



U.S. Department of the Interior
Bureau of Land Management
Gila District Office

July 2019

San Pedro Riparian National Conservation Area

Record of Decision and Approved Resource Management Plan



BLM Mission

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

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

TABLE OF CONTENTS

Chapter

Page

CHAPTER 1. RECORD OF DECISION	1-1
1.1 Introduction	1-1
1.1.1 Overview	1-1
1.1.2 Description of the SPRNCA Planning Area	1-1
1.2 The Decision.....	1-1
1.2.1 Clarifications and Modifications	1-3
1.2.2 Mitigation Measures	1-6
1.2.3 Plan Monitoring.....	1-6
1.3 Alternatives	1-6
1.3.1 Alternatives Considered and Dismissed	1-6
1.3.2 Alternatives Analyzed in Detail	1-6
1.3.3 Environmentally Preferable Alternative.....	1-7
1.4 Public Involvement.....	1-8
1.4.1 Public Scoping.....	1-8
1.4.2 Public Review of and Comment on the Draft RMP/EIS.....	1-8
1.4.3 Governor’s Consistency Review of the Proposed RMP/Final EIS.....	1-8
1.4.4 Protest Resolution.....	1-8
1.4.5 Consultation and Coordination	1-9
1.5 Availability and Approval of the Plan.....	1-10
CHAPTER 2. APPROVED RESOURCE MANAGEMENT PLAN	2-1
2.1 Plan Implementation.....	2-22
2.2 Public Involvement in Plan Implementation.....	2-22
2.3 Plan Evaluation and Maintenance	2-23
2.3.1 Plan Evaluation.....	2-23
2.3.2 Plan Maintenance	2-23
2.4 Monitoring and Adaptive Management.....	2-23
CHAPTER 3. REFERENCES.....	3-1

FIGURES

Page

1-1	San Pedro Riparian National Conservation Area	1-2
2-1	Soils: Rainfall Erosion	2-24
2-2	Soils: Wind Erosion.....	2-25
2-3	Priority Habitats.....	2-26
2-4	Threatened and Endangered Species Critical Habitat.....	2-27
2-5	Paleontology.....	2-28
2-6	Visual Resources	2-29
2-7	Livestock Grazing	2-30
2-8	Recreation	2-31
2-9	Travel Route Inventory (Extents 1 - 8)	2-32
2-10	Discharge of Firearms.....	2-40
2-11	Lands and Realty	2-41
2-12	Wild and Scenic Rivers—San Pedro River	2-42
2-13	Wild and Scenic Rivers—Babocomari River	2-43

APPENDICES

Appendix A	Standard Operating Procedures and Best Management Practices
Appendix B	Watershed Improvement Techniques
Appendix C	Recreation

ACRONYM OR ABBREVIATIONFull Phrase

ACEC	area of critical environmental concern
ADEQ	Arizona Department of Environmental Quality
AMA	Allocations, Management Actions, Allowable Uses
AZGFD	Arizona Game and Fish Department
AUM	animal unit month
BLM	United States Department of the Interior, Bureau of Land Management
BMPs	best management practices
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
ERMA	extensive recreation management area
ESR	emergency stabilization and rehabilitation
NAAQS	National Ambient Air Quality Standards
NCA	National Conservation Area
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	notice of availability
ORV	outstandingly remarkable value
PFC	proper functioning condition
PFYC	potential fossil yield classification
PL	Public Law
RMP	Resource Management Plan
RMZ	Recreation Management Zone
ROD	Record of Decision
ROW	right-of-way
SHPO	State Historic Preservation Office
SPRNCA	San Pedro Riparian National Conservation Area
SRP	special recreation permit
TCP	traditional cultural property
US	United States
USFWS	United States Department of the Interior, Fish and Wildlife Service
VRM	Visual Resource Management
WSR	Wild and Scenic River

This page intentionally left blank.

Chapter I. Record of Decision

I.1 INTRODUCTION

I.1.1 Overview

The United States (US) Department of the Interior, Bureau of Land Management (BLM) uses Resource Management Plans (RMPs) to guide management of the land it administers. This Record of Decision (ROD) approves the BLM's proposal to manage BLM-administered lands in the San Pedro Riparian National Conservation Area (SPRNCA) as presented in the attached approved RMP. This RMP was described as the Proposed Plan (modified Alternative C) in the SPRNCA Proposed RMP/Final Environmental Impact Statement (EIS; April 2019), with exceptions as noted in this ROD. The background and rationale for approving the decisions in the Proposed Plan are described in this ROD, as well as clarifications and modifications made to address protests to the Proposed Plan.

I.1.2 Description of the SPRNCA Planning Area

The SPRNCA is in Cochise County, Arizona, south of Benson and west of Tombstone and Bisbee, Arizona. It starts at the US-Mexico Border and runs north-south approximately 47 miles, encompassing 55,990 acres of federal lands administered by the BLM's Tucson Field Office. Congress designated the SPRNCA as the nation's first riparian National Conservation Area (NCA) on November 18, 1988, through Public Law (PL) 100-696.

The SPRNCA contains four of the rarest habitats in the southwest, a rich diversity of plants and animals, and a number of nationally significant paleontological and cultural sites. The enabling legislation recognizes these, and other characteristics, as conservation values to be conserved, protected, and enhanced in perpetuity. In the furtherance of those goals, PL 100-696 withdrew lands on the SPRNCA from all forms of entry, appropriation, and disposal of mineral estate; prohibited the disposal of lands on the SPRNCA out of federal ownership; and closed the SPRNCA to vehicle use off of designated routes. Consistent with these constraints, no goals, objectives or management actions related to mineral access, land disposal, or off-road designations were analyzed in the Proposed RMP/Final EIS.

A map of the planning area and land ownership on the SPRNCA is in **Figure I-1**.

I.2 THE DECISION

The decision is hereby made to approve the attached SPRNCA RMP. The BLM has determined that the Proposed Plan (as modified, in consideration of public and agency comments, public protest, and the Governor's consistency review) is the most consistent with the purposes, policies, and programs associated with implementing its legal mandates, and includes appropriate best management practices (BMPs) to conserve, protect, and enhance the SPRNCA conservation values. It defines clear goals and objectives for the recreational, scientific, and educational values and authorizes restoration to meet those goals and objectives. It represents a balance between resource protection, public access, and recreation. The SPRNCA RMP focuses on active resource management, using the broadest array of management tools (where appropriate), including use of heavy equipment, herbicide, hand tools, targeted livestock grazing, and prescribed fire. Leased livestock grazing would continue as currently allocated on 7,030 acres.

**Figure 1-1
San Pedro Riparian
National Conservation Area**

 SPRNCA Planning Area

Surface Management

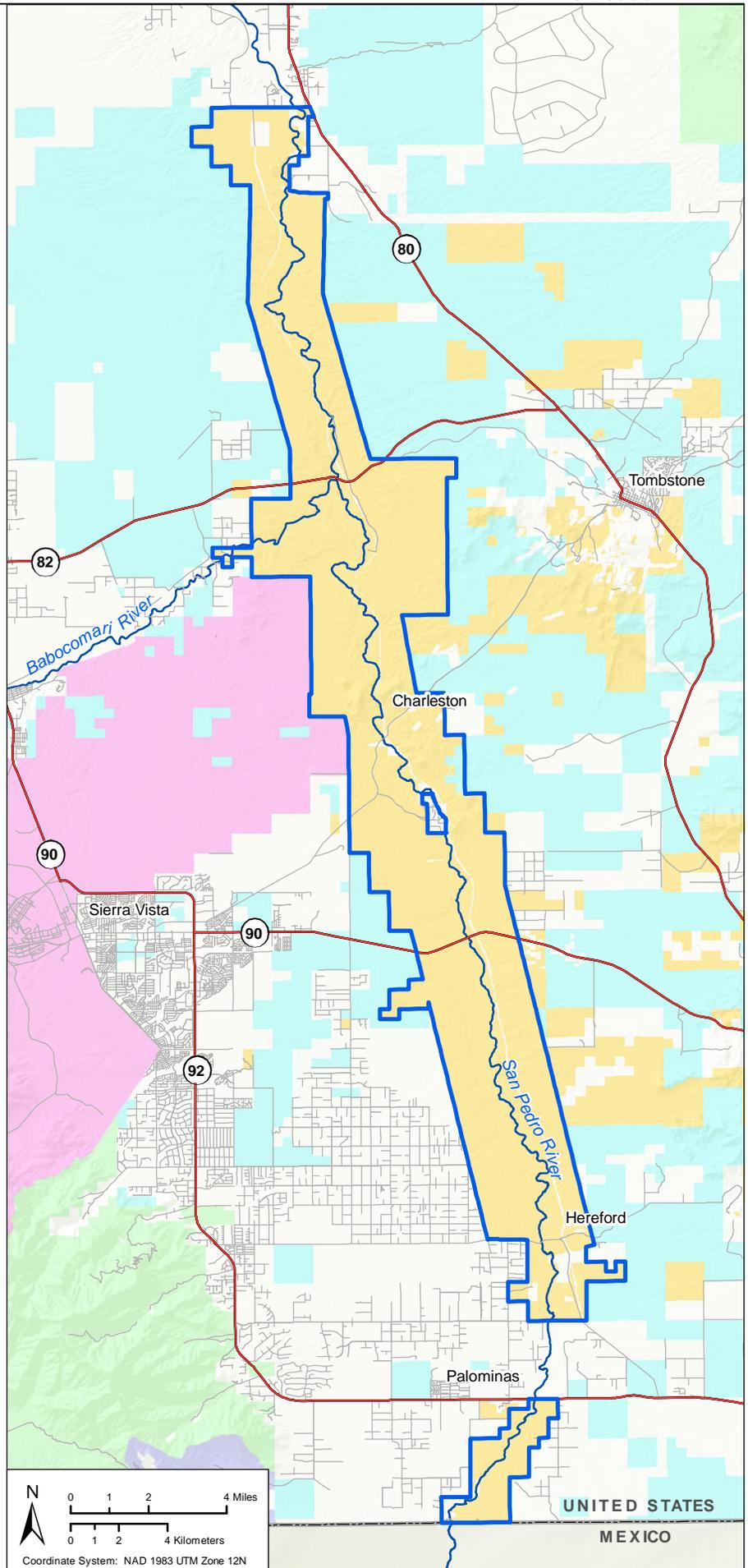
-  BLM
-  International Boundary
Water Commission (IBWC)
-  Local or State Parks
-  Military
-  NPS
-  Private
-  State
-  USFS



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



The SPRNCA RMP also provides for adaptive management of livestock grazing on the existing allotments, which would be done through implementation-level decisions in accordance with 43 Code of Federal Regulations (CFR) 4160 to ensure that compliance with the enabling legislation continues. Vehicle use would continue to be permitted only on designated routes, consistent with the enabling legislation. The approved RMP removes the designation of three areas of critical environmental concern (ACECs), designates the SPRNCA as an avoidance area for new rights-of-ways (ROWs; except for the existing Charleston Road Utility Corridor), and designates the SPRNCA as an extensive recreation management area (ERMA). Additionally, the San Pedro River is determined suitable for addition to the National Wild and Scenic Rivers system, and the Babocomari River is found eligible and suitable for addition to the National Wild and Scenic Rivers system; both rivers are classified as recreational. The Proposed Plan sets desired outcomes and allocations for natural, cultural, and visual resources. No areas would be managed to protect wilderness characteristics as a priority; roadlessness, naturalness, and opportunities for primitive recreation would be managed through other land use allocations.

The SPRNCA RMP was prepared under the authority of Sections 201 and 202 of the Federal Land Use Management and Policy Act (43 US Code 1711 and 1712) and the regulations in 43 CFR 1600. Decisions identified in the approved RMP are final and become effective when this ROD is signed. The decisions included in this ROD and approved RMP supersede the San Pedro River Riparian Management Plan (1989) and the Safford District RMP (BLM 1992, 1994) and all other former land use management decisions for the area.

1.2.1 Clarifications and Modifications

The BLM prepared an EIS for this RMP, in compliance with NEPA (42 US Code 4321) and the regulations in 40 CFR 1500 and 43 CFR 46. The approved RMP is nearly identical to the Proposed Plan set forth in the SPRNCA Proposed RMP/Final EIS published in April 2019. Based on continued internal review and protest resolution, the BLM made several clarifications between the Proposed RMP/Final EIS and the approved RMP, listed below (minor grammatical or editorial changes are not included).

Minor changes were made to the approved RMP for clarity purposes and to reduce redundancy. Minor inconsistencies, including the numbering of goals, objectives, allowable uses, and actions, were also rectified. The following goals, objectives, allowable uses, and actions have been modified from the Proposed RMP/Final EIS (noted by Proposed Plan in parentheses). The approved RMP decision number is noted after the Proposed Plan decision number to correlate the two. Clarifications that only reference the approved RMP are new decisions added for clarity purposes.

- Soil Management Action 3 (Proposed Plan)/ama-SOIL-3 (approved RMP): Changed for clarification
- Vegetation (All Vegetation Communities Management Actions and Allowable Uses 8)/ama-VEG-ALL-8 (approved RMP): Removed parenthetical example of on-site erosion control. Added reference to appendix for descriptions of erosion control.
- Vegetation (Riparian Vegetation Communities) Management Action 4 (Proposed Plan): Was not carried forward because the decision applied to the expanded livestock grazing alternative and is not applicable to the Proposed Plan/modified Alternative C. Infrastructure is currently in place for the existing allotments.
- Vegetation (Wetland Vegetation Community) Objective 1 (Proposed Plan)/ob-VEG-WET-1 (approved RMP): Added text for clarity.

- Wildland Fire and Management Action and Allowable Use 4 (Proposed Plan): Was not carried forward; ROD does not allocate any lands with wilderness characteristics; therefore, the decision was not carried forward.
- Archaeological and Historic Resources Allocations 6 and 7 (Proposed Plan) / ama-ARCH-6 and ama-ARCH-7 (approved RMP): Corrected a mistake from the Proposed RMP/Final EIS by removing Gaybanipitea from the list of sites allocated for public use and added Millville rock art site. Millville rock art site was removed from the list of sites allocated to experimental use. There have been no plans to develop Gaybanipitea for public use/visitation. It is also a significant site to the Tohono O'odham Nation (Sobaipuri). Therefore, the public use allocation was not appropriate for this site.
- Archaeological and Historic Resources Allocation 11 (Proposed Plan): Was not carried forward; there are no ACECs designated in the approved RMP.
- Archaeological and Historic Resources Management Action 4 (Proposed Plan): Was not carried forward; there are no ACECs designated in the approved RMP.
- Paleontological Resources Special Designations 1 (Proposed Plan): Was not carried forward; there are no ACECs designated in the approved RMP.
- Livestock Grazing Goal 1 (Proposed Plan)/g-GRAZ-1 (approved RMP): Modified for clarity.
- Livestock Grazing Land Use Allocations 1 (Proposed Plan): Deleted because the intention is combined with ama-GRAZ-1 in the approved RMP.
- Livestock Grazing Management Actions and Allowable Uses 1 (Proposed Plan)/ama-GRAZ-4: Modified text for clarity.
- Livestock Grazing Management Actions and Allowable Uses 3 (Proposed Plan)/ama-GRAZ-6 (approved RMP): Modified text to clarify that the existing grazing leases would be evaluated.
- Recreation and Visitor Services Objectives 1 and 2 (Proposed Plan)/ob-REC-1 (approved RMP): Combined and modified to reduce redundancy with management actions.
- Recreation and Visitor Services Management Actions and Allowable Uses 9 (Proposed Plan)/ama-REC-9 (approved RMP): Added clarification regarding situations where campfires are allowed in dispersed camping areas.
- Recreation and Visitor Services Management Actions and Allowable Uses 11 (Proposed Plan)/ama-REC-11 (approved RMP): Added Presidio of Santa Cruz de Terrenate cultural site to list of areas closed to equestrians and mountain bikers to protect sensitive resources at these sites.
- Recreation and Visitor Services Management Actions and Allowable Uses 15 (Proposed Plan)/ama-REC-15 (approved RMP): Added text for clarity.
- Recreation and Visitor Services Management Actions and Allowable Uses 16 (Proposed Plan)/ama-REC-16 (approved RMP): Added text for clarity and updated acres because Gaybanipitea is not a public recreation facility.
- ama-TTM-2 and ama-TTM-3 (approved RMP): Added to clarify uses that would continue to be allowed on the SPRNCA.

- Transportation and Access Land Use Allocations 2 (Proposed Plan)/ama-TTM-4 (approved RMP): Text modified to eliminate unneeded information.
- Lands and Realty Land Use Allocations 1 (Proposed Plan)/ama-LANDS-1 (approved RMP): Text added to clarify how corridor width is defined.
- Lands and Realty Management Actions and Allowable Uses 6 (Proposed Plan)/ama-LANDS-9 (approved RMP): Deleted reference to 2017 Land Tenure Adjustment Strategy for Arizona; added requirement for mineral estate to the list.
- Lands and Realty Management Actions and Allowable Uses 11 (Proposed Plan)/ama-LANDS-14 (approved RMP): Text added and reworded to clarify that routes needed for maintenance and operation of authorized uses would generally be open to nonmotorized public use, and holders of existing land use authorizations may amend their ROWs to include access if it was not included in pre-SPRNCA grants.
- Wild and Scenic Rivers Land Use Allocations 1 and 3 (Proposed Plan)/ama-WSR-1 and ama-WSR-3 (approved RMP): "Preliminarily" was removed from Wild and Scenic River management decisions). This term was used to define suitability for the San Pedro and Babocomari River segments during the planning process. Based on analysis and public input during the planning process, the decision is to determine the San Pedro and Babocomari River segments suitable, so use of the term "preliminarily" is no longer accurate.
- Wild and Scenic Rivers Management Actions and Allowable Uses 14 (Proposed Plan)/ama-WSR-18 (approved RMP): Revised text for consistency with the Proposed Plan.
- ama-WSR-27 (approved RMP): Added monitoring text for clarification.

The Executive Summary and Chapter 2 of the Proposed RMP/Final EIS described a framework for developing a collaborative adaptive management strategy for outcome-based grazing. The approved RMP clarifies that the RMP provides for adaptive management of livestock grazing on the existing allotments, which would be done through implementation-level decisions in accordance with 43 CFR 4160; outcome-based grazing is no longer specifically mentioned because this is a type of adaptive management that the BLM is currently piloting. Any authorized grazing must meet the legislative requirements.

Only those maps from the Proposed RMP/Final EIS that illustrate applicable decisions are brought forward into the approved RMP. As a result, maps are renumbered in the approved RMP.

Only those appendices from the Proposed RMP/Final EIS that relate to the decisions made in the approved RMP are brought forward. Other appendices not brought forward support the Final EIS.

Edits were made to BMPs/SOPs (**Appendix A**) to reduce redundancy and further clarify the intent of the appendix.

Appendix I of the Proposed RMP/Final EIS (Arizona Standards for Rangeland Health and Guidelines for Grazing Administration) contained two sections on Biological Vegetation Treatments and Targeted Grazing (Sections I.9 and I.10) that are not part of the Standards and Guidelines. This text is stricken from the appendix and is now included in **Appendix B** (Watershed Improvement Techniques) to this ROD/approved RMP.

Changes were made to **Appendix C**, Recreation, to clarify that no implementation decisions are being made in the RMP. In addition, changes were made to reduce redundancy with decisions in the approved RMP and some BMPs.

I.2.2 Mitigation Measures

The approved RMP lists the standard operating procedures and BMPs applicable to land use activities authorized on BLM-administered lands in the SPRNCA decision area (**Appendix A**, Standard Operating Procedures and Best Management Practices). The standard operating procedures and BMPs included in the approved RMP are not intended to be a complete list; instead, they are examples of commonly used practices that a project proponent will be required to use, as necessary, to reduce impacts of surface-disturbing activities, use, or occupancy. More explicit standard operating procedures and BMPs, based on local conditions and resource-specific concerns, also will be developed as necessary once a specific proposal is evaluated through the environmental analysis process.

I.2.3 Plan Monitoring

The Council on Environmental Quality regulations implementing the National Environmental Policy Act (NEPA) state that agencies may monitor to ensure that their decisions are carried out and that they should do so in important cases (40 CFR 1505.2(c)). To meet these requirements, the BLM will prepare periodic reports on the implementation of the SPRNCA RMP. It will use land use plan evaluations to determine if the decisions in the SPRNCA RMP, supported by the accompanying NEPA analysis, are still valid.

I.3 ALTERNATIVES

I.3.1 Alternatives Considered and Dismissed

In addition to the alternatives considered in detailed analysis, two alternatives were considered but dismissed from detailed analysis. One of these dismissed alternatives would have included a 38,000-acre forage reserve allotment and was not studied in further detail because there would not have been lease holders responsible for constructing and maintaining the infrastructure. The other alternative considered and dismissed would have allowed for ROW corridors along Highways 82, 90, and 92. This alternative was dismissed because of conflicts with BLM's National Landscape Conservation System policy.

I.3.2 Alternatives Analyzed in Detail

Alternative A, the No Action Alternative, describes current management on the SPRNCA.

Alternative B emphasizes opportunities for increased public access, livestock grazing, and recreation uses.

Alternative C represents a balance between resource protection and public access, livestock grazing, and recreation.

The Proposed Plan (Modified C) includes all of Alternative C's planning decisions except the livestock grazing allocation. It includes Alternative A's livestock grazing allocation.

Alternative D emphasizes resource protection and conservation, while allowing access and recreation, where appropriate.

I.3.3 Environmentally Preferable Alternative

Compared to the other alternatives analyzed, the Proposed Plan best meets the requirements of the enabling legislation for the SPRNCA by providing long-term protection while allowing management flexibility to enhance the conservation values including recreational uses. The Proposed Plan is the alternative that best protects, conserves, and enhances historic, cultural, and natural resources. The BLM considers the Proposed Plan (modified Alternative C) to be the environmentally preferable alternative when taking into consideration the human (social and economic) environment as well as the natural environment.

The BLM's Proposed Plan includes all of Alternative C's planning decisions except the livestock grazing allocation. The modified Alternative C includes Alternative A's livestock grazing allocation, which allows continued grazing on smaller, existing allotments while providing adaptive management of livestock grazing through implementation-level decisions in accordance with 43 CFR 4160. This will ensure that compliance with the enabling legislation continues. The modified Alternative C best meets the requirements of the enabling legislation and requirements of Section 101 of the NEPA providing resource protections, flexibility to enhance the conservation values, including a diverse mix of recreational opportunities.

The No Action Alternative, Alternative A, represents current management in the SPRNCA and provides a baseline for comparison with the other alternatives. It does not include specific goals, objectives and management actions to enhance the conservation values, and doesn't address many of the issues raised during scoping. For these reasons, the No Action Alternative is not preferable from an environmental perspective.

Alternative B represents the alternative with the highest level of use considered. It sets desired outcomes and allocations for resources, including natural, cultural, and visual, while providing for use and an array of visitor experiences and opportunities. It places an emphasis on increased opportunities for motorized access with fewer opportunities for primitive and remote experiences. It identifies the entire SPRNCA as available for livestock grazing, including in sensitive riparian and wildlife habitat areas. Alternative B focuses on active resource management for ecosystem restoration. This alternative would require more intensive use management to avoid or mitigate adverse effects from the increased use. Alternative B has the least amount of resource protections and would not achieve balance between protection of the SPRNCA conservation values and resource uses.

Alternative C represents an attempt to balance resource protection with public access, livestock grazing, and recreation. As in Alternative B, it sets desired outcomes and allocations for resources, including natural, cultural, and visual. Alternative C proposes a more balanced mix of recreational opportunities and includes active resource management for ecosystem restoration. Alternative C proposes expanded livestock grazing in SPRNCA's upland areas. This would have impacts on wildlife habitat, cultural resources, and water resources. Alternative C, with the livestock grazing allocation, would not achieve a balance between protection of the conservation values and resource uses.

Alternative D emphasizes minimal human use and influence and the maintenance of primitive landscapes. Alternative D sets desired outcomes and allocations for resources, including natural, cultural, and visual, while allowing a lower level of human use. It would allow for the fewest miles of access and provide less varied recreation opportunities. It focuses on natural processes and use of "light on the land" management methods. Proactive resource stabilization and restoration is reduced to the greatest degree in this

alternative including the least aggressive treatment of invasive species. While this alternative is the most “natural” management alternative, it is not selected as the environmentally preferable alternative because it does not allow for active restoration management or achieve a balance between recreational use, management flexibility to enhance the conservation values, and resource protection.

I.4 PUBLIC INVOLVEMENT

I.4.1 Public Scoping

The formal public scoping process for the SPRNCA RMP/EIS began with the publication of the Notice of Intent in the *Federal Register* on April 30, 2013 (78 *Federal Register* 25299). Additional information on public scoping can be found in the SPRNCA RMP public scoping report, posted on the SPRNCA RMP ePlanning site: <https://go.usa.gov/xnTuM>.

I.4.2 Public Review of and Comment on the Draft RMP/EIS

On June 29, 2018, the Environmental Protection Agency published a notice of availability (NOA) in the *Federal Register* for the SPRNCA Draft RMP/EIS. This initiated the 90-day public comment period on the Draft RMP/EIS.

The BLM’s responses to the summarized substantive comments are part of the public response report of the Proposed RMP/Final EIS (Appendix V of the Proposed RMP/Final EIS). In addition to the substantive comments that the BLM responded to in Appendix V of the Proposed RMP/Final EIS, it posted all comment letters on the SPRNCA RMP’s ePlanning website in early November 2018.

I.4.3 Governor’s Consistency Review of the Proposed RMP/Final EIS

Coinciding with the NOA in the *Federal Register* for the SPRNCA Proposed RMP/Final EIS (April 26, 2019), the Governor was afforded a 60-day consistency review period in accordance with 43 CFR 1610.3-2(e). No inconsistencies were identified by the Governor.

I.4.4 Protest Resolution

The NOA for the Proposed RMP/Final EIS initiated the 30-day protest period. The protest period ended on May 30, 2019. Changes made to the RMP as a result of the protest period and governor’s consistency review are discussed in **Section 1.2.1**, Clarifications and Modifications.

Pursuant to the BLM’s planning regulations at 43 CFR 1610.5-2, any person who participated in the SPRNCA RMP planning process and had an interest that may be adversely affected by the BLM’s planning decisions was allowed to protest proposed planning decisions within 30 days of when the NOA of the Proposed RMP/Final EIS was published in the *Federal Register*. Note that the SPRNCA Proposed RMP did not contain any implementation decisions that were subject to the appeal process by procedures set out by other BLM regulations.

The BLM received 28 protest letters during the 30-day protest period provided for the SPRNCA Proposed RMP. In accordance with 43 CFR 1610.5-2, 18 of these letters were dismissed either because the commenter did not have standing or because the letter did not contain valid protests. The remaining 10 protest letters were valid and contained protest issues that required a response from the BLM.

The BLM Director’s decisions on the protests are summarized in the *Director’s Summary Protest Resolution Report, San Pedro Riparian National Conservation Area Proposed Resource Management Plan and Final*

Environmental Impact Statement, which is available on the BLM website: <https://www.blm.gov/programs/planning-and-nepa/public-participation/protest-resolution-reports>. The Director concluded that the BLM Arizona State Director followed the applicable laws, regulations, and policies and considered all relevant resource information and public input in developing the Proposed Plan. Each protesting party was notified in writing of the Director's findings and the disposition of their protests.

The BLM Director resolved the protests without making significant changes to the Proposed Plan, though minor clarifications were made and have been explained in **Section I.2.1**, Clarifications and Modifications.

I.4.5 Consultation and Coordination

The BLM initiated government-to-government consultation with 14 Native American tribes who claim cultural affiliation to, or traditional use of, the SPRNCA RMP planning area. Consultation continued throughout the RMP process to ensure that tribal input and concerns were considered in plan development and will continue in any subsequent project-level implementation.

State Historic Preservation Office (SHPO) coordination and consultation occurred throughout the RMP process and will continue with subsequent project-level implementation, where applicable.

As required by Section 7 of the Endangered Species Act of 1973, the BLM consulted with the US Fish and Wildlife Service (USFWS). The BLM submitted a Biological Assessment to USFWS on February 25, 2019, and the USFWS responded with a Biological Opinion on June 7, 2019. It is the USFWS Biological Opinion that the action, as proposed, is not likely to jeopardize the continued existence of species listed under the Endangered Species Act; is not likely to destroy or adversely modify designated critical habitat; and is not likely to adversely modify or destroy proposed critical habitat in the study area (or action areas as defined in the Biological Assessment). This Opinion was based on the following: The SPRNCA RMP does not make site-specific decisions about exactly how, when, and where these activities will be carried out; the proposed action is a "framework programmatic action" which establishes a framework for the development of specific future action(s) but does not authorize any future action(s); and any future-project specific activities under the SPRNCA RMP that may affect listed species or critical habitat will receive additional USFWS review and/or Section 7 consultation as appropriate and are described in the SPRNCA RMP.

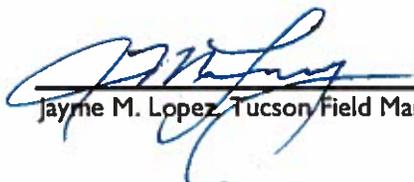
In addition to the outreach described above, there were other informal meetings, telephone conversations, and visits with agency representatives and the public when requested. Coordination between the cooperating agencies was integral in the development of this RMP: Fort Huachuca, Arizona Game and Fish Department (AZGFD), Cochise County, and the City of Sierra Vista.

I.5 AVAILABILITY AND APPROVAL OF THE PLAN

Copies of the ROD and the SPRNCA RMP may be obtained by viewing or downloading the document from the BLM website at <https://go.usa.gov/xnTuM> or by obtaining an electronic file at the BLM Gila District Office, 3201 E Universal Way, Tucson, Arizona, 85756.

Field Manager Recommendation

Having considered a full range of alternatives, associated effects, and public input, I recommend adoption and implementation of the BLM decisions in the attached SPRNCA RMP.



Jayme M. Lopez, Tucson Field Manager

7/26/2019

Date

District Manager Concurrence

I concur with the adoption and implementation of the BLM decisions in the attached SPRNCA RMP.



Scott Feldhausen, Gila District Manager

7/26/19

Date

State Director Approval

In consideration of the foregoing, I approve the BLM decisions in the attached SPRNCA RMP.



Raymond Suazo, Arizona State Director

7/30/2019

Date

Chapter 2. Approved Resource Management Plan

The SPRNCA RMP is included below and is adapted from the Proposed Plan in the Final EIS, as described in the ROD. For each resource or program area, goals, objectives, and management actions are identified, and each is assigned a separate code and number for reference. Only land use plan-level decisions are made in this RMP; no implementation actions are included. Such actions will require further NEPA compliance and must demonstrate conformance with the RMP.

