authorized Officer makes the decision to conduct a mineral examination under 43 CFR 3809.100(a), the proponent will be charged the cost recovery for the examination as required by 43 CFR 3800.5(b).

A validity examination determines whether a prudent person “would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine.” *Chrisman v. Miller*, 197 U.S. 313, 322 (1905). A validity examination is a process whereby the federal government verifies whether the claimant has discovered a valuable mineral deposit and, otherwise, has a valid mining claim.

Validity examinations consist of (1) an administrative review of the Bureau’s mining claim records to determine whether the claimant has complied with all pertinent laws and regulations, (2) a mineral examination of the claim site (fieldwork) to assess whether the claimant has discovered an economically valuable mineral deposit, and (3) a detailed mineral report prepared by the examiner.

If an examiner finds that a claimant has not complied with requirements or that the mineral deposit on a claim cannot be mined economically, the BLM may seek to have the claim eliminated by declaring the claim invalid meaning that the claim can be legally extinguished. If the claim(s) are found to be valid BLM would review and process the plan of operations in accordance with 43 CFR 3809.

Viable: A [wildlife] population that has the estimated numbers and distribution of reproductive individuals to ensure its continued existence.

Viewshed: The landscape that can be directly seen under favorable atmospheric conditions from a viewpoint or along a transportation corridor.

Visual Resources: The visible physical features on a landscape (e.g., land, water, vegetation, animals, structures, and other features). Visual resources are managed by inventory and planning actions taken to identify resource values and to establish objectives for managing those values; and the management actions taken to achieve the visual management objectives.

W

Watershed: The land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge.

Water Quality: The chemical, physical, and biological characteristics of water in respect to its suitability for a particular purpose.

Weed: A non-native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition, and diversity of the site it occupies. Its presence deteriorates the health of the site, it makes efficient use of natural resources difficult, and it may interfere with management objectives for that site.

Wetlands: Those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances do or will support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands

generally include swamps, marshes, bogs, and similar areas (e.g., sloughs, potholes, wet meadows, river overflow areas, mudflats, natural ponds).

Wilderness Characteristics: These attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2 (c) of the Wilderness Act.

Wildland Urban Interface: The area where developed and undeveloped lands meet.

X

Xeroriparian Habitat: The distinct plant and animal communities that concentrate around dry washes and are sustained by desert storms.

Y

Z

CHAPTER 3.0 LIST OF PREPARERS

Name	Draft RMP/EIS Responsibilities	Education
BLM		
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APPENDICES

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APPENDIX A
PRESIDENTIAL PROCLAMATION

Monday, June 12, 2000

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Proclamation 7320 — Establishment of the Ironwood Forest National Monument

William J. Clinton

June 9, 2000

By the President of the United States of America

A Proclamation

The landscape of the Ironwood Forest National Monument is swathed with the rich, drought-adapted vegetation of the Sonoran Desert. The monument contains objects of scientific interest throughout its desert environment. Stands of ironwood, palo verde, and saguaro blanket the monument floor beneath the rugged mountain ranges, including the Silver Bell Mountains. Ragged Top Mountain is a biological and geological crown jewel amid the depositional plains in the monument.

The monument presents a quintessential view of the Sonoran Desert with ancient legume and cactus forests. The geologic and topographic variability of the monument contributes to the area's high biological diversity. Ironwoods, which can live in excess of 800 years, generate a chain of influences on associated understory plants, affecting their dispersal, germination, establishment, and rates of growth. Ironwood is the dominant nurse plant in this region, and the Silver Bell Mountains support the highest density of ironwood trees recorded in the Sonoran Desert. Ironwood trees provide, among other things, roosting sites for hawks and owls, forage for desert bighorn sheep, protection for saguaro against freezing, burrows for tortoises, flowers for native bees, dense canopy for nesting of white-winged doves and other birds, and protection against sunburn for night blooming cereus.

The ironwood-bursage habitat in the Silver Bell Mountains is associated with more than 674 species, including 64 mammalian and 57 bird species. Within the Sonoran Desert, Ragged Top Mountain contains the greatest richness of species. The monument is home to species federally listed as threatened or endangered, including the Nichols turk's head cactus and the lesser long-nosed bat, and contains historic and potential habitat for the cactus ferruginous pygmy-owl. The desert bighorn sheep in the monument may be the last viable population indigenous to the Tucson basin.

In addition to the biological and geological resources, the area holds abundant rock art sites and other archeological objects of scientific interest. Humans have inhabited the area for more than 5,000 years. More than 200 sites from the prehistoric Hohokam period (600 A.D. to 1450 A.D.) have been recorded in the area. Two areas within the monument have been listed on the National Register of Historic Places, the Los Robles Archeological District and the Cocoraque Butte Archeological District. The archeological artifacts include rhyolite and brown chert chipped stone, plain and decorated ceramics, and worked shell

from the Gulf of California. The area also contains the remnants of the Mission Santa Ana, the last mission constructed in Pimeria Alta.

Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and to reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected. Whereas it appears that it will be in the public interest to reserve such lands as a national monument to be known as the Ironwood Forest National Monument:

Now, Therefore, I, William J. Clinton, President of the United States of America, by the authority vested in me by section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), do proclaim that there are hereby set apart and reserved as the Ironwood Forest National Monument, for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the United States within the boundaries of the area described on the map entitled "Ironwood Forest National Monument" attached to and forming a part of this proclamation. The Federal land and interests in land reserved consist of approximately 128,917 acres, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, including but not limited to withdrawal from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the monument.

For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes.

Lands and interests in lands within the proposed monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States. The Secretary of the Interior shall manage the monument through the Bureau of Land Management, pursuant to applicable legal authorities, to implement the purposes of this proclamation. The Secretary of the Interior shall prepare a transportation plan that addresses the actions including road closures or travel restrictions, necessary to protect the objects identified in this proclamation.

The establishment of this monument is subject to valid existing rights. Nothing in this proclamation shall be deemed to enlarge or diminish the jurisdiction of the State of Arizona with respect to fish and wildlife management.

This proclamation does not reserve water as a matter of Federal law. Nothing in this reservation shall be construed as a relinquishment or reduction of any water use or rights reserved or appropriated by the United States on or before the date of this proclamation. The Bureau of Land Management shall work with appropriate State authorities to ensure that any water resources needed for monument purposes are available. Nothing in this proclamation shall be deemed to enlarge or diminish the rights of any Indian tribe.

Laws, regulations, and policies followed by the Bureau of Land Management in issuing and administering grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the monument.

Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof. In Witness Whereof, I have hereunto set my hand this ninth day of June, in the year of our Lord two thousand, and of the Independence of the United States of America the two hundred and twenty-fourth.

William J. Clinton

[Filed with the Office of the Federal Register, 10:47 a.m., June 12, 2000]

NOTE: This proclamation will be published in the Federal Register on June 13.

APPENDIX B

CONSERVATION MEASURES

Conservation Measures from the Lesser Long-nosed Bat Recovery Plan

BLM will manage public land within the IFNM in accordance with the following conservation measures for the lesser long-nosed bat:

1. Continue protecting roost sites and evaluate the need for and implement protection for food plants.
2. Monitor all major roosts in Arizona, New Mexico, and Mexico once a year.
3. Continue surveying for additional roosts in the United States and Mexico.
4. Develop and conduct a public education and information campaign in Arizona, New Mexico, and Mexico on the beneficial aspects of bats in general and the lesser long-nosed bat specifically.
5. Conduct critical research on population census techniques, physical requirements for roosts, foraging ranges of roosts, reproduction and mating systems and other life history and habitat questions.

Conservation Measures from Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan

The following management objectives were developed to help BLM meet its overall goal for preserving and managing tortoises and their habitats.

Objective 1. Develop increased awareness of tortoise resources on the public land.

Objective 2. Complete and maintain on a continuing basis an inventory and monitoring program for tortoise populations and habitats to assist in making management decisions on the public lands.

Objective 3. Develop and maintain a monitoring program specifically for land-use activities that adversely affect tortoise habitats. This program will, be used in the analysis of and response to the cumulative impacts of land-use decisions on tortoise habitats.

Objective 4. Comply fully with the Endangered Species Act of 1973, as amended, as it relates to tortoise population and habitat management on the public lands.

Objective 5. Develop and maintain effective coordination and cooperation with outside agencies and Bureau constituents concerning tortoise population and habitat management.

Objective 6. Conduct research and studies sufficient to develop and document the knowledge and techniques needed to ensure the viability of tortoise populations and habitats in perpetuity.

Objective 7. Manage the public lands, on a continuing basis, to protect the scientific, ecological, and environmental quality of tortoise habitats consistent with the category goals and other objectives of

the Rangewide Plan. This implies management for the existence of an adequate number of healthy and vigorous tortoise populations of sufficient size and resilience to withstand the most severe environmental impacts, and with appropriate sex and age ratios and recruitment rates to maintain viable populations in perpetuity.

Objective 8. When the need is identified through the BLM planning system, acquire and/or consolidate, under BLM administration, management units with high tortoise habitat values, and mitigate the effects of issuing rights-of-way across public lands.

Objective 9. Ensure that off-highway vehicle use in desert tortoise habitats is consistent with the category goals, objectives, and management actions of the Rangewide Plan.

Objective 10. Ensure that livestock use is consistent with the category goals, objectives, and management actions of the Rangewide Plan. This may include limiting, precluding, or deterring livestock use as documented in site-specific plans.

Objective 11. Provide for herd management for wild horses and burros which is consistent with the category goals, objectives, and management actions of the Rangewide Plan. This may include limiting or precluding wild horse and/or burro use, as appropriate. (No wild horses or burros exist within the IFNM.)

Objective 12. Provide for management of wildlife other than desert tortoises on the public lands consistent with the category goals, objectives, and management actions of the Rangewide Plan.

Objective 13. Cooperate with state wildlife agencies and the Animal and Plant Health Inspection Service to effect appropriate types and levels of predator control, to meet the category goals, objectives, and management actions of the Rangewide Plan. This will be considered only where predation is interfering with maintaining viable tortoise populations.

Objective 14. Manage the BLM's energy and minerals program in a manner consistent with the category goals, objectives, and management actions of the Rangewide Plan.

Conservation Measures from the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management

The following conservation measures for fire management activities are common to all alternatives and will be implemented for all authorized management activities. These conservation measures are intended to provide State-wide consistency in reducing or eliminating the effects of management actions on Federally endangered, threatened, proposed, and candidate species, as well as species included on the Wildlife Species of Concern in Arizona and BLM Arizona Sensitive Species lists.

Wildland Fire Suppression

The following conservation measures will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Each conservation measure has been given an alphanumeric designation for organizational purposes (e.g., FS-1). Necessary modifications of the conservation measures or impacts to Federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

- **FS-1.** Protect known locations of habitat occupied by Federally listed species. Minimum Impact Suppression Tactics (M.I.S.T.) will be followed in all areas with known Federally protected species or habitat [*Interagency Standards for Fire and Aviation Operations 2003*, or updates].
- **FS-2.** Resource Advisors will be designated to coordinate natural resource concerns, including Federally protected species. They will also serve as a field contact representative responsible for coordination with the USFWS. Duties will include identifying protective measures endorsed by the Field Office Manager, and delivering these measures to the Incident Commander; surveying prospective campsites, aircraft landing and fueling sites; and performing other duties necessary to ensure adverse effects to Federally protected species and their habitats are minimized. On-the-ground monitors will be designated and used when fire suppression activities occur within identified occupied or suitable habitat for Federally protected species.
- **FS-3.** All personnel on the fire (firefighters and support personnel) will be briefed and educated by Resource Advisors or designated supervisors about listed species and the importance of minimizing impacts to individuals and their habitats. All personnel will be informed of the conservation measures designed to minimize or eliminate take of the species present. This information is best identified in the incident objectives.
- **FS-4.** Permanent road construction will not be permitted during fire suppression activities in habitat occupied by Federally protected species. Construction of temporary roads is approved only if necessary for safety or the protection of property or resources, including Federally protected species habitat. Temporary road construction will be coordinated with the USFWS, through the Resource Advisor.
- **FS-5.** Crew camps, equipment staging areas, and aircraft landing and fueling areas will be located outside of listed species habitats, and preferably in locations that are disturbed. If camps must be located in listed species habitat, the Resource Advisor will be consulted to ensure habitat damage and other effects to listed species are minimized and documented. The Resource Advisor will also consider the potential for indirect effects to listed species or their habitat from the siting of camps and staging areas (e.g., if an area is within the water flow pattern, there may be indirect effects to aquatic habitat or species located off-site).

Species Specific Conservation Measures

The following species-specific conservation measures will be applied during wildfire suppression to the extent possible, and will be required during fuels treatment activities. Necessary modifications of the conservation measures or impacts to Federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

Cactus ferruginous pygmy-owl

- **FP-1.** Treatment of riparian habitat, Sonoran desert/desertscrub, or mesquite-invaded grasslands under 4,000 feet in elevation that may support nesting cactus ferruginous pygmy owls will only occur during the non-nesting season of August 1 to January 31, unless pre-project surveys indicate the area does not support pygmy-owls or mitigation plans approved by the USFWS have alleviated negative consequences.