As presented in the Proposed RMP/Final EIS, the RMP does not designate any ACECs; therefore, no section on ACECs is included.

Similarly, as presented in the Proposed RMP/Final EIS, the RMP does not manage any lands with wilderness characteristics as a priority; therefore, no section on lands with wilderness characteristics is provided. Roadlessness would be managed through travel management designations. Naturalness would be managed through protective allocations on other uses and through BMPs designed to minimize impacts. Opportunities for solitude and primitive recreation would be managed through recreation management allocations.

A summary of major allocations is included in the following table.

Resource or Resource Use	Topic	Allocation
Fire Management	Wildland Fire Management (acres)	55,990; full suppression area for all natural and human-caused ignitions
ROWs	ROW Corridor (acres)	210; Charleston Road: The northern boundary would be 375 feet north of the centerline of the Charleston Road, and the southern boundary would be 375 feet south
	ROW Avoidance (acres)	55,780; all of SPRNCA, except for the Charleston Road Corridor
Visual Resource Management (VRM)	VRM Class I (acres)	0
	VRM Class II (acres)	27,850
	VRM Class III (acres)	28,140
	VRM Class IV (acres)	0
Livestock Grazing	Available to livestock grazing (acres)	7,030
Recreation	Area managed as primitive recreation management zone (RMZ) within the Decision Area (acres)	16,250
	Area managed as backcountry RMZ within the Decision Area (acres)	29,500
	Area managed as backcountry (motorized) RMZ within the Decision Area (acres)	3,850

Resource or Resource Use	Topic	Allocation
	Areas managed as rural RMZ within the Decision Area (acres)	6,390
	Available and Unavailable for Hunting with Firearms	Allowed throughout the SPRNCA (50,580 available acres), except for a portion of the Rural RMZ around the San Pedro House and areas 0.25-mile from associated recreation facilities, in accordance with AZGFD hunting regulations (5,410 unavailable acres)
Wild and Scenic Rivers	Babocomari River Segment	Determined suitable (4 miles; 480 acres): classified as recreational
	San Pedro River Segment	Determined suitable (48.3 miles; 16,570 acres): classified as recreational

Air Quality

Goal

g-AIR-1 Manage activities and development on the SPRNCA to minimize emissions that cause or contribute to violations of air quality standards or that negatively impact air quality-related values (e.g., visibility).

Objectives

ob-AIR-1 Manage SPRNCA activities and development to comply with all applicable local, state, tribal, and federal air quality laws, regulations, standards, and implementation plans.

ob-AIR-2 Continue to manage the airshed in accordance with State of Arizona Class II standards unless redesignated.

ob-AIR-3 Manage SPRNCA activities and development to protect and improve air quality and, within the scope of the BLM's authority, minimize emissions that cause or contribute to violations of air quality standards or that negatively affect air quality related values. Manage to maintain attainment status for all National Ambient Air Quality Standards (NAAQS) and Arizona Department of Environmental Quality (ADEQ) standards.

Allocations, Management Actions, Allowable Uses (AMA)

ama-AIR-1 When implementing BLM or BLM-approved activities, minimize surface disturbances to prevent the addition of large quantities of dust to the air. Apply stipulations to mitigate the impacts on air quality.

ama-AIR-2 If any or all of the SPRNCA is designated as a non-attainment area for violations of the NAAQS, work with regulatory agencies to follow the State Implementation Plan for reducing air pollutants in the area.

Soils and Watershed Management

Goals

g-SOIL-1 Soils would exhibit infiltration, permeability, and natural erosion rates appropriate for the soil type, climate, and landform.

g-SOIL-2 Stream channel and riparian processes would promote building of bank and floodplain soils with low bulk density properties (high organic content) that promote bank storage of water where appropriate.

Objectives

ob-SOIL-1 Maintain or improve ground cover that protects sensitive soils and prevents accelerated erosion (**Figure 2-1** and **Figure 2-2**).

ob-SOIL-2 Conserve, protect, and enhance proper functioning watershed conditions to help maintain groundwater levels, base flows, and flood flows on the SPRNCA.

Management Actions and Allowable Uses

ama-SOIL-1 Use a broad array of management tools and structures to control sheet, rill, and gully erosion in areas indicating accelerated erosion from lack of vegetation cover and soil erosivity.

ama-SOIL-2 Implement seeding and plantings (using only native seeds and plants), if needed following fire, flood, or other disturbance.

ama-SOIL-3 Improve watershed health and prioritize treatments for recharge enhancements in ephemeral tributaries (refer to **Appendices A** and **B**). Monitor groundwater levels near recharge enhancements and modify size, location, and/or type of enhancement to achieve rising or stable groundwater levels.

ama-SOIL-4 Assess the level of departure of current river geomorphology and function from its potential for each reach. Where assessment indicates that channel function can be enhanced through the gradual implementation of low impact structural and nonstructural approaches, design and implement projects, where feasible. Monitor changes in key parameters.

ama-SOIL-5 Assess the man-made structures from historical land uses (e.g. agricultural dikes and berms, railroad grades, and ditches and diversions) for hydrologic function, determine their level of impairment, and rehabilitate (either dismantle or alter) as necessary.

ama-SOIL-6 Modify all routes affecting watershed health and function, as necessary to restore watershed function and long-term health.

Water Management

Goals

g-WAT-1 Provide a base flow sufficient for SPRNCA management purposes.

g-WAT-2 Improve water quality to reach State of Arizona standards (ADEQ 2018).

Objectives

ob-WAT-1 Reduce or prevent contamination of surface and groundwater by nonpoint source pollution to meet state requirements.

ob-WAT-2 Improve summertime water quality (dissolved oxygen levels) in reaches that have experienced fish kills.

ob-WAT-3 Provide adequate water quantities to sustain aquatic habitat, woody vegetation comprised of cottonwood, willow, and other native deciduous riparian trees and to meet desired ecological conditions, especially those for tree regeneration, native aquatic species, and federally listed aquatic species.

ob-WAT-4 Maintain and enhance hydrologic function at Saint David Ciénega, Dunlevy artesian wetlands, Kolbe artesian wetland, and the Lewis Spring Ciénega complex to meet the desired wetland plant community as described in the vegetation section and associated ecological conditions.

ob-WAT-5 Conserve groundwater on the SPRNCA, while allowing for appropriate uses on the SPRNCA.

Allocations, Management Actions, and Allowable Uses

ama-WAT-1 Review and assess water needs for resources managed on the SPRNCA and acquire and perfect new water rights as deemed necessary for management purposes.

ama-WAT-2 Design any pumping of groundwater for BLM-authorized actions to reduce impacts on base flows; this could include putting floats in troughs and seasonally restricting groundwater pumping.

ama-WAT-3 Do not approve land use authorizations (realty actions) involving additional groundwater pumping on the SPRNCA, subject to valid existing rights.

ama-WAT-4 Assess existing wells on the SPRNCA for use as monitoring wells, administrative use, wildlife use (drinking and habitat), habitat restoration (for maintaining a limited number of off-channel aquatic habitats for threatened and endangered species recovery), livestock use, emergency habitat augmentation, and other potential uses.

Vegetation Communities

Goals: All Vegetation Communities

g-VEG-ALL-1 Ensure that natural processes (e.g., fire, flood, and hydrology) are maintained or restored to support vegetation expression that approaches or meets the ecological site potential.

g-VEG-ALL-2 Maintain or restore each vegetation community in its natural range of variation in plant composition, structure, and cover (basal and canopy) at the landscape level.

g-VEG-ALL-3 Ensure that noxious and undesirable plant species do not occur on the landscape or, if they occur, they make up a sufficiently small percentage of the vegetation community that they do not affect ecological processes.

g-VEG-ALL-4 Ensure that vegetation supports a diversity of suitable habitats available for future establishment and maintenance of populations of endangered, threatened, and special status plant and animal species for species recovery.

Objectives: All Vegetation Communities

ob-VEG-ALL-1 Ensure that the natural diversity and abundance of native vegetation occurs as expected for landform and ecological sites.

ob-VEG-ALL-2 Maintain or improve the ecological processes and function of habitats that support priority or special status plant species.

ob-VEG-ALL-3 In areas where firebreaks are identified to protect or maintain wildland urban interface areas and other values at risk, reduce fuel characteristics, which changes fire behavior characteristics (reduced flame lengths, slower rates of spread, reduced fire intensity levels, and reduced crown fire potential).

Allocations, Management Actions, and Allowable Uses: All Vegetation Communities

- ama-VEG-ALL-1 Use combinations of biological (targeted livestock grazing¹, insects, etc.), mechanical, prescribed fire, and chemical management to suppress, control, and/or eliminate invasive species/noxious weeds.
- ama-VEG-ALL-2 Use native trees, shrubs, and herbs and native seed mixes for restoration.
- ama-VEG-ALL-3 Use biological (including targeted livestock grazing), chemical, mechanical, and prescribed fire treatment methods to create and maintain firebreaks to reduce fuel characteristics.
- ama-VEG-ALL-4 After a vegetation/restoration treatment, exclude livestock from the treatment area for two growing seasons or until resource objectives are met.
- ama-VEG-ALL-5 The following criteria would apply for plant collection in all vegetation communities:
- Collection of living or dead native plant material for commercial uses is prohibited;
 - Collection of living or dead native vegetation and byproducts that are proposed for federal listing, federally listed as threatened or endangered species, or highly safeguarded native plants identified in the Arizona Native Plant Law is prohibited, except as permitted by USFWS;
 - Collection of live vegetation or vegetative products is allowed for scientific uses (except where stated above) when covered by an approved BLM research permit;
 - Reasonable amounts of wood and other plant materials may be used for administrative purposes;
 - Collection of living native vegetation and seeds for restoration purposes or to establish new populations of rare or federally listed plants requires BLM authorization; and
 - Collection of plants for noncommercial, personal use quantities of herbals, medicines, traditional use items by Native American tribes is allowed in areas identified in coordination with Native American tribes.
- ama-VEG-ALL-6 Allow gathering of dead and down wood for campfires.
- ama-VEG-ALL-7 Allow for biomass utilization of usable wood products generated during restoration treatments to be collected by the public with a permit.
- ama-VEG-ALL-8 Allow for the use of any wood from vegetation treatments for on-site erosion control or chips for soil improvements designed to add organic material, hold more water, and slow erosion. See **Appendix B**, Section 3, for a description of erosion control treatments.

Riparian Vegetation Community

Goals: Riparian Vegetation Community

- g-VEG-RIP-1 Ensure riparian areas and wetlands are in proper functioning condition (PFC).
- g-VEG-RIP-2 Improve and maintain approximately 12,340 acres of riparian habitat. Riparian habitats should contain a diversity of native riparian obligate trees and shrubs of various age and size classes and herbaceous plants to maintain and restore ecological condition and function. Manage for a diverse age structure that supports tree replacement where channel and hydrologic conditions support tree regeneration.

Objectives: Riparian Vegetation Community

- ob-VEG-RIP-1 Maintain the Fremont cottonwood-Goodding's willow gallery, except in areas where firebreaks are planned.

¹ Targeted livestock grazing is a vegetation management tool and not part of livestock forage allocation.

- ob-VEG-RIP-2 Achieve and maintain PFC.
- ob-VEG-RIP-3 Provide sufficient vegetated bank cover to prevent erosion, slow down water, and improve bank soil condition including porosity for recharge.
- ob-VEG-RIP-4 In areas where firebreaks are planned or currently exist, maintain acceptable levels of fuels in riparian areas and floodplains. A secondary objective in firebreak areas is to protect key biological elements for priority or special status species.
- ob-VEG-RIP-5 Maintain the native plant community (dominated by big sacaton grassland and mesquite forest [bosque]) on adjacent floodplains.
- ob-VEG-RIP-6 Between Fairbank and Land Corral, reduce salt cedar acres from 22 percent to less than 5 percent of the total riparian vegetative cover.

Allocation, Management Action, and Allowable Uses: Riparian Vegetation Community

- ama-VEG-RIP-1 Restore and maintain riparian function.
- ama-VEG-RIP-2 Allow for herbicide and mechanical vegetation treatments to meet riparian vegetation objectives.
- ama-VEG-RIP-3 Use a broad array of management tools to remove salt cedar and maintain past salt cedar treatments.
- ama-VEG-RIP-4 Design new recreation developments to minimize impacts on riparian vegetation and critical habitat.
- ama-VEG-RIP-5 Monitor and maintain existing recreational trails on upper banks and floodplains. Limit spur trails to channel edges to short segments.

Vegetation Management: Wetland Vegetation Management

Goal: Wetland Vegetation Management

- g-VEG-WET-1 Ensure the vegetation community wetland areas on the SPRNCA support healthy, diverse, and abundant populations of native wetland plants, fish, and wildlife species.

Objectives: Wetland Vegetation Management

- ob-VEG-WET-1 Maintain, restore, or enhance approximately 40 acres of wetland plant communities. Maintain the Lewis Springs wetland complex in its current state and enhance the Dunlevy wetlands, Kolbe Wetland and White House Wetland (supplied by artesian wells), and Murray Springs. Restore the St. David Ciénega to approximate historical conditions. Maintain the Little Joe Wetland at the level to which it was restored in 2011. Manage wetlands currently developing along the San Pedro River and other stream courses to enhance or maintain processes that foster further expansion of this habitat type.
- ob-VEG-WET-2 Manage for a mix of ecological sites and wetlands that include varied water depths, open water areas, low-growing herbaceous wetland plants, such as sedges and rushes, and dense patches of cattails, bulrush, and grasses, with an emphasis on priority and listed species.
- ob-VEG-WET-3 Ensure herbaceous cover is sufficient to prevent erosion, slow down water, and improve wetland soil condition, including porosity for recharge.
- ob-VEG-WET-4 Protect wetlands from invasive species (both plant and animal).

Allocation, Management Action, and Allowable Uses: Wetland Vegetation Management

- ama-VEG-WET-1 Protect sensitive riparian and wetland ecological sites and surrounding areas that support rare or special status plant species from activities that disrupt key ecological processes (e.g., ecological site

stability, erosion, deposition, or recharge potential) through restricted use and/or mitigate using erosion prevention structures (e.g., signage, fencing, cross logs, proper trail drainage, or other stabilization methods).

ama-VEG-WET-2 To enhance or create fish and wildlife habitat, use prescribed fire and mechanical methods to maintain and restore wetland function; continue to create wetlands where natural or adequate artesian water sources have already been developed (Dunlevy, Kolbe, and White House artesian wells and the Saint David Ciénega).

ama-VEG-WET-3 Use soft structures created with wood, tree plantings, and hand placed rocks to direct flood energy to enhance Murray Springs. Excavation using heavy equipment may be used.

ama-VEG-WET-4 Install bullfrog proof fencing around perimeter of restored and artificial wetland ponds (Dunlevy, Kolbe, Flowing Well, Curtis Well).

ama-VEG-WET-5 Manage development of off-channel wetlands through natural processes.

ama-VEG-WET-6 Continue to manage vegetation in the wetland at Little Joe Spring for recovery of federally listed aquatic species.

Vegetation Management: Sandy Washes (Xeric Riparian)

Goal: Sandy Washes (Xeric Riparian)

g-VEG-XER-1 Conserve, protect, and enhance linear habitats with adequate cover and width, including habitat connectivity and adequate patch size.

Objectives: Sandy Washes (Xeric Riparian)

ob-VEG-XER-1 Maintain the functionality of desert washes to facilitate wildlife movement across the SPRNCA.

ob-VEG-XER-2 Maintain the natural variation in extent of plant communities along xeric-riparian areas.

Management Actions and Allowable Uses: Sandy Washes (Xeric Riparian)

ama-VEG-XER-1 Assess the xeric-riparian areas for barriers to wildlife movement and, if necessary, implement measures to facilitate and restore wildlife movement.

Vegetation Management: Upland Vegetation (Chihuahuan Desert Scrub and Grassland)

Goal: Upland Vegetation (Chihuahuan Desert Scrub and Grassland)

g-VEG-UP-1 Maintain or increase perennial grasses to cover their historic range of variability.

g-VEG-UP-2 Maintain or increase an adequate cover and mix of natural plant species that have good vigor.

Objectives: Upland Vegetation (Chihuahuan Desert Scrub and Grassland)

ob-VEG-UP-1 Manage 40,310 acres of upland vegetation toward restoring the perennial native grass component to address shrub encroachment.

ob-VEG-UP-2 In the grassland vegetation community, maintain or enhance density, vigor, cover, and species richness of native perennial grass, shrub, and forb species based on ecological site potential.

ob-VEG-UP-3 In the Chihuahuan desert scrub vegetation community, increase native annual and perennial herbaceous plants, based on ecological site potential.

Allocation, Management Actions, and Allowable Uses: Upland Vegetation (Chihuahuan Desert Scrub and Grassland)

ama-VEG-UP-1 Allow for mechanical, chemical, prescribed fire, biological (including targeted livestock grazing) vegetation treatments, as needed, to restore or enhance priority species habitat conditions within semidesert grasslands. Use prescribed fire to inhibit the invasion of woody plants.

ama-VEG-UP-2 Assess the need for restoration of abandoned farm fields. Restore using native plantings, seeding, heavy equipment, herbicide, and/or prescribed fire as appropriate.

Fish, Wildlife, and Special Status Species

Goal

g-WILD-1 Support priority habitats that maintain and enhance species richness and viability of native fish and wildlife species by maintaining a wide distribution and abundance within habitat carrying capacity, ecosystems with a high level of function supported by processes that sustain habitat integrity and diversity, and unfragmented habitat that provides adequate forage or prey, cover, and water for healthy populations. Ensure that species movement is unhampered in corridors between mountain ranges and in riparian corridors. See **Figure 2-3**.

Objectives

- ob-WILD-1 Conserve, protect, and enhance wildlife and aquatic resources in accordance with the aquatic, wildlife, scientific, cultural, educational, and recreational values of the SPRNCA.
- ob-WILD-2 Restore and maintain habitat of suitable quality and quantity to support identified priority fish and wildlife species.
- ob-WILD-3 Conserve, protect, and enhance the areas on the SPRNCA that were historically used for agriculture, providing management that allows ecological sites to return to habitat for priority species, appropriate to the landform, soils, and precipitation at the site.
- ob-WILD-4 Contain, control, or eliminate nonnative, invasive aquatic species to meet the objectives in recovery plans for federally listed species and implementation plans for wildlife habitat.
- ob-WILD-5 Manage springs for priority wildlife habitat.
- ob-WILD-6 Conserve, protect, and enhance desert washes with adequate cover and width, while considering habitat connectivity and adequate patch size.

Allocations, Management, and Allowable Uses

ama-WILD-1 Establish the following priority habitats and species (see **Figure 2-3**). The following species listed under each priority habitat type are indicator species for that habitat.

Riparian Areas and Wetlands Priority Species and Habitats:

Cottonwood-willow riparian forest

- Yellow-billed cuckoo (*Coccyzus americanus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Gray hawk (*Buteo plagiatus*)
- Yellow warbler (*Setophaga petechia*)

Mesquite Forest (Bosque)

- Yellow-billed cuckoo
- Gray hawk
- Arizona Bell's vireo (*Vireo bellii arizonae*)

Big Sacaton Grassland

- Arizona Botteri's sparrow (*Peucaea botterii*)
- Collared peccary (*Pecari tajacu*)

Wetlands (interior marshland [ciénega], wetlands [other than ciénega], aquatic [open water])

- Common yellowthroat (*Geothlypis trichas*)
- Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurve*)
- Canelo Hills ladies' tress (*Spiranthes delitescens*)
- Arizona eryngo (*Eryngium sparganophyllum*)
- Northern Mexican gartersnake (*Thamnophis eques megalops*)
- Gila topminnow (*Poeciliopsis occidentalis*)
- Desert pupfish (*Cyprinodon macularis*)
- Spikedace (*Meda fulgida*)
- Loach minnow (*Rhinichthys cobitis*)
- Roundtail chub (*Gila robusta*)
- Gila chub (*Gila intermedia*)
- Razorback sucker (*Xyrauchen texanus*)
- Lowland leopard frog (*Lithobates yavapaiensis*)
- Longfin dace (*Agosia chrysogaster*)
- Desert sucker (*Catostomus clarki*)
- Beaver (*Castor canadensis*)
- Chiricahua Leopard Frog (*Lithobates chiricahuensis*)

Desert Washes Priority Species and Habitats:

Sandy Wash (Xeric-riparian)

- Gambel's quail (*Callipepla gambelii*)

Uplands Priority Species and Habitats:

Semidesert Grassland

- Grassland birds (Botteri's sparrow)

Chihuahuan Desert scrub

- Mule deer (*Odocoileus hemionus*)
- Lesser long-nosed bats (*Leptonycteris yerbabuena*)

ama-WILD-2 Reintroduce, transplant, and augment fish and wildlife populations, in collaboration with AZGFD and, where appropriate, the USFWS, for the following purposes:

- To maintain or increase populations, distributions, and genetic diversity
- To conserve or recover threatened or endangered species
- To restore or enhance native wildlife species diversity and distribution

ama-WILD-3 Species that may be reintroduced, transplanted, or augmented include:

- Fish: Gila topminnow, desert pupfish, spikedace, loach minnow, roundtail chub, Gila chub, razorback sucker, or any of the other 13 species found in the system as historically based on changes in habitat suitability over time
- Reptiles and amphibians: Chiricahua leopard frog, northern Mexican gartersnake, and lowland leopard frog
- Birds: Gould's Turkey, burrowing owl, and aplomado falcon
- Mammals: Beaver and mule deer
- Plants: Huachuca water umbel, Canelo Hills ladies' tresses, Wright's marsh thistle, Arizona giant sedge, and Arizona eryngo

ama-WILD-4 Identify and protect springs and associated indigenous riparian vegetation for wildlife water, cover, and forage.

ama-WILD-5	Allow the use of mechanical and chemical fishery renovation techniques to control nonnative species.
ama-WILD-6	Identify potential or suitable habitat for special status species on the SPRNCA.
ama-WILD-7	Restore habitat with the potential to reach suitability for special status species on the SPRNCA.
ama-WILD-8	Huachuca water umbel: Manage the designated critical habitat (approximately 33.7 miles; see Figure 2-4) to preserve existing occurrences and its seed banks and to protect occupied habitat, unoccupied corridors, and habitat quality.
ama-WILD-9	Huachuca water umbel: Remove stressors, such as trampling and invasive, nonnative plant competition.
ama-WILD-10	Huachuca water umbel: Evaluate unoccupied areas on the SPRNCA for suitability to establish new populations to help ensure long-term survival.
ama-WILD-11	Establish refugia habitats through restoration or enhancement within ciénegas and wetlands for priority species.

Wildland Fire Management

Goal

g-FIRE-1 Recognize fire as a natural process in fire-adapted ecosystems and use it to achieve objectives for other resources.

Objectives

ob-FIRE-1 Improve public and firefighter safety from hazards associated with wildland fire suppression on public lands.

ob-FIRE-2 Manage all wildfires commensurate with the values at risk.

Allocations, Management Actions and Allowable Uses

ama-FIRE-1 The SPRNCA is a full suppression area (55,990 acres) for all natural and human-caused ignitions.

ama-FIRE-2 The fire management program would manage all fires in accordance with resource management objectives established in this RMP based on current conditions and fire location. Firefighter and public safety are the first priority in all fire management and suppression. A response can vary from aggressive, initial, and direct action to indirect actions, based on firefighter and public safety. Tailor strategies and tactics to address areas of resource concerns.

ama-FIRE-3 Investigate human-caused wildfires in accordance with BLM policy.

ama-FIRE-4 Develop an active fire prevention and mitigation program and conduct public education and outreach, such as through Firewise.

ama-FIRE-5 Implement appropriate emergency stabilization and rehabilitation (ESR) actions following a wildfire. Use ESR to prevent further and unacceptable resource damage from wildland fire.

ama-FIRE-6 Implement post-ESR rehabilitation and restoration using mechanical, chemical, erosion control, native seeding, and native planting treatments.

Cultural Resources

Archaeological and Historic Resources

Goals

- g-ARCH-1 Identify, preserve, and protect significant cultural resources to ensure they are available for appropriate uses by present and future generations, for such purposes as research, education, and preservation of cultural heritage.
- g-ARCH-2 Reduce imminent threats from natural or human-caused deterioration and resolve potential conflicts with other resource uses by ensuring all authorizations for land and resource use would comply with Section 106 of the National Historic Preservation Act (NHPA).
- g-ARCH-3 Improve management of and access to cultural resources data for use in qualified research and public education.

Objectives

- ob-ARCH-1 Manage all sites on public lands in accordance with their use allocations.
- ob-ARCH-2 Prioritize research and monitoring of cultural resources by targeting data gaps and imperiled sites/features.
- ob-ARCH-3 Promote activities that fall under Section 110 of the NHPA, including research, development of interpretive and educational materials, site stabilization and restoration, and detailed recording and monitoring (PL 100-696).
- ob-ARCH-4 Manage appropriate sites for conservation to protect and preserve representative samples of all the cultural resources on the SPRNCA.
- ob-ARCH-5 Allocate each site to one or more of the following uses according to their nature and relative preservation value in accordance with BLM Manual 8130 – Planning for Uses of Cultural Resources:

Use Category	Management Action	Desired Outcome
a. Scientific use	Permit appropriate research	Preserved until research or data recovery potential is realized
b. Conservation for future use	Provide protective measure and/or designation	Preserved until conditions for use are met
c. Traditional use	Consult with interested parties; determine limitations	Long-term preservation
d. Public use	Determine permitted use	Long-term preservation; on-site interpretation
e. Experimental use	Determine nature of experiment; permit activities accordingly	Protected until used
f. Discharge from management	Remove protective measures	No use after recordation; not preserved

Allocations, Management Actions, and Allowable Uses

- ama-ARCH-1 Allocate the Diack, Murray Springs Clovis Site, and Lehner Mammoth-Kill Site for scientific use and monitor/manage them accordingly.
- ama-ARCH-2 Continue to manage the following 11 sites for scientific use: AZ EE:4:3(ASM), AZ EE:8:1(ASM), AZ EE:8:5(ASM), AZ EE:8:7(ASM), AZ EE:8:34(ASM), AZ EE:8:48(ASM), AZ EE:8:4(AMF), Benson 8:3 (GP), AZ EE:8:283(ASM)/SPII-10, SPII-16, and SPII-20.
- ama-ARCH-3 As identified and evaluated, allocate Archaic, Sobaipuri, Apachean, and rock art sites across the SPRNCA for scientific use and monitor/manage accordingly.
- ama-ARCH-4 Allocate the Fairbank Cemetery (in combination with the Fairbank Historic Townsite), Grand Central Mill Site, Contention City, and Clanton Ranch for public use, and manage/monitor them accordingly.

- ama-ARCH-5 Allocate the Lewis Springs site for one or more of the appropriate uses (per BLM Manual 8130 and Objective 5, above) and manage and monitor it accordingly.
- ama-ARCH-6 Continue to manage the following 10 sites for public use: Presidio of Santa Cruz de Terrenate, Fairbank (Historic Townsite), Murray Springs Clovis Site, Lehner Mammoth-Kill Site, Charleston, Millville (Gird and Corbin Mills), the Boquillas Ranch Headquarters (a.k.a. Little Boquillas), Brunckow Cabin, and the San Pedro Ranch House and the Millville rock art site.
- ama-ARCH-7 Allocate the Charleston rock art site and sites with “isolated” adobe or masonry walls to experimental use.
- ama-ARCH-8 Allocate a representative sample of cultural site types to conservation for future use, and manage/monitor them accordingly. Allocated sites should represent the range of variability among cultural and temporal contexts, as identified by an updated cultural history for the SPRNCA.
- ama-ARCH-9 Evaluate and revise allocations as appropriate, when circumstances change or new data become available. Use the following criteria to determine when allocations should be evaluated and revised:
- Modification to SPRNCA legislation, or some other unforeseen legislation, requires a different management approach.
 - The BLM determines that a previous allocation is resulting in adverse effects on or undue degradation of a resource.
 - The BLM determines that a previous allocation hinders its ability to meet other resource management goals.
 - Previous allocation is no longer applicable or appropriate (e.g., a site allocated to conservation for future use is now able to be studied because of new technology, so the site is allocated to scientific use instead; or a site allocated to scientific use is allocated to public use because based on the research results, the BLM can now develop the site as a public interpretive site).
- ama-ARCH-10 Discharge sites from management after successfully completing documentation and assessment, and in consultation with the SHPO, Native American tribes, and other affected or interested parties, as appropriate.
- ama-ARCH-11 Provide opportunities for and permit scientific research by qualified professionals at sites allocated for scientific use; prioritize support for research projects that target key data gaps.
- ama-ARCH-12 Stabilize and rehabilitate the following sites to preserve cultural values: Presidio of Santa Cruz de Terrenate, Fairbank Townsite and Cemetery (and the greater Fairbank area beyond the Historic Townsite) Charleston, Brunckow Cabin, Contention, Grand Central Mill, Sunset Mill, Boquillas Ranch Headquarters, and the San Pedro Ranch House.
- ama-ARCH-13 At management’s discretion, nominate historic properties² to the NRHP and assess historic structures for placement onto a priority heritage asset list.
- ama-ARCH-14 Prepare a comprehensive Class I overview and updated cultural context for the entire SPRNCA planning area.
- ama-ARCH-15 Identify data gaps to prioritize Class III inventory and/or scientific investigation of areas known or likely to contain unique and/or threatened cultural resource types (e.g., rock art and Archaic, Sobaipuri, and Apachean sites).

Native American Concerns

Goals

- g-NAT-1 Strengthen government-to-government relationships through increased coordination.

²As defined in 36 CFR 800.16(l)(1), a historic property is any prehistoric or historic district, site, building, structure, or object on or eligible for inclusion on the NRHP.

g-NAT-2 Increase knowledge and documentation of Native American traditional cultural values and uses of the SPRNCA.

g-NAT-3 Accommodate traditional cultural uses as consistent with laws, regulations, and authorities.

Objectives

ob-NAT-1 Uphold government-to-government responsibilities with Native American tribes to manage cultural resources and landscapes associated with their ancestral homeland.

ob-NAT-2 Engage in cooperative projects with Native American tribes to identify and manage traditional cultural property (TCPs), sacred sites, traditional uses, and cultural landscapes.

Allocations, Management Actions, and Allowable Uses

ama-NAT-1 Allocate TCPs and sacred sites for traditional use.

ama-NAT-2 Facilitate traditional use access for Native Americans with cultural and historic ties to the SPRNCA.

ama-NAT-3 Prepare comprehensive ethnographic and/or ethnoecological studies in coordination with interested Native American tribes with cultural and historical ties to the SPRNCA.

Paleontological Resources

Goals

g-PALEO-1 Protect and conserve paleontological resources.

Objectives

ob-PALEO-1 Preserve and enhance the scientific, educational, and interpretive values of paleontological resources to increase the knowledge of the natural history on the SPRNCA.

ob-PALEO-2 Ensure that significant paleontological localities are adequately protected by reducing human and natural impacts.

ob-PALEO-3 Preserve and protect scientifically significant paleontological localities by collecting fossils and promoting ongoing research.

ob-PALEO-4 Focus surveys and monitoring activities in areas that are potential fossil yield classification (PFYC) Class 4 and Class 5.

Allocations, Management Actions, and Allowable Uses

ama-PALEO-1 Classify the SPRNCA according to its potential to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils using the PFYC system. In this system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils, with a higher class number to indicate a higher potential. The PFYC classes and associated acres (**Figure 2-5**) are as follows:

Class 1 (very low sensitivity)—2,070 acres; geologic units that are igneous or metamorphic, excluding air-fall and reworked volcanic ash units. Geologic units are Precambrian in age. Management concern for paleontological resources is usually negligible or not applicable.

Class 2 (low sensitivity)—21,100 acres; geologic units that are not likely to contain paleontological resources

Class 3 (moderate sensitivity)—0 acres (currently); sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence.

Class 4 (high sensitivity)—11,440 acres; geologic units that are known to contain a high occurrence of paleontological resources.

Class 5 (very high sensitivity)—0 acres (currently); highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources.

Class U (Unknown)—21,380 acres; geologic units that cannot receive an informed PFYC assignment.

- ama-PALEO-2 Manage the Diack, Horsethief, Murray Springs Clovis Site, and Lehner Mammoth-Kill sites for scientific research. Research is allowed in accordance with BLM permitting procedures. Monitor and protect sites managed for scientific research.
- ama-PALEO-3 Additional paleontological sites may be managed for the uses defined by the PFYC Class, based on their significance and preservation value.
- ama-PALEO-4 Murray Springs and Lehner are closed to BLM-permitted surface disturbing activities.
- ama-PALEO-5 Manage the Murray Springs Clovis Site and Lehner Mammoth-Kill Site for public visitation. Monitor and protect the sites managed for public visitation. Evaluate and manage additional paleontological sites for public visitation, based on their significance and preservation value.
- ama-PALEO-6 As funds are available, inventory future land acquisitions for paleontological resources, classify them using the PFYC, and allocate as appropriate.
- ama-PALEO-7 Before any surface-disturbing activities take place in PFYC Class 3, 4, and 5 areas, a qualified BLM staff must perform a records search and paleontological survey; alternatively, this will be performed by a consulting paleontologist holding a valid BLM paleontological resources use permit, per BLM Manual 8270—General Procedural Guidance for Paleontological Resource Management. After the initial survey, if fossil localities are discovered, the BLM or a BLM-permitted paleontologist will be required to monitor them to avoid or minimize impacts during ground-disturbing activities.
- ama-PALEO-8 Collecting any vertebrate, invertebrate, or plant fossils for scientific research would require BLM authorization.
- ama-PALEO-9 Casual collection of paleontological resources is prohibited.

Visual Resources

Goal

- g-VIS-1 Preserve, protect, and enhance the SPRNCA’s visual resources and rehabilitate disturbed areas that degrade the visual quality of the landscape.

Objective

- on-VIS-1 Manage visual resources according to management classes established under BLM policy and procedures. VRM classes are based on the area’s scenic quality, visual sensitivity, and viewing distance and the need to accommodate developments that may cause visual impacts. Limit visual contrasts from allowable uses and activities to preserve the character of the landscape or to allow major landscape modifications to accomplish management objectives, depending on the VRM class.

Allocations, Management Actions, and Allowable Uses

- ama-VIS-1 The following VRM classes are designated (**Figure 2-6**):
- Class I—0 acres
 - Class II—27,850 acres
 - Class III—28,140 acres
 - Class IV—0 acres
- ama-VIS-2 Prioritize for rehabilitation areas that are visible in the foreground from the local public highways (State Routes 82, 90, and 92, Charleston Road, and other sightseeing routes), from the San Pedro Trail system and those visible from designated public use areas.
- ama-VIS-3 Allowable land use activities that require landscape modifications to achieve other resource management objectives are subject to case-by-case visual contrast assessments and special design features and mitigation measures, so as to be consistent with the applicable VRM class objective.

Livestock Grazing

Goal

g-GRAZ-1 Manage livestock grazing in a manner consistent with other multiple-use needs and other desired resource condition objectives to ensure that it is compatible with the protection of the conservation values for which the area was designated.

Objectives

ob-GRAZ-1 Upland soils exhibit infiltration, permeability, and erosion rates that are appropriate to soil type, climate, and landform (ecological sites).

ob-GRAZ-2 Maintain productive, diverse upland and riparian and wetland plant communities of native species.

ob-GRAZ-3 Utilization of current year's growth on upland native perennial grass will not exceed 40 percent at the allotment scale, except for targeted grazing treatments³.

Land Use Allocations, Management Actions, and Allowable Uses

ama-GRAZ-1 Livestock Grazing Availability (**Figure 2-7**)

Available: 7,030 acres

Unavailable: 48,960 acres

Total: 55,990 acres

ama-GRAZ-2 Existing AUMs:⁴

AUMs available: 592

Removed AUMs: 0

Additional AUMs: 0

Total AUMs: 592

ama-GRAZ-3 Land not available for livestock use would remain unallocated.

ama-GRAZ-4 The Arizona Standards for Rangeland Health will continue to be used to evaluate land health. The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (BLM 1997) apply to all livestock grazing on BLM-administered lands, consistent with the appropriate enabling legislation. These guidelines address management actions for livestock grazing that are intended to maintain desirable resource conditions or improve undesirable rangeland conditions within reasonable time frames. The BLM interdisciplinary land health allotment evaluation process will continue to be used to provide specific guidance and actions for managing livestock grazing. Existing or new allotment management plans and other activity plans are consistent with achieving the desired conditions for vegetation and priority habitats and Standards for Rangeland Health. They will contain the site-specific management objectives, as well as actions, methods, tools, and appropriate monitoring protocols.

ama-GRAZ-5 Any changes to the existing grazing leases will be based on activity-level planning.

ama-GRAZ-6 Complete land health evaluations before renewing leases with terms and conditions designed to achieve allotment specific objectives.

ama-GRAZ-7 Develop allotment-specific objectives during implementation-level planning. This would ensure management of livestock would meet the enabling legislation.

ama-GRAZ-8 Install, as needed, additional range improvements.

ama-GRAZ-9 Establish an adaptive management process on the SPRNCA to annually evaluate monitoring data and issues related to livestock grazing, with a primary goal of maintaining and achieving RMP goals and objectives.

³ Targeted livestock grazing is a vegetation management tool and not part of livestock forage allocation.

⁴ All AUMs are the initial stocking rate.

- ama-GRAZ-10 Do not authorize livestock crossing permits through the riparian area on the SPRNCA.
- ama-GRAZ-11 Locate new range improvements away from riparian areas and wetlands if they conflict with achieving or maintaining riparian or wetland function or goals for threatened and endangered species. Existing range improvements will either be managed in a way that does not conflict with riparian or wetland function or threatened and endangered species goals or will be relocated or modified when incompatible with riparian wetland function or threatened and endangered species goals.
- ama-GRAZ-12 Evaluate and modify fences as needed to restrict vehicle access or to allow safe passage by dispersed recreationist (hunters, hikers, and equestrians) or to safely accommodate wildlife movement.
- ama-GRAZ-13 Exclude livestock from the developed public use areas and sites to protect the setting quality and to avoid conflicts with grazing operations and use.
- ama-GRAZ-14 All new livestock waters will be enclosed tanks, except where another type of water development would maximize benefits and minimize impacts on wildlife and special status species. Maintain existing livestock waters as enclosed tanks.
- ama-GRAZ-15 Should a livestock grazing lease be relinquished, evaluate the allotment and associated resources and other resources and public uses to determine the appropriate allocation of available forage.

Recreation and Visitor Services

Goal

- g-REC-1 Conserve, protect, and enhance the variety of settings in the area to provide recreation and education opportunities that promote appropriate use, enjoyment, and appreciation of the natural and cultural resources and to further the purposes of the SPRNCA.
- g-REC-2 Residents, visitors, and the public are aware of and understand the importance and benefits of the riparian, aquatic, wildlife, archaeological, paleontological, scientific, cultural, and recreational resources. A variety of educational and interpretive programs are available to promote awareness, understanding, and appreciation of the SPRNCA resources among visitors and residents of all ages and interests.

Objectives

- ob-REC-1 Manage identified RMZs for a variety of recreation opportunities that meet appropriate physical, social and operational settings. RMZs may accommodate facilities, signs and visitor services that are appropriate for the identified settings.
- ob-REC-2 Seventy-five percent of visitors and residents sampled randomly during the winter high visitation season are aware of what the SPRNCA resource values are and can identify at least one of them and the benefits from protecting them.

Allocations, Management Actions, and Allowable Uses

- ama-REC-1 Designate the 55,990-acre SPRNCA as an ERMA, with different zones to achieve different objectives (**Figure 2-8**; see **Appendix C** for a description and objectives for each zone).
- ama-REC-2 Length of stay—Persons may occupy any specific location in developed campgrounds or on public lands for no more than 7 days in any period of 21 consecutive days, unless otherwise authorized.
- ama-REC-3 Campgrounds could be developed.
- ama-REC-4 Dispersed camping would not be allowed within a half-mile of public access points or where otherwise prohibited.
- ama-REC-5 Camping would not be allowed at sensitive sites and areas developed for other purposes (e.g., trailheads, interpretive or educational sites, visitor contact, and administrative facilities).

- ama-REC-6 Overnight parking at trailhead and access points is allowed for vehicles belonging to primitive and backcountry campers.
- ama-REC-7 Pets, including hunting dogs, must be leashed at all developed facilities in accordance with 43 CFR 8360.
- ama-REC-8 Hunting dogs may be used for hunting, according to AZGFD regulations.
- ama-REC-9 Campfires are allowed in designated areas within fire rings provided for that purpose, subject to seasonal fire restrictions. Campfires are also allowed in dispersed camping areas. In these areas, potential impacts would be minimized by promoting firewise and leave no trace practices.
- ama-REC-10 Woodcutting (including for campfires) would continue to be prohibited. Gathering of dead and down wood for use in campfires are permitted.
- ama-REC-11 Murray Springs, Fairbank Cemetery, Kingfisher Interpretative Site (except for the trail that surrounds the site), Lehner, Millville mills and petroglyphs, Presidio of Santa Cruz de Terrenate, and Clanton Ranch are closed to equestrians and mountain bikers. Equestrians and mountain bikers are limited to designated trails in all other developed recreational, education, and interpretative sites.
- ama-REC-12 The use of metal detectors is prohibited.
- ama-REC-13 Develop trail connections from nearby communities to the San Pedro Trail system.
- ama-REC-14 Manage the following developed recreation facilities in support of recreation objectives and recreation setting characteristics. Recreation setting characteristics are described in more detail in **Appendix C**.
- San Pedro Ranch House Complex
 - Fairbank Historic Townsite Complex
 - Boquillas Ranch Headquarters
 - Little Boquillas trailhead
 - Horsethief camping area
 - Hereford camping area
 - Murray Springs Clovis Site
 - Escapule Trailhead
 - Millville Complex
 - Charleston trailhead
 - Presidio Santa Cruz de Terrenate
 - Land Corral
 - Curtis Flats (new)
 - Hereford
 - Lehner Mammoth-Kill Site
 - Palominas
 - Babocomari (new)
 - Brunckow Cabin
 - Clanton Ranch
 - Contention City
 - Lewis Spring Trailhead
 - Miller Backcountry Camp
 - Summers Lane
 - Whitehouse Wetland Area
- ama-REC-15 Manage the access and transportation system to provide appropriate access to recreation opportunities and public use areas (see **Figure 2-9**, Extents 1-8).
- ama-REC-16 Hunting with firearms is allowed throughout the SPRNCA, with the exception of a portion of the Rural RMZ around the San Pedro House and areas one-quarter mile from associated recreation facilities (totaling 5,410 acres), in accordance with AZGFD hunting regulations and public land regulations for developed sites and areas (see **Figure 2-10**).
- ama-REC-17 Trapping is managed in accordance with Arizona state hunting regulations.
- ama-REC-18 Special recreation permits (SRPs) may be issued as a discretionary action, consistent with current BLM policy for activities that 1) support recreation and visitor services objectives and direction, 2) satisfy a public demand that is not being met, and 3) would not cause public health and safety issues. SRPs will be subject to special terms, conditions, and stipulations to protect public safety and resource values and to prevent or avoid use conflicts. Individual SRPs would continue to be required for noncommercial backcountry camping.

ama-REC-19	Maintain and improve existing staffed sites to provide visitor contact, information, interpretive and educational facilities, programs, and services (San Pedro House and Fairbank Historic Townsite).
ama-REC-20	Maintain and improve existing and proposed self-service or unstaffed sites to provide educational and interpretive facilities and materials with SPRNCA-wide themes.
ama-REC-21	Deliver educational and interpretive programs through displays, exhibits and signs, handouts, flyers, brochures, publications, special programs or events, walks, field trips, school and youth programs, special events, the internet, and social media.
ama-REC-22	Provide guided and supervised programs in the field focusing on themes available on-site and representing the SPRNCA resources.

Transportation and Access

Goal

g-TTM-1	Establish travel and transportation management designations to support multiple resource management objectives, connect with adjacent communities, protect resources, promote safety, and minimize conflicts among the various users.
---------	---

Objectives

ob-TTM-1	Provide a comprehensive transportation system to accommodate access for administrative purposes and public use, including access points, roads, primitive roads, and trails necessary to achieve the resource management objectives, consistent with the purposes of the conservation area.
ob-TTM-2	Manage and maintain the transportation system to adequately and safely accommodate the types of travel on the SPRNCA and to minimize impacts on resources on adjacent lands.
ob-TTM-3	Provide an interconnected trail system for multiple nonmotorized uses and special trails for interpretive and educational purposes.

Allocations, Management Actions, and Allowable Uses

ama-TTM-1	Except where needed for administrative or emergency purposes, the use of motorized vehicles in the conservation area should be allowed only on roads, primitive roads, and trails specifically designated for such use (PL 100-696) and to achieve resource management objectives.
ama-TTM-2	Public nonmotorized mechanized use (bikes, wagons, and carts) would continue to be allowed on the San Pedro Trail System, other designated roads, and administrative vehicle routes; mileage to be determined in the travel management plan.
ama-TTM-3	Nonmotorized game carts would be allowed cross-country for the retrieval of game.
ama-TTM-4	OHV travel within the SPRNCA (55,990 acres) is limited to designated roads, primitive roads, and trails (to protect natural resources and accommodate motorized access), per 43 CFR8342.
ama-TTM-5	Horses and other riding livestock would not be allowed on interpretive paths in developed education sites.
ama-TTM-6	Horses and other riding livestock use are allowed on designated roads, primitive roads, and trails and cross-country throughout the SPRNCA, unless otherwise prohibited and posted.
ama-TTM-7	Route designations are determined through an interdisciplinary route evaluation process that would result in a comprehensive transportation plan for the SPRNCA. Approximately 202 miles on the SPRNCA route inventory will be evaluated. The route evaluation process would use the following criteria: <ul style="list-style-type: none">• The conservation values of PL 100-696• Access purpose and type of use (car, truck, bus, all-terrain-vehicles, horse and other riding livestock, foot, and bicycle)• Legal status and jurisdiction

- Route condition
 - Connectivity with communities (towns, municipalities, and adjacent residential communities)
 - Recreation, education, and interpretive opportunities
 - Access needs related to RMP decisions
 - Emergency and law enforcement use
 - Potential conflicts among various users
 - Potential resource impacts, as identified through 43 CFR 8342.1: minimize damage to soil, watersheds, vegetation, air, or other resources of the public lands and harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered and threatened species and their habitats and to not adversely affect natural, aesthetic, scenic, or other values.
- ama-TTM-8 Identify as decommissioned those routes not needed to accommodate access and allow or enhance natural revegetation. Develop site- and route-specific project plans if surface disturbance is needed to restore natural drainage patterns and stabilize erosion, remove weeds or hazards, or control entry.
- ama-TTM-9 Acquire legal access where needed across nonfederal land to achieve management objectives. Access acquisition will be from willing landowners and according to federal acquisition procedures and state laws and regulations.
- ama-TTM-10 New designated routes may be constructed, improved, or maintained to achieve management objectives and to avoid conflicts or protect resources.
- ama-TTM-11 Maintenance standards, guidelines, and intensities will be identified in the travel management plan for the designated transportation system.
- ama-TTM-12 In areas allocated as limited, motorized use should keep within the designated routes, with reasonable use of the shoulder and immediate roadsides, allowing for vehicle passage, emergency stopping, and parking, unless otherwise posted.

Lands and Realty

Goals

- g-LANDS-1 Improve management of the conservation values of the SPRNCA through acquisition.
- g-LANDS-2 Acquire fee ownership lands or easements to improve public access to the SPRNCA, especially where access is limited or where access can be improved from adjacent communities.
- g-LANDS-3 Manage lands and realty actions to protect, conserve, and enhance the aquatic, riparian, wildlife, recreation, cultural, scientific, paleontological, archaeological, and educational values of the SPRNCA.

Objective

- ob-LANDS-1 Manage existing and new land use authorizations to accommodate use, maintenance, and operation, with minimal impacts on SPRNCA resources.

Allocations, Management Actions, and Allowable Uses

- ama-LANDS-1 Continue to manage the Charleston Road ROW utility corridor (defined as 375 feet north and south of the centerline of the Charleston Road where the road is located east of the San Pedro River, and then departing from the road and continuing west; **Figure 2-11**).
- ama-LANDS-2 The entire SPRNCA is an avoidance area for new ROWs, except for the Charleston Road ROW utility corridor (**Figure 2-11**). Areas outside this corridor may be considered for ROWs, including those that provide for the following:
- Access to private property in holdings and private property next to the SPRNCA, when there is no other reasonable access across nonfederal land
 - Emergency, public safety, and administrative uses

- Proposed ROWs must further the primary purposes for which the conservation area is established. Stipulations will be included to reduce impacts on the conservation values of the SPRNCA.
- ama-LANDS-3 Best management practices discussed in **Appendix A** are the minimum required for all ROW projects.
- ama-LANDS-4 The SPRNCA is closed to all commercial energy development.
- ama-LANDS-5 The SPRNCA is closed to new communication sites, except for those proposed by government agencies to provide for emergency services, health and safety, or administrative uses. These will be considered on a case-by-case basis. The SPRNCA is available for the development of facilities to support rural broadband internet service, where it is compatible with conservation values of the NCA and where nearby land administered by the Department of the Interior are unavailable for use.
- ama-LANDS-6 Renewal of existing ROWs will be considered on a case-by-case basis, with possible new stipulations to reduce impacts on the conservation values of the SPRNCA.
- ama-LANDS-7 Other leases and permits are allowed on the SPRNCA only if they would further the primary purposes for which the conservation area is established and do not compromise the rights of other authorized land users. These authorizations could include the following:
- Activities less than 1 acre in ground disturbance
 - Filming permits
 - Meteorological devices
- ama-LANDS-8 PL 100-696 states specifically that all federal lands on the SPRNCA are withdrawn from disposal and mineral entry under the public land laws. It also allows lands within the boundaries of the SPRNCA to be acquired through exchange, purchase, or donation. Any lands acquired will be managed in accordance with the conservation values outlined in PL 100-696 and the ROD/approved RMP.
- ama-LANDS-9 Prioritize the acquisition of inholdings and edge holdings. At a minimum, the acquisition targets must meet the following criteria:
- Have a willing seller
 - Enhance management of the SPRNCA values or improve public access
 - Are environmentally compliant
 - Have a clear title
 - Include mineral estate
- ama-LANDS-10 Secure easements across non-BLM-administered lands to provide legal access to the SPRNCA where needed on a case-by-case basis. In addition, pursue interest in lands (e.g., public access, water rights, and mineral rights).
- ama-LANDS-11 A withdrawal revocation action for the Charleston Dam and Reservoir will be forwarded to the Secretary of the Interior for approval to clear the record of this withdrawal that is no longer needed. If the withdrawal is revoked, the land will be managed according to decisions in this RMP.
- ama-LANDS-12 Retain all land and do not consider Recreation and Public Purposes leases and patents.
- ama-LANDS-13 Existing land use authorizations, including the operation and maintenance of ROWs, are limited to, and managed in accordance with, the valid existing rights granted before SPRNCA designation.
- ama-LANDS-14 Routes needed for maintenance and operation of authorized uses (such as utilities) would generally be open to public use for nonmotorized travel, unless otherwise designated. The BLM or utility companies may maintain these routes, as needed, to provide access. Existing land use authorization holders may apply to amend their ROWs to include access, as access may not have been included in original grant documents that existed before SPRNCA designation.

Wild and Scenic Rivers

Goal

g-WSR-1 Preserve, protect, and enhance study river values on the SPRNCA to ensure that a decision on suitability can be made for eligible river segments and to ensure suitability for addition to the National WSR System is maintained until Congress acts on suitable river segments.

Objectives

ob-WSR-1 Prohibit uses and activities that would have an adverse effect on the study river's free-flowing condition until Congress acts on the designation recommendations.

ob-WSR-2 Manage uses and activities to avoid adverse effects on the study river's water quality until Congress acts on the designation recommendations.

ob-WSR-3 Manage uses and activities to avoid adverse effects on the study river's outstandingly remarkable values (ORVs) until Congress acts on the designation recommendations.

ob-WSR-4 Manage uses and activities consistent with protective management guidelines for the tentative study river classifications until Congress acts on the designation recommendations.

ob-WSR-5 Manage uses and activities to enhance water quality and ORVs, where feasible.

Allocations, Management Actions, and Allowable Uses

ama-WSR-1 The San Pedro River corridor varies according to topography to include the river bottomland and immediately adjacent slopes. The river corridor includes approximately 48.3 river miles and 16,570 suitable acres on the SPRNCA (**Figure 2-12**).

ama-WSR-2 Manage the San Pedro River corridor (16,570 acres) according to the recreational classification.

ama-WSR-3 The Babocomari River corridor, including approximately 4 river miles and 480 acres on the SPRNCA in areas not overlapping with the suitable San Pedro River boundary, is suitable for designation (**Figure 2-13**).

ama-WSR-4 Manage the Babocomari corridor (480 acres) according to the recreational classification.

ama-WSR-5 ORVs identified in the eligibility report for the San Pedro River corridor are scenery, recreation, fish and wildlife habitat, cultural, historic, botanic, and paleontological.

ama-WSR-6 The Babocomari River corridor ORVs are scenery, recreation, fish, wildlife, historic, and cultural.

ama-WSR-7 Implement protective management to ensure free-flowing conditions, water quality, tentative classification, and ORV protection, consistent with management guidelines for the appropriate classifications (see BLM Manual 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

ama-WSR-8 Remediate hazardous abandoned and inactive mines to protect and enhance public safety, water quality, the tentative classification, and ORVs.

ama-WSR-9 Motorized and nonmotorized mechanized vehicle travel is limited to designated routes.

ama-WSR-10 During travel management planning, evaluate the impacts of all routes on ORVs and mitigate them appropriately.

ama-WSR-11 The entire SPRNCA is a ROW avoidance area. Any new ROWs in the Charleston Road ROW utility corridor or for access to private land would have special stipulations to protect the free-flowing conditions, water quality, tentative classification, and ORVs.

ama-WSR-12 Maintenance and upgrades of ROWs are considered on a case-by-case basis, with special stipulations to protect free-flowing conditions, water quality, tentative classification, and ORVs.

ama-WSR-13 Allow recreation uses and activities consistent with the river classification and to protect the free-flowing conditions, water quality, tentative classification, and ORVs.

ama-WSR-14 Maintenance of recreation facilities is allowed, including replacing and upgrading recreation facilities, to achieve recreation management objectives, while protecting free-flowing conditions, water quality, tentative classification, and ORVs.

- ama-WSR-15 New facilities may be developed in the corridor to meet recreation management objectives while protecting free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-16 Minor wildlife habitat improvement projects, including structures and developments, may be considered, such as fisheries and aquatic habitats, riparian habitat, and upland habitats, if they are designed to preserve, protect, or enhance the river's free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-17 Vegetation treatments may be considered, including consistency with the river's free-flowing conditions, ORVs, water quality, and tentative classification.
- ama-WSR-18 Grazing will be managed to protect free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-19 Existing range improvements (fences, corrals, and water developments) will be maintained.
- ama-WSR-20 New range projects will be allowed if the project design is consistent with free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-21 A full range of noxious species treatments (biological, chemical, mechanical, and prescribed fire) are allowed. This is to prevent and control the spread of terrestrial and aquatic species and to protect free-flowing conditions, water quality, tentative classification, and ORVs. This will be allowable consistent with guidance in the vegetation section of the RMP, and applicable policies and regulations.
- ama-WSR-22 New impoundments, hydroelectric power projects, or diversions would not be allowed.
- ama-WSR-23 The corridors are managed under VRM Class II to protect the free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-24 Removal of hazardous fuels is allowed in designated locations to protect public safety, free-flowing conditions, water quality, tentative classification, and ORVs.
- ama-WSR-25 Watershed improvement are allowed to promote groundwater recharge and sustain in-stream flows, provided the river's free-flowing condition, water quality, tentative classification, and ORVs are protected.
- ama-WSR-26 Minor structures and developments are allowed to preserve, protect, or enhance the river's free-flowing conditions or to protect its ORVs and water quality, consistent with the river segment classifications, such as watershed restoration/enhancement projects, vegetation management, bank stabilization projects, and channel restoration projects.
- ama-WSR-27 Monitoring of river values (river flows, water quality, ORVs) would be conducted annually, or at other appropriate interval, to evaluate if river values are being maintained. Monitoring would be conducted by the BLM and partner agencies through established procedures for the various resource monitoring programs (water flow, groundwater, water quality, wildlife and habitat, vegetation, cultural/paleo, scenery and recreation). Proposed land use activities would be reviewed through the approval process to determine their potential effects on river values, and identify protective measures as needed.

2.1 PLAN IMPLEMENTATION

The goals, objectives, and land use allocations will be effective upon approval of the ROD. Implementation of the RMP will occur, as funding and workforce allow, with some decisions taking a number of years to be fully implemented. The BLM will develop a strategy that prioritizes work needed to meet plan goals and objectives. Projects to implement management actions will require additional environmental analysis.

2.2 PUBLIC INVOLVEMENT IN PLAN IMPLEMENTATION

The BLM is committed to providing opportunities for meaningful participation in implementation of the approved RMP. The public will continue to be involved through collaborative efforts in preparing future

implementation or activity plans, as well as site-specific NEPA compliance, needed to implement specific actions to achieve the RMP goals and objectives.

The BLM has committed to establishing an adaptive management process on the SPRNCA to annually evaluate monitoring data and issues related to livestock grazing. This process will have a public involvement component.

2.3 PLAN EVALUATION AND MAINTENANCE

2.3.1 Plan Evaluation

The SPRNCA RMP will be evaluated periodically to determine whether the land use plan decisions and the associated NEPA analysis are still valid as well as to look at implementation progress. Specifically, the SPRNCA RMP will be evaluated to determine if:

1. Decisions remain relevant to the current issues,
2. Decisions are effective in achieving, or making progress toward, RMP goals and objectives,
3. Any decisions need to be revised,
4. Any decisions need to be dropped from further consideration, and
5. Any areas require new decisions.

The SPRNCA RMP evaluation will also consider whether there are significant changes in the related plans of other entities and whether there is new data of significance to the plan. The SPRNCA RMP evaluation will be summarized in a report that is made available to the public.

2.3.2 Plan Maintenance

The RMP decisions can be maintained to reflect minor changes in data. Plan maintenance can further refine, document, or clarify previously approved decisions that were made as part of the RMP. RMP maintenance actions do not expand the scope of resource uses or restrictions or change the decisions of the approved RMP. The BLM will document all maintenance actions for the SPRNCA RMP and will make those available to the public.

2.4 MONITORING AND ADAPTIVE MANAGEMENT

The BLM will conduct both plan implementation and effectiveness monitoring. Plan implementation monitoring will be used to determine whether planned activities have been implemented consistently with the approved RMP. Effectiveness monitoring determines if the implementation of activities has achieved the RMP goals and objectives. The monitoring intervals will vary by resource and will take into account the expected rate of change for each resource.

The BLM will follow the appropriate BLM monitoring protocols and guidelines. The BLM will use an adaptive management strategy, as appropriate, in implementing RMP decisions, including the authorized livestock grazing decisions.