- **FP-2.** Develop mitigation plans in coordination with the USFWS for fuels treatment projects (mechanical, chemical, or biological treatments) that may adversely affect cactus ferruginous pygmy-owls or their habitat. Mitigation plans will be approved by the USFWS.
- **FP-3 (Recommended).** To the extent possible, maintain habitat features necessary to support breeding populations of the pygmy-owl within their historic range and review ongoing fire management activities for effects on essential habitat features needed by cactus ferruginous pygmy-owls. Modify activities, where necessary, to sustain the overall suitability of the habitat for the owls. Priority will be given to activities in or near occupied or recently (w/in the last 10 years) occupied habitat.

Flowering Plants

The following conservation measures for known locations and unsurveyed habitat of all Federally protected plant species within the planning area will be implemented during fire suppression to the extent possible, and are mandatory for fuel treatment activities:

- **PL-1.** Known locations and potential habitat for plant populations will be mapped to facilitate planning for vegetation treatments, and to ensure protection of these populations during fire suppression.
- **PL-2.** BLM will coordinate with USFWS to delineate buffer areas around plant populations prior to vegetation treatment activities. BLM will coordinate with USFWS during any emergency response to ensure protection of plant populations from fire and fire suppression activities.
- **PL-3.** During fire suppression, in habitat occupied by federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100- meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.

Lesser long-nosed bat

- **LB-1.** Instruct all crew bosses (wildfire suppression and mechanical, chemical, biological treatments) in the identification of agave and columnar cacti and the importance of their protection.
- **LB-2.** Prior to implementing any fuels treatment activities (mechanical, chemical, biological treatments), preproject surveys will be conducted for paniculate agaves and saguaros that may be directly affected by fuels management activities.
- **LB-3.** Protect long-nosed bat forage plants—saguaros and high concentrations of agaves—from wildfire and fire suppression activities, and from modification by fuels treatment activities (mechanical, chemical, biological treatments), to the greatest extent possible. Agave concentrations are contiguous stands or concentrations of more than 20 plants per acre. Avoid driving over plants, piling slash on top of plants, and burning on or near plants. Staging areas for fire crews or helicopters will be located in disturbed sites, if possible.

- **LB-4.** No seeding/planting of nonnative plants will occur in any wildfire rehabilitation site or fuels treatment site with paniculate agaves or saguaros.
- **LB-5.** A mitigation plan will be developed by the Bureau in coordination with the USFWS for fuels management projects (mechanical, chemical, biological treatments) within 0.5 mi of bat roosts or in areas that support paniculate agaves or saguaros. The mitigation plan will ensure that effects to bat roosts and forage plants are minimized and will include monitoring of effects to forage plants. The plan will be approved by the USFWS.
- **LB-6 (Recommended).** BLM personnel will examine concentrations of agaves (including shindagger (*A. schottii*) within each proposed fuels treatment area, and protect from treatments any significant concentrations of agaves that appear to be amidst fuel loads that could result in mortality greater than 20 percent (>50% for *A. schottii*). BLM personnel will use their best judgment, based on biological and fire expertise, to determine which significant agave stands are prone to mortality greater than 20 percent (>50% for *A. schottii*).

Desert tortoise, Sonoran population

Implement the conservation measures for desert tortoise, as appropriate, for fire suppression and fuels treatment activities (mechanical, chemical, biological treatments), excluding requirements for notification to USFWS.

Conservation Measures for Desert tortoise

- **DT-1.** Take appropriate action to suppress all wildfires in desert tortoise habitat, based on preplanned analysis and consistent with land management objectives, including threats to life and property. Full suppression activities will be initiated within key desert tortoise habitat areas identified in site-specific Fire Management Plans.
- **DT-2.** Suppress all wildfires in desert tortoise habitat with minimum surface disturbance, in accordance with the guidelines in Duck et al. (1995) and the 1995 programmatic BO on fire suppression on the Arizona Strip (2-21-95-F-379).
- **DT-3.** Pre-position suppression forces in critical areas during periods of high fire dangers.
- **DT-4.** As soon as practical, all personnel involved in wildfire suppression (firefighters and support personnel) will be briefed and educated about desert tortoises and the importance of protecting habitat and minimizing take, particularly due to vehicle use. Fire crews will be briefed on the desert tortoise in accordance with Appendix II of Duck et al. (1995).
- **DT-5.** If wildfire or suppression activities cannot avoid disturbing a tortoise, the Resource Advisor or monitor will relocate the tortoise, if safety permits. The tortoise will be moved into the closest suitable habitat within 2 miles of the collection site that will ensure the animal is reasonably safe from death, injury, or collection associated with the wildfire or suppression activities. The qualified biologist will be allowed some discretion to ensure that survival of each relocated tortoise is likely. If the extent or direction of movement of a fire makes sites within 2 miles of the collection site unsuitable or hazardous to the tortoise or biologists attempting to access the area, the tortoise may be held until a suitable site can be found or habitat is safe to access and not in immediate danger of burning. The Resource Advisor will contact the USFWS Arizona Ecological Services Field Office (AESFO) as soon as possible concerning disposition of

any animals held for future release. Desert tortoises will not be placed on lands outside the administration of the Federal government without the written permission of the landowner. Handling procedures for tortoises, including temporary holding facilities and procedures, will adhere to protocols outlined in Desert Tortoise Council (1994).

- **DT-6.** Upon locating a dead, injured, or sick desert tortoise, initial notification must be made to the appropriate USFWS Law Enforcement Office within three working days of its finding. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph, and any other pertinent information. The notification will be sent to the Law Enforcement Office with a copy to the AESFO.
- **DT-7.** Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. If possible, the remains of intact desert tortoises will be placed with educational or research institutions holding appropriate State and Federal permits. If such institutions are not available, the information noted above will be obtained and the carcass left in place. Arrangements regarding proper disposition of potential museum specimens will be made with the institution prior to implementing the action. Injured animals will be transported to a qualified veterinarian by an authorized biologist. Should any treated desert tortoise survive, the USFWS will be contacted regarding final disposition of the animal.
- **DT-8.** The Resource Advisor or monitor(s) will maintain a record of all desert tortoises encountered during fire suppression activities. This information will include for each desert tortoise: (1) locations and dates of observation; (2) general condition and health, including injuries and state of healing, and whether animals voided their bladders; (3) location moved from and to; and (4) diagnostic markings (i.e., identification numbers of marked lateral scutes). No notching of scutes or replacement of fluids with a syringe is authorized.
- **DT-9.** Prior to moving a vehicle, personnel will inspect under the vehicle for tortoises. If a tortoise is found under the vehicle, the tortoise will be allowed to move away from the vehicle on its own accord, if possible. Otherwise an individual will move the tortoise to a safe locality in accordance with **FS-2** and **DT-5**.
- **DT-10.** Off-road vehicle activity will be restricted to the minimum necessary to suppress wildfires. Vehicles will be parked as close to roads as possible, and vehicles will use wide spots in roads or disturbed areas to turn around. Whenever possible, a biologist or crewperson trained to recognize tortoises and their shelter sites will precede any vehicle traveling off-road to direct the driver around tortoises and tortoise burrows. Whenever possible, local fire-fighting units will provide direction and leadership during off-road travel because of their expertise and knowledge of area sensitivities.
- **DT-11.** Fire-related vehicles will drive slow enough to ensure that tortoises on roads can be identified and avoided.
- **DT-12.** Fire crews or rehabilitation crews will, to the extent possible, obliterate off-road vehicle tracks made during fire suppression in tortoise habitat, especially those of tracked vehicles, to reduce future use.
- **DT-13.** To the maximum extent practical, campsites, aircraft landing/fueling sites, and equipment staging areas will be located outside of desert tortoise habitat or in previously disturbed areas. If

such facilities are located in desert tortoise habitat, 100 percent of the site will be surveyed for desert tortoises by a qualified biologist approved by BLM, whenever feasible. Any tortoises found will be moved to a safe location in accordance with **FS-2** and **DT-5**. All personnel located at these facilities will avoid disturbing active tortoise shelter sites.

- **DT-14.** Elevated predation by common ravens or other predators attributable to fire suppression activities will be reduced to the maximum extent possible. Work areas, including campsites, landing/fueling sites, staging areas, etc. will be maintained in a sanitary condition at all times. Waste materials at those sites will be contained in a manner that will avoid attracting predators of desert tortoises. Waste materials will be disposed of at an appropriate waste disposal site. “Waste” means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
- **DT-15.** Backfiring operations are permitted where necessary in desert tortoise habitat. Burning out patches of identified habitat within or adjacent to burned areas is not permitted as a standard fire suppression measure unless necessary for firefighter or public safety or to protect property, improvements, or natural resources.
- **DT-16.** Use of foam or retardant is authorized within desert tortoise habitat.
- **DT-17.** Rehabilitation of vegetation in tortoise habitat will be considered, including seeding, planting of perennial species, etc.
- **DT-18.** Recovery of vegetation will be monitored, including establishing and monitoring paired plots, inside and outside burned areas in tortoise habitat. Recovery plans will be coordinated with the USFWS and AGFD.
- **DT-19.** The effectiveness of wildfire suppression activities and desert tortoise conservation measures will be evaluated after a wildfire. Procedures will be revised as needed.

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APPENDIX C

ARIZONA GUIDELINES FOR GRAZING ADMINISTRATION

The Arizona Guidelines for Grazing Administration are a series of management practices used to ensure that grazing activities meet the Land Health Standards. These guidelines apply to management of all public lands, and are therefore common to all alternatives presented in this document.

- 1-1. 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 within management units. The ground cover will maintain soil organisms and 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.
- 1-2. 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.
- 2-1. 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 appropriate to climate and landform.
- 2-2. 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 riparian-wetland functions.
- 2-3. The development of springs and seeps or other projects affecting water and associated resources shall be designed to protect ecological functions and processes.
- 3-1. The use and perpetuation of native species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, non-intrusive, nonnative 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 nonnative species, and/or (d) cannot compete with already established nonnative species.
- 3-2. Conservation of Federal threatened or endangered, proposed, candidate, and other special status species is promoted by the maintenance or restoration of their habitats.
- 3-3. Management practices maintain, restore, or enhance water quality in conformance with State or Federal standards.
- 3-4. Intensity, season and frequency of use, and distribution of grazing use will provide for growth and reproduction of those plant species needed to reach desired plant community objectives.

- 3-5. 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 useable levels at the time grazing begins;
 - sufficient surface and subsurface soil moisture exists for continued plant growth; serviceable waters are capable of providing for proper grazing distribution;
 - sufficient annual vegetation will remain on site to satisfy other resource concerns;
 - watershed, wildlife, wild horses and burros); and monitoring is conducted during grazing to determine if objectives are being met.
- 3-6. Management practices will target those populations of noxious weeds which can be controlled or eliminated by approved methods.
- 3-7. Management practices to achieve desired plant communities will consider protection and conservation of known cultural resources, including historical sites, and prehistoric sites and plants of significance to Native American peoples.

APPENDIX D

ROUTE INVENTORY AND EVALUATION

Route Inventory Process

Through the RMP process and associated environmental analysis, BLM will establish a Travel Management Plan (TMP), as directed by the Presidential Proclamation and consistent with BLM policy. The IFNM TMP development process considers long-term monitoring, maintenance, and management of the designated route system to accommodate motorized and non-motorized use for administrative purposes and public use. An inventory of existing travel routes within the IFNM, which serves as the foundation of the TMP, was completed in 2003 under a cooperative project between the School of Renewable Natural Resources at the University of Arizona and the BLM (Gimblett 2004). Existing road and trail networks, route conditions, facilities, improvements and public use areas accessed by the routes (range improvements, wildlife improvements, recreation activity areas, gates, fences, trailheads, and other features) were inventoried and mapped. Inventory procedures were designed to collect information necessary for planning and management for the IFNM. Tools and procedures used to complete the inventory included route identification using aerial photography, on-the-ground verification and data collection with global positioning system (GPS) equipment, and documentation of route conditions. The routes identified in the inventory were later evaluated to identify route designation alternatives for developing the comprehensive TMP. This appendix describes the route evaluation process in detail, lists the criteria that were applied to each route during evaluation, and explains how route designations in this RMP were derived from the route evaluation process.

Description of the Route Evaluation Tree Process[©]

The BLM in Arizona has adapted the Route Evaluation Tree Process[©], designed by Advanced Resource Solutions, Inc., for evaluating and designating routes. The Route Evaluation Tree Process[©] applies a standard analytical method to existing routes to assist in determining route designations. This process was used to evaluate routes on the IFNM.

The Route Evaluation Tree Process[©] is a tool designed to assist agency staff with the systematic collection and compilation of data necessary for the thorough evaluation, analysis, and/or designation of both motorized and non-motorized routes. It builds upon the history of past efforts of route designation, assists with addressing various issues and concerns raised by both private and public entities (e.g., planning policy, sensitive resource protection, commercial access needs, recreational access preferences), and helps to assess compliance with state and federal statutory requirements that need to be considered in this type of planning effort. The Route Evaluation Tree Process[©] helps to build into the land use planning process a means by which to achieve desired outcomes that are specifically tailored to the needs and issues unique to a planning area. It is not a replacement for the NEPA process, documents, or analysis, but rather is a tool designed to assist with the systematic collection of sensitive resource and route-use information that can then be subsequently used to evaluate and designate routes. The Route Evaluation Tree Process[©] or its software does not make any final decisions regarding route designation. Route designation recommendations are made by agency staff utilizing both data collected during the Route Evaluation Tree Process[©] and from other agency data sources. Ultimately, any decisions made regarding route designation are made by BLM managers as part of the Record of Decision.