**Figure 2-1
Soils: Rainfall Erosion**

 SPRNCA Planning Area

Rainfall Erosion Susceptibility

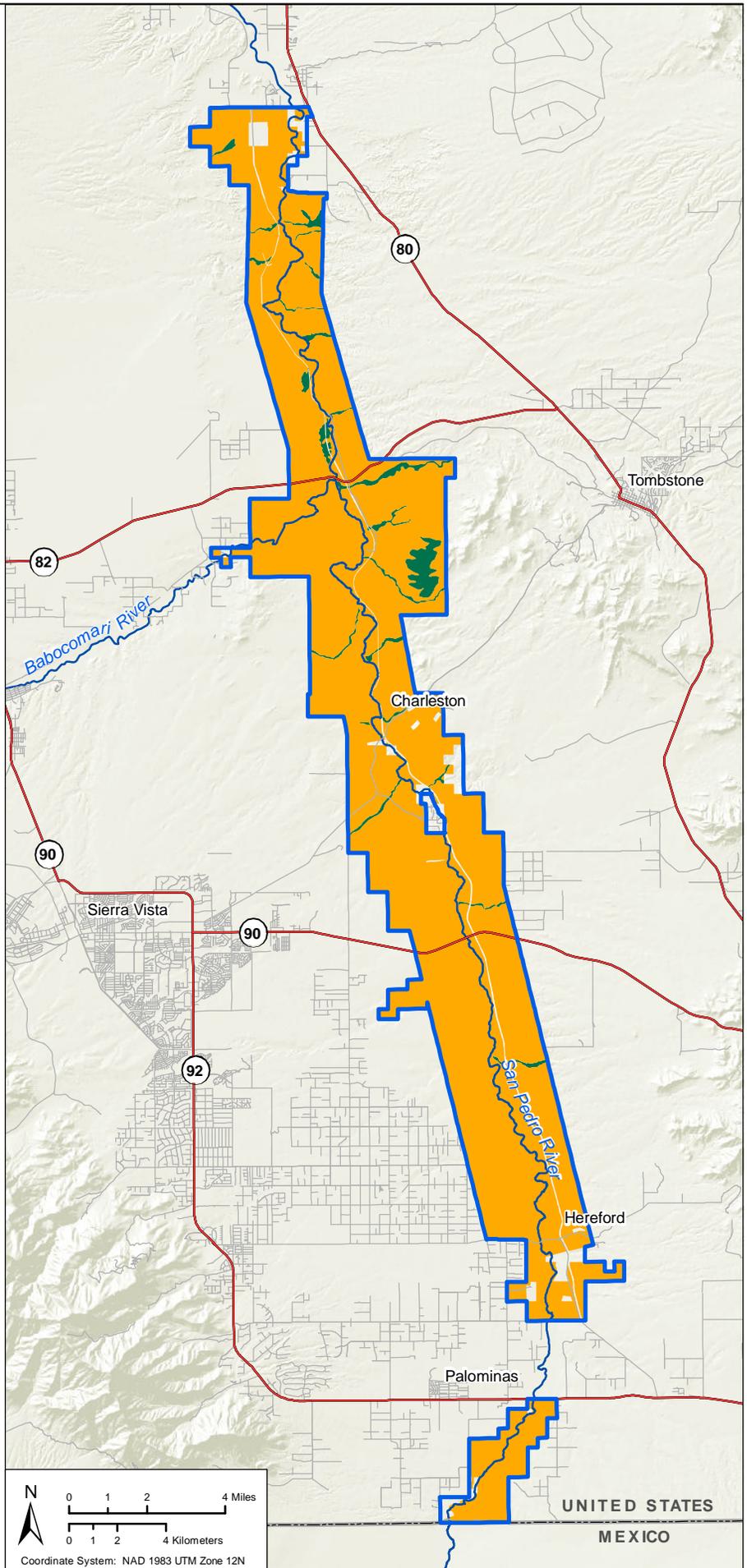
 Moderate
 Low



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-2
Soils: Wind Erosion**

 SPRNCA Planning Area

Bare Ground Wind Erosion Susceptibility

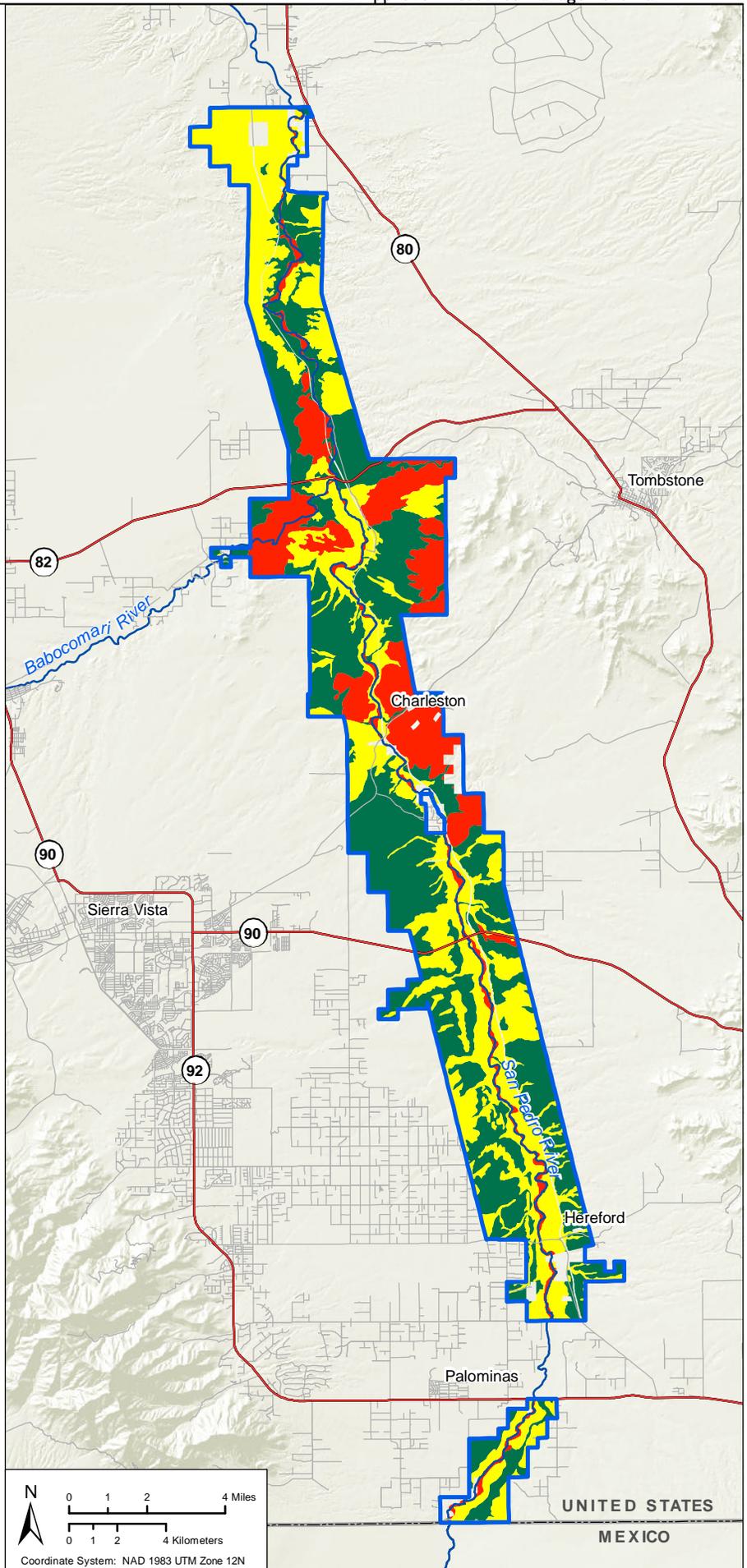
-  High
-  Moderate
-  Low



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-3
Priority Habitats**

 SPRNCA Planning Area

Priority Habitat

Upland Vegetation

-  Chihuahuan desert scrub
-  Semidesert grassland

Riparian Vegetation

-  Fremont cottonwood-Goodding's willow
-  Mesquite forest (bosque)
-  Big sacaton grassland

Wetlands

-  Interior marshland (ciénega)
-  Aquatic (open water)

Xeric Riparian

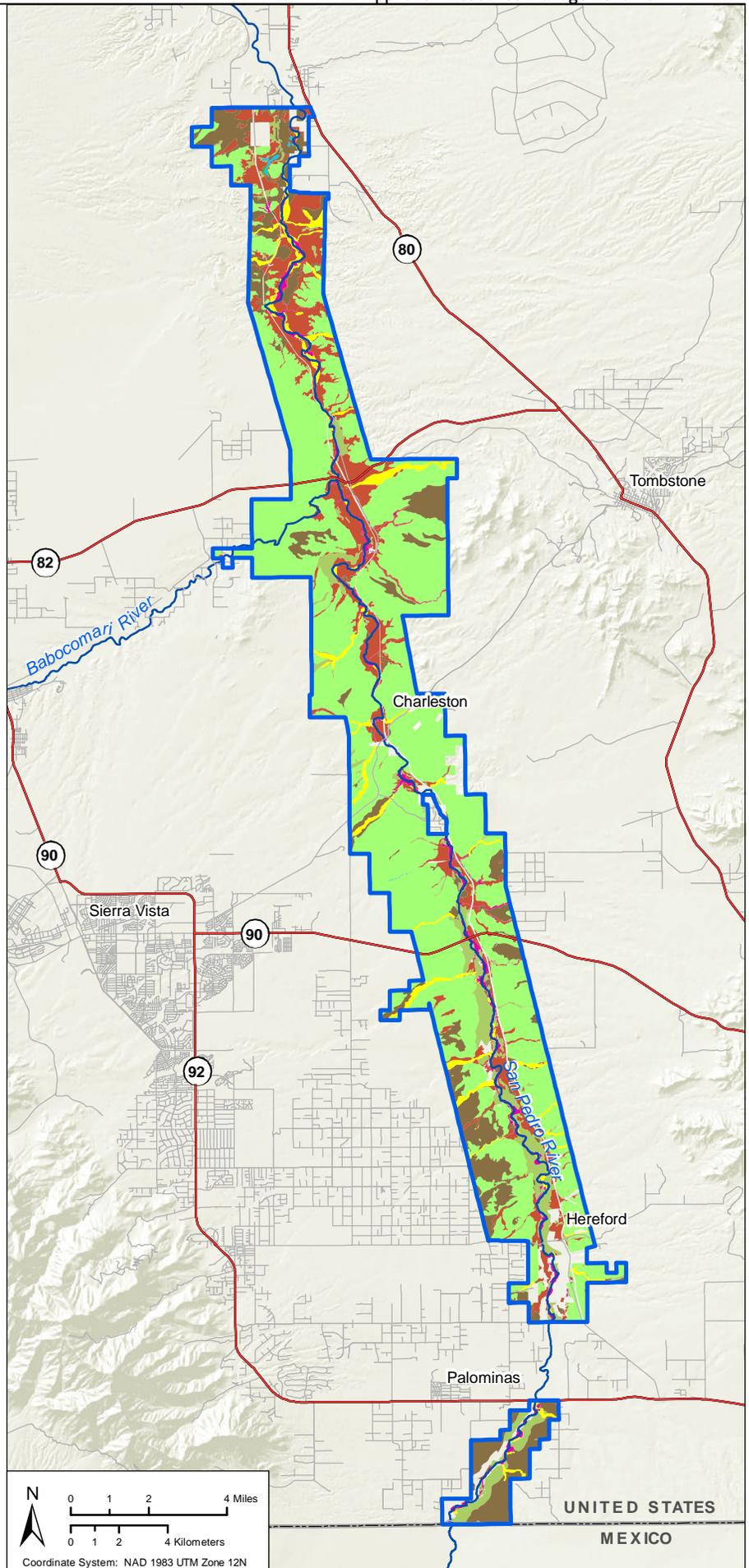
-  Sandy wash (xeric riparian)



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-4
Threatened and Endangered
Species Critical Habitat**

-  SPRNCA Planning Area
-  BLM-administered land

Critical habitat inside planning area (status)

-  Yellow-billed Cuckoo (threatened, with proposed critical habitat)
-  Northern Mexican gartersnake (threatened, with proposed critical habitat)
-  Huachuca water-umbel (endangered)

Critical habitat outside planning area (status)

-  Jaguar (endangered)
-  Mexican spotted owl (threatened)
-  Chiricahua leopard frog (threatened)

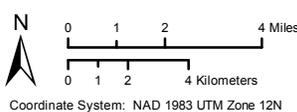
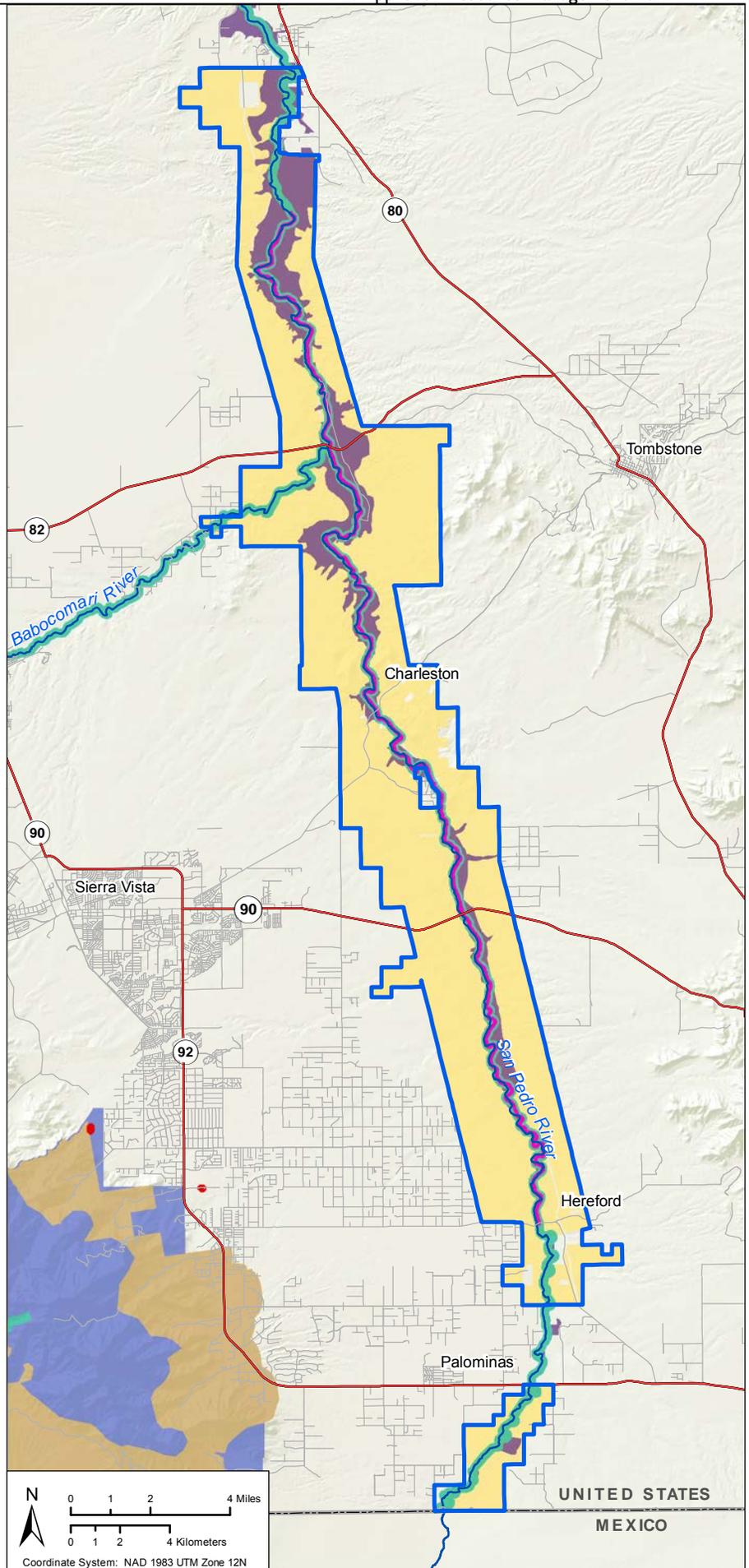
Critical habitat: A) designated by US Fish and Wildlife Service occupied by a threatened or endangered species "on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection;" or B) an area with physical and biological features essential to the conservation of a species that may require special management consideration.

Source: BLM GIS 2017, FWS GIS 2014



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

Date: 7/7/2019
SPRNCA_AE_wildlife_CritHab.pdf
No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.

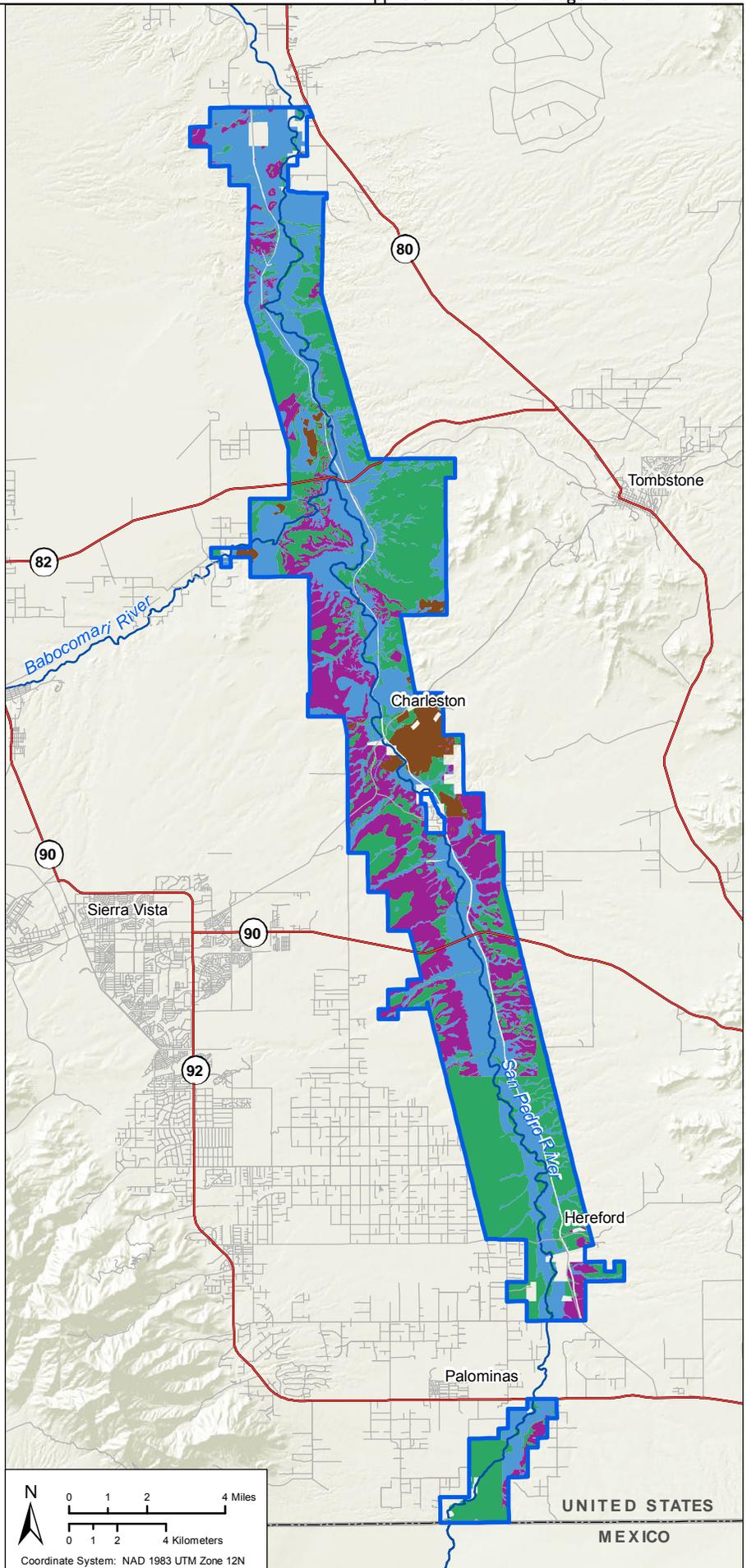


**Figure 2-5
Paleontology**

 SPRNCA Planning Area

Potential Fossil Yield Classification

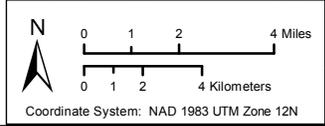
-  1—Very low sensitivity
-  2—Low sensitivity
-  4—High sensitivity
-  U—Unknown sensitivity



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-6
Visual Resources**

 SPRNCA Planning Area

Visual Resource Management Class

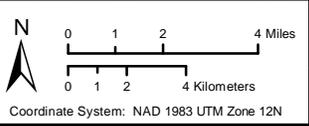
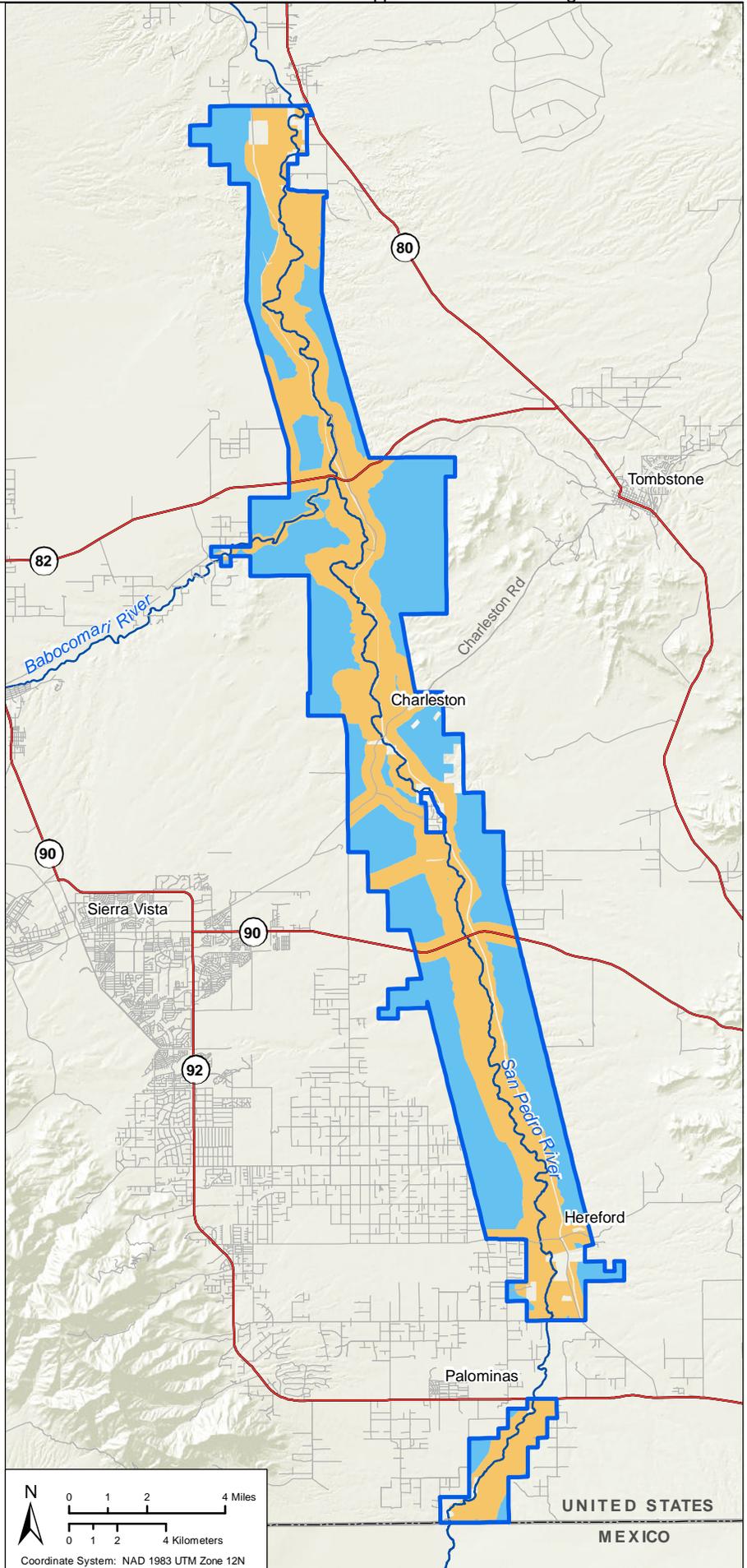
 2
 3



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-7
Livestock Grazing**

 SPRNCA Planning Area

Livestock Grazing

 Lands available for grazing

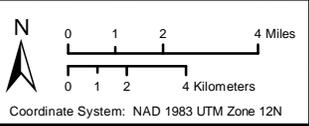
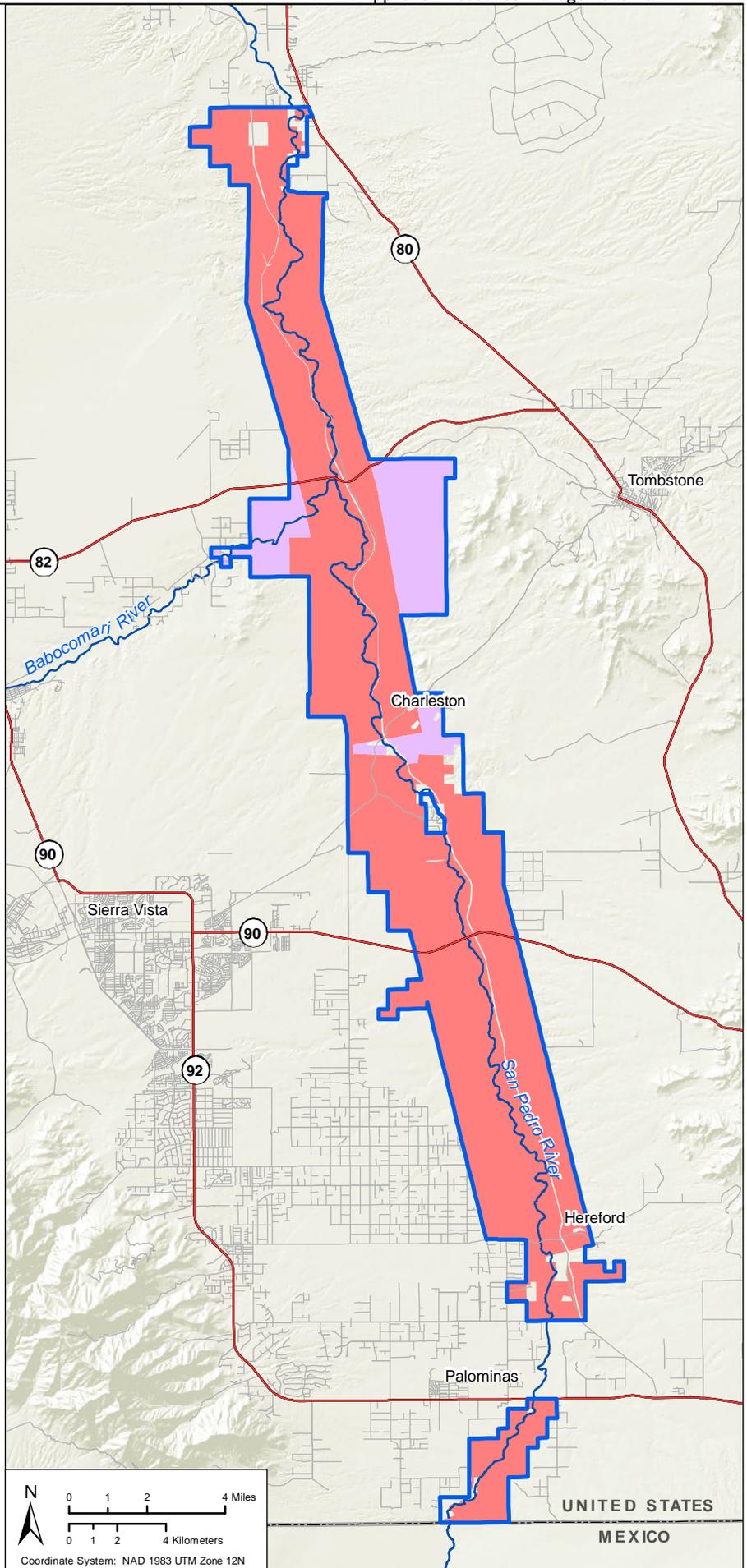
 Lands not available for grazing



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-8
Recreation**

 SPRNCA Planning Area

**Extensive Recreation Management Area
Recreation Management Zone (RMZ)**

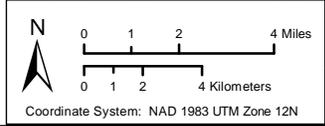
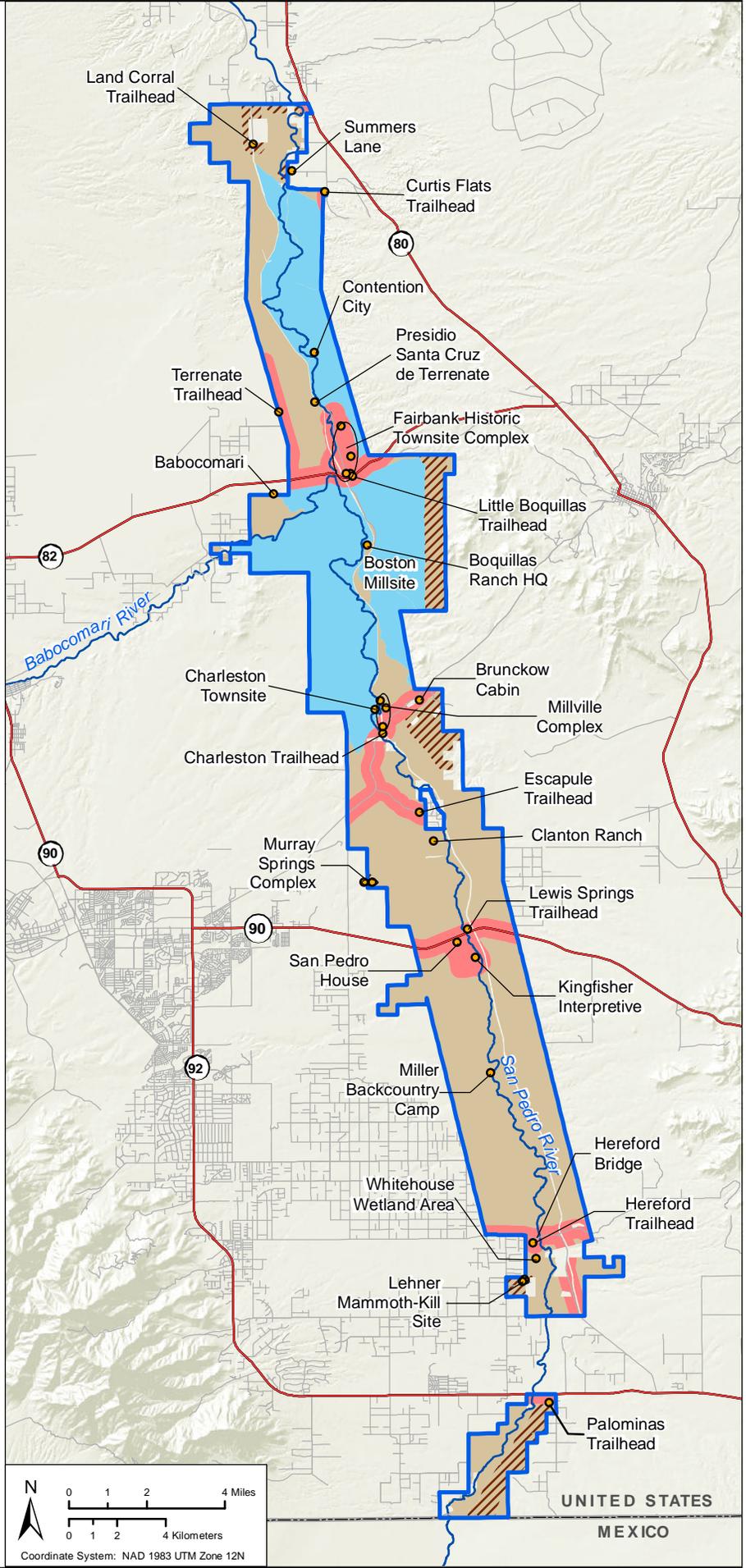
-  Back Country
-  Back Country (Motorized)
-  Primitive
-  Rural
-  Recreation facilities

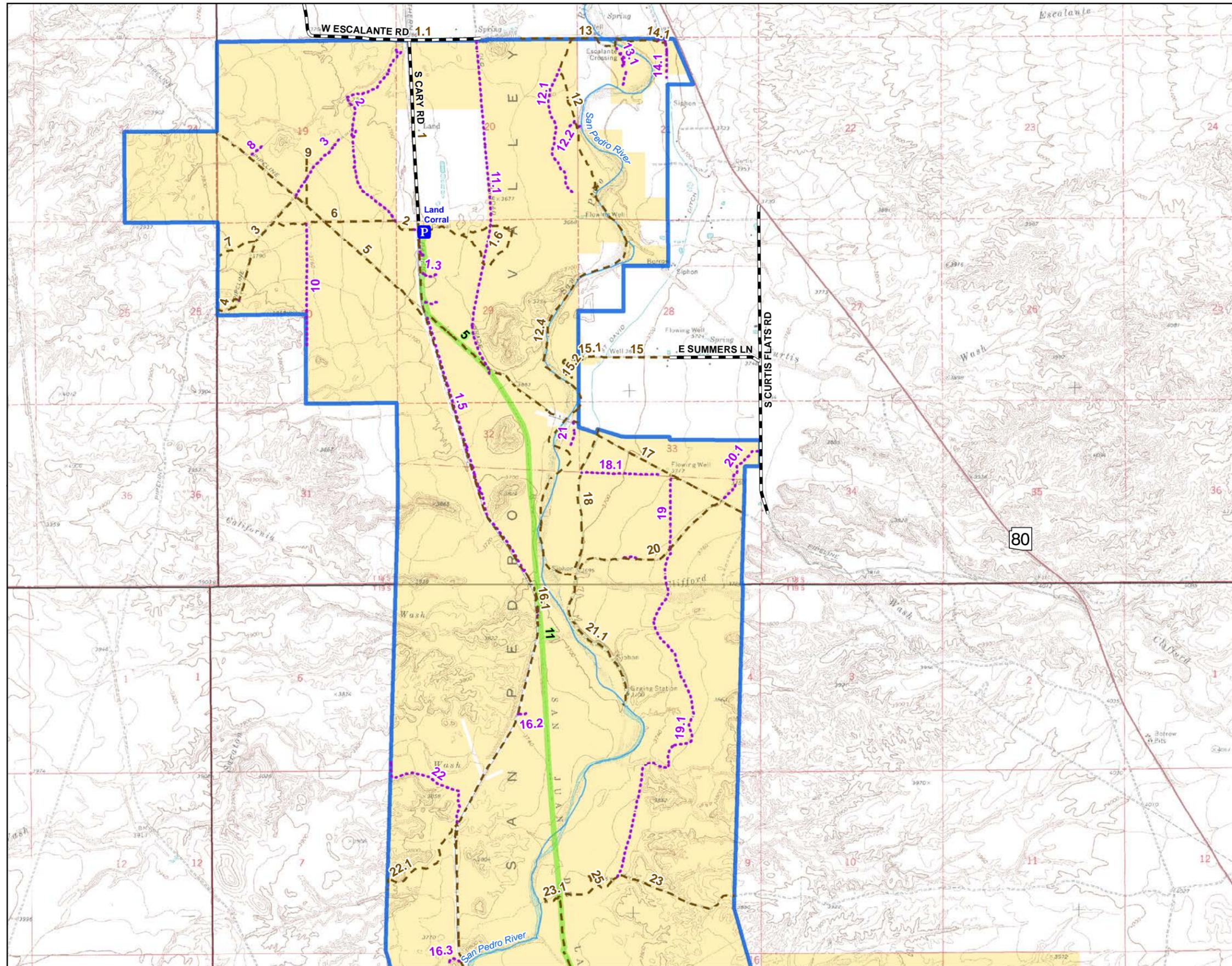


 **U.S. Department of the Interior
Bureau of Land Management
Tucson Field Office**

Date: 7/7/2019

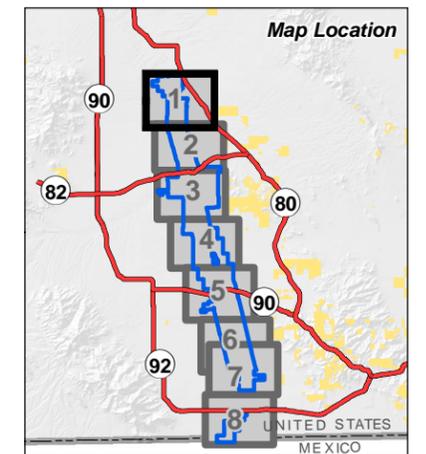
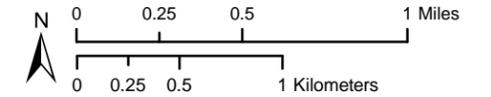
No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the BLM, or to the accuracy, reliability, or completeness of the information shown. Spatial information may not meet national Map Accuracy Standards. This information may be updated without notification. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.





Travel Route Inventory Figure 2-9 Exent 1

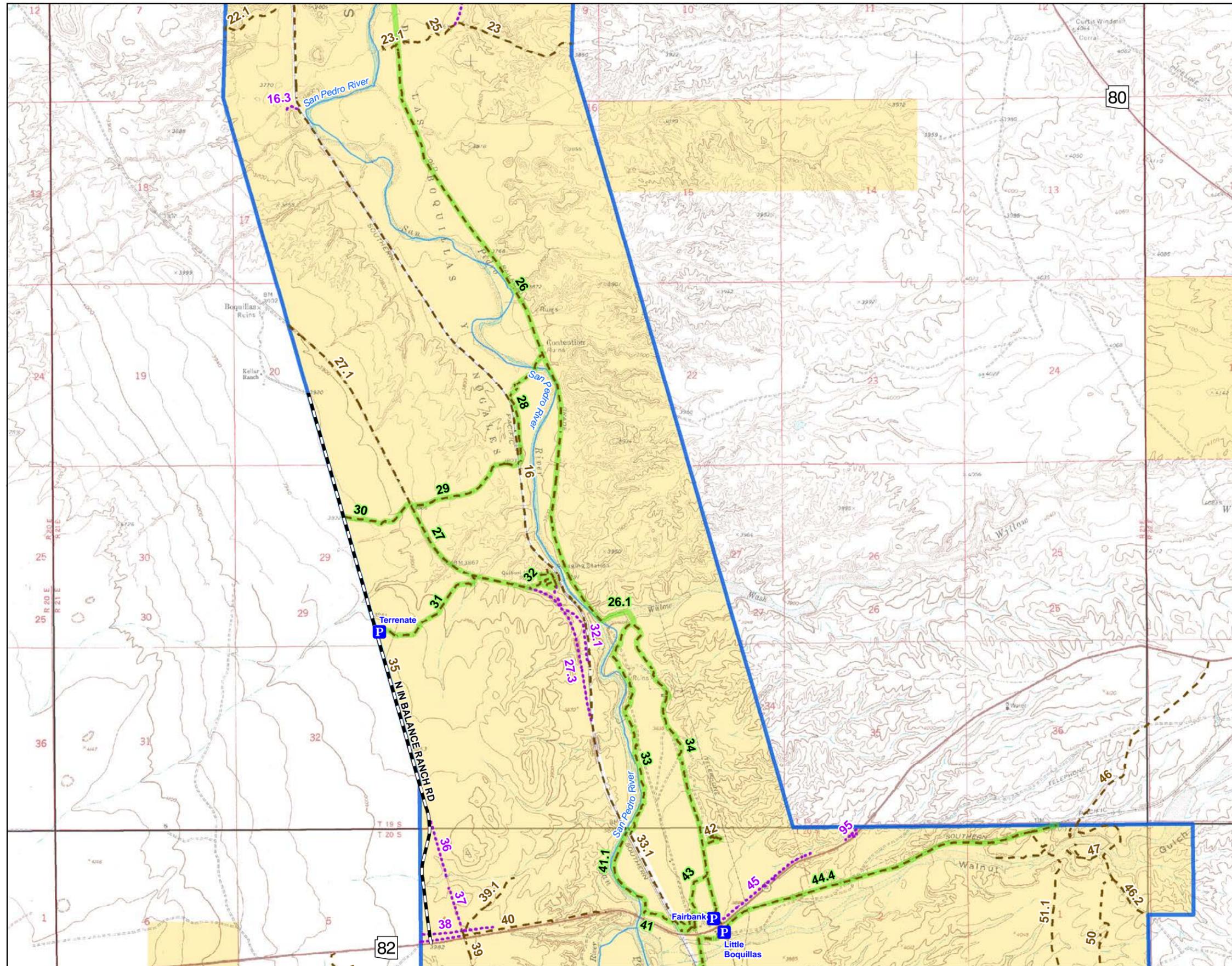
- SPRNCA Planning Area
- BLM-administered land
- P Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

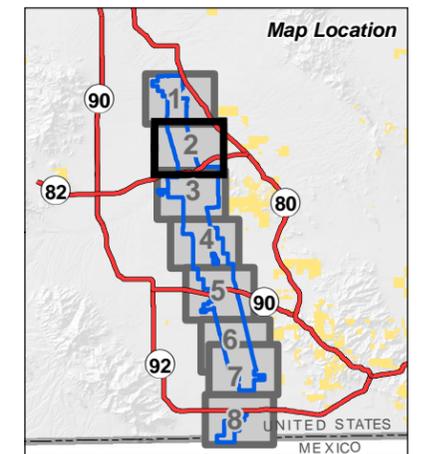
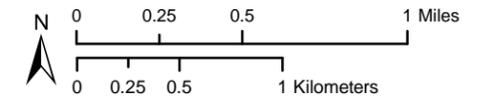
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 2

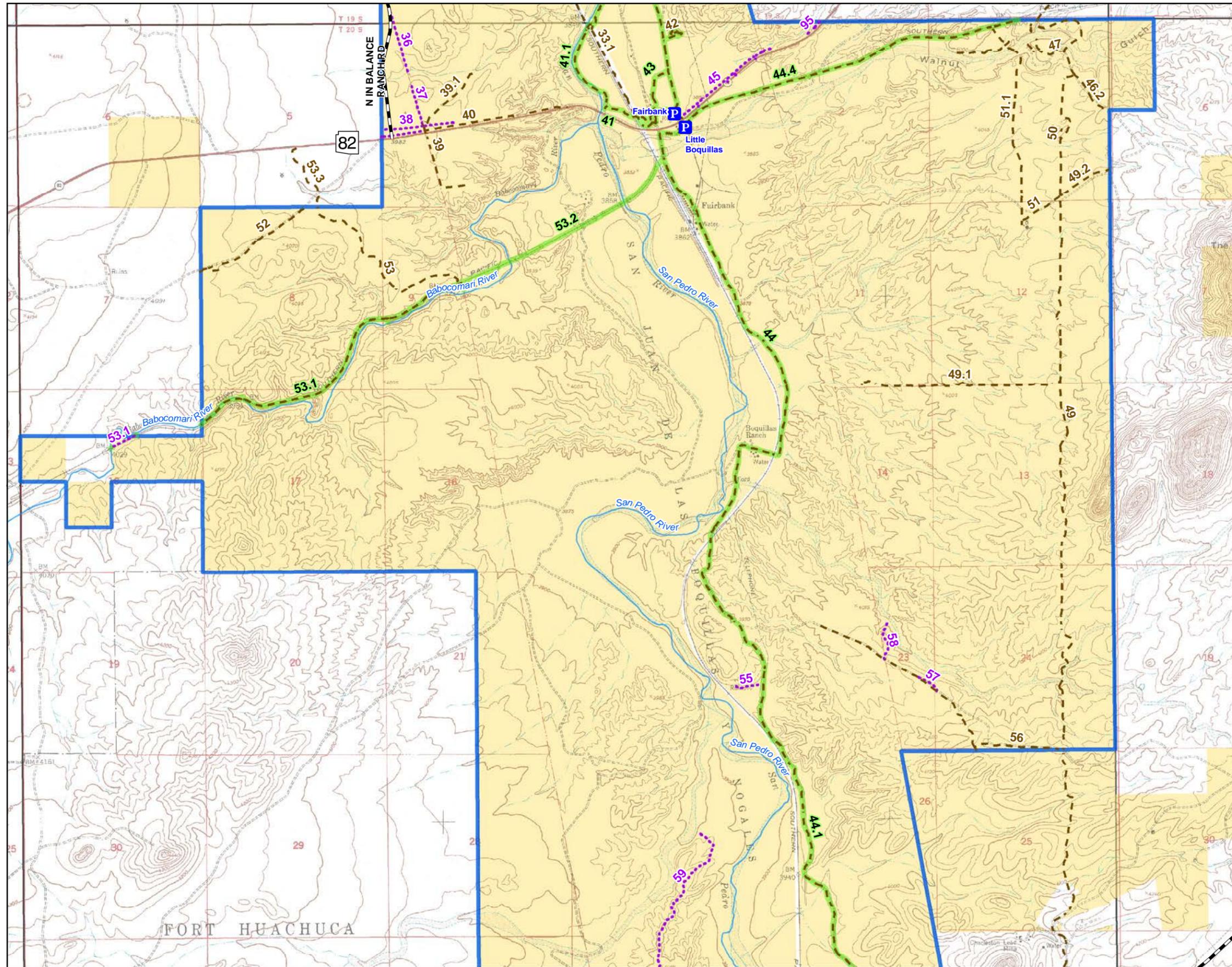
- SPRNCA Planning Area
- BLM-administered land
- Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

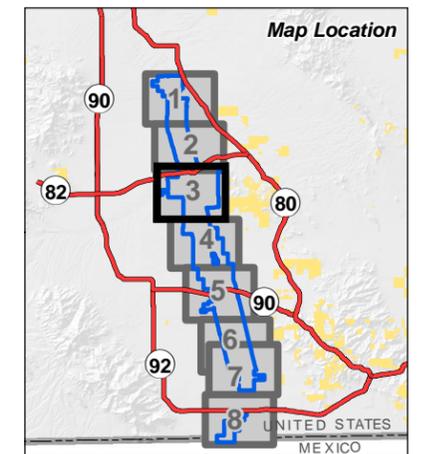
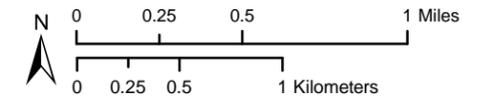
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 3

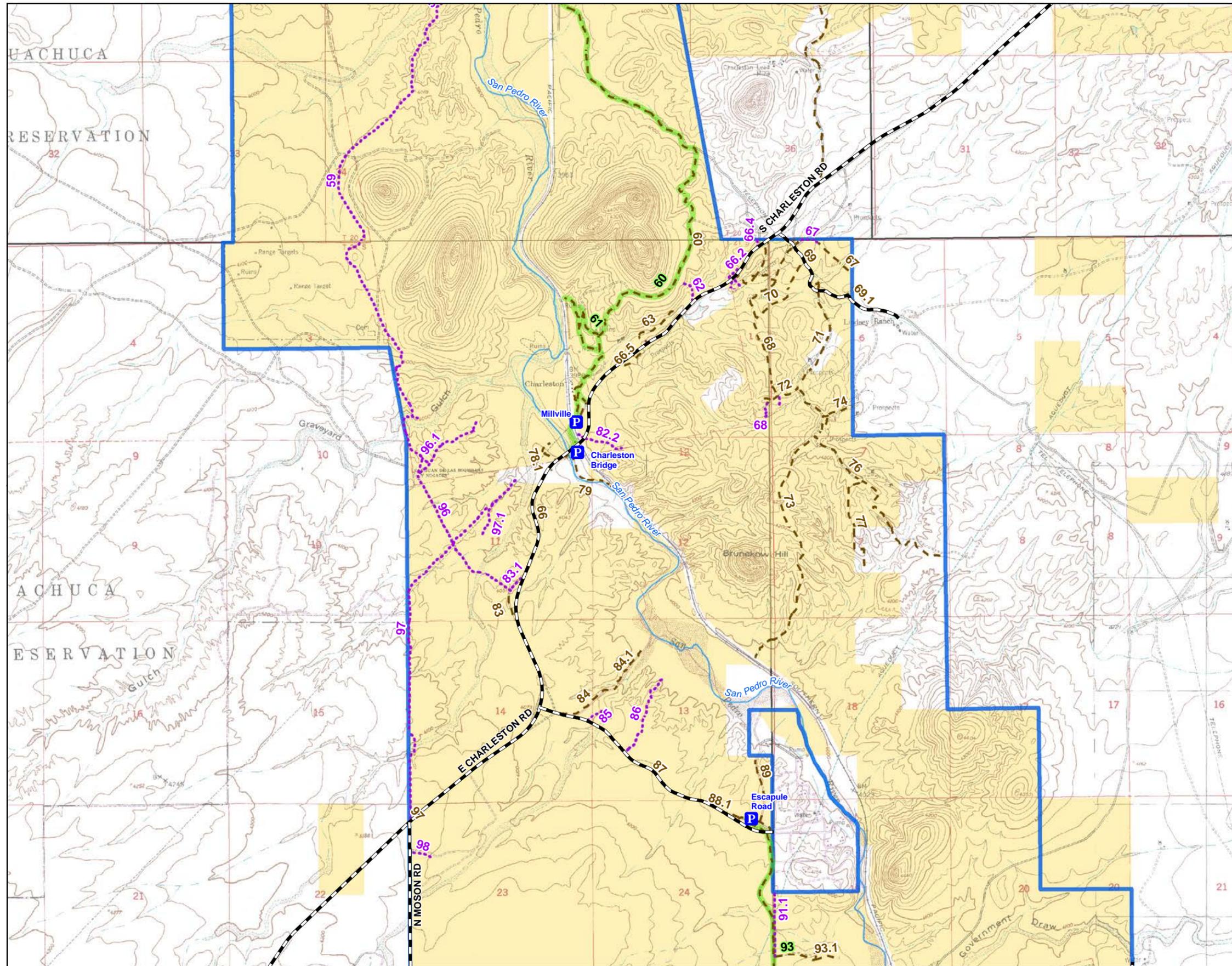
- SPRNCA Planning Area
- BLM-administered land
- P Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

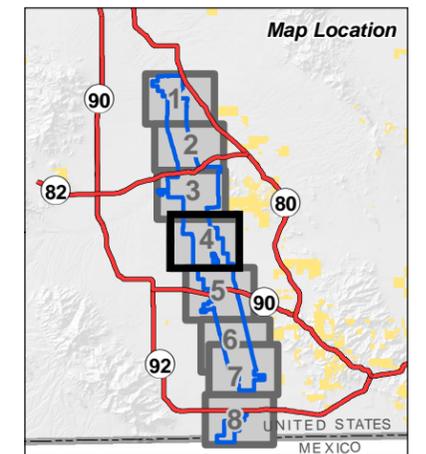
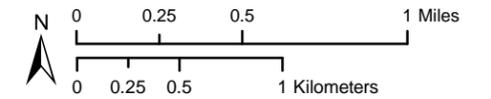
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 4

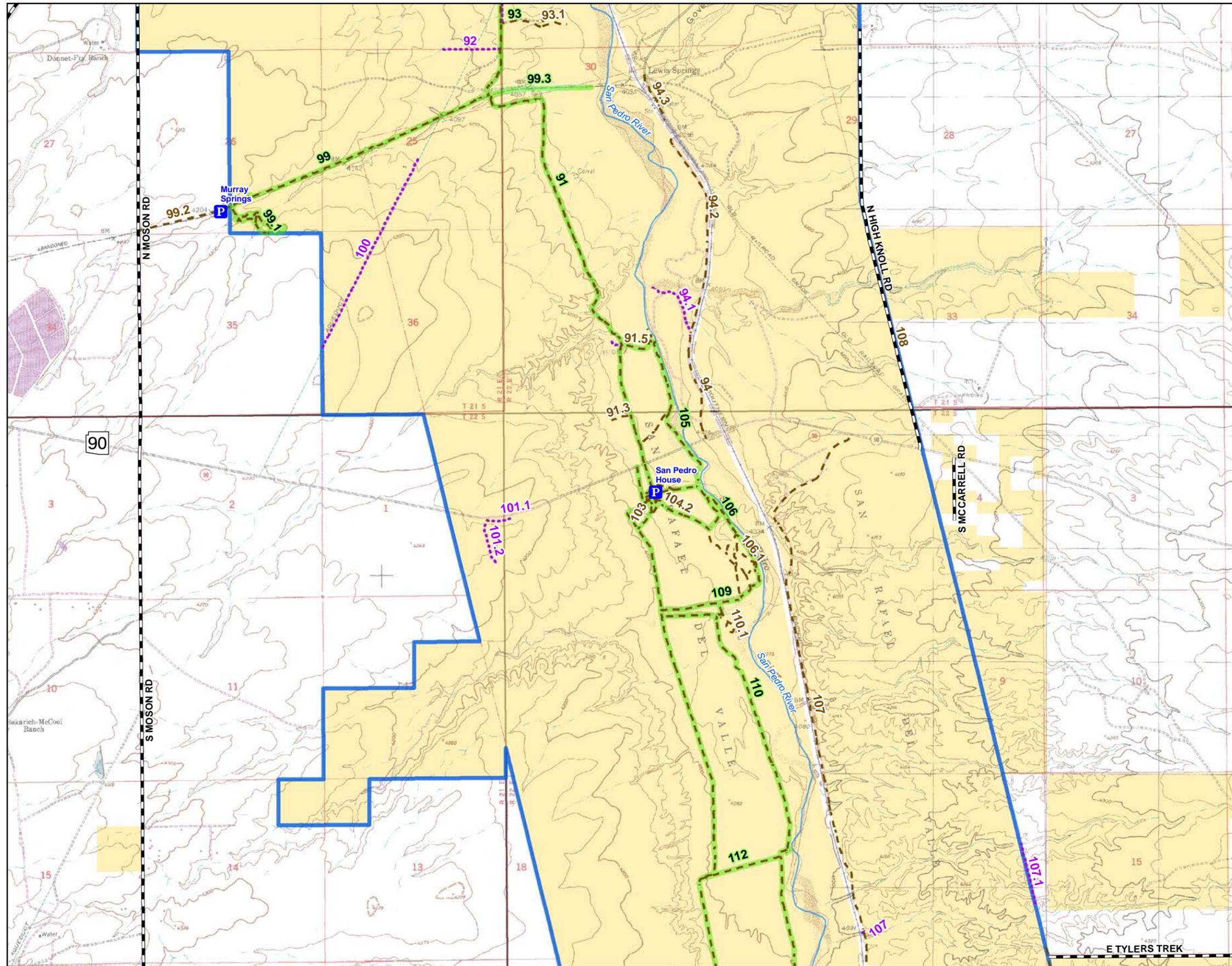
- SPRNCA Planning Area
- BLM-administered land
- P Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

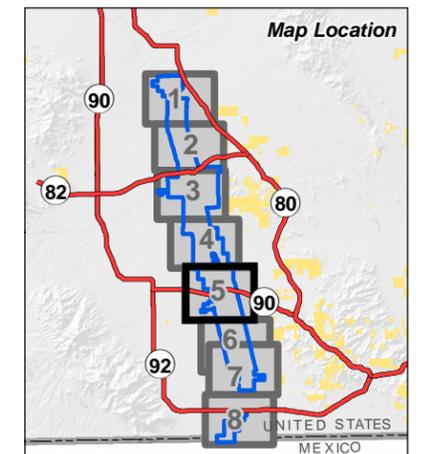
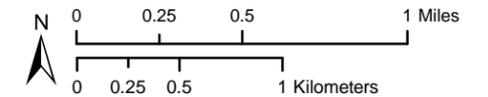
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 5

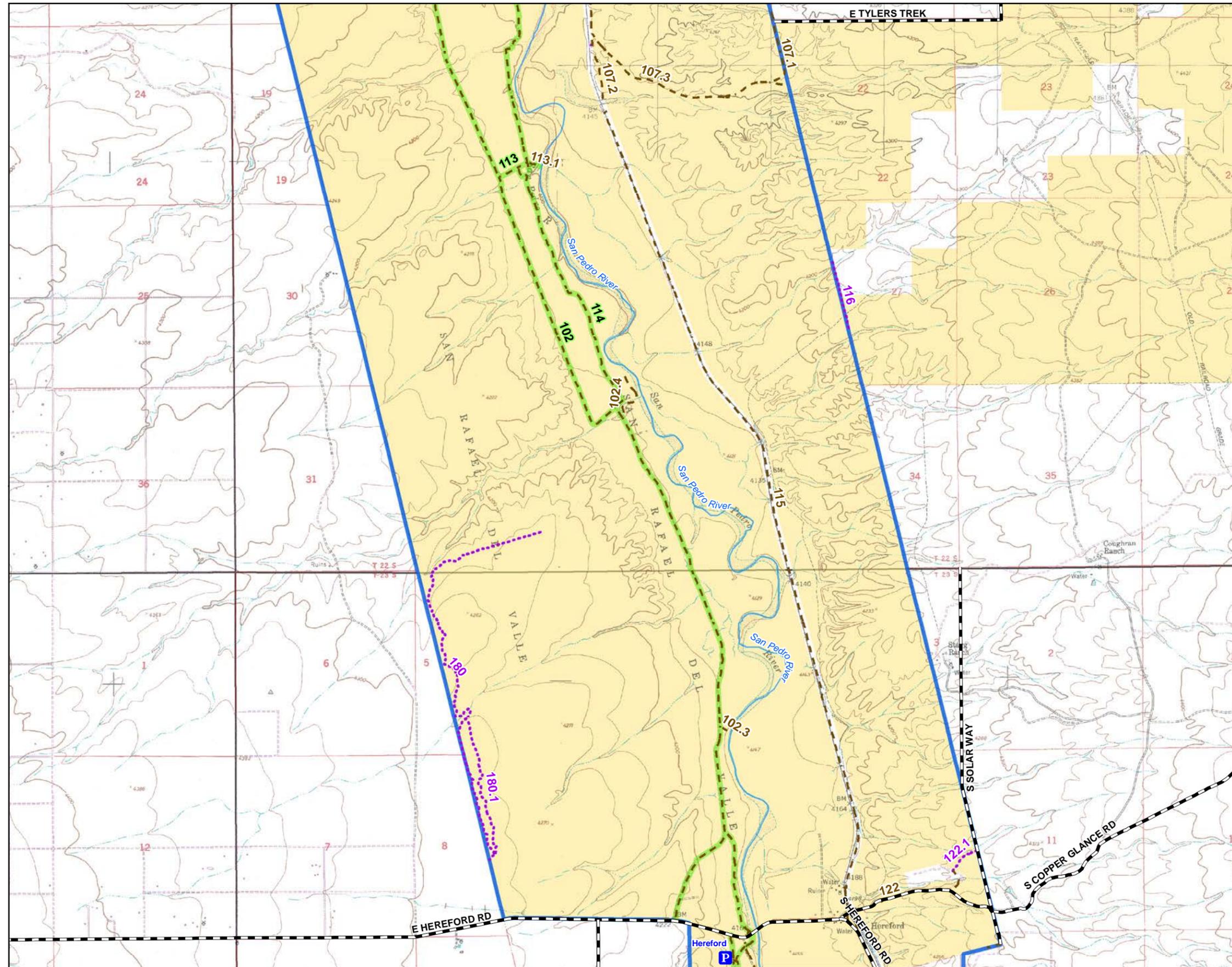
- SPRNCA Planning Area
- BLM-administered land
- Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

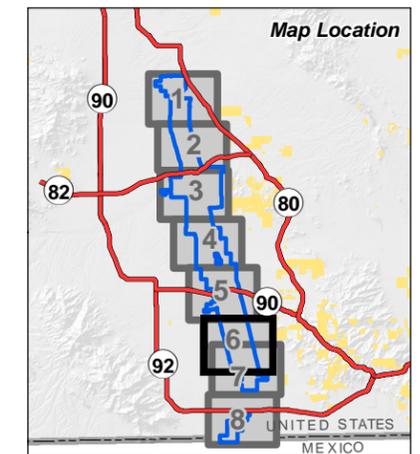
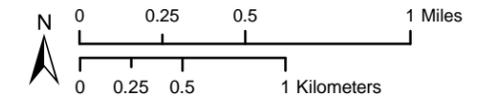
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 6

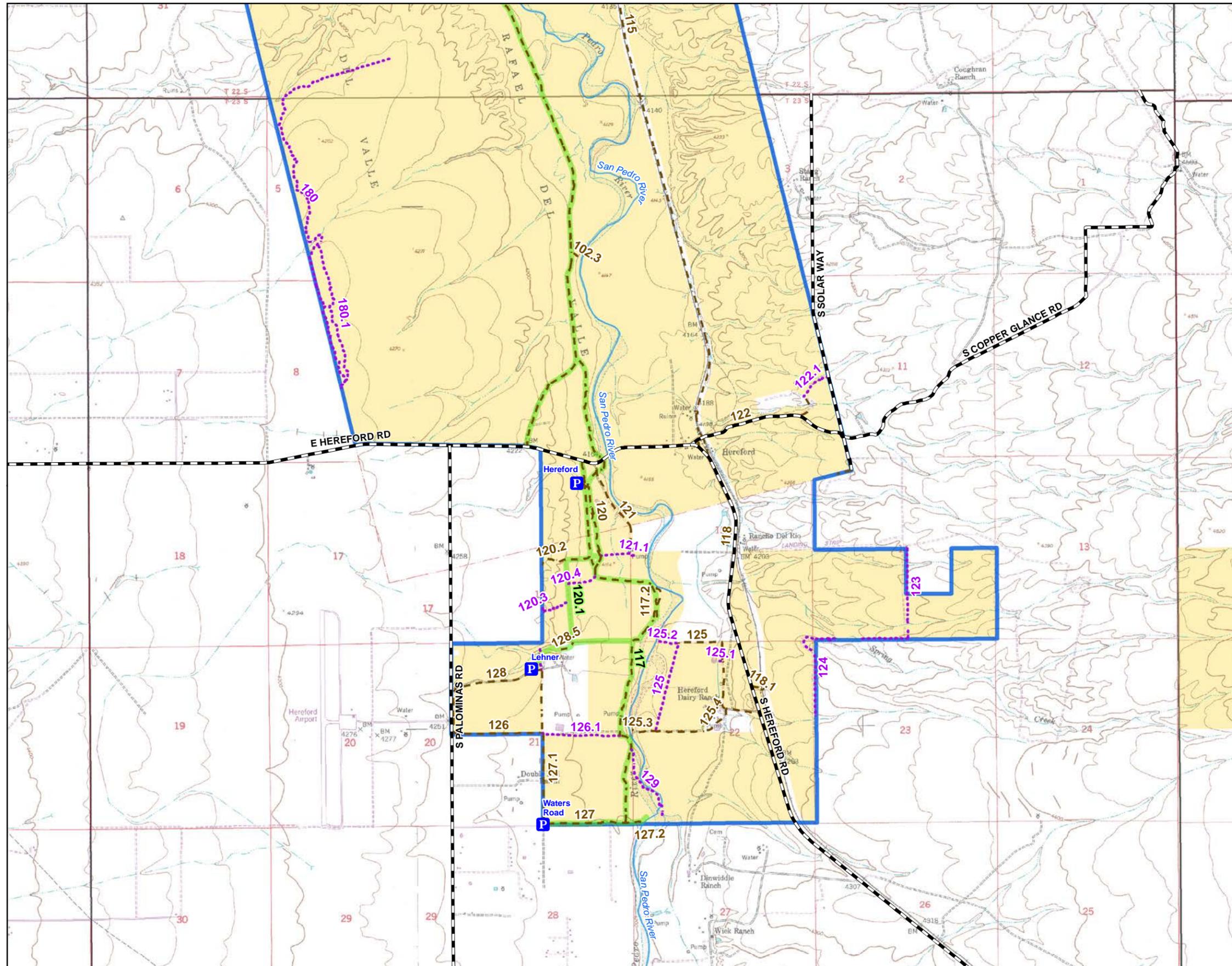
- SPRNCA Planning Area
- BLM-administered land
- Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