In order to address the many facets of route evaluation and transportation planning, the Route Evaluation Tree Process[®] is divided into a number of smaller steps that fine-tune the information needed to successfully evaluate and designate routes. The process is illustrated on the “Route Evaluation Tree Process[®] for Travel Management Planning” at the end of this appendix.

The Route Evaluation Tree^{®1} is only one step within the overall Route Evaluation Tree Process[®]. The process takes a systematic approach to collect data and evaluate routes individually, as well as collectively, based upon statutory requirements and issues raised by the public, and plan alternative themes developed by the BLM. The result of this process is the creation of different potential designated route networks that address identified issues and constraints (see “Route Evaluation Tree[®]” diagram at the end of this appendix). The data collected through this route evaluation process may assist agency planners in making potential decisions within the environmental impact analysis process required by NEPA. The Route Evaluation Tree Process[®] has been extensively used by the BLM and other land management agencies. The process meets or exceeds the needs of the BLM Land Use Planning Handbook. The details and results of this process are summarized in this appendix and documented fully in the IFNM Route Evaluation Database, available for public review at the Tucson Field Office.

Route Evaluation Criteria

During the route evaluation process, a BLM interdisciplinary team used detailed variables or criteria to evaluate each route. Route evaluations were then applied to the themes governing each alternative to produce a range of alternatives and route designations, as presented in Chapter 2. The criteria developed were based foremost upon the overarching “minimization criteria” for location of OHV areas and trails as specified in 43 CFR 8341:

- (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- (d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

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¹The process has previously been referred to as the “Route Evaluation/Designation Decision Tree Process” or “Decision Tree.” A “decision tree” is a technique or tool for assisting in the decision making process by leading one through a series of yes/no questions based upon input received (flowchart). A “decision” in the context of NEPA has a more legalistic meaning specifically relating to the NEPA process. The name “Decision Tree” was used to indicate it was created in a style; however, to avoid the potential for misunderstanding of the meaning of the word “decision,” it has been removed from the title of the process.

Under consideration of these criteria, BLM developed the following guidelines (listed in no particular order) and applied them to the route evaluation process on the IFNM.

1. Provide access to meet management objectives and other administrative requirements (including Border Patrol use and access needs for fire management activities and vehicle types).
2. Provide access to inholdings and for valid, existing rights through easement or right-of-way grants.
3. Retain reasonable access that appropriately accommodates current recreational activities.
4. Minimize the number of routes by closing duplicative routes.
5. Designate routes to support protection of Monument objects, enhancement, and restoration of sensitive resources.
6. Accommodate universal access needs by designating access points and routes for both motorized and non-motorized uses to provide a range of recreation opportunities (e.g., landscape /visual, ecological, cultural/historic, wildlife) along the Avra Valley – Silverbell – Sasco Road loop route.
7. Close/limit public use where there is a high risk of damage to Monument objects or sensitive resource values from public access and use.
8. Watershed (Air, Soil, Water Resources):
 - Minimize designation of motorized and non-motorized routes as open on/across dust-prone soils.
 - Unsurfaced (i.e., unpaved) routes designated as open in silty-clay soils may be closed during wet soil conditions to prevent damage.
 - Minimize designation of routes as open to motorized or non-motorized use that cross or include a segment that follows a wash; where possible, close those routes where the purpose or presence of the route contributes to the deteriorating condition of the wash, soil loss, damage to the plant community, cultural damage, or other resource damage.
9. Biological Resources
 - Minimize designation of routes as open to motorized use or non-motorized mechanized use in or across vegetative communities identified as unique or important; blocks of undisturbed habitat; special management areas identified for bighorn sheep; Nichol Turk’s Head cactus habitat; xeroriparian areas used as movement corridors by mule deer and javelina; and (for desert tortoise protection) across incised washes between Samaniego Hills, Waterman, Roskruge, and Pan Quemado Mountains.
 - Minimize designation of routes as open to motorized use or non-motorized mechanized use within Nichol Turk’s Head cactus habitat and desert tortoise habitat.
10. Cultural Resources
 - Provide adequate access to cultural sites allocated for public use.
 - Minimize selection of routes as open to motorized use or non-motorized mechanized use on/across significant cultural sites.
 - Close existing vehicle route spurs that end at significant cultural sites.
11. Paleontological Resources and Caves: close to motorized and non-motorized mechanized use existing vehicle route spurs that end at significant caves with significant resource values.
12. Lands and Realty: close access roads to public use on routes to sensitive facilities.

13. Recreation

- In order to meet recreation objectives, retain existing routes that provide for a key sightseeing, driving for pleasure, and vehicle touring opportunities (including watchable wildlife) as open to public access; close/limit public access in favor of natural/cultural resource protection even if opportunities for high value for this recreation activity are compromised.
- Close overgrown routes. Vegetation treatment (clearing/trimming) may be authorized to provide access on overgrown access routes to existing utilities. Allow use of these routes for emergency purposes and administrative purposes, provided vegetation cover is protected.
- Routes identified for closure to motorized and non-motorized mechanized vehicles would be either (1) closed to all travel, obliterated, and revegetated, or (2) remain open for non-motorized use, excluding mechanized use (bicycles), based on recreation management and natural/cultural resource objectives.
- Identify and address proper management of historic routes, including those that may be abandoned and reclaiming those that may be associated with the Juan Bautista de Anza National Historic Trail. Consider designation of Sasco Road trails project, which would provide interpretation along the historic railroad route.

14. Visual: provide access to identified scenic overlooks.

The following is a sample of additional specific data that was collected to assist agency staff with recommending route designations for each alternative:

1. **Resource Issues:**

Association or Proximity of Route to:

- Known Cultural Site
- Site or Area of Tribal Significance
- Sites on National Register of Historic Places
- Vegetation Habitat Management Area
- Area of Critical Environmental Concern
- Portal Access to National Monument
- Wilderness Characteristics
- Wildlife Habitat Management Area
- Emergency Closure Areas
- Exemplary Plant Communities
- Sensitive Plant Species Area
- Special Status Plant Species
- Sensitive Wildlife Species Area

Other Resource Considerations:

- Air Quality
- Desert Wash
- Dumping
- High Density Route Area
- Route Proliferation
- Soils
- Critical Habitat Designations
- Recreation Opportunity Spectrum

- Visual Resource Management
- Hazards

2. **Public Uses**

Existing Public Uses:

- ATV Use
- Birding
- Camping – Developed
- Camping – Primitive
- Equestrian
- Firewood Gathering – Illegal
- Firewood Gathering – Legal
- Geocaching
- Hiking
- Hunting
- Motorcycle Trials
- Motorcycle Use
- Mountain Biking
- New Age Visitors
- OHV Touring
- Paintball
- Parking Area – Improved
- Parking Area – Unimproved
- Public Use Site Access/Interpretative Panel
- Rockhounding
- Shooting
- SUV Touring
- Vistas, Sightseeing, Photography
- Wildlife Watching

Other Public Use Considerations:

- Route Contributes to Public Safety
- Route Contributes to User Conflicts
- Route Helps Minimize User Conflicts
- Route is a Concern for Public Safety
- Commercial Recreation Permit
- Special Recreation Use Permit

3. **Commercial, Administrative, Property Access, and Economic Issues:**

Commercial Ranching Facilities

- Active Allotment
- Allotment Boundary Fenceline
- Cattleguard
- Corral
- Fence Line (not Allotment Boundary Fenceline)
- Gate
- Pipeline
- Ranch
- Ranch HQ

- Tank, Trough
- Water Catchment
- Well
- Windmill

Administrative Uses

- Administrative Gate
- Compliance/Enforcement Monitoring
- Fire Suppression
- Monitoring Site
- Resource Treatment
- Weed Abatement
- Wildlife Agency Monitoring
- Wildlife Catchment
- Wildlife Water / Guzzler

Utilities

- Gate
- Utility Corridor
- Cell Site
- Communication Site
- Gas Pipeline
- Electrical Transmission / Powerline
- Telephone

Land Access

- City Gate
- City Land Access
- County Land Access
- Private Property Access
- State Land
- Tribal Land Access

Other

- Active/Inactive Mines
- Apiary Site
- Cemetery
- Desert Plant Sales (from Private Land)
- Dude Ranch
- Landing Strip
- Military Facility
- Mining Claims
- Officially recognized in Federal Planning Document and Maintained
- Route is recognized as contributing to the local economy
- Route is recognized in a local plan
- Route provides connection to public highway system (Federal, State, county)

Adaptation of Route Evaluation Process to IFNM Travel Management

The route evaluation concluded in a variety of route specific management designations, which vary by alternative (as each alternative has a different management theme). These designations are identified in the list below as “designation codes.” Each of the 28 designation codes that resulted from the route evaluation process was then grouped under one of the following three route designations for this RMP: motorized use, non-motorized use (excluding non-motorized mechanized use), or reclamation. These resulting designations are identified below as “route designations.”

Alternatives B, C, and D each propose a travel management plan for the long-term monitoring, maintenance and management of the designated access point and route system for both motorized and non-motorized/non-mechanized uses of public lands (see Table 2-16 in the Proposed Resource Management Plan and Final Environmental Impact Statement). The travel management plan proposed by each alternative would differ with regard to which roads and trails would remain open or be closed. The designations below help to define the travel management plan objectives and discuss how each route with that designation code would be treated in the implementation phase of the travel management plan. The travel management objectives and definitions for each designation also are listed below:

Designation Code:	C01
Objective:	Route will be closed and not maintained as a trail.
Definition:	Closed to all motorized and mechanized travel year-round. Revegetate and stabilize erosion.
Route Designation:	None. Route would be reclaimed.
Designation Code:	C07
Objective:	Route will be closed and not maintained as a trail.
Definition:	Closed to all motorized and mechanized travel year-round. Revegetate and stabilize erosion.
Route Designation:	None. Route would be reclaimed.
Designation Code:	C08
Objective:	Route will be closed and not maintained as a trail.
Definition:	Closed to all motorized and mechanized travel year-round. No maintenance work will be performed to accommodate non-motorized public use. Open to non-motorized public use except for mechanized uses (bicycles) subject to route conditions.
Route Designation:	Non-motorized use.
Designation Code:	C26
Objective:	Route will be closed and not maintained as a trail.
Definition:	Closed to all motorized and mechanized travel year-round. Revegetate and stabilize erosion.
Route Designation:	None. Route would be reclaimed.
Designation Code:	ML02-TransAllNM
Objective:	Route will be maintained as a non-motorized, non-mechanized trail.
Definition:	Closed to all public motorized and mechanized use year-round. Maintain to accommodate non-motorized public use with the exception of mechanized use (bicycles).
Route Designation:	Non-motorized use.

Designation Code:	ML02-UserAdminMtrPermitteeMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and right-of-way holder only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and for official administrative purposes or authorized private property access. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and non-motorized mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML02-UserAdminMtrPermitteeMtrPvtPropMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use, right-of-way holder, and authorized private property access only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and non-motorized mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML02-UserAdminMtrPermitteeMtr-TransPublicNM
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and right-of-way holder only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc. Route will also be identified as and maintained for a non-motorized and non-mechanized trail.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Maintain to accommodate non-motorized, non-mechanized public use. Closed to motorized and mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML02-UserAdminMtrPvtPropMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and authorized private property access only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and non-motorized mechanized public use year-round.
Route Designation:	Non-motorized use.

Designation Code:	ML05-UserAdminMtrPermitteeMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and permittees only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and non-motorized mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML06-SeasonOther___Day Use Only – no overnight camping
Objective:	Day use only; no overnight camping allowed.
Definition:	Open to motorized and mechanized public use year-round. Open to non-motorized public use year-round.
Route Designation:	Motorized use.
Designation Code:	ML06-TransAllNM
Objective:	Route will be maintained as a non-motorized trail.
Definition:	Open to non-motorized public use year-round , with the exception of bicycles. Closed to all motorized and mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML06-TransAllNMM
Objective:	Route will be maintained as a non-motorized and non-mechanized trail.
Definition:	Open to non-motorized and non-mechanized public use year-round. Closed to all public motorized and mechanized use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML06-TransAllNM-SeasonOther___Day Use Only - no overnight camping
Objective:	Route will be maintained as a non-motorized and non-mechanized trail. Day use only; no overnight camping allowed.
Definition:	Open to non-motorized and non-mechanized public use year-round during day time. Closed to all motorized and mechanized vehicle use year-round.
Route Designation:	Non-motorized use.
Designation Code:	ML06-TransAllNM-SeasonSPC_January 1_April 1_
Objective:	Route will be maintained as a non-motorized and non-mechanized trail. The route is closed to all public uses (motorized, non-motorized, and non-mechanized, including hiking and equestrian) from January 1 to April 1.
Definition:	Open to non-motorized public use, with the exception of bicycles, April 1 to December 30. Closed to all public entry and use January 1 to April 1.
Route Designation:	Non-motorized use.
Designation Code:	ML06-UserAdminMtrPermitteeMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and permittees only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminMtrPermitteeMtrPvtPropMtr

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use, permittees, and authorized private property access only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminMtrPermitteeMtr-TransPublicNM

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and permittees only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc. Route will also be identified as and maintained for a non-motorized trail.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Maintain to accommodate non-motorized public use with the exception of mechanized use (bicycles). Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminMtrPermitteeMtr-TransPublicNMM

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and permittees only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc. Route will also be identified as and maintained for a non-motorized and non-mechanized trail.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Maintain to accommodate non-motorized and non-mechanized public use, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminMtrPvtPropMtr

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and authorized private property access only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminOnlyATV

Objective: Route is available for authorized ATV use only, which at a minimum will be for ATV administrative use only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.