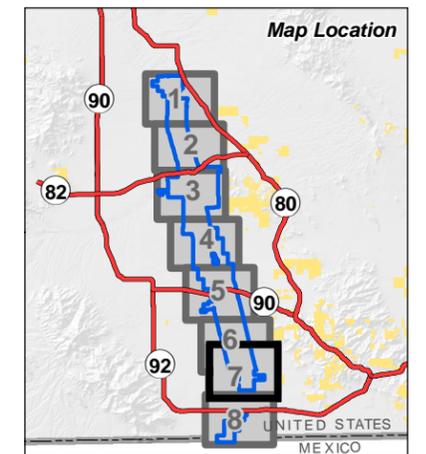
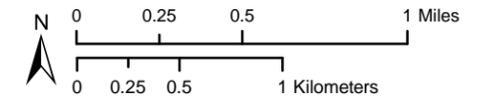
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 7

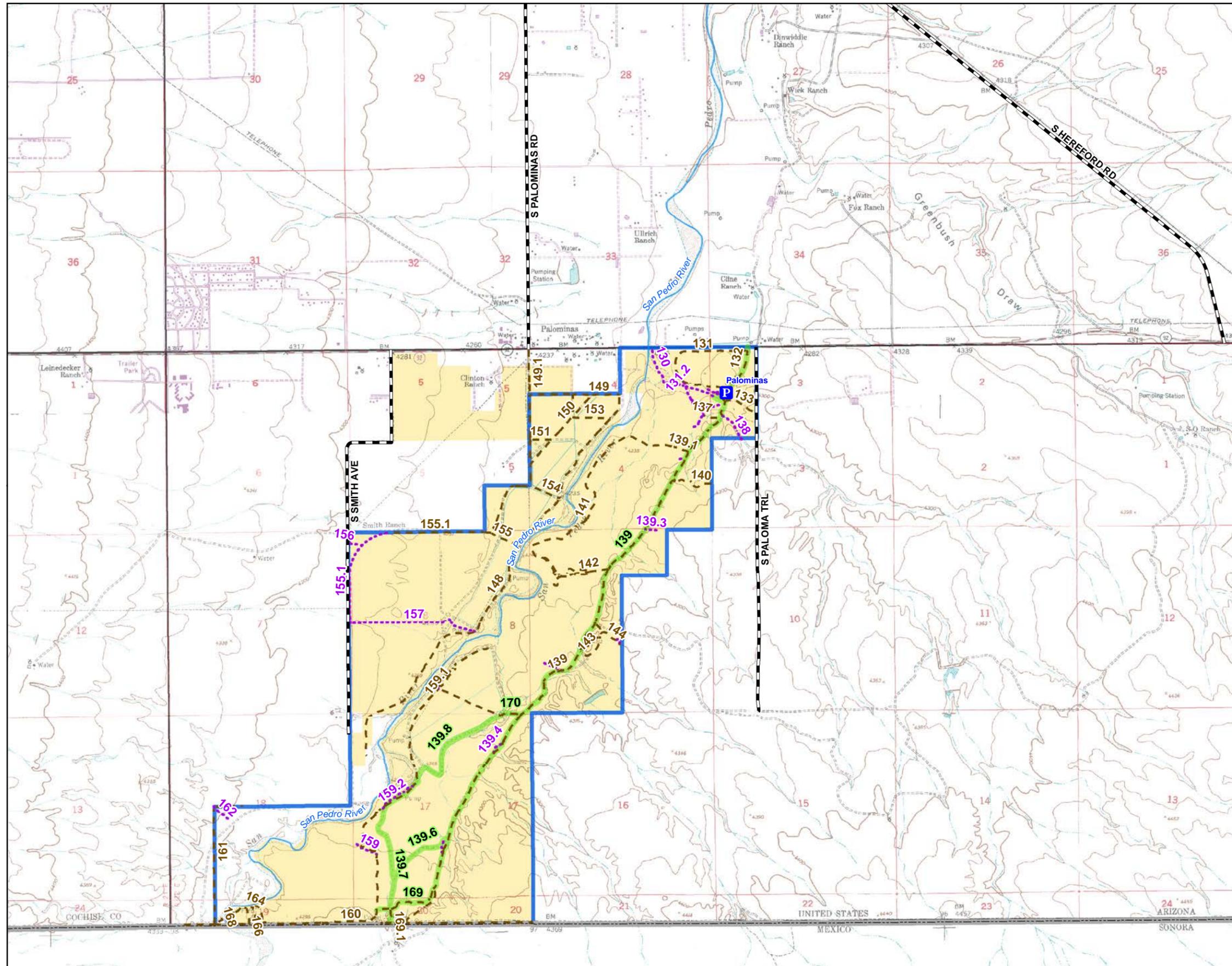
- SPRNCA Planning Area
- BLM-administered land
- P Trailheads, existing
- San Pedro trail system
- Administrative vehicle routes
- Other inventoried routes
- County road



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

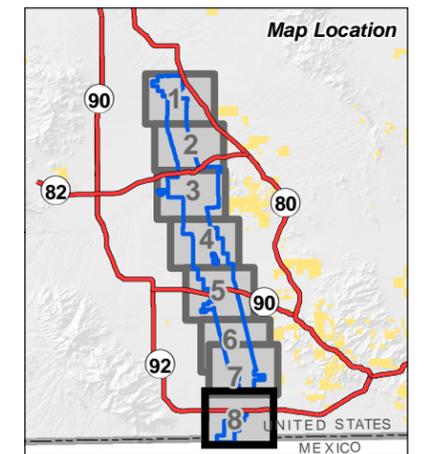
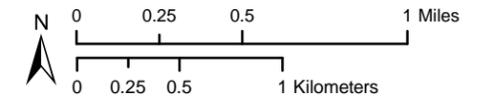
Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



Travel Route Inventory Figure 2-9 Exent 8

- SPRNCA Planning Area
- BLM-administered land
- P Trailheads, existing
- San Pedro trail system
- - - Administrative vehicle routes
- - - Other inventoried routes
- County road



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

Date: 3/20/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.

**Figure 2-10
Discharge of Firearms**

-  SPRNCA Planning Area
- Hunting with Firearms**
-  Lands available for hunting with firearms
-  Lands closed for hunting with firearms

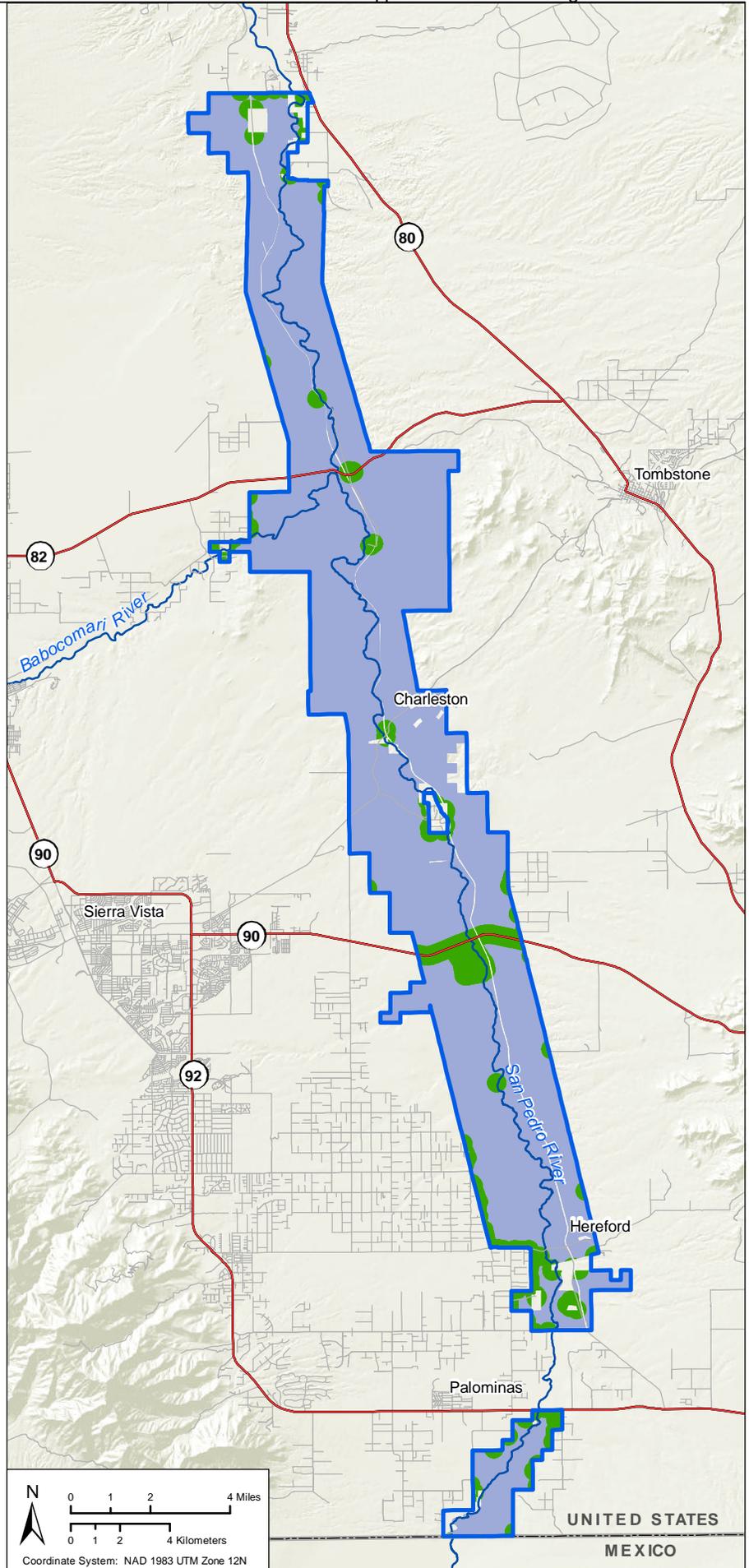
In accordance with AZGFD hunting regulations, hunting with firearms is not allowed within 1/4 mile of developed facilities.



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-11
Lands and Realty**

 SPRNCA Planning Area

Right-of-Way Limitations

 Right-of-way avoidance area

 Charleston Road ROW utility corridor

Avoidance area. An area identified through resource management planning to be avoided but that may be available for locating a right-of-way, with special stipulations defined as 375 feet north and south of the centerline of the Charleston Road where the road is located east of the San Pedro River, and then departing from the road and continuing west.



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.

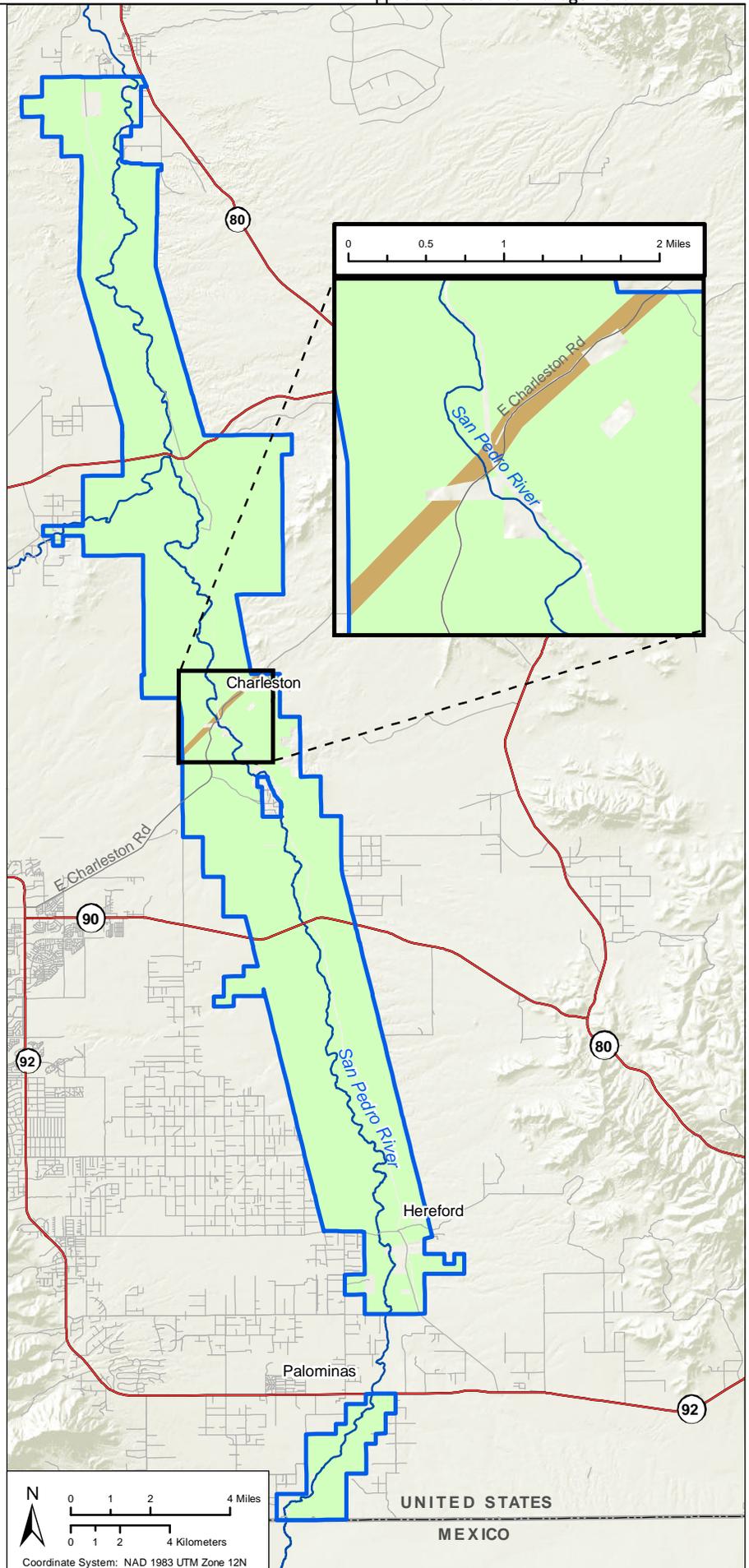
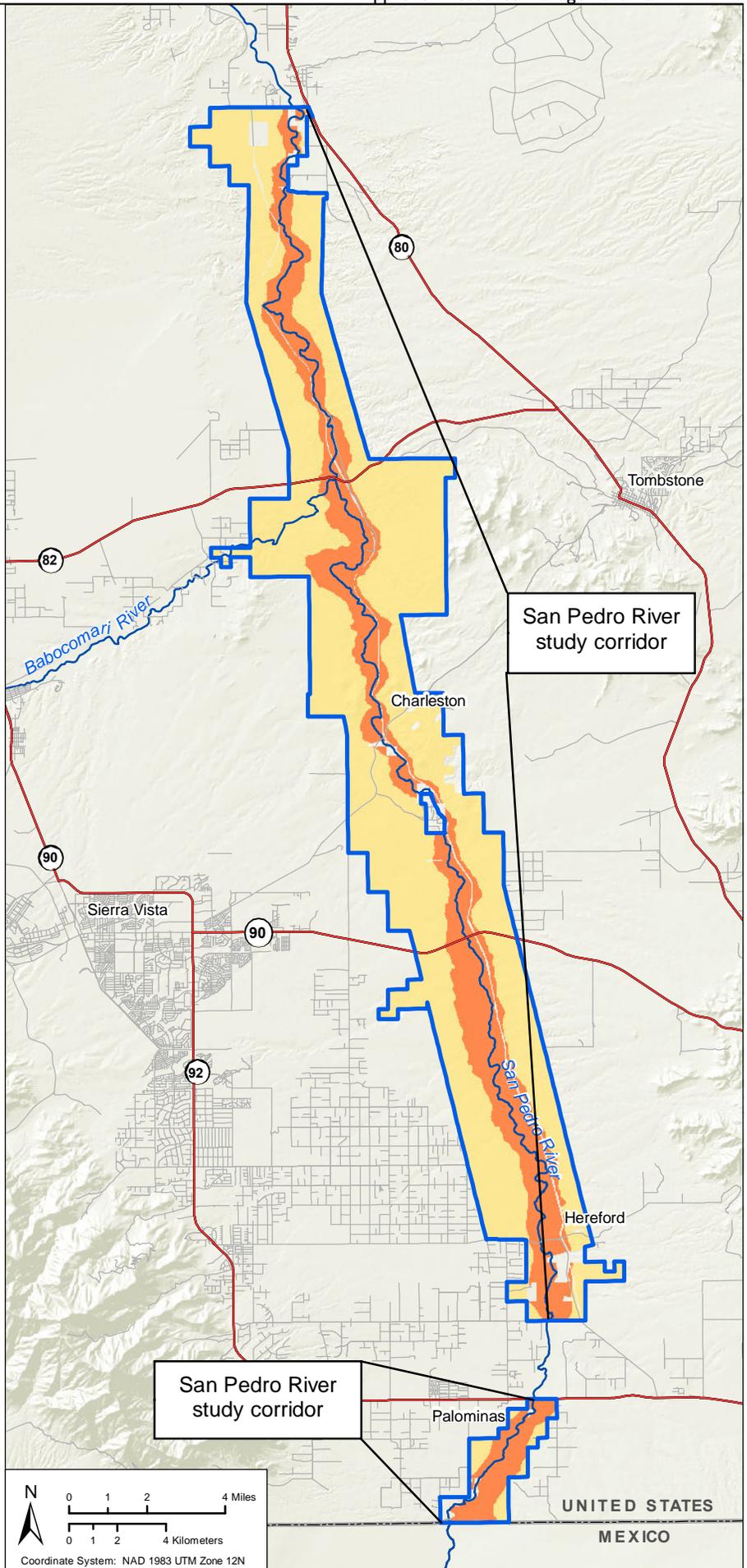


Figure 2-12
Wild and Scenic Rivers—
San Pedro River

-  SPRNCA Planning Area
-  BLM-administered land

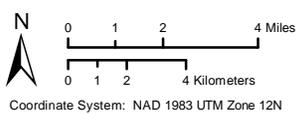
- Study Corridor Management**
-  Suitable as recreational



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



**Figure 2-13
Wild and Scenic Rivers—
Babocomari River**

-  SPRNCA Planning Area
-  BLM-administered land

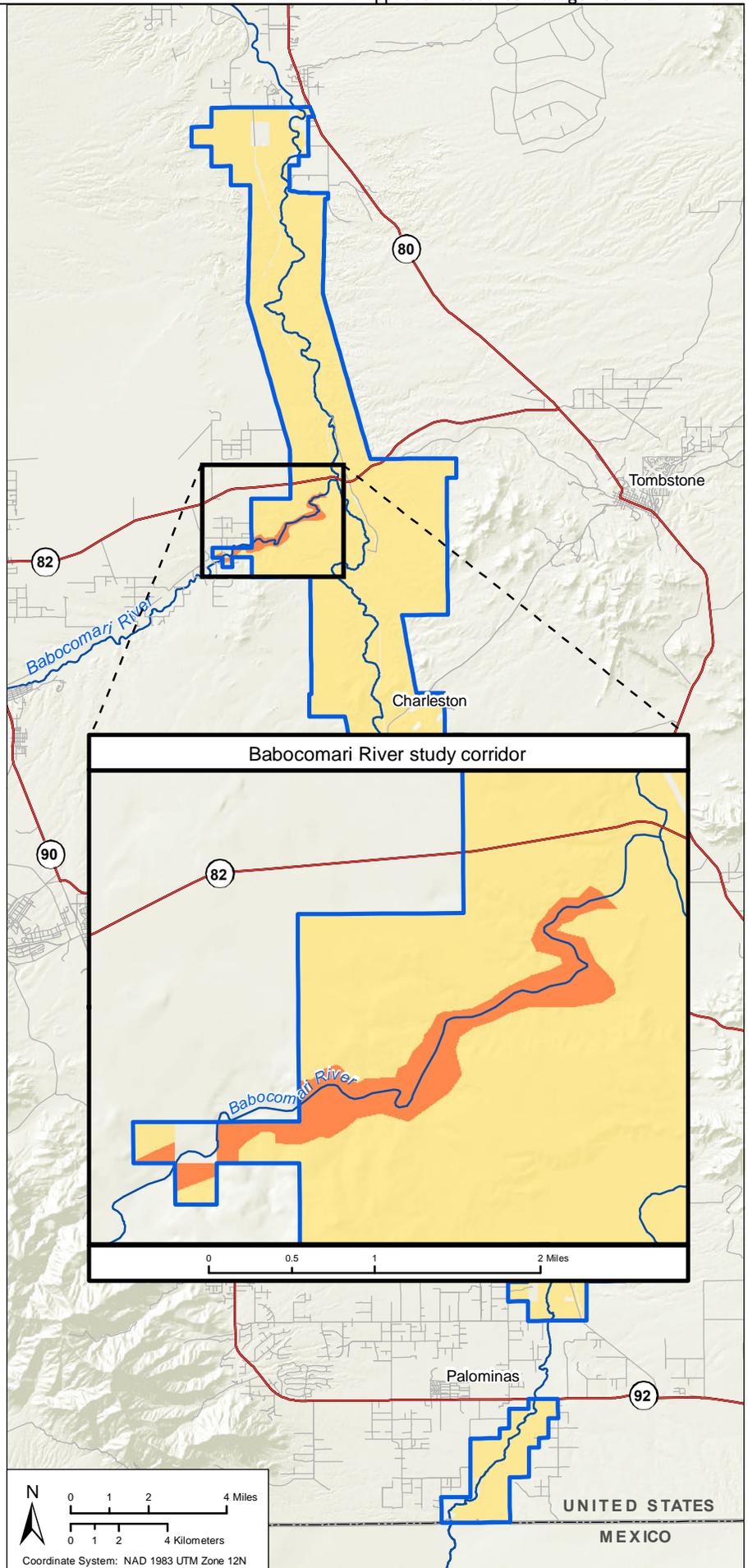
- Study Corridor Management**
-  Suitable as recreational



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

Date: 7/7/2019

No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by the 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. The BLM conducts land use planning only in the areas administered by the BLM. BLM has no planning authority under the municipal or county legislation of the State of Arizona.



This page intentionally left blank.

Chapter 3. References

- ADEQ (Arizona Department of Environmental Quality). 2018. Water Quality Division: Standards. Internet website: <http://legacy.azdeq.gov/envirom/water/standards/index.html>.
- BLM (US Department of the Interior, Bureau of Land Management). 1989. Final San Pedro River Riparian Management Plan and Environmental Impact Statement. Safford District, Safford, Arizona. June 1989.
- _____. 1992. Partial Record of Decision for the Approval of the Safford District Resource Management Plan. Arizona State Office, Phoenix. September 1992.
- _____. 1994. Partial Record of Decision for the Approval of the Safford District Resource Management Plan Environmental Impact Statement. Arizona State Office, Phoenix. July 1994.
- _____. 1997. Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. BLM, Arizona State Office, Phoenix.
- _____. 2017. Bureau of Land Management, Arizona Land Tenure Strategy. Arizona State Office, Phoenix. January 2017.

This page intentionally left blank.

Appendix A

Standard Operating Procedures and
Best Management Practices

This page intentionally left blank.

Appendix A. Standard Operating Procedures and Best Management Practices

A.1 STANDARD OPERATING PROCEDURES

Standard operating procedures (SOPs) are procedures carried out daily during proposal implementation that are based on laws; regulations; executive orders; US Department of the Interior, Bureau of Land Management (BLM) manuals, policies, and instruction memorandums (IMs); and other applicable documents. SOPs describe the flow of actions and identify roles and responsibilities. Policy and planning procedures either already exist or have been identified through collaborative processes that are used as a guide during the implementation of management decisions. It is the goal of SOPs to maintain operational efficiency and consistency during the planning and implementation processes.

A.2 BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are land and resource management techniques determined to be the most effective and practical means of maximizing beneficial results and minimizing conflicts and negative environmental impacts from management actions. BMPs can include structural and nonstructural controls, specific operations, and maintenance procedures. BMPs can be applied before, during, and after activities to reduce or eliminate negative environmental impacts.

BMPs are not one-size-fits-all solutions. BMPs should be selected and adapted through interdisciplinary analysis to determine which management practices are necessary to meet the goals and objectives of the resource management plan (RMP). The best practices and mitigation measures for a particular site are evaluated by considering site-specific conditions, local resource conditions, and a suite of techniques that guide or may be applied to management actions to aid in achieving desired outcomes.

A.2.1 Soil, Water, and Air Resources

Standard Operating Procedures

- Comply with all federal and state statutes pertaining to air quality and cooperate with the State of Arizona in carrying out the State Implementation Plan.

Best Management Practices

- When implementing BLM-approved activities where dust from surface disturbance may occur, enforce stipulations to mitigate impacts on air quality.
- Minimize disturbance to surface resources when constructing new developments or reconstructing existing facilities. Develop mitigation plans, restore disturbed surfaces, and stabilize soils in accordance with restoration objectives.
- Use structural and nonstructural controls and vegetation to reduce erosion and capture sediments.
- For heavy metals, remediate heavy metal contaminated soils or fill materials (i.e., railroad grade; <http://www.hindawi.com/journals/isrn/2011/402647/>) by reducing the mobility of the metals in the soil or removing the metals.

- Correct and prevent erosion on trails where needed using cross-logs and rock stair steps and rerouting unsustainable trail segments.
- Abandon and remediate trail segments that are not in stable locations on or near river or tributary streambanks.

Enhancement of Riverine Geomorphology

- Stream restoration structures would preferably be comprised of soft structures such as wooden post and rock and/or vegetation (tree poles or saplings).
- Restoration would occur with incremental implementation based on monitoring of design performance following floods and adaptive management to improve design before full implementation in a specified reach.
- Haul roads across flood plains to individual sites where structures/planting will occur will be located and designed to minimize erosion and ease of rehabilitation.

Watershed Improvements

- Use hand tools before mechanical tools.
- Use natural materials as much as possible.
- Use plantings before structures. If structures are used, loose and irregular components would be preferred (usually rock, wood, and earth) instead of flexible or rigid structures.
- A few smaller features will be preferred over using a large structure/feature.
- Prioritize watershed improvements for the stabilization and protection of natural and cultural resources.
- Analyze overbank flood frequency, channel dimensions, sinuosity, meander profile pattern and evaluate sediment supply to help design projects.

A.2.2 Paleontological Resources

Standard Operating Procedures

- A qualified professional paleontologist will accomplish a paleontological inventory of project areas prior to authorizing surface-disturbing activities to protect vertebrate or noteworthy occurrences of invertebrate, plant, or trace fossils.
- Assign survey priorities to those areas that are most likely to include significant paleontological resources, are known to contain paleontological localities, are relatively accessible to the public, and/or are vulnerable to damage or loss from land-use activities.
- Include standard discovery stipulations in any permit approval that is likely to affect significant paleontological resources.
- The following stipulations may be applied:
 - User/operator shall be responsible for informing all persons associated with a project that they shall be subject to prosecution for damaging, altering, excavating, or removing any vertebrate or noteworthy occurrences of invertebrate or plant fossils on-site.
 - If vertebrate or noteworthy occurrences of invertebrate or plant fossils are discovered, the user/operator shall suspend all operations that further disturb such materials and immediately contact the BLM Authorized Officer (AO).

- User/operator shall not resume until the AO issues a written authorization to proceed.
- Within 5 working days, the AO will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant scientific values.
- The user/operator shall be responsible for the cost of any mitigation required by the AO.
- Upon verification from the AO that the required mitigation has been completed, the operator shall be allowed to resume operations.

A.2.3 Vegetation Resources

Standard Operating Procedures

- Plant collection may occur under limited circumstances.
 - Plant collection or manipulation may be authorized under certain circumstances through a scientific permit issued by the AO.
 - When plants are to be removed from the San Pedro Riparian National Conservation Area (SPRNCA), the Arizona Department of Agriculture must be contacted for appropriate permitting.

Best Management Practices

- Avoid or minimize ground-disturbing activities in riparian areas and other habitats with sensitive plant communities located on fragile soils.
- Do not broadcast spray herbicides in riparian areas that provide habitat for threatened, endangered, and proposed aquatic species. Appropriate buffer distances will be determined on a project-by-project basis to ensure that vegetation that provides habitat for threatened, endangered, and proposed species is not removed from the site.
- Where heavy or specialized equipment is required for a riparian vegetation treatment, such as grubbing, mulching, chipping, mowing, grinding, and thinning by heavy equipment, limit access to areas with dry soil and those where bank soil compaction is likely to be minimal. Avoid to the extent possible mechanical removal of trees and shrubs within riparian areas.
- Utilize chemical (herbicide) treatments where ground-disturbing activities such as heavy equipment are not permitted, and where the control of resprouting and new vegetation is desired. To limit impacts on adjacent plants, use the cut stump method, spot treatments, or the basal bark method where small amounts of herbicide are applied directly to freshly cut stumps, canopy, or the basal area of trees and shrubs.
- Develop a pesticide use proposal for areas where herbicide treatments are utilized. A certified pesticide applicator will supervise herbicide treatments, which will adhere to the product label or be applied at BLM-approved application rates if less than label authorized rates.
- Implement biomass utilization immediately following mechanical treatments and prior to any rehabilitation treatments that may be needed.
- Utilize some portion of the slash generated from vegetation treatments to enhance cover in adjacent downstream areas where cover has been determined to be limiting for reptiles and amphibians. Take measures to avoid fluid leaks from equipment used to treat vegetation.

- When protecting riparian resources with firebreaks, protect bank cover by moving larger fuel elements removed from the break to downstream locations in the stream reach to aid in bank protection.
- Restrict motorized vehicles for vegetation treatment or other activities, to the extent feasible, to existing roads, trails, washes, and temporary firebreak or site-access routes. When administrative or emergency off-road travel is deemed necessary, any cross-country travel paths will be surveyed for sensitive plants and soil conditions prior to use and will be closed and rehabilitated after the project is completed.
- Use seed from regionally native species of grasses and herbaceous vegetation in areas where reseeding is necessary following ground disturbance to revegetate bare areas, stabilize soils, and prevent erosion.
- Use ecological site inventories and monitoring to assess level of departure to determine where vegetation treatments would be appropriate.
- Avoid impacts on protected plants or their habitats by developing, modifying, redesigning, mitigating, or abandoning proposed projects.

Southwestern Willow Flycatcher and Yellow Billed Cuckoo:

- Conduct surveys prior to vegetation treatments within potential or suitable habitat.
- Where surveys detect birds, do not broadcast spray herbicides.
- Do not conduct vegetation treatments within ½ mile of known nest sites or unsurveyed suitable habitat during the breeding season (as determined by a qualified wildlife biologist).
- Adjust spatial and temporal scales of treatments so that not all suitable habitat is affected in any given year.
- Following treatments, replant or reseed treated areas with native species, if needed.
- Closely follow all application instructions and use restrictions on herbicide labels (including aquatic and wetland habitat use restrictions).

Lesser and Mexican Long-nosed Bat:

- Prior to treatments, survey all potentially suitable habitat for the presence of bats or their nectar plants.
- At the local level, incorporate protection of lesser and Mexican long-nosed bats into management plans developed for proposed treatment programs.
- Instruct all field personnel on the identification of bat nectar plants and the importance of their protection.
- Protect nectar plants from modification by treatment activities to the greatest extent possible. Do not remove nectar plants during treatments. Avoid driving over plants.
- To protect nectar plants and roost trees from herbicide treatments, follow recommended buffer zones for the herbicides, and other conservation measures for Proposed or Listed Threatened and Endangered plant species in areas where populations of nectar plants and roost trees occur.

- If conducting spot treatments of herbicides in lesser or Mexican long-nosed bat habitats, avoid potential roost sites.

A.2.4 Fire Management

Standard Operating Procedures

- Carry out fire suppression in a manner consistent with Interagency Standards for Fire and Aviation Operations (BLM 2018b), which is updated on an annual basis by the National Interagency Fire Center. Logistical support, operation and coordination, and policies and procedures for mobilization of firefighting resources are outlined in the Southwest Area Mobilization Guide (BLM 2018a).
- Fire management activities will continue to avoid disturbing known archaeological sites or sites found during such activities. Fires will not be intentionally started at known sites. Archaeologists will serve as resource advisors for fire management and help develop and implement fire and fuels management tactics and treatments to minimize or avoid effects on cultural resources. Fire crews will be briefed about the need to protect cultural resources.
- In areas suitable for fire, the BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels, the BLM will delay igniting prescribed fires.
- Use suppression tactics that limit damage or disturbance to the habitat and landscape. Heavy equipment (such as dozers) must be approved by the Authorized Officer.
- Use fire retardants or chemicals next to waterways in accordance with the Interagency Policy for Aerial and Ground Delivery of Wildland Fire Chemicals Near Waterways and Other Avoidance Areas (2017 Interagency Standards for Fire and Aviation Operations).

Best Management Practices

- Use Minimum Impact Suppression Tactics to the extent possible (see Minimum Impact Suppression Tactics, below).
- Follow existing conservation measures to the extent possible to minimize harm to federally listed, proposed, or candidate species within the action area.

Minimum Impact Suppression Tactics

Fire Line Phase

- Select procedures, tools, equipment that least impact the environment.
- Seriously consider using water as a fireline tactic. Fireline constructed with nozzle pressure, wetlining.
- In light fuels, consider:
 - Cold trail line.
 - Allowing fire to burn to natural barrier.
 - Burning out and use of “gunny” sack or swatter.
 - Constantly rechecking cold trailed fireline.
 - If constructed fireline is necessary, using minimum width and depth to check fire spread.

- In medium/heavy fuels, consider:
 - Using natural barriers and cold trailing.
 - Cooling with dirt and water, and cold trailing.
 - If constructed fireline is necessary, using minimum width and depth to check fire spread.
- Minimizing bucking to establish fireline. Preferably move or roll downed material out of the intended constructed fireline area. If moving or rolling out is not possible, or the downed bole is already on fire, build line around and let material be consumed.
- Aerial fuels—brush, trees, snags:
 - Adjacent to fireline: Limb only enough to prevent additional fire spread.
 - Inside fireline: Remove or limb only those that if ignited would have potential to spread fire outside the fireline.
 - Brush or small trees that are necessary to cut during fireline construction will be cut flush with the ground.
- Trees, burned trees, and snags:
 - Minimize cutting of trees, burned trees and snags.
 - Live trees will not be cut, unless determined they will cause fire spread across the fireline or endanger workers. If tree cutting occurs, cut the stumps flush with the ground.
 - Scrape around tree bases near fireline if hot and likely to cause fire spread.
 - Identify hazardous trees with either an observer, flagging, and/or glow sticks.
- When using indirect attack:
 - Do not fall snags on the intended unburned side of the constructed fireline, unless they are a safety hazard to crews.
 - On the unintended burn-out side of the line, fall only those snags that would reach the fireline should they burn and fall over.
 - Consider alternative means to falling, i.e., fireline explosives, bucket drops.
 - Review items listed above (aerial fuels, brush, trees, and snags).

Mop-up Phase

- Consider using “hot-spot” detection devices along perimeter (aerial or handheld).
- Light fuels:
 - Cold trail areas adjacent to unburned fuels.
 - Do minimal spading; restrict spading to hot areas near fireline.
 - Use extensive cold trailing to detect hot areas.
- Medium and heavy fuels:
 - Cold trail charred logs near fireline; do minimal scraping or tool scarring.
 - Minimize bucking of logs to check for hot spots or extinguish the fire.
 - Return logs to original position after checking or ground is cool.
 - Refrain from making boneyards; burned/partially burned fuels that were moved should be arranged in natural position as much as possible.

- Consider allowing larger logs near the fireline to burnout instead of bucking into manageable lengths. Use lever, etc., to move large logs.
- Aerial fuels- brush, small trees, and limbs:
 - Remove or limb only those fuels that if ignited, have potential to spread outside the fireline.

A.2.5 Fish and Wildlife Management

Standard Operating Procedures

- Comply with the Memorandum of Understanding between the U.S. Department of the Interior Bureau of Land Management and the U. S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds (BLM MOU WO-230-2010-04) (BLM IB 2010-110).

Best Management Practices

- Emphasize use of new technologies, products, and construction designs that provide for the lowest degree of maintenance and a visually obscure wildlife water development that is compatible with the surrounding terrain.
- Fences constructed will comply with applicable wildlife fence standards (BLM Handbook H-1741-1). Existing fences that impede big game movement or that otherwise conflict with wildlife may be modified to comply with applicable wildlife fence standards on a case-by-case basis.
- The BLM will consult agency species management plans and other conservation plans as appropriate to guide management and devise mitigation measures when needed. Examples of these plans include, but are not limited to, the North American Landbird Conservation Plan (Rich et al. 2004), National and Arizona Partners in Flight Bird Conservation Plans (Rosenberg et al. 2016, Latta et al. 1999), the Arizona Bat Conservation Plan (Hinman and Snow 2003), and the Arizona State Wildlife Action Plan (AZGFD 2012).
- Work with other agencies to control nonnative, invasive species in the San Pedro River as new methods of eradication are developed.
- Encourage adjacent landowners to control nonnative, invasive species to reduce the threat in the basin.

A.2.6 Cultural Resources

Standard Operating Procedures

- The BLM applies the following standard discovery stipulations to all permits, grants, and work authorizations; project-specific cultural resources stipulations also may be applied as necessary:
 - The operator is responsible for informing all persons who are associated with the authorized operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. Any cultural (historic/prehistoric site or object) or paleontological (fossil remains of plants or animals) resource discovered during operations shall be immediately reported to the AO or his/her designee. All operations in the immediate area of the discovery shall be suspended until written authorization to proceed is issued. A qualified archaeologist or paleontologist shall make an evaluation of the discovery to determine appropriate actions to prevent the loss of significant cultural or scientifically important values.

- If in connection with this work any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (Public Law [PL] 101-601; 104 Stat. 3048; 25 United States Code [USC] 3001) are discovered, operations in the immediate area of the discovery shall cease, the remains and objects shall be protected, and the operator shall immediately notify the AO. The immediate area of the discovery shall be protected until notified by the AO that operations may resume.
- BLM authorizations are considered undertakings subject to compliance with Section 106 of the National Historic Preservation Act (NHPA; 54 USC 306108 et seq.) and its implementing regulations found at 36 CFR 800, wherein the BLM has the legal responsibility to consider the effects of its actions on *historic properties*. The BLM Manual 8100 Series and the BLM Arizona State Protocol provide applicable Section 106 compliance procedures to meet appropriate cultural resources management standards. Section 106 of the NHPA requires federal agencies to 1) identify historic properties within areas of potential effects (APEs) for a federal undertaking; 2) evaluate the significance of cultural resources by determining National Register of Historic Places (NRHP) eligibility; and 3) consult with applicable federal, state, and tribal entities regarding assessment results, NRHP eligibility determinations, and proposed methods to avoid or mitigate potential impacts on historic properties.
- In Arizona, the BLM’s routine NHPA responsibilities are carried out in accordance with the BLM Arizona State Protocol—a Programmatic Agreement among the BLM and the Arizona State Historic Preservation Officer (SHPO; agreement executed December 14, 2014). Should the BLM determine that an undertaking would result in no historic properties affected or no adverse effect, as advised by a qualified cultural resources specialist, the undertaking may proceed under the terms and conditions of the BLM Arizona State Protocol. If the undertaking is determined to have an adverse effect, or otherwise meets stipulated consultation thresholds, project-specific consultation is then initiated with the SHPO.
- Native American traditional and religious concerns are legislatively considered under several acts and executive orders, including the American Indian Religious Freedom Act (AIRFA; 42 USC 1996), the Native American Graves Protection and Repatriation Act (NAGPRA; 25 USC 3001), and Executive Order 13007 (Indian Sacred Sites). In sum and in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act (ARPA; 16 USC 470aa-470mm), these acts and orders require the federal government to carefully and proactively consider the traditional and religious values of Native American culture and lifeways to ensure, to the greatest degree possible, that access to sacred sites, treatment of human remains, the possession of sacred items, conduct of traditional religious practices, and the preservation of important cultural properties are not unduly infringed upon. In some cases, these concerns are directly related to historic properties and/or archaeological resources, such as those considered under Section 106 of the NHPA. Likewise, elements of the landscape without archaeological or human material remains also may be involved.
- Project-specific assessments and consultations will occur during the BLM’s review of any future proposed action on BLM-administered lands. Should the BLM identify adverse impacts, additional consideration for potentially significant sites and possible protection or mitigation strategies would be warranted.
- The BLM’s primary and preferred measure used to protect cultural resources is avoidance of impacts through appropriate design and/or relocation of activities and facilities. Avoidance

measures are best accomplished through early planning and consultation and use of adequate identification and assessment strategies. For undertakings where avoidance is not practicable, the BLM may apply measures to minimize potential impacts (e.g., through project redesign or construction and archaeological monitoring) or develop plans to mitigate potential adverse effects on specific sites through consultation with interested and affected parties.

- Mitigation strategies depend on the nature of an undertaking and, where present, the nature and NRHP eligibility criteria of any historic property. For example, sites eligible under Criterion D (i.e., having the potential to provide significant information about the past) are often mitigated through data recovery. Data recovery procedures could include archaeological excavation, mapping, collection of artifacts and other archaeological materials, archival research, or ethnographic research and collection of oral histories. Final reports will be required to document the results of analysis, with collections and data preserved for long-term research in a museum or other federally approved repository.
- Potential visual impacts on a historic property (or its associated setting) may be mitigated by reducing the contrast of developed facilities within the surrounding terrain and viewshed. Auditory intrusions could be mitigated by scheduling activities to avoid sensitive times of the year. Reclamation can restore aspects of a historic property's setting after the conclusion of construction activities and/or use. However, it may not be possible to reduce or fully mitigate all potential adverse effects in the long term and, in such cases, compensatory mitigation strategies could be developed.

Best Management Practices

- As with the application of cultural resources mitigation strategies, application of BMPs depends on the nature of an undertaking and any potentially affected historic property. In situations where a proposed undertaking—or a series of undertakings—poses potential direct (alteration of the physical integrity) or indirect (visual, auditory, or atmospheric) impacts on a historic property, the following BMPs shall be considered through analysis and consultation:
 - Avoidance by design or relocation
 - Consolidating project facilities and the construction footprint
 - Using low-profile facilities
 - Using sighting and location to maximize the use of topography and vegetation to screen development and potential visual and/or auditory intrusions
 - Using environmental coloration or advance camouflage techniques to minimize visual intrusions
 - Using fencing with low-visibility fiberglass posts, environmentally coordinated colors, or other setting-appropriate designs
 - Designing linear facilities to run parallel to key observation points rather than perpendicular
 - Modifying the orientation of facilities to present less of a direct, visual, and/or auditory impact
- Where the BLM identifies existing or actively occurring impacts on historic properties, protective and restorative measures may be used to protect the remaining integrity of at-risk sites. As provided in BLM Manual 8140, these measures may include installation of signs, fencing,

or other barriers; administratively closing the area to public access and use; installation of erosion control features; and site or structural stabilization using backfilling and structural repair or shoring. Although this list is not exhaustive, the BLM is committed to considering avoidance and protective measures as cultural resources BMPs prior to pursuing mitigation or demolition of any historic property.

A.2.7 Visual Resources

Standard Operating Procedures

- Complete visual contrast ratings on proposed projects to assess potential visual impacts and to identify visual design guidelines to ensure visual resource management (VRM) objectives are achieved. Mitigation measures to reduce potential visual impacts will include, but not be limited to, site selection, material selection, screening, rehabilitation, and color treatment of structures.
- Identify design features and/or mitigation measures for proposed projects with a potential for visual impacts on the SPRNCA to ensure VRM class objectives can be met, and to “take any action necessary to prevent unnecessary or undue degradation” to public lands (FLPMA Sec 302 F). Analyze design features and mitigation measures through the National Environmental Policy Act of 1969 (NEPA) process and required as part of the decision.
- Conduct field analysis to ensure that project elements are designed appropriately to sufficiently fit the existing natural landscape.
- Produce visual simulations as determined by the BLM to assist in developing project design features and mitigation measures to reduce impacts on visual resources. These simulations will also be used to complete contrast ratings.
- Monitor visual resource conditions for impacts from land use activities, and effectiveness of design requirements.
- Night lighting required for any purpose will incorporate measures to protect night skies.

Best Management Practices

- Adhere to guidance in BLM's Guidelines for a Quality Built Environment (2010) when designing facilities. Available at: <https://www.blm.gov/download/file/fid/20556>.
- Screen project elements through proper siting and location.
 - Site and locate project elements to reduce visual impacts, especially where viewsheds are highly sensitive to the public. This includes siting projects in a way that allows the natural topography and vegetation to obstruct the view of project elements as much as possible while allowing the function of the project to be maintained. If the natural topography and vegetation are not sufficient to screen a project, analyze relocating or redesigning the project. If natural topography and vegetation does not sufficiently reduce impacts to meet VRM objectives, properly designing and constructing an artificial landscape visual screen will be used. Avoid skylining project elements (structure elements being visible above the landscape in sky view) where practicable to reduce visibility of project elements.
- Minimize the disturbance footprint of land-disturbing activities.
 - Design land-disturbing activities to reduce the overall footprint on the landscape. Where possible, use avoidance or drive and crush method for site clearing and access to

promote vegetation preservation and regrowth. Use blading or clearing and grubbing activities only when there is no other option to achieve the result.

- Color treat project elements to reduce visual contrast.
 - Complete color treating project structures to reduce visual contrast. Conduct color analysis to determine the most appropriate color for the specific landscape condition. The BLM Standard Color Chart will be the basis of the color analysis and selection, but other colors could be used if the resulting condition would be a reduction of visual contrast. Color treatment techniques, such as liquid paint application and powder coating, will be considered on a case-by-case basis and will be selected to ensure the most durable and best performing surface possible.
- Use natural materials to allow project elements to blend with the natural surroundings.
 - Design elements of a project will incorporate natural materials where practicable. Natural materials have an innate quality that help to reduce contrast, creating structures that mimic the natural character of the landscape. These materials will be used at the discretion of the BLM to ensure natural resources are not collected to the detriment of the natural landscape.
- Utilize reclamation and revegetation.
 - Reclaim land-disturbing activities to return the landscape to a natural condition. This includes activities such as recontouring, soil preparation through tilling and adding soil amendments such as compost and fertilizer, revegetation through nursery stock planting and reseeding, and an overall returning of disturbed land to a natural condition. Vegetation and seeding species would be native and site specific and would be appropriate species for the ecoregion and local habitat.

A.2.8 Lands and Realty

Standard Operating Procedures

- Obtain reasonable public and administrative access to BLM-administered land in the following ways:
 1. Require reciprocal access easements to meet specific program needs.
 2. Consider and manage the use of BLM-administered land for rights-of-way (ROW), ROW reservations, easements, permits, leases, licenses, and agreements, except for those areas identified as exclusion areas.
 3. Secure access easements as needed to prevent closing of access to BLM-administered land.
- The BLM will strive to coordinate applicable transportation-related planning efforts for the SPRNCA with the Arizona Department of Transportation (AZDOT) and Cochise County.
- In February 2003, the Department of Homeland Security (DHS) issued the National Strategy for the Physical Protection of Critical Infrastructures and Key Assets (DHS 2003), which summarized the initial assessment of and planning to protect against vulnerabilities to the terrorist threat. The designation of utility and transportation corridor locations and the planning and maintenance of utilities; railroads; and federal, state, and interstate highways that cross BLM-administered lands will be consistent with all directives, policies, and procedures that DHS may institute to minimize vulnerabilities to the energy grid.

- Whenever possible, design or route utility transmission lines to minimize adverse visual impacts on the surrounding land and vistas.
- New ROWs will make maximum use of existing routes and will share facilities whenever possible, including joint use by different types of utilities, such as transmission line towers and communication sites.
- Coordinate communications-related planning efforts with the Federal Communications Commission, as needed.
- The BLM may require that a licensed surveyor provide a cadastral survey (to be reviewed by a BLM cadastral surveyor) of a ROW route prior to issuance of the authorization to an outside entity.

Best Management Practices

- Manage access needs for administrative purposes for the various resource management programs and activities.
- In designated corridors (e.g., utility, roads, trails, and bridges) through riparian areas, perform needed maintenance with the least possible habitat disturbance.
- In areas outside of designated corridors, and on a case-by-case basis, when renewing or amending existing ROW's, or when issuing new ROW's, allow for identification and clarification of access associated with the ROW for maintenance and monitoring activities, in accordance to RMP Goals and Objectives.

A.2.9 Livestock Grazing

Standard Operating Procedures

- Livestock management changes may be made when sufficient assessment, inventory, or monitoring data are available.
- Fence construction and maintenance will follow guidance provided in BLM Handbook H-1741-1.

Best Management Practices

- Consider deferment of livestock, where possible in cooperation with leaseholders, to allow for the use of prescribed fire or other vegetation treatments, or to allow for rest in other grazing allotments.
- Intensity, season and frequency, and distribution of grazing use shall provide for growth and reproduction of the plant species needed to reach desired plant community objectives.
- Rest rotation, deferred rotation, seasonal or short-duration use, or other grazing management systems may be implemented where the need has been identified through monitoring. Use monitoring to assess the effectiveness of changes brought about by new management practices.
- Only allow salt/nutrient blocks in upland areas.

A.2.10 Recreation Resources

Standard Operating Procedures

- Make information available on allowable uses and use restrictions/regulations.

- Establish supplementary rules to implement RMP decisions on allowable uses and restrictions in accordance with 43 CFR 8365.1-6.
- Issue temporary orders of closure or restriction to protect public safety or resources in accordance with 43 CFR 8364.1.
- Provide enforcement of public land recreation program regulations and rules of conduct, and supplementary regulations.
- Encourage Leave No Trace travel and camping techniques.
- Promote use of designated campsites for backcountry camping. Educate visitors on reducing campfire impacts through campfire etiquette to keep fires small and reduce collection of dead and down firewood and the proliferation of campfire rings.
- Systematically monitor public use sites developed or designated. Take action to prevent safety problems and resource damage.
- Conduct comprehensive site assessments where existing physical and social impacts of recreational use and activities may be inconsistent with management objectives, and to define corrective actions.
- Develop and maintain partnerships with authorized users, local clubs, and organizations to provide visitor services and educational opportunities consistent with management objectives.
- Install cultural and natural resource interpretation signs at ingress/egress points to promote visitor awareness, enjoyment, and appreciation, and resource protection consistent with recreation, interpretation, and educational objectives for the area.
- Pursue interpretation and environmental educational opportunities, outreach development, and implementation of on-site and off-site programs for adults, children, and special populations.
- Work with partners to develop and distribute visitor information materials for websites, brochures, maps, access guides, and information sheets about the area, resource values, recreational opportunities, use restrictions, and visitor ethics.
- Design, construct, or alter public use facilities to comply with the Americans with Disabilities Act and the regulations in the Architectural Barriers Act Accessibility Guidelines for Outdoor Developed Areas (36 CFR 1191). Implement project plans for accessibility guidelines consistent with the recreational setting of the facility. Give priority to the most heavily used sites at the San Pedro House and Fairbank Townsite.
- Enforce current state and BLM regulations that restrict use of firearms within ¼ mile of occupied structures, and within developed areas and sites.

Special Recreation Permits

- Make information available on activities that require a Special Recreation Permit (SRP) according to 43 CFR 2930.
- Special stipulations may be identified and added to the SRP to mitigate safety concerns, avoid use conflicts, or protect sensitive resources.
- Permits for specified uses and activities may be issued for a single event, a year, or multiple years in the identified use areas, for the specified term, and subject to the approved operating plan and permit stipulations.
- Compliance checks on permitted activities are completed as needed to ensure compliance with permit requirements.

- Permit audits may be conducted to ensure program and regulatory requirements are being implemented properly.
- Require accurate and up-to-date operating plans.
- Require liability insurance coverage with liability limits depending on the nature of the activity and associated risks.
- Require use reports at designated intervals or after the permitted use.
- Collect permit fees in advance, and after the permitted activity based on actual use.

Best Management Practices

- Post signs, provide information kiosks, and make area guides available through a variety of media to ensure public awareness of allowable uses and restrictions and to promote compliance.
- Employ staff and volunteers to provide visitor services and information on allowable uses and restrictions.
- Schedule law enforcement patrols to provide a visible presence when and where public visitation is heaviest, and in response to incidents and reports of violations.
- Post signs to make users aware of camping restrictions within 1/4 mile of a natural water hole containing water or a man-made watering facility containing water in such a place that wildlife or domestic stock will be denied access to the only reasonably available water (Arizona Revised Statutes [ARS] 17-308, unlawful camping).
- Involve non-BLM partners in developing and delivering educational and interpretive programs and services.

A.2.11 Travel Management

Standard Operating Procedures

- Consider new routes, including additions to the designated route system, to ensure connectivity, accommodate emerging access needs, resolve conflicts, protect resources, protect public safety, mitigate impacts of existing routes, or in response to internal or external proposals.
- Complete a comprehensive review of the designated route system every 5 years as provided in the BLM Land Use Planning Handbook, H-1601-1, section V.B, on pages 33-36. The review will analyze the system's implementation status and its effectiveness and identify any needed adjustments or changes.
- Proposed route additions (roads or trails) will require:
 1. Accurate route location information using global positioning system devices.
 2. Route description (access purpose and need, type of use to be accommodated, and design criteria including design vehicle, width, vegetation clearance, traffic volume, and grades).
 3. Centerline staking or flagging on the ground for review and analysis.
 4. Route analysis that will address conformance with the land use plan and resource management objectives, alternatives, safety, potential conflicts with other uses, and mitigation.

5. Compliance with NEPA documented according to established procedures, including compliance with a cultural resources and biological resources survey, and clearance and consultation requirements.
6. Route additions as a basis for updating the comprehensive route inventory and Transportation Plan, and the BLM Facility Asset Management System, as appropriate.

Best Management Practices

- Identify access needs for achieving recreation and visitor management objectives. Designate public use routes and allowable uses. Limit use of routes to avoid or prevent user conflicts.
- Designate the transportation system (motorized and nonmotorized) to accommodate administrative and public access needs. Identify the type of access a route is intended to provide or accommodate in route management objectives.
- Identify route maintenance intensities and establish guidelines for maintenance and improvement of the route system to facilitate analysis and maintenance activities, including travel way width, grade, vegetation clearance, surface, drainage, and other maintenance items.
- Provide maintenance for roads and trails as needed based on condition assessments of the road and trail conditions and intended use(s).
- Designate or identify reclamation or restoration objectives for existing routes that do not have identified access purposes.
- Work with the Arizona Department of Transportation and Cochise County to address safety issues related to ingress/egress from state and county highways.

Road Construction/Maintenance

- Manage administrative roads to accommodate the intended access purposes and vehicle type.
- Allow nonmotorized public use on administrative roads (hiking, biking, and horseback riding).
- Provide road maintenance at a level of intensity and frequency based on the functional characteristics of the route, type of use, level of use, and the condition of the route.
- Construct new roads or trails only if existing routes do not provide adequate access to meet management objectives.
- Use or reconstruct existing routes to provide for emerging access needs whenever possible instead of constructing new routes.
- Comply with BLM 9113 Roads Manual, the BLM 9115 Primitive Roads Manual in the design, construction, and maintenance of roads and primitive roads.

Trail Construction and Maintenance

- Design the trail system to provide connectivity between access points and sites or areas of interest throughout the SPRNCA.
- Maintain and improve multi-use trails to accommodate equestrian, hiking, and bicycle use.
- Maintain and improve interpretive paths for foot traffic only, with bicycle and equestrian use not allowed.
- Provide hitching rails for horses and/or bicycles at interpretive sites accessed by equestrian and bicycles.

- Modify vehicle gates to provide trail access without having to unlock a gate for foot, horse, and bike access.
- Ensure that trailhead facility design considers the various types of use (equestrian, hiking, and bicycling).
- Avoid using heavily traveled roads for trail connections and on-grade crossings (cross under highway bridges). Designate the highway crossings (under highway bridge, or on-grade). Work with AZDOT on permits for the highway crossings and safety signs ("horse/hiker crossing ahead").

Accessibility

- Identify recreation opportunities and facilities that will be improved to meet accessibility guidelines for outdoor developed areas in the Rural Recreation Management Zone.
- Distinguish accessibility levels provided using concrete and compacted aggregate surfacing, and backcountry trail accessibility barriers; ensure awareness through signs at access points and visitor information materials.

A.3 REFERENCES

AZGFD (Arizona Game and Fish Department). 2012. Arizona's State Wildlife Actin Plan: 2012-2022. Phoenix, Arizona. May 16, 2012.

BLM (US Department of Interior, Bureau of Land Management). BLM Arizona State Protocol -- Programmatic Agreement among the BLM and the Arizona State Historic Preservation Officer. Executed December 14, 2014.

_____. BLM Handbook H-1601-1 -- Land Use Planning Handbook. Washington, DC. March 11, 2005. Internet website: https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1601-1.pdf.

_____. BLM Handbook H-1741-1 -- Fencing. Washington, DC. December 6, 1989.

_____. BLM IM 2008-050. BLM Migratory Bird Treaty Act -- Interim Management Guidance. 2007.

_____. BLM Manual 8140 -- Protecting Cultural Resources. Washington, DC. December 3, 2004. Internet website: https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual8140.pdf.

_____. BLM Manual 8270 -- Paleontological Resource Management. Washington, DC. Rel 8-68. July 13, 1998.

_____. BLM Handbook 8270-1 -- General Procedural Guidance for Paleontological Resource Management. Rel 8-69. Washington, DC. July 13, 1998.

_____. BLM Manual 9113 -- Roads. Washington, DC. May 4, 2015. Internet website: https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual9113.pdf.

- _____. BLM Manual 9115 -- Primitive Roads Manual. Washington, DC. March 6, 2012. Internet website: https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual9115.pdf.
- _____. BLM Standard Color Chart.
- _____. 2018a. Southwest Area Mobilization Guide. Interagency. 2018. https://gacc.nifc.gov/swcc/dispatch_logistics/dispatch/mobguide/Full_Version/SWA_Mobilization_Guide.pdf
- _____. 2018b. Interagency Standards for Fire and Aviation Operations. Interagency. 2018. https://www.nifc.gov/policies/pol_ref_redbook.html
- DHS (Department of Homeland Security). 2003. National Strategy for the Physical Protection of Critical Infrastructures and Key Assets. The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets. Washington, DC. February 2003.
- Hinman, K.E. and T.K. Snow, eds. 2003. Arizona Bat Conservation Strategic Plan. Nongame and Endangered Wildlife Program Technical Report 213. Arizona Game and Fish Department, Phoenix, Arizona.
- Latta, M.J., C.J. Beardmore, and T.E. Corman. 1999. Arizona Partners in Flight Bird Conservation Plan. Version 1.0. Nongame and Endangered Wildlife Program Technical Report 142. Arizona Game and Fish Department, Phoenix, Arizona.
- Leave No Trace Travel and Camping Techniques. <https://lnt.org/>
- Rich, T. D., C. J. Beardmore, H. Berlanga, P. J. Blancher, M. S. W. Bradstreet, G. S. Butcher, D. W. Demarest, E. H. Dunn, W. C. Hunter, E. E. Iñigo-Elias, J. A. Kennedy, A. M. Martell, A. O. Panjabi, D. N. Pashley, K. V. Rosenberg, C. M. Rustay, J. S. Wendt, T. C. Will. 2004. Partners in Flight North American Landbird Conservation Plan. Cornell Lab of Ornithology. Ithaca, New York.
- Rosenberg, K.V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J.D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J.J. Giocomo, R.H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp.
- 2017 Interagency Standards for Fire and Aviation Operations. Interagency Policy for Aerial and Ground Delivery of Wildland Fire Chemicals Near Waterways and Other Avoidance Areas. 2017 <https://www.nifc.gov/PUBLICATIONS/redbook/2017/RedBookAll.pdf>.