Definition: Open to motorized vehicle under 42 inch width use year-round by right-of-way or permit holder and official administrative purposes.

Route Designation: Motorized use.

Designation Code: ML06-UserAdminOnlyMtr

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code: ML06-UserAdminOnlyMtr-TransPublicNM

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc. Route will also be identified as and maintained for a non-motorized and non-motorized mechanized trail.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round

Route Designation: Non-motorized use.

Designation Code: ML16-UserAdminMtrPermitteeMtr

Objective: Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use and permittees only. Future authorizations may be granted on a case by case basis such as to other permittees, lessees, etc.

Definition: Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.

Route Designation: Non-motorized use.

Designation Code:	ML16-UserAdminOnlyMtr
Objective:	Route is available for authorized motorized and mechanized use only year-round, which at a minimum will be for motorized and mechanized administrative use only. Future authorizations may be granted on a case by case basis such as to permittees, lessees, etc.
Definition:	Open to motorized and mechanized vehicle use year-round by right-of-way or permit holder and official administrative purposes. Open to non-motorized public use year-round, with the exception of bicycles. Closed to motorized and mechanized public use year-round.
Route Designation:	Non-motorized use.
Designation Code:	MO01
Objective:	Route will be open to all vehicles which are legal for the type of route.
Definition:	Open to all motorized and mechanized public use year-round. Open to all non-motorized public use year-round.
Route Designation:	Motorized use.
Designation Code:	MO03
Objective:	Route will be open to all vehicles which are legal for the type of route.
Definition:	Open to all motorized and mechanized vehicle use year-round. Open to all non-motorized public use year-round.
Route Designation:	Motorized use.
Designation Code:	O04
Objective:	Route will be open to all vehicles which are legal for the type of route.
Definition:	Open to all motorized and mechanized vehicle use year-round. Open to all non-motorized public use year-round.
Route Designation:	Motorized use.

Other Route Attributes and Prescriptions

Route designations, as proposed in Table 2-16 and depicted on Maps 2-20 through 2-22, are the basic elements of the transportation management plan that would be implemented for the IFNM, depending on the alternative selected. As part of the route evaluation, and in accordance with BLM policy, other transportation plan prescriptions, including route functional class, maintenance intensity level, and access standard are assigned to each route so that BLM can better identify the needs associated with each route and define its intended use for administrative and public uses. To facilitate public review of the proposed transportation plan, Table D-1 lists each route on BLM-administered lands within the IFNM and identifies the following attributes:

1. Route Number
2. Land Owner
3. Length: Length of route in feet
4. Miles: Length of route in miles
5. **Alt B Code:** Route designation code derived from the route evaluation process, Alternative B
6. **Alt C Code:** Route designation code derived from the route evaluation process, Alternative C
7. **Alt D Code:** Route designation code derived from the route evaluation process, Alternative D (NOTE: For items 5-7, see Table D-1 for the definitions and objectives associated with each route designation code.)
8. **Route Designation:** Proposed designation of each route for Alternative C (preferred alternative). Designations include motorized, non-motorized, and closed for reclamation.

Proposed route designations for Alternatives B, C, and D are found in Table 2-16 and depicted on Maps 2-20 through 2-22.

9. **Asset Type:** BLM transportation system asset type code, as defined below. The following codes are used in Table D-1:
 - **RD = Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
 - **RDP = Primitive Road:** A linear route managed for use by four-wheel drive or high clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
 - **RDPA = Primitive Road, Administrative Vehicles Only:** A linear route managed for human-powered, stock, or infrequent off-highway vehicle use for administrative purposes only.
 - **TNM = Trail, non-motorized:** A linear route managed for human-powered, stock, or historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.
 - **NA = Not Applicable:** Not a transportation asset (such as fencelines).
10. **FC:** Functional class, as defined in BLM transportation planning guidance. The following codes are used in Table D-1:
 - **C = Collector road:** These Bureau roads normally provide primary access to large blocks of land, and connect with or are extensions of a public road system. Collector roads accommodate mixed traffic and serve many uses. They generally receive the highest volume of traffic of all the roads in the Bureau road system. User cost, safety, comfort, and travel time are primary road management considerations. Collector roads usually require application of the highest standards used by the Bureau. As a result, they have the potential for creating substantial environmental impacts and often require complex mitigation procedures.
 - **L = Local road:** These Bureau roads normally serve a smaller area than collectors, and connect to collectors or public road systems. Local roads receive lower volumes, carry fewer traffic types, and generally serve fewer uses. User cost, comfort, and travel time are secondary to construction and maintenance cost considerations. Low volume local roads in mountainous terrain, where operating speed is reduced by effort of terrain, may be single lane roads with turnouts. Environmental impacts are reduced as steeper grades, sharper curves, and lower design speeds than would be permissible on collector roads are allowable.
 - **R = Resource road:** These Bureau roads normally are spur roads that provide point access and connect to local or collector roads. They carry very low volume and accommodate only one or two types of use. Use restrictions are applied to prevent conflicts between users needing the road and users attracted to the road. The location and design of these roads are governed by environmental compatibility and minimizing Bureau costs, with minimal consideration for user cost, comfort, or travel time.
 - **NA = Not applicable**
11. **MI:** Maintenance intensity, as defined in the BLM Roads and Trails Terminology Report (reference this); definitions of maintenance intensity levels listed below are also found in the RMP glossary. The following codes are used in Table D-1:
 - **L0 = Level 0:** remove from travel route inventory.
 - **L1 = Level 1:** minimum maintenance.
 - **L3 = Level 3:** moderate maintenance.
 - **L5 = Level 5:** high maintenance

12. **DSTD**: Typical design vehicle or criteria for route. The following codes are used in Table D-1:

- P = Passenger car (per AASHTO)
- PT = Passenger car and camper trailer (equivalent: truck and stock trailer) (per AASHTO)
- MH = Motor home, recreational vehicle (per AASHTO)
- WB-50 = Semi trailer (per AASHTO)
- 4WD = Passenger car with 4WD or high clearance
- ATV = All terrain vehicle, under 48"
- MX = Motorcycle
- EQ = Equestrian
- H = Hiking
- MB = Mountain bike
- NES = Natural ecological site potential (route closed for reclamation)

Proposed travel management routes are shown on Maps D-1 through D-4. Maps depicting route numbers can be reviewed online at <http://www.blm.gov/az/LUP/ironwood/reports.htm> or at the Tucson Field Office at 3201 East Universal Way, Tucson, Arizona.

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
1	2 Total	BLM	12835	2.43	MO01	MO01	MO01	Motorized	RD	C	L5	MH
2	2E1 Total	BLM	1317	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
3	2E2 Total	BLM	1955	0.4	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	MO03	Motorized	RDPA	R	L1	EQ
4	600 Total	BLM	14917	2.8	MO03	MO03	MO03	Motorized	RD	L	L3	P
5	601 Total	BLM	5113	1.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
6	602 Total	BLM	5695	1.1	MO03	MO03	MO03	Motorized	RD	L	L1	P
7	608 Total	BLM	10338	2.0	ML06-UserAdminOnlyMtr	ML06-SeasonOther ___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
8	608.5 Total	BLM	3093	0.6	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
9	608.6 Total	BLM	131	0.0	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
10	610 Total	BLM	20183	3.8	MO03	MO03	MO03	Motorized	RD	L	L3	P
11	610.5 Total	BLM	134	0.0	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
12	610.9 Total	BLM	795	0.2	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	MO03	Motorized	RDPA	R	L1	EQ
13	614 Total	BLM	23857	4.5	MO01	MO01	MO01	Motorized	RD	L	L3	P
14	616.5 Total	BLM	3385	0.6	C08	ML06-SeasonOther ___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
15	620 Total	BLM	47507	9.0	MO01	MO01	MO01	Motorized	RD	C	L5	MH
16	621 Total	BLM	15311	2.9	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	MO03	MO03	Motorized	RDP	R	L3	4WD
17	622 Total	BLM	36671	7.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
18	623 Total	BLM	12376	2.3	MO01	MO01	MO01	Motorized	RD	R	L3	PT
19	624 Total	BLM	22675	4.3	MO01	MO01	O04	Motorized	RD	C	L5	MH
20	625 Total	BLM	600	0.1	ML06-TransAllNMM	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
21	626 Total	BLM	2281	0.4	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
22	627 Total	BLM	3070	0.6	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
23	628 Total	BLM	9303	1.8	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
24	629 Total	BLM	18191	3.5	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
25	630 Total	BLM	9003	1.7	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
26	631 Total	BLM	6474	1.2	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
27	632 Total	BLM	12574	2.4	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
28	633 Total	BLM	10645	2.0	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
29	634 Total	BLM	10740	2.0	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDP	R	L1	4WD
30	635 Total	BLM	34572	6.6	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
31	636 Total	BLM	10597	2.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
32	637 Total	BLM	20383	3.9	C08	ML06- UserAdminMtrPermitteeMtrPvtP ropMtr	MO03	Motorized	RDPA	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
33	638 Total	BLM	4493	0.9	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
34	639 Total	BLM	35574	6.7	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	4WD
35	641 Total	BLM	7986	1.5	MO03	MO03	MO03	Motorized	RD	L	L3	WB-50
36	647 Total	BLM	2622	0.5	ML06-UserAdminMtrPvtPropMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
37	648 Total	BLM	2633	0.5	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
38	650 Total	BLM	26014	4.9	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
39	652 Total	BLM	5327	1.0	ML06-UserAdminOnlyMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
40	656 Total	BLM	3472	0.7	ML06- UserAdminMtrPermitteeMtr- TransPublicNMM	MO03	MO03	Motorized	RDP	R	L1	4WD
41	658 Total	BLM	7936	1.5	ML06-TransAllNM	MO03	MO03	Motorized	RDP	R	L1	4WD
42	660 Total	BLM	2204	0.4	ML06-UserAdminOnlyMtr	MO03	MO03	Non-motorized	TNM	R	L1	EQ
43	662 Total	BLM	10092	1.9	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
44	664 Total	BLM	955	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
45	665 Total	BLM	78	0.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
46	620E1 Total	BLM	3269	0.6	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
47	610E2 Total	BLM	11075	2.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
48	622E5 Total	BLM	2240	0.4	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
49	622E6 Total	BLM	789	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
50	622E7 Total	BLM	441	0.1	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
51	622E8 Total	BLM	2337	0.4	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
52	622E9 Total	BLM	827	0.2	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
53	622E10 Total	BLM	4366	0.8	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
54	622E11 Total	BLM	298	0.1	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
55	622E12 Total	BLM	119	0.0	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
56	622E13 Total	BLM	188	0.0	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
57	622E14 Total	BLM	391	0.1	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
58	622E61 Total	BLM	198	0.0	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
59	2A Total	BLM	3006	0.6	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
60	2A1 Total	BLM	659	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
61	2A2 Total	BLM	1982	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
62	2B Total	BLM	5252	1.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
63	2C Total	BLM	2265	0.4	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
64	2D Total	BLM	807	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
65	2E Total	BLM	3249	0.6	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	MO03	Motorized	RDP	R	L1	4WD
66	2F Total	BLM	5357	1.0	C08	C08	C08	Non-motorized	TNM	R	L1	4WD
67	2H Total	BLM	2931	0.6	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
68	2H1 Total	BLM	3152	0.6	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
69	2J Total	BLM	7021	1.3	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
70	2J1 Total	BLM	595	0.1	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
71	2J2 Total	BLM	3974	0.8	C08	C08	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
72	2J3 Total	BLM	13221	2.5	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
73	2X Total	BLM	17298	3.3	MO03	MO03	MO03	Motorized	RD	C	L5	MH
74	2Z Total	BLM	5277	1.0	C08	MO03	MO03	Non-motorized	TNM	R	L1	EQ
75	600A1 Total	BLM	16659	3.2	ML06-TransAllNM	UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
76	600A1A Total	BLM	8814	1.7	ML06-TransAllNM	ML06-TransAllNM	MO03	Non-motorized	TNM	R	L1	EQ
77	600A2 Total	BLM	500	0.1	C26	C26	C26	Reclamation	NA	NA	L0	NES
78	600C Total	BLM	2274	0.4	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
79	600D Total	BLM	5781	1.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
80	600D1 Total	BLM	752	0.1	MO03	MO03	MO03	Non-motorized	TNM	R	L1	EQ
81	600D2 Total	BLM	823	0.2	C08	ML06-UserAdminMtrPvtPropMtr	MO03	Motorized	RDPA	R	L1	EQ
82	600D3 Total	BLM	321	0.1	C08	ML06-UserAdminMtrPvtPropMtr	MO03	Motorized	RDPA	R	L1	EQ
83	600D9 Total	BLM	1648	0.3	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
84	600G Total	BLM	1706	0.3	ML06-UserAdminOnlyMtr	UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
85	600G1 Total	BLM	2862	0.5	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	MO03	Motorized	RDPA	R	L1	EQ
86	600H Total	BLM	2346	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
87	600I Total	BLM	200	0.0	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
88	600J Total	BLM	985	0.2	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
89	600K Total	BLM	1186	0.2	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
90	600L Total	BLM	2000	0.4	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
91	600M Total	BLM	1308	0.3	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
92	600N Total	BLM	1746	0.3	ML06-TransAllNM	ML06-TransAllNM	MO03	Non-motorized	TNM	R	L1	EQ
93	600N1 Total	BLM	1754	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
94	601A Total	BLM	1580	0.3	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr- SeasonSPC_Sept 1_	MO03	Motorized	RDPA	R	L1	EQ
95	601A1 Total	BLM	922	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
96	601B Total	BLM	15172	2.9	ML06-UserAdminOnlyATV	ML06-UserAdminOnlyATV	ML06-UserAdminOnlyATV	Motorized	RDPA	R	L1	EQ
97	601B1 Total	BLM	969	0.2	ML06-UserAdminOnlyATV	ML06-UserAdminOnlyATV	ML06-UserAdminOnlyATV	Motorized	RDPA	R	L1	EQ
98	601BC Total	BLM	10556	2.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
99	601D Total	BLM	5256	1.0	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RD	R	L1	PT
100	601E Total	BLM	4949	0.9	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Non-motorized	TNM	R	L1	EQ
101	601X Total	BLM	5027	1.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
102	606A Total	BLM	5363	1.0	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
103	606A1 Total	BLM	6796	1.3	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
104	606B Total	BLM	1547	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
105	606C Total	BLM	685	0.1	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
106	606C1 Total	BLM	192	0.0	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
107	606F Total	BLM	3160	0.6	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
108	606F1 Total	BLM	5228	1.0	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
109	607A Total	BLM	255	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
110	608B Total	BLM	213	0.0	ML06-UserAdminOnlyMtr	ML06-SeasonOther ___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
111	609A Total	BLM	489	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
112	609B Total	BLM	177	0.0	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
113	610C Total	BLM	28952	5.5	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
114	610C1 Total	BLM	4002	0.8	ML06- UserAdminMtrPermitteeMtrPvtPr opMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
115	610D Total	BLM	10363	2.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
116	610D1 Total	BLM	2075	0.4	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
117	610D2 Total	BLM	425	0.1	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
118	610E Total	BLM	5737	1.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
119	611A Total	BLM	7107	1.4	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
120	612A Total	BLM	5712	1.1	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
121	613A Total	BLM	6758	1.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
122	614A Total	BLM	5288	1.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
123	614A1 Total	BLM	3896	0.7	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
124	614B Total	BLM	4990	1.0	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
125	614B1 Total	BLM	1018	0.2	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
126	614B1A Total	BLM	1697	0.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
127	614B2 Total	BLM	2537	0.5	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
128	614B2A Total	BLM	589	0.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
129	614B2B Total	BLM	415	0.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
130	614B3 Total	BLM	1253	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
131	614B4 Total	BLM	9048	1.7	ML06-TransAllNM	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
132	614C Total	BLM	5721	1.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
133	614C1 Total	BLM	6827	1.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
134	614C1A Total	BLM	116	0.0	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
135	614I Total	BLM	124	0.0	MO03	MO03	MO03	Motorized	RD	L	L3	4WD
136	614J Total	BLM	831	0.2	MO03	MO03	MO03	Motorized	RDP	R	L3	P
137	614K Total	BLM	819	0.2	MO03	MO03	MO03	Motorized	RDP	R	L3	P
138	614L Total	BLM	13388	2.5	MO03	MO03	MO03	Motorized	RD	L	L3	4WD
139	615A Total	BLM	5698	1.1	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
140	616A Total	BLM	5402	1.0	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
141	617A Total	BLM	9533	1.8	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
142	617A1 Total	BLM	1602	0.3	C07	C07	C07	Reclamation	NA	NA	L0	NES
143	617A2 Total	BLM	6788	1.3	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
144	617B Total	BLM	1586	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
145	617C Total	BLM	4240	0.8	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
146	617C1 Total	BLM	1008	0.2	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
147	617D Total	BLM	11263	2.1	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
148	617D1 Total	BLM	359	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
149	617D4 Total	BLM	4096	0.8	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
150	617D4A Total	BLM	5350	1.0	ML02- UserAdminMtrPermitteeMtr- TransPublicNM	ML02- UserAdminMtrPermitteeMtr- TransPublicNM	MO01	Motorized	RDPA	R	L1	EQ
151	617D5 Total	BLM	9064	1.7	ML06-TransAllNM	ML06-TransAllNM	MO03	Non-motorized	TNM	R	L1	EQ
152	617D9 Total	BLM	7713	1.5	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
153	617E Total	BLM	4374	0.8	C08	ML06-TransAllNM	MO03	Non-motorized	TNM	R	L1	EQ
154	618A Total	BLM	11489	2.2	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
155	618A1 Total	BLM	11460	2.2	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
156	618B Total	BLM	2252	0.4	C08	ML06-SeasonOther__Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
157	618B1 Total	BLM	5183	1.0	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
158	618B2 Total	BLM	3553	0.7	C08	ML06-TransAllNM	MO03	Non-motorized	TNM	R	L1	EQ
159	618C Total	BLM	4036	0.8	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
160	618C1 Total	BLM	1942	0.4	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
161	618D Total	BLM	3596	0.7	C08	ML06- UserAdminMtrPermitteeMtrPvtP ropMtr	MO03	Motorized	RDPA	R	L1	EQ
162	618D1 Total	BLM	3095	0.6	ML06-TransAllNM- SeasonOther___Day Use Only - no overn	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
163	618E Total	BLM	1701	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
164	618G Total	BLM	716	0.1	C08	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
165	618Y Total	BLM	2377	0.5	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
166	618Y1 Total	BLM	1827	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
167	618Y10 Total	BLM	4596	0.9	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
168	618Y11 Total	BLM	6155	1.2	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
169	618Y11A Total	BLM	391	0.1	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
170	618Y12 Total	BLM	929	0.2	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
171	618Y13 Total	BLM	163	0.0	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
172	618Y14 Total	BLM	308	0.1	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
173	618Y15 Total	BLM	920	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
174	618Y16 Total	BLM	6929	1.3	ML02-TransAllNM	ML02-UserAdminMtrPvtPropMtr	MO01	Motorized	RDPA	R	L1	EQ
175	618Y16A Total	BLM	813	0.2	C08	ML06-UserAdminMtrPvtPropMtr	MO03	Reclamation	NA	NA	L0	NES
176	618Y16B Total	BLM	659	0.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
177	618Y17D Total	BLM	617	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
178	618Y2 Total	BLM	240	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
179	618Y20 Total	BLM	116	0.0	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
180	618Y3 Total	BLM	7950	1.5	MO03	MO03	MO03	Motorized	RD	R	L5	WB-50
181	618Y4 Total	BLM	450	0.1	C01	C01	C01	Reclamation	NA	NA	L0	NES
182	618Y5 Total	BLM	406	0.1	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
183	618Y6 Total	BLM	911	0.2	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
184	618Y7 Total	BLM	1482	0.3	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
185	618Y8 Total	BLM	2023	0.4	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
186	619A Total	BLM	6040	1.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
187	619A1 Total	BLM	4521	0.9	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
188	619C Total	BLM	279	0.1	C08	C08	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
189	619G Total	BLM	1415	0.3	ML06-TransAllNM- SeasonOther___Day Use Only - no overn	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
190	619I Total	BLM	185	0.0	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
191	620A Total	BLM	1436	0.3	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
192	620AX Total	BLM	3707	0.7	C08	ML06-SeasonOther___Day Use Only - no overnight	ML06-SeasonOther___Day Use Only - no overni	Non-motorized	TNM	R	L1	EQ
193	620B Total	BLM	6566	1.2	ML06-TransAllNMM	ML06-SeasonOther___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
194	620B1 Total	BLM	1059	0.2	ML06-TransAllNMM	ML06-SeasonOther___Day Use Only - no overnight	MO03	Non-motorized	TNM	R	L1	EQ
195	620BX Total	BLM	5269	1.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
196	620C Total	BLM	2478	0.5	C08	C08	C08	Motorized	RDP	R	L1	4WD
197	620C1 Total	BLM	2094	0.4	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
198	620C2 Total	BLM	1328	0.3	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
199	620D Total	BLM	3521	0.7	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
200	620DX1 Total	BLM	653	0.1	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
201	620DX2 Total	BLM	412	0.1	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
202	620DX3 Total	BLM	243	0.1	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
203	620E Total	BLM	1301	0.3	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
204	620F Total	BLM	10918	2.1	ML06- UserAdminMtrPermitteeMtr	ML06-SeasonOther___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
205	620F1 Total	BLM	1349	0.3	C08	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
206	620F1A Total	BLM	2683	0.5	C08	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
207	620F2 Total	BLM	262	0.1	C08	ML06-SeasonOther___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
208	620F2A Total	BLM	2335	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
209	620F3 Total	BLM	1365	0.3	ML06- UserAdminMtrPermitteeMtr	ML06-SeasonOther___Day Use Only - no overnight	MO03	Non-motorized	TNM	R	L1	EQ
210	620F4 Total	BLM	453	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
211	620F5 Total	BLM	360	0.1	ML06- UserAdminMtrPermitteeMtr	ML06-SeasonOther___Day Use Only - no overnight	MO03	Non-motorized	TNM	R	L1	EQ
212	620H Total	BLM	619	0.1	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
213	620H1 Total	BLM	2404	0.5	C08	MO03	MO03	Non-motorized	TNM	R	L1	EQ
214	620H2 Total	BLM	191	0.0	MO03	MO03	MO03	Non-motorized	TNM	R	L1	EQ
215	620J Total	BLM	3271	0.6	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
216	620K Total	BLM	3081	0.6	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
217	620K1 Total	BLM	773	0.2	C08	MO03	MO03	Non-motorized	TNM	R	L1	EQ
218	620K2 Total	BLM	1572	0.3	C08	ML06-SeasonOther___Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
219	620K2A Total	BLM	3953	0.8	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
220	620K3 Total	BLM	1224	0.2	C08	MO03	MO03	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
221	620N Total	BLM	781	0.2	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
222	620O Total	BLM	8397	1.6	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
223	620O1 Total	BLM	3228	0.6	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
224	620O2 Total	BLM	38	0.0	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
225	620P Total	BLM	11457	2.2	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
226	620P1 Total	BLM	2247	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
227	620P2 Total	BLM	1092	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
228	620P3 Total	BLM	2451	0.5	ML06-TransAllNM	ML06-UserAdminOnlyMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
229	620P4 Total	BLM	4541	0.9	ML06-TransAllNM	ML06-UserAdminOnlyMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
230	620P4A Total	BLM	4277	0.8	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
231	620Q Total	BLM	11	0.0	C07	ML05- UserAdminMtrPermitteeMtr	ML05- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
232	620S Total	BLM	1303	0.3	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
233	620S1 Total	BLM	370	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
234	620T Total	BLM	1401	0.3	C08	MO03	MO03	Motorized	RD	R	L1	WB-50
235	620X Total	BLM	19162	3.6	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
236	620Z Total	BLM	1722	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
237	621-1 Total	BLM	8899	1.7	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
238	621B1 Total	BLM	4300	0.8	C07	C07	C07	Non-motorized	TNM	R	L1	EQ
239	621B2 Total	BLM	4451	0.8	ML06-TransAllNM- SeasonSPC_January 1_April 1_	ML06-TransAllNM- SeasonSPC_January 1_April 1_	ML06-TransAllNM- SeasonSPC_January 1_April 1	Non-motorized	TNM	R	L1	EQ
240	621B3 Total	BLM	1012	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
241	621B4 Total	BLM	3038	0.6	C07	C07	C07	Reclamation	NA	NA	L0	NES
242	621E Total	BLM	8969	1.7	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
243	621F Total	BLM	8662	1.6	ML06-UserAdminOnlyMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
244	621F1 Total	BLM	439	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
245	621F2 Total	BLM	805	0.2	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
246	621F3 Total	BLM	6039	1.1	ML06-UserAdminOnlyMtr	MO03	MO03	Motorized	RDPA	R	L1	EQ
247	621G Total	BLM	1676	0.3	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
248	621G2 Total	BLM	625	0.1	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
249	621H Total	BLM	14026	2.7	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
250	621H1 Total	BLM	985	0.2	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
251	621H2 Total	BLM	539	0.1	C08	MO03	MO03	Motorized	RD	R	L3	PT
252	621K Total	BLM	1891	0.4	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
253	622A Total	BLM	1017	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
254	622B Total	BLM	6272	1.2	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
255	622C Total	BLM	6328	1.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
256	622C1 Total	BLM	1949	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
257	622C1.1 Total	BLM	294	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
258	622E Total	BLM	5436	1.0	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
259	622F Total	BLM	6866	1.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
260	622F1 Total	BLM	6461	1.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
261	622F12 Total	BLM	2313	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
262	622F13 Total	BLM	717	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
263	622F14 Total	BLM	483	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
264	622G Total	BLM	1290	0.2	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
265	622I Total	BLM	577	0.1	C08	C08	ML06-UserAdminOnlyMtr	Non-motorized	TNM	R	L1	EQ
266	622I1 Total	BLM	5938	1.1	C08	C08	ML06-UserAdminOnlyMtr	Non-motorized	TNM	R	L1	EQ
267	622I2 Total	BLM	5431	1.0	C08	C08	ML06-UserAdminOnlyMtr	Non-motorized	TNM	R	L1	EQ
268	622I3 Total	BLM	803	0.2	C08	C08	ML06-UserAdminOnlyMtr	Non-motorized	TNM	R	L1	EQ
269	622I4 Total	BLM	2689	0.5	C26	C26	ML16-UserAdminOnlyMtr	Reclamation	NA	NA	L0	NES
270	622J Total	BLM	5762	1.1	C08	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
271	622J1 Total	BLM	687	0.1	C08	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
272	622K1 Total	BLM	46	0.0	C08	C08	ML06-UserAdminOnlyMtr	Non-motorized	TNM	R	L1	EQ
273	622M1 Total	BLM	12526	2.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
274	622N Total	BLM	2211	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
275	622P Total	BLM	345	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
276	623A Total	BLM	16334	3.1	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
277	623B Total	BLM	2488	0.5	C08	ML06- UserAdminMtrPermitteeMtrPvtP ropMtr	MO03	Motorized	RDPA	R	L1	EQ
278	623B1 Total	BLM	1349	0.3	C08	ML06- UserAdminMtrPermitteeMtrPvtP ropMtr	MO03	Reclamation	NA	NA	L0	NES
279	623D Total	BLM	9339	1.8	C26	C26	C26	Reclamation	NA	NA	L0	NES
280	623E Total	BLM	4946	0.9	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	ML06-UserAdminOnlyMtr	Motorized	RDPA	R	L1	EQ
281	623F Total	BLM	18127	3.4	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
282	623G Total	BLM	4072	0.8	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
283	624C1 Total	BLM	72	0.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
284	624D Total	BLM	81	0.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
285	624F Total	BLM	507	0.1	C26	C26	C26	Reclamation	NA	NA	L0	NES
286	624G Total	BLM	120	0.0	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
287	624H Total	BLM	6268	1.2	C08	MO03	MO03	Non-motorized	TNM	R	L1	EQ
288	624H1 Total	BLM	130	0.0	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
289	624J Total	BLM	10	0.0	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RD	R	L3	WB-50
290	624J1 Total	BLM	2572	0.5	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDA	R	L3	WB50