This page intentionally left blank.

Appendix B

Watershed Improvement Techniques

This page intentionally left blank.

Appendix B. Watershed Improvement Techniques

B.1 INTRODUCTION

This appendix describes the watershed improvement techniques that would be conducted under the range of alternatives. Watershed Improvement techniques is the broad category under which management actions to achieve the objectives in the Resource Management Plan (RMP) fall; these include vegetation treatments, erosion control, recharge enhancements, and riverine geomorphology enhancements. Some techniques fall under multiple categories and have several benefits, e.g. a rock structure that traps sediment and increases infiltration time. The purpose of this appendix is to provide the reader with a non-exhaustive list of likely methods that would be employed. It is not meant to suggest the exact methods and treatments types.

B.2 VEGETATION TREATMENTS

As described in the Reasonably Foreseeable Development (RFD) scenario under “Analysis Assumptions”, in Section 3.1.1 of the Proposed RMP/Final EIS, the overlying goal of vegetation treatments are to return a given vegetation community to the appropriate Historic Climax Plant Community (HCPC; see also Appendix H of the Proposed RMP/Final EIS), where reasonable. Treatments fall under the following general categories: prescribed fire, biological treatments, mechanical treatments, manual treatments, and herbicide.

B.2.1 Biological

Biological vegetation treatments could include insects (such as the tamarisk beetle) and/or livestock (such as goats, sheep, or cattle).

Targeted grazing could occur using goats, sheep, or cattle and would primarily be used for fuels reduction and/or to control invasive vegetation species such as Johnson grass. The goal of targeted grazing would be to achieve a vegetation objective and not for forage production to meet animal nutritional requirements. In some cases, supplemental feeding could be necessary to provide animal nutrition as the targeted vegetation may only provide roughage and have little to no nutritional value.

Targeted grazing is a non-renewable grazing authorization. Non-renewable grazing authorizations are issued annually on a case-by-case basis generally through a free use permit which is different from a Taylor Grazing Act permit. Targeted grazing may be authorized in consecutive years to meet vegetation objectives, but there is no priority for renewing a targeted grazing authorization. Forage would not be allocated for targeted grazing in the RMP.

Targeted grazing could occur throughout the SPRNCA and would not be limited to areas that are available to leased livestock grazing. Site-specific NEPA analysis and site-specific consultation would occur with the US Fish and Wildlife Service to address potential impacts to threatened and endangered species before any targeted grazing occurs.

Goats, sheep, or cattle would be controlled through use of temporary electric fences. The water source for the livestock would be determined on a case-by-case basis and through site-specific NEPA analysis. If there is no water available at an area, temporary water haul sites could be authorized.

B.2.2 Prescribed Fire

Implementation of prescribed fire treatments to modify, thin, reduce, or remove fuels within treatment units would fall under two treatment types: broadcast burns and pile burns.

Prescribed fire treatments would be conducted under a site-specific prescribed fire burn plan. The burn plan would specify the weather and fuel conditions, fire behavior modeling, holding resources, and preparation work (i.e. sites to be protected, line construction) needed to safely and efficiently meet the objectives for the treatment. The burn plan would identify any agencies, permittees, or other interested parties to be notified concerning the prescribed fire project. The burn plan would also identify any potential receptor sites and smoke management mitigation measures necessary to minimize impacts to the air shed and receptor sites.

Broadcast Burns

Prescribed fire treatments would be applied across the landscape to meet resource objectives via handheld or aerial ignition devices. Burn plan boundaries would be aligned with natural and built features (e.g. roads, washes, naturally sparse fuels, rocky areas, etc.) to the extent possible to minimize the need for hand line construction. Areas of ground disturbance (i.e. hand line construction, staging areas, etc.) would be culturally surveyed prior to implementation.

Since prescribed fire treatments are dependent on continuous fine fuels (grass) to carry fire, grazing deferment prior to implementation will be necessary. Deferment periods will be at a minimum of one growing season prior to treatment to allow for an adequate amount of fine fuels growth within the treatment unit. It is anticipated that a period of deferment of two growing seasons following the prescribed fire treatment will be necessary to allow for post burn vegetative recovery.

Pile Burns

Construction of piles (hand or machine assembled) would be in areas that limit or remove the potential for fire or heat to impact canopy, structures, or other surrounding vegetation. Pile burns are generally implemented during the fall and winter months when cooler temperatures and higher humidity reduce the potential of fire spreading outside of piles and into adjacent fuels.

B.2.3 Mechanical

Mechanical treatments would modify, thin, reduce, or remove vegetation with the aid of heavy equipment. Heavy equipment may include tracked and rubber-tired vehicles such as trackhoes, backhoes, front end loaders, skid steers, and trucks, all outfitted with special attachments suited for the specific treatment action.

Mechanical treatments would utilize one of the following methods:

- Mastication: Utilizing rubber-tired or tracked equipment with special attachments for mulching, chipping, mowing, grinding, or thinning.
- Grubbing: Utilizing rubber-tired or tracked equipment for removal of deep-rooted vegetation.

- **Thinning:** Utilizing rubber-tired or tracked equipment to push trees, gather/move slash into piles/rows, and/or remove slash from the treatment site.

B.2.4 Manual

Manual vegetation treatments aim to modify, thin, reduce, or remove vegetation through the aid of hand tools. The tools that may be used include hand tools (Pulaski, McLeod, axe, shovel, hand saws, etc.) or powered (chainsaws, weed eaters, field and brush mowers, and other specialized equipment). Although the manual method of vegetation treatment is relatively labor intensive and costly, it can be extremely species selective, and well-suited to areas of sensitive habitat and/or areas that are inaccessible to ground vehicles.

B.2.5 Herbicide

Herbicide treatments would modify, thin, reduce, or remove targeted vegetation through application of chemical herbicides. Herbicides would be applied in either liquid or granular form within treatment units. All proposed herbicides have been approved for use on BLM-administered public lands as documented in *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) and Record of Decision (BLM 2007)* and *Vegetation Treatments Using Aminopyralid, Fluroxypyr, and Rimsulfuron on BLM Lands in 17 Western States PEIS and Record of Decision (BLM 2016)*.

Herbicides may be applied in liquid or granular form via the following application methods:

Cut-Stump: Herbicide applied directly to cambium layer of the fresh, flush cut stump of various tree and shrub species. Spot application can be applied with backpack sprayer, handheld bottle sprayer, herbicide roller, or paintbrush.

Basal Bark: Herbicide applied directly to the basal area of small tree, shrub, and grass species, generally utilized on saplings, re-sprouts, or low growing species with thin bark. Spot application can be applied by hand held bottle sprayer, backpack sprayer, UTV/ATV mounted sprayer, or vehicle mounted sprayer.

Foliar: Herbicide applied directly to target specific species, generally utilized on the canopy layer of small trees and shrubs (6 feet or less). Spot application can be applied by hand held bottle sprayer, backpack sprayer, UTV/ATV mounted sprayer, or vehicle mounted sprayer.

Broadcast Aerial: Herbicide applied aerially to target specific species at a larger scale. Applications can be by fixed-wing or rotor-wing aircraft in liquid or granular form.

Broadcast Ground: Herbicide applied to target specific species at a larger scale. Applications can be by UTV/ATV mounted sprayer, vehicle mounted sprayer, or by foot using a backpack.

B.3 EROSION CONTROL TREATMENTS

Erosion control treatments would be applied in areas where accelerated erosion occurs, or may occur, from past land practices or disturbances, e.g. agriculture, roads, livestock grazing, fire, etc. Erosion control techniques would include measures described in Technical Supplement 14P of the National Engineering Handbook, the Burned Area Emergency Response Treatment Catalog (Napper 2006), and Zeedyk & Jansens 2009, and are briefly described below. Potential areas for erosion control treatments

where delineated through interpretation of aerial imagery for use in the RFD scenarios for analysis in the EIS, erosion control projects would occur where appropriate in the planning area.

Locations of treatments are important for identifying the appropriate type of erosion control technique. Treatments of hillslope erosion on inter-drainage areas will include techniques as straw bales and wattles, silt fences, mulch (rock and vegetation), hydro-mulching, seeding, land reshaping, soil scarification, and contour ripping. In drainage areas, particularly smaller order tributary streams, where vertical and lateral erosion is increasing sediment loads, grade control structures would be implemented. These include loose rock dams, rock run-downs, wicker weirs, etc. and are more thoroughly described in the above references.

Erosion control treatments are further illustrated below by type, either mechanical or manual, to help understand the potential differences.

Mechanical

Mechanical treatment techniques involve the use of heavy equipment to reshape the land to reduce the grade or modify overland flow patterns. In many cases, the use of heavy equipment to reduce the grade of erosional features, such as large head cuts, would be used before the placement of protective layer. This protective layer would be either properly placed woody plant material from vegetation treatments, rocks, and/or mulch or soil tactifiers, whose placement may also require the use of machinery.

In areas where sheet erosion occurs and the placement of rocks or plant material is not a practicable approach, techniques such as counter ripping (key line plowing) and berming would be used.

Manual

The main focus on this type of treatment is the placement of rocks, or wood, by hand in erosional features or channels. This prescription involves minor earth works with hand tools to reduce the grade of features or to prepare sites for treatment. Rock/wood structures would be similar to, but not limited to, the structures outlined in Zeedyk & Jansens (2009). These include one-rock dams, zuni bowls, rock run downs, media lunas, baffles, vanes, wicker weirs, and log mats.

B.4 RECHARGE ENHANCEMENTS

Watershed improvements would also include recharge enhancement projects (or managed aquifer recharge projects). In general, stormwater projects would be designed to capture increased runoff from development in the upland contributing areas, while to the extent possible still allowing for natural flow regimes. Potential projects include infiltration basins and ponds, infiltration trenches, and dry wells. Subsequent analysis and NEPA compliance will be required before implementation. The focus for recharge enhancement projects would be on the west side of the SPRNCA, where recharge projects are planned for development by the Cochise Conservation and Recharge Network, and where urbanization has increased watershed run-off.

Watershed improvement techniques include natural recharge enhancements, which aim to increase the rate at which the natural system moves water into the aquifer. These can either be in-channel or off-channel projects designed to capture flood flows (Bouwer 2002). Although, there have been some indications of increased soil moisture and vegetation response (Silverman et al. 2019), the amount of

additional recharge from implementation of these projects is site dependent and will require pre and post implementation monitoring.

Anthropogenic features that are still apparent on the landscape would be investigated for their hydrologic influence, for example, the retired gravel operation and pit at the confluence of Banning Creek and the San Pedro River. This area is an example of where investigation on potential benefits from modifying the berm to increase recharge could be conducted.

B.5 RIVERINE GEOMORPHOLOGY ENHANCEMENTS

An evaluation of river function and departure from its current potential needs to be conducted before specifics concerning the efficacy of river restoration can be described. This would be done during implementation level planning. Various treatments can be applied to reach these goals. Tributary upland watershed improvements would help enhance riverine geomorphology by providing naturally regulated rates of runoff and sediments to the main river's stem.

River and stream channels are created and maintained by processes inclusive of the entire basin in which they reside. In the simplest terms, their function is to convey floods, and transport sediment. Rivers live in a state of "dynamic equilibrium" (Rosgen 1996) that is dependent on an appropriate dimension pattern and profile of the channel and associated floodplain. By matching the river channel dimension, pattern and profile to the valley form that it passes through and watershed processes results in a river restoration design that works with the existing stream processes rather than against them.

Stream channel restoration begins with a combination of stream assessments and geomorphic evaluations supplemented by analytic assessments. Stream channel assessments are the first step in determining what to do where and most importantly what the ecological costs and benefits of restoration where the river has been greatly altered in the past. There are three steps: characterization of existing conditions, characterization of past conditions (pre-disturbance), and estimation of current ecological potential from an undamaged reference reach or theoretical reference condition for the river. This allows for comparison of existing conditions in each disturbed river reach against its current potential which leads to the identification of departure from potential for each reach, reach-specific objectives, and design criteria and options.

This assessment process would allow for the efficacy of using various restoration techniques to reach goals and objectives at the project level. Once this has been done, and restoration determined to be appropriate, then an analytical assessment of channel hydraulics including critical velocities, shear stresses, and other physical attributes and processes are coupled with various restoration techniques are used to create a restoration design that meets project objectives for a particular reach. By implementing a restoration design gradually and monitoring changes in channel response following flood events, channel restoration can be implemented at low risk and adjusted in situ (on the spot before the next flood season).

B.6 REFERENCES

BLM. 2016. Vegetation Treatments Using Aminopyralid, Fluroxypyr, and Rimsulfuron on BLM Lands in 17 Western States PEIS and Record of Decision.

- BLM. 2007. Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) and Record of Decision.
- Bouwer, H. (2002). Artificial recharge of groundwater: hydrogeology and engineering. *Hydrogeology Journal*, 10(1), 121-142.
- Silverman, N. L., Allred, B. W., Donnelly, J. P., Chapman, T. B., Maestas, J. D., Wheaton, J. M., White, J. and Naugle, D. E. (2019). Low-tech riparian and wet meadow restoration increases vegetation productivity and resilience across semiarid rangelands. *Restoration Ecology*, 27(2), 269-278.
- Heede, BH. 1976. Gully development and control: The status of our knowledge. USDA For. Serv. Res. Pap. RM-169, 42 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo. 80521
- Napper, C. 2006. Burned Area Emergency Response Treatments Catalog. USDA Forest Service SDTDC.
- Rosgen, D. L. 1996. *Applied river morphology*. Pagosa Springs, Colo: Wildland Hydrology.
- USDA, NRCS. 2007. Technical Supplement 14P of the National Engineering Handbook: Gullies and Their Control. <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17826.wba>
- Zeedyk W., & Jansens, JW. 2009. An Introduction to Erosion Control. Third Edition. A joint publication from Earth Works Institute, The Quivara Coalition, and Zeedyk Ecological Consulting.
- Zeedyk W., & Clothier, V. 2009. Let The Water Do The Work: Induced Meandering, an Evolving Method for Restoring Incised Channels. Quivara Institute.

Appendix C

Recreation

This page intentionally left blank.

Appendix C. Recreation

C.1 RECREATION AND VISITOR SERVICES MANAGEMENT FRAMEWORK

C.1.1 Introduction

This appendix is a description of the specific considerations for managing recreation and visitor services in the approved RMP for the San Pedro Riparian National Conservation Area (SPRNCA).

C.1.2 Extensive Recreation Management Area

Extensive Recreation Management Areas (ERMAs) are administrative units that require specific management consideration in order to address recreation use, demand, and recreation and visitor services. ERMAs are managed to support and sustain the principal recreation activities and the associated qualities and conditions. Management of ERMAs is commensurate with that of other resources and resource uses.

Management objectives for ERMAs, supporting management actions, and allowable uses are identified to facilitate visitors participating in outdoor recreation and to protect or preserve the associated qualities and conditions. Uses that may cause impacts on recreational use or the recreational setting may be restricted or prohibited.

C.1.3 ERMA Objectives

ERMA objectives must define the recreation activities and the associated qualities and conditions that become the focus for recreation and visitor services management.

During the life of the plan, the SPRNCA will offer visitors opportunities to participate in a variety of recreational and educational opportunities that highlight its conservation values. Opportunities will allow visitors to experience features of the area's multiple conservation values in a variety of settings. These range from rural areas along public highways with developments and facilities to largely natural primitive areas that are remote and undeveloped.

Recreational and educational activities that have become established since the SPRNCA was established will be the focus of the recreation and visitor services management program under the RMP. These activities are based on, and depend on, the NCA's conservation values, including:

- Viewing and learning about the area's wildlife and the various habitats
- Viewing the scenery and sightseeing
- Viewing remnants and learning about the area's human history, prehistory, and natural history
- Viewing the river and riparian woodland
- Traveling on non-motorized trails and routes via nonmotorized means, such as hiking, bicycling, and equestrian riding, and on designated routes with motor vehicles
- Hunting a variety of game species, as permitted by the Arizona hunting regulations
- Primitive and backcountry camping and vehicle-based camping, in areas with appropriate developments

- Participating in organized activities and special events, available through a variety of providers, such as volunteers, partners, and permittees
- Interacting with on-site personnel and getting information from persons knowledgeable of the area and conservation values

C.1.4 Discharge of Firearms in Developed Recreation Sites and Areas

Federal lands administered by the Bureau of Land Management are subject to regulations providing for the protection of public lands and resources, and for the protection, comfort and well-being of the public (43 CFR 8365). The regulations for developed recreation sites, areas and facilities prohibit the discharge or use of firearms and other weapons. (43 CFR 8365.2). Under Arizona state regulations, it is unlawful for a person to discharge a firearm while taking wildlife within one-fourth mile of an occupied farmhouse or other residence, cabin, lodge or building without permission of the owner or resident (Arizona Revised Statutes 17-309.4).

The BLM evaluated existing and proposed recreation sites on the SPRNCA to identify the locations where current public land regulations for developed sites and areas apply, and where Arizona hunting regulations on the discharge of firearms apply. The evaluation primarily considered the presence of buildings, facilities and improvements, administrative functions and recreational activities at sites and areas where persons are expected to be present.

Sites and areas which have buildings or facilities staffed to provide visitor information, or to accommodate a site host residence, or for administrative storage and work are considered administrative sites subject to restrictions on discharge of firearms under Arizona hunting regulations. Additionally, other sites that have permanent improvements or facilities for parking, overnight camping, toilet buildings, and interpretative or educational signs are also considered administrative sites subject to discharge of firearms under Arizona hunting regulations.

Table C-I shows the sites and areas where federal and state regulations to protect public safety apply.

The table lists sites addressed in the Final EIS, and the criteria reflects current conditions. Some of the sites on the table are proposed, and presently have no facilities or improvements. Through future implementation project plans, sites may be developed or improved. If sites are developed, they would become subject to existing public land regulations, and may be subject Arizona Game and Fish regulations which restrict discharge of firearms or other weapons.

**Table C-1
Developed or Occupied Recreation Sites and Areas**

Site Name	Public Contact Center	Site Host	Storage Building	Improved Parking	Overnight Occupancy	Toilet Building	Picnic Facilities	Interpretive or Other Signs	Developed Site or Area	Occupied Building or Site
Babocomari	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Boquillas Ranch HQ	NO	NO	YES	YES	NO	NO	NO	YES	YES	YES
Brunckow Cabin	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Charleston Townsite	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Charleston Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Clanton Ranch	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Contention City	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Curtis Flats Trailhead	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Escapule Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Fairbank Cemetery	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Fairbank Townsite	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fairbank Trailhead	YES	YES	NO	YES	NO	YES	NO	YES	YES	YES
Grand Central Mill Site	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Hereford Bridge	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Hereford Trailhead	NO	NO	NO	YES	NO	YES	YES	YES	YES	YES
Kingfisher Interpretive	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Land Corral Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Lehner Mammoth-Kill Site	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Lehner Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Lewis Springs Trailhead	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Little Boquillas Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Miller Backcountry Camp	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES
Millville Interpretive	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO
Millville Trailhead	NO	NO	NO	YES	NO	YES	NO	YES	YES	YES
Murray Springs Clovis Site	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO

Site Name	Public Contact Center	Site Host	Storage Building	Improved Parking	Overnight Occupancy	Toilet Building	Picnic Facilities	Interpretive or Other Signs	Developed Site or Area	Occupied Building or Site
Murray Springs Trailhead	NO	NO	NO	YES	NO	YES	NO	YES	YES	YES
Palominas Trailhead	NO	NO	NO	YES	NO	YES	YES	YES	YES	YES
Petroglyph Site	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO
Presidio Santa Cruz de Terrenate	NO	NO	NO	NO	NO	YES	NO	YES	YES	NO
San Pedro House	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Summers Lane	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Terrenate Trailhead	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO
Whitehouse Wetland Area	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Notes:

Public Contact Center: Normally staffed visitor center or visitor contact station

Site Host: Normally staffed by site host in temporary residence on-site.

Storage Building: Permanent storage building or warehouse facility.

Improved Parking: Constructed parking area with other capital improvements.

Overnight Occupancy: Includes developed campgrounds for public use, and site host camp units

Toilet Building: Includes permanent toilet building or restroom.

Picnic facilities: Picnic shelters, tables or fireplaces

Interpretive or Other Signs: Includes interpretive exhibits or special site signing.

Developed Site or Area: These are sites where public land regulations for developed sites apply (43 CFR 8365.2)

Occupied Building or Site: These are sites where Arizona hunting regulations apply (ARS 17-309.4).

C.2 RECREATION MANAGEMENT ZONE OBJECTIVES

C.2.1 Primitive RMZ Objectives

In visitor assessments, 70 percent of sampled participants in targeted activities in the primitive recreation management zone (RMZ) report they are highly satisfied with their experience.

Targeted Activities: Walking, hiking, equestrian riding, wildlife viewing in a remote setting, viewing natural scenery, hunting, and camping.

Experiences: Enjoying the natural environment in remote places, away from concentrations of other visitors, away from developed areas and vehicle traffic.

Benefits: Practicing and developing primitive outdoor recreation skills, abilities, and ethics requiring a high degree of self-reliance; preserving opportunities for a variety of recreational opportunities; preserving and protecting areas with outstanding natural characteristics in a naturally appearing condition.

Physical Setting Components:

- a. Area is remote; access requires time and physical effort and the ability to travel on primitive foot and horse or other livestock trail or cross-country.
- b. Area is natural, with improvements or facilities of very low visual impact.
- c. Facilities for visitors are minimal and rustic.

Social Setting Components:

- a. Infrequent contacts among users, six or fewer encounters per day.
- b. Group size of between three and six persons.
- c. Evidence of use includes footprints; vehicles and people are encountered.

C.2.2 Backcountry RMZ Objectives

In visitor assessments, 70 percent of sampled participants in targeted activities in the Backcountry RMZ report they are highly satisfied with their experience.

Targeted Activities: Birding, wildlife viewing, viewing natural scenery, viewing remnants of human history, walking, hiking, horseback riding or other livestock riding, mountain biking, limited motorized vehicle driving, sightseeing, hunting, and camping.

Experiences: Enjoying the natural environment in upland and riparian settings, away from concentrations of other visitors and away from developed areas and vehicle traffic.

Benefits: Practicing and developing outdoor recreational skills, abilities, and ethics; learning about the natural environment and human history of the area; preserving opportunities for a variety of recreational opportunities; preserving and protecting areas with natural characteristics in a naturally appearing condition.

Physical Setting Components:

- a. Area is accessed from designated ingress/egress sites, by improved and maintained trails designated for nonmotorized use (foot, horse or other riding livestock, and bicycle), and by limited motor vehicle via primitive roads.
- b. Access by foot or horse, or other riding livestock, allowed cross-country.
- c. Area is largely natural, with some improvements or facilities of very low visual impact.
- d. Facilities for visitors are minimal and rustic, and are used for safety and to protect resources or public health (i.e., access roads and trails, signs, designated fireplaces/fire rings, rustic toilets, fencing, and hardening to prevent damage).

Social Setting Components:

- a. Low to moderately frequent contacts among users, 7 to 15 or fewer encounters per day.
- b. Group size of between 6 and 12 persons.
- c. Evidence of use includes footprints, tracks, vehicles, people, infrequent vegetation trampling or damage, and trail or site maintenance activities.

C.2.3 Rural RMZ Objectives

In visitor assessments, 70 percent of sampled participants in targeted activities in the rural RMZ report they are highly satisfied with their experience.

Targeted Activities: Organized learning and interpretive activities, birding, wildlife viewing, viewing scenery, viewing remnants of human history, obtaining visitor and area information, walking, hiking, horseback riding or other livestock riding, mountain biking, picnicking, parking, and going into the backcountry or primitive areas; limited motor vehicle driving.

Experiences: Enjoying the natural environment in upland and riparian settings as individuals and as groups; enjoying the remnants and reminders of human history.

Benefits: Practicing and developing outdoor recreational skills, abilities, and ethics; learning about the natural environment and human history of the area; increased awareness and personal responsibility for protecting resources.

Physical Setting Components:

- a. Area is not remote and is readily accessed from the public highway, with improved roads and parking areas for passenger cars and large vehicles (trailer-towing vehicle, bus, and motorhome).
- b. Area has designated ingress/egress sites for access to improved and maintained trails into backcountry areas (or primitive areas) by nonmotorized travel (foot and horse or other riding livestock, or bicycle).
- c. Access by foot or horse or other riding livestock on designated routes, not allowed cross-country to prevent trail sprawl.
- d. Area retains natural characteristics, but includes noticeable developments related to the highway, utilities, and site improvements or facilities to accommodate access and public use.
- e. Facilities for recreational and educational purposes are provided to meet recreational and educational objectives and to protect resources, safety, or public health (i.e., visitor information,

interpretive programs, signs, designated day-use facilities, fireplaces, toilets, fencing, and hardening to support heavy use and prevent damage).

- f. Programs and activities are accessible according to the Architectural Barriers Act Accessibility Guidelines for Outdoor Developed Areas.

Social Setting Components:

- a. Frequent contacts among users, 30 or more encounters per days.
- b. Group size of between 25 and 40 persons, with larger groups for organized activities.
- c. Vehicles in parking area, footprints, tracks, people, infrequent vegetation trampling or damage, official personnel on trail, or site maintenance activities.

C.3 RECREATION SETTING CHARACTERISTICS AND SITE INVENTORY

C.3.1 Recreation Setting Characteristics and Site Inventory

The BLM conducted an inventory of the recreation setting characteristics for the SPRNCA. This was done to provide a baseline for recreation resources, visitor management planning, and analysis of RMP land use allocation alternatives (see **Table C-2**, below). The inventory included a list of recreation sites and features that attract the public for recreation and education in the different settings.

The criteria used for the inventory were a series of physical, social, and operational factors, or attributes, that are used to classify the landscape for its recreation setting qualities.

Table C-2
Recreation Settings Characteristics Criteria

ATTRIBUTES Components/ Characteristics	SETTING CLASSES					
	Primitive	Back country	Middle Country	Front Country	Rural	Urban
Physical Setting Attributes (physical qualities of the landscape in the study area)						
Remoteness	More than 1/2 miles from either mechanized or motorized routes.	Within 1/2 miles of mechanized routes.	Within 1/2 miles of four-wheel drive vehicle, all-terrain vehicle, and motorcycle routes.	Within 1/2 miles of low-clearance or passenger vehicle routes (includes unpaved county roads and private land routes).	Within 1/2 miles of paved/primary roads and highways.	Within 1/2 miles of streets and roads within municipalities and along highways.
Naturalness	Undisturbed natural landscape.	Natural landscape without any modifications in harmony with surroundings and not visually obvious or evident (e.g., trails and fire breaks).	Character of the natural landscape retained. a few modifications contrast with the character of the landscape (e.g., fences and primitive roads).	Character of the natural landscape partially modified, but none of the modifications overpower the natural landscape (e.g., roads, structures, and utilities).	Character of the natural landscape considerably modified (e.g., agriculture, residential, or industrial).	Urbanized developments dominate the landscape.
Facilities	No structures. foot/horse and water trails only.	Developed trails made mostly of native materials such as log bridges. structures are rare and isolated.	Maintained and marked trails, simple trailhead developments, and basic toilets.	Rustic facilities such as restrooms, trailheads, and interpretive displays.	Modern facilities such as group shelters and occasional exhibits. recreational vehicle camping with no hookups.	Elaborate full-service facilities such as laundries, restaurants, and groceries. recreational vehicle camping with hookups.

ATTRIBUTES Components/ Characteristics	SETTING CLASSES					
	Primitive	Back country	Middle Country	Front Country	Rural	Urban
Social Setting Attributes (degree of interaction among users)						
Contacts	Fewer than 3 encounters/day at campsites and fewer than 6 encounters/day on travel routes.	3-6 encounters/day off travel routes (e.g., campsites) and 7-15 encounters/day on travel routes.	7-14 encounters/day off travel routes (e.g., trailheads) and 16 encounters/day on travel routes.	15-29 encounters/day off travel routes (e.g., special events) and 30 or more encounters/day on travel routes.	People seem to be generally everywhere.	Busy place with other people constantly in view.
Group Size	Fewer than or equal to 3 people per group.	4-6 people per group.	7-12 people per group.	13-25 people per group.	26-50 people per group for special events.	Greater than 50 people per group for special events.
Evidence of Use	No alteration of the natural terrain.	Areas of alteration uncommon. Little surface vegetation wear observed. sounds of people infrequent.	Small areas of alteration. Surface vegetation showing wear with some bare soils. sounds of people occasionally heard.	Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. sounds of people regularly heard.	A few large areas of alteration. Surface vegetation absent with hardened soils. sounds of people frequently heard.	Large areas of alteration prevalent. Some erosion. constantly hear people.
Operational Setting (management, operations, and maintenance)						
Type of Access	Foot, horse, and nonmotorized float boat travel.	Mountain bikes and perhaps other mechanized use, but all is nonmotorized (except mobility devices).	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to nonmotorized, mechanized use.	Two-wheel drive vehicles predominant, but also four-wheel drives and nonmotorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever present.

ATTRIBUTES Components/ Characteristics	SETTING CLASSES					
	Primitive	Back country	Middle Country	Front Country	Rural	Urban
Visitor Services	No maps or brochures available on-site. Staff rarely present to provide on-site assistance.	Staff infrequently present (e.g., only seasonally and during high-use periods) to provide on-site assistance.	Staff occasionally (e.g., most weekends) present to provide on-site assistance.	Information materials describe recreation areas and activities. staff periodically present (e.g., weekdays and weekends).	Information materials describe recreation areas and activities, plus experience and benefit descriptions. staff regularly present (e.g., almost daily).	Information materials describe recreation areas and activities, plus there are regularly scheduled on-site outdoor demonstrations and clinics. There is daily staff coverage.
Management and Controls	No on-site posting/signs of visitor regulations, interpretive information, or ethics. moderate use restrictions (e.g., camping and human waste). Infrequent patrols.	Basic user regulations at key access points. moderate use restrictions (e.g., camping and human waste). Less frequent patrols.	Some regulatory and ethics signs. moderate use restrictions. (e.g., camping and human waste).	Rules, regulations, and ethics clearly posted. There are use restrictions, limitations, and/or closures. Frequent patrols.	Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc. Frequent patrols.	Enforcement in addition to rules