Table D-1
Travel Route Designations

INDEX	Route Number (Ars_id)	OWNERSHIP	FEET	MILES	Alt B Code	Alt C Code	Alt D Code	Proposed Route Designation	Asset Type	FC	MI	DSTD
291	624K1 Total	BLM	7797	1.5	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
292	624K2 Total	BLM	7265	1.4	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
293	624KA Total	BLM	2883	0.6	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
294	624KB Total	BLM	501	0.1	C08	C08	ML06- UserAdminMtrPermitteeMtr	Non-motorized	TNM	R	L1	EQ
295	624L Total	BLM	827	0.2	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	PT
296	624L1 Total	BLM	1533	0.3	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
297	624M Total	BLM	3634	0.7	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
298	624M1 Total	BLM	2323	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
299	624M2 Total	BLM	2221	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
300	624M3 Total	BLM	1829	0.4	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
301	624P Total	BLM	417	0.1	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
302	624Q Total	BLM	9339	1.8	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
303	624R Total	BLM	1148	0.2	C26	C26	C26	Reclamation	NA	NA	L0	NES
304	624S Total	BLM	507	0.1	C26	C26	C26	Reclamation	NA	NA	L0	NES
305	624T Total	BLM	716	0.1	C26	C26	C26	Reclamation	NA	NA	L0	NES
306	625A Total	BLM	8519	1.6	C08	ML06-SeasonOther ___ Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
307	625A1 Total	BLM	1275	0.2	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
308	625B Total	BLM	445	0.1	C08	ML06-SeasonOther ___ Day Use Only - no overnight	MO03	Motorized	RDP	R	L1	4WD
309	625C Total	BLM	187	0.0	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
310	625D Total	BLM	7592	1.4	ML06-TransAllNMM	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
311	625D1 Total	BLM	1493	0.3	ML06-TransAllNMM	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
312	625E Total	BLM	1618	0.3	ML06-TransAllNMM	ML06-TransAllNM	ML06-TransAllNM	Non-motorized	TNM	R	L1	EQ
313	625F Total	BLM	3672	0.7	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	ML02- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
314	626A Total	BLM	8048	1.5	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
315	626B Total	BLM	12376	2.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
316	626C Total	BLM	6578	1.3	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
317	626D Total	BLM	346	0.1	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
318	627C Total	BLM	7220	1.4	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
319	627C1 Total	BLM	4083	0.8	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
320	627F Total	BLM	9502	1.8	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
321	627G Total	BLM	4632	0.9	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
322	628A Total	BLM	1740	0.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
323	628B Total	BLM	9772	1.9	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ

Table D-1
Travel Route Designations

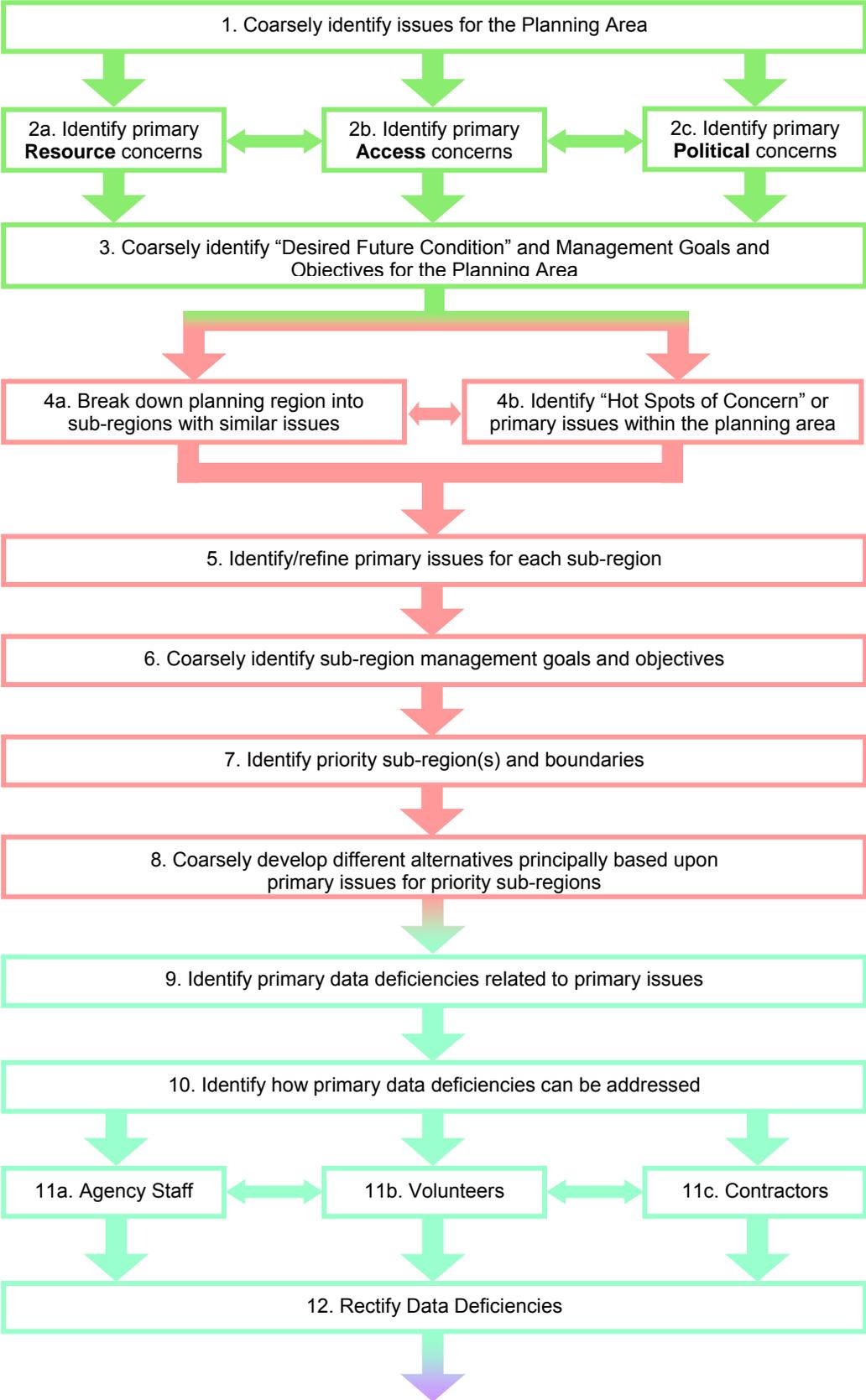
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324	629B1 Total	BLM	4164	0.8	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
325	629B1A Total	BLM	2915	0.6	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
326	629C Total	BLM	4538	0.9	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
327	629C1 Total	BLM	2872	0.5	MO03	MO03	MO03	Motorized	RDP	R	L1	4WD
328	629C2 Total	BLM	8993	1.7	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
329	629C3 Total	BLM	820	0.2	MO03	MO03	MO03	Non-motorized	TNM	R	L1	EQ
330	629D Total	BLM	10660	2.0	ML06-UserAdminOnlyMtr- TransPublicNM	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
331	629E Total	BLM	15085	2.9	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
332	629F Total	BLM	265	0.1	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
333	629F2 Total	BLM	4444	0.8	C08	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
334	629G Total	BLM	5368	1.0	C08	ML06-UserAdminOnlyMtr	MO03	Motorized	RDPA	R	L1	EQ
335	629M1 Total	BLM	3121	0.6	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
336	629M1A Total	BLM	4588	0.9	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
337	631A Total	BLM	330	0.1	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
338	631B Total	BLM	13699	2.6	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
339	632A Total	BLM	2858	0.5	ML06-UserAdminOnlyMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
340	632A1 Total	BLM	1345	0.3	C08	ML06- UserAdminMtrPermitteeMtr- TransPublicNM	MO03	Motorized	RDPA	R	L1	EQ
341	632A2 Total	BLM	569	0.1	ML06-UserAdminOnlyMtr	MO03	MO03	Non-motorized	TNM	R	L1	EQ
342	632E Total	BLM	5520	1.1	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
343	633B Total	BLM	4866	0.9	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
344	634A Total	BLM	1796	0.3	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	MO03	Motorized	RDPA	R	L1	EQ
345	634A1 Total	BLM	3107	0.6	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
346	634A2 Total	BLM	1671	0.3	C08	C08	MO03	Non-motorized	TNM	R	L1	EQ
347	634AX Total	BLM	10444	2.0	C07	C07	ML05- UserAdminMtrPermitteeMtr	Reclamation	NA	NA	L0	NES
348	635A Total	BLM	233	0.0	C08	C08	C08	Non-motorized	TNM	R	L1	EQ
349	638A Total	BLM	16427	3.1	C26	C26	ML16- UserAdminMtrPermitteeMtr	Reclamation	NA	NA	L0	NES
350	638B Total	BLM	479	0.1	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Motorized	RDP	R	L1	4WD
351	638B1 Total	BLM	17907	3.4	C08	MO03	MO03	Motorized	RDP	R	L1	4WD
352	638C Total	BLM	13580	2.6	ML06- UserAdminMtrPermitteeMtr	MO03	MO03	Non-motorized	TNM	R	L1	EQ
353	638D Total	BLM	4233	0.8	C08	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDPA	R	L1	EQ
354	639A Total	BLM	42764	8.1	C26	C26	ML16- UserAdminMtrPermitteeMtr	Reclamation	NA	NA	L0	NES
355	639B Total	BLM	3850	0.7	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	ML06- UserAdminMtrPermitteeMtr	Motorized	RDP	R	L1	4WD

Route Evaluation Process[®] for Travel Management Planning

Scoping

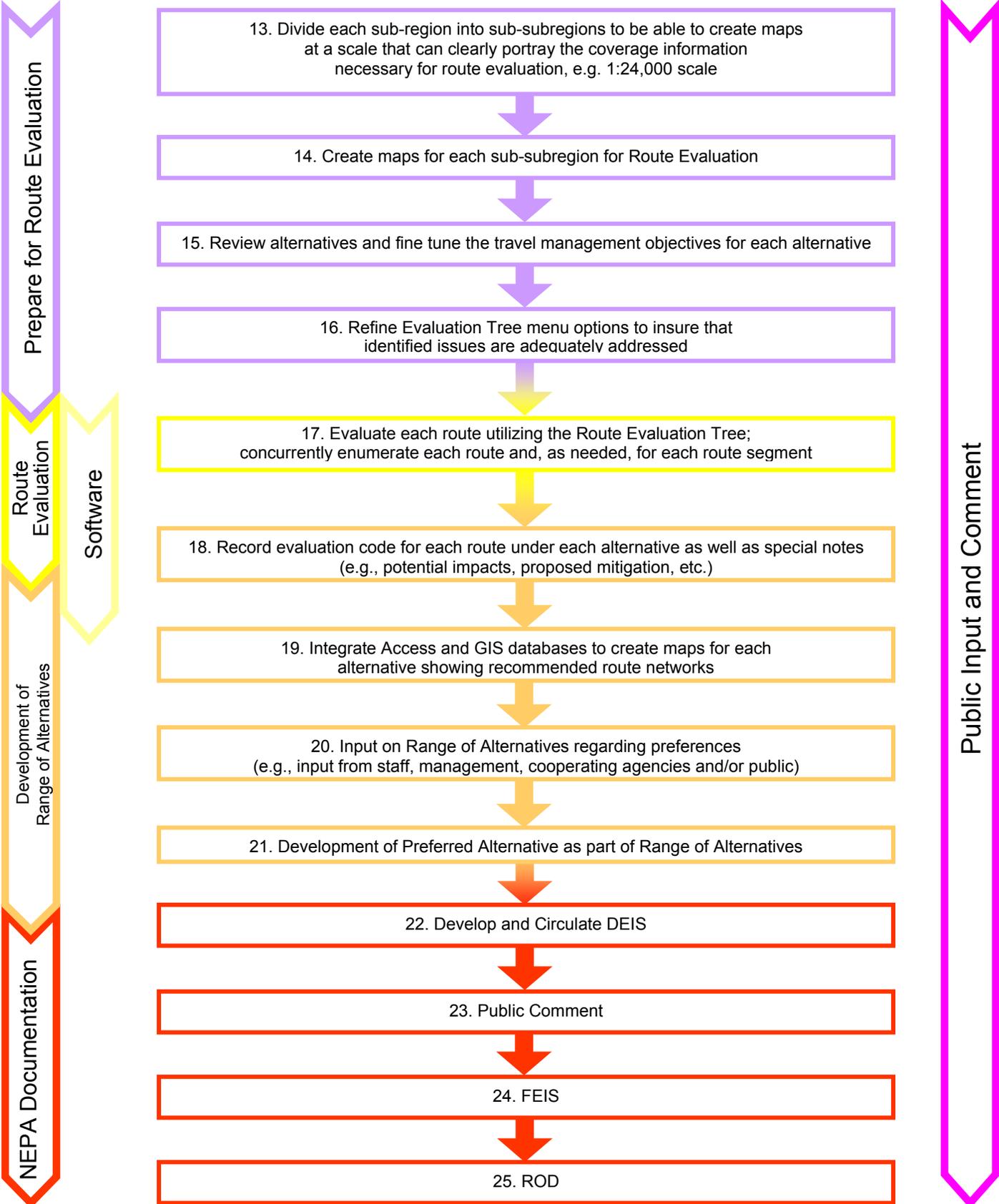
Development of Sideboards for Different Alternatives

Public Input and Comment



Data Refinement

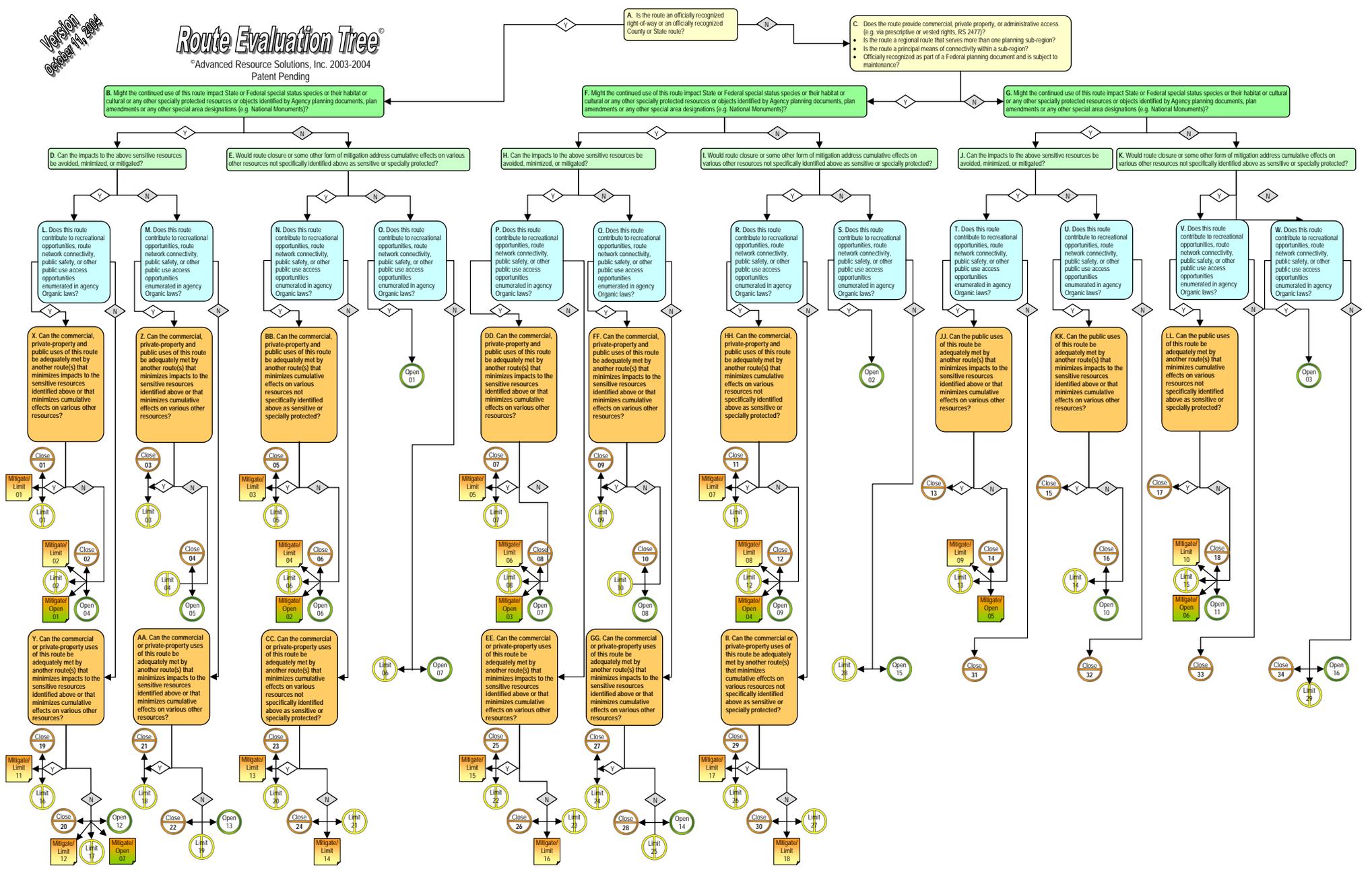
Route Evaluation Process[®] for Travel Management Planning



Version
October 14, 2004

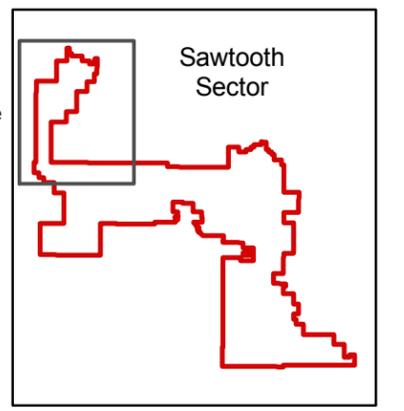
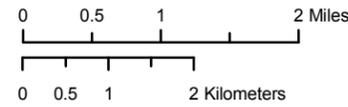
Route Evaluation Tree

Advanced Resource Solutions, Inc. 2003-2004
Patent Pending



Universal Transverse Mercator
 Zone 12, Units Meters
 Clark 1866 Spheroid
 NAD27 Datum

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Proposed Travel Management Sawtooth Sector

Ironwood Forest National Monument
 PRMP/FEIS

Legend

Route Designations

Motorized

- Road
- Primitive Road
- Trail

Non-Motorized

- - - Road, Administrative Vehicles Only
- - - Primitive Road, Administrative Vehicles Only
- - - Non-Mechanized Trail
- Not Designated

Surface Management

- Bureau of Land Management
- State Trust Lands
- Private

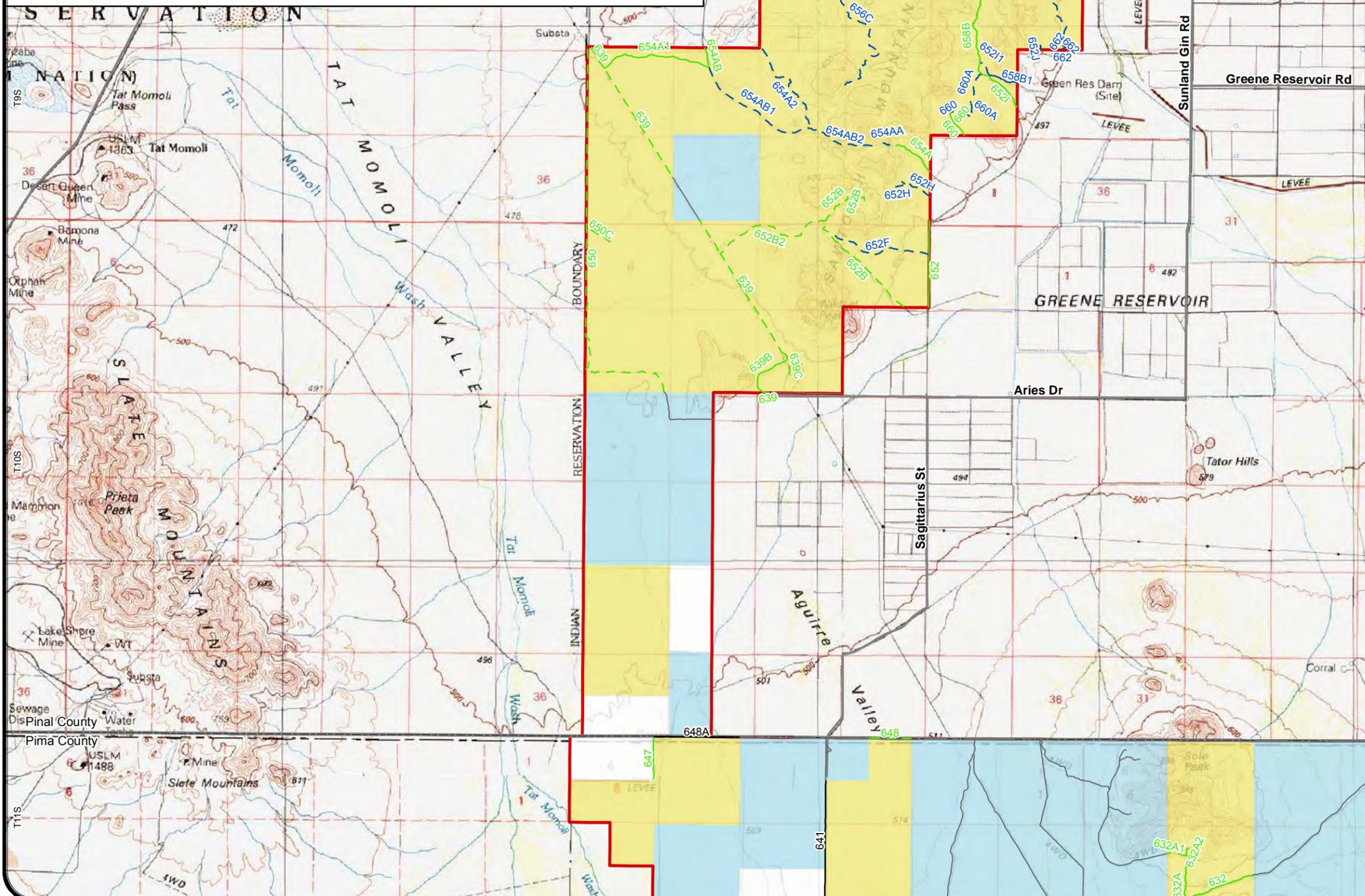
Data Source:
 Route Alternative Designations: BLM 2008
 Base Information: BLM 2003
 Quadrangle Image: TOPOI, ©2007 National Geographic Maps, All Rights Reserved

General Reference

- County Boundary
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



Proposed Travel Management West Silver Bell Sector

Ironwood Forest National Monument
PRMP/FEIS

Legend

Route Designations

Motorized

- Road
- Primitive Road
- Trail

Non-Motorized

- Road, Administrative Vehicles Only
- Primitive Road, Administrative Vehicles Only
- Non-Mechanized Trail
- Not Designated, on ASLD

Surface Management

- Bureau of Land Management
- State Trust Lands
- Private

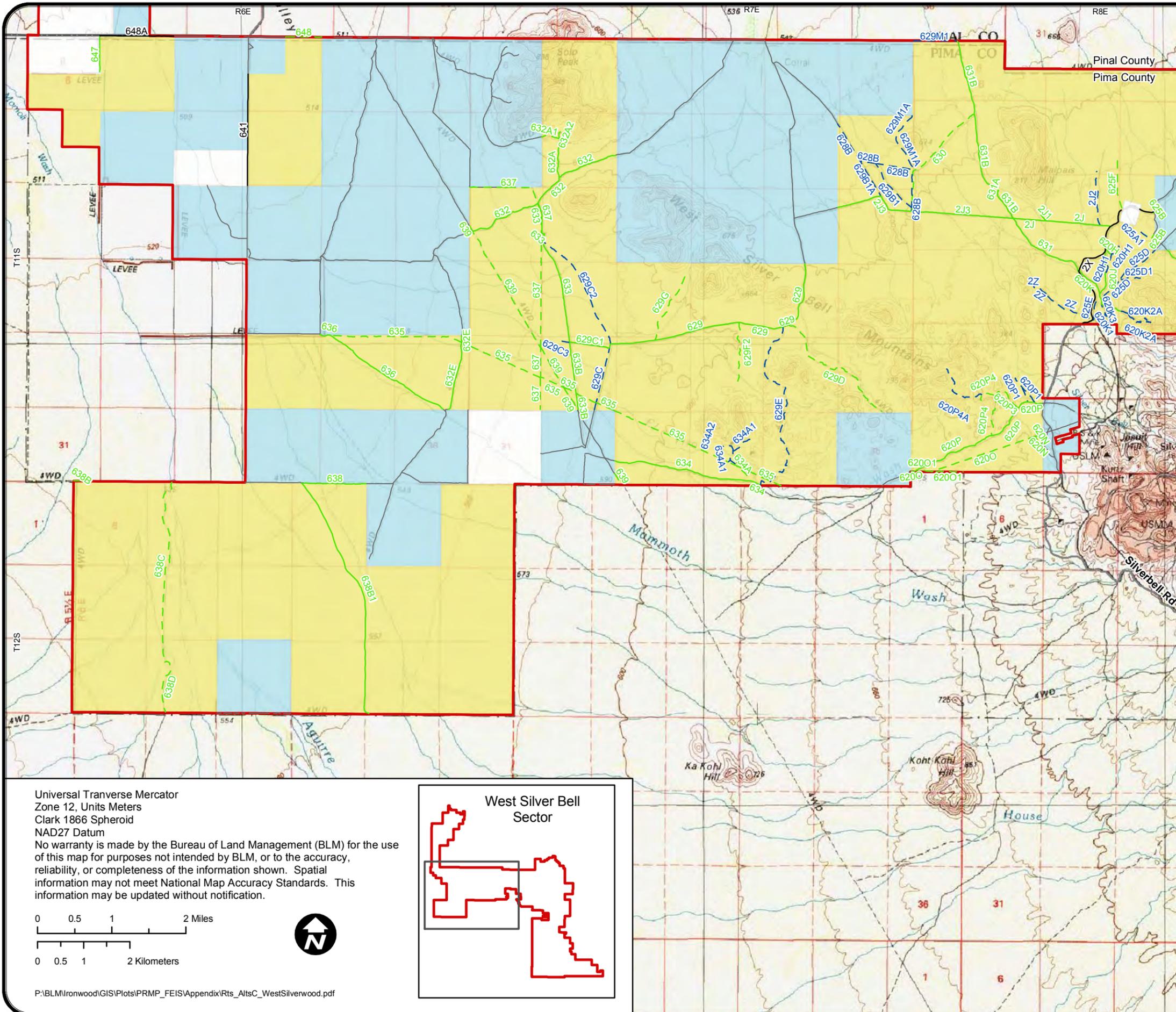
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General Reference

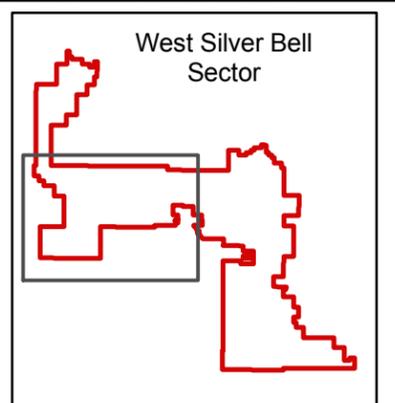
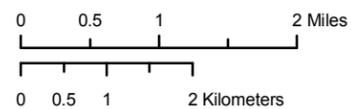
- County Boundary
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

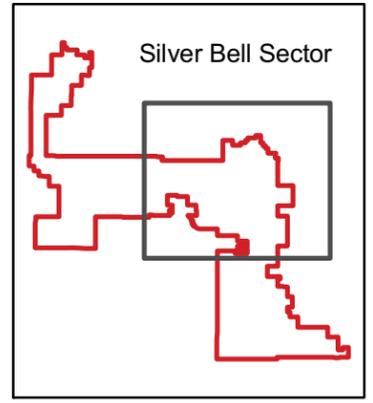
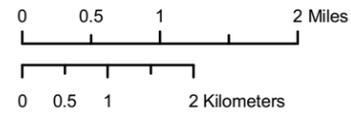
- Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
NAD27 Datum
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Proposed Travel Management Silver Bell Sector

Ironwood Forest National Monument
PRMP/FEIS

Legend

Route Designations

Motorized

- Road
- Primitive Road
- Trail

Non-Motorized

- Road, Administrative Vehicles Only
- Primitive Road, Administrative Vehicles Only
- Non-Mechanized Trail
- Not Designated

Surface Management

- Bureau of Land Management
- Military Reservations
- State Trust Lands
- Private

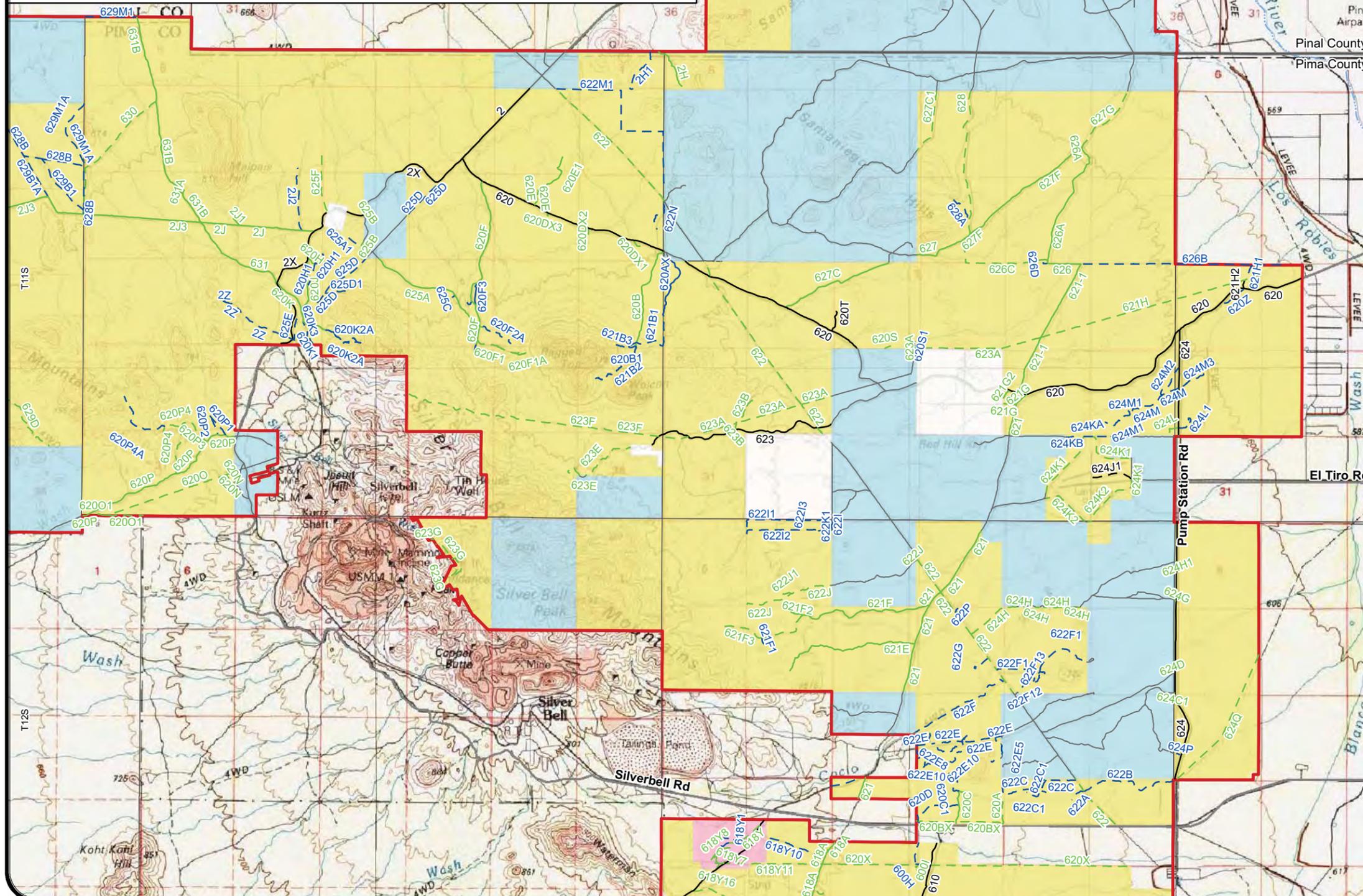
Data Source:
 Route Alternative Designations: BLM 2008
 Base Information: BLM 2003
 Quadrangle Image: TOPOI, ©2007 National Geographic Maps, All Rights Reserved

General Reference

- County Boundary
- River
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

- Ironwood Forest National Monument



Proposed Travel Management Cocoraque Sector

Ironwood Forest National Monument
PRMP/FEIS

Legend

Route Designations

Motorized

- Road
- Primitive Road
- Trail

Non-Motorized

- Road, Administrative Vehicles Only
- Primitive Road, Administrative Vehicles Only
- Non-Mechanized Trail
- Not Designated

Surface Management

- Bureau of Land Management
- State Trust Lands
- Private
- Pima County

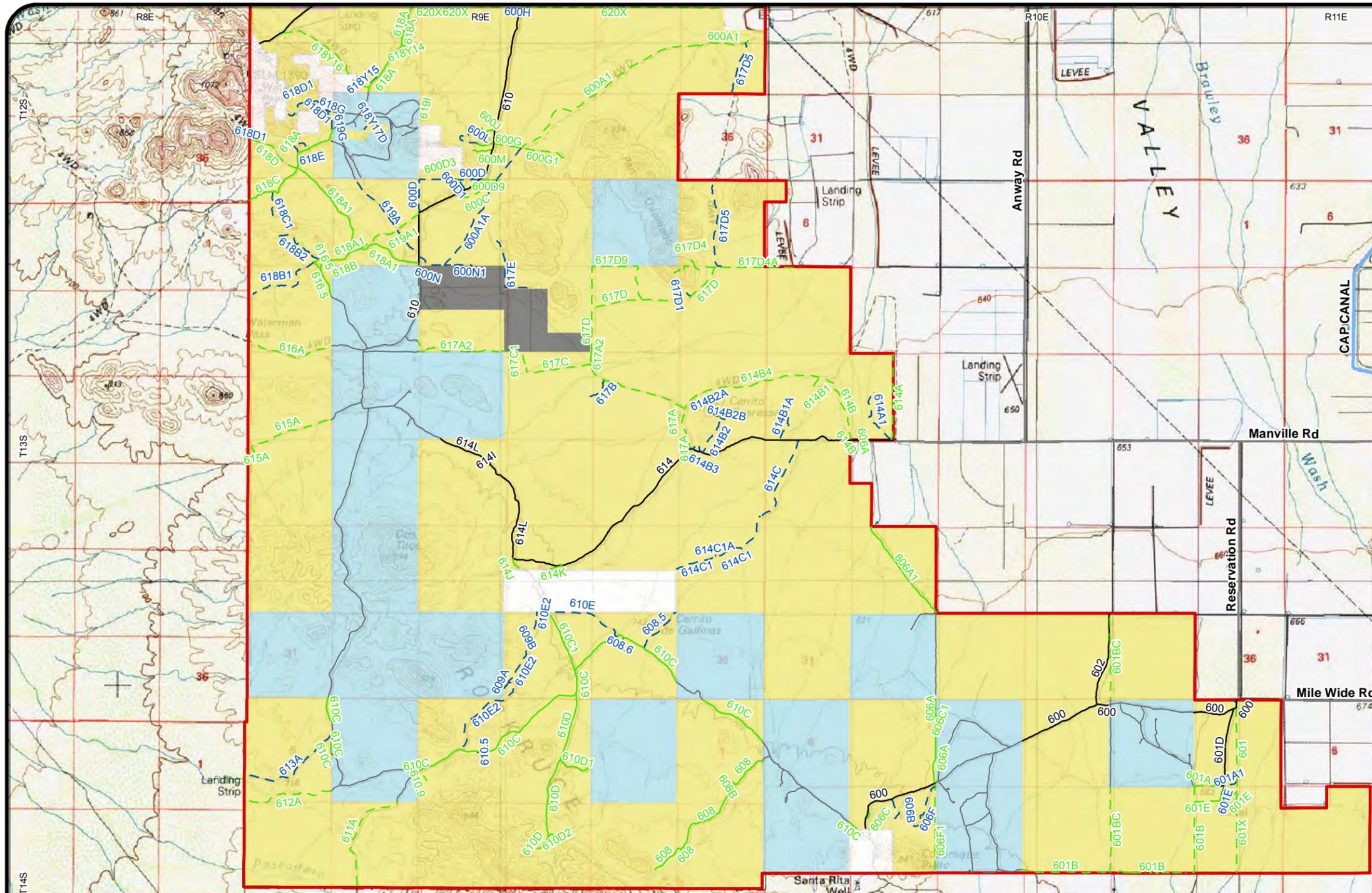
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General Reference

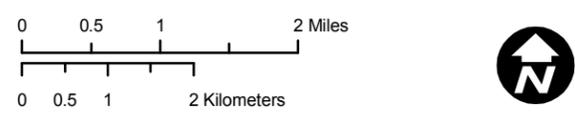
- Central Arizona Project (CAP) Canal
- Main public access routes to monument. County administered roads connecting monument travel route system to public highways.

Planning Area

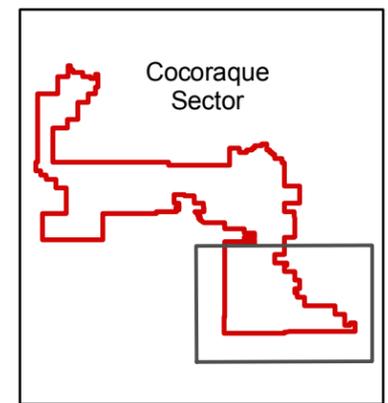
- Ironwood Forest National Monument



Universal Transverse Mercator
Zone 12, Units Meters
Clark 1866 Spheroid
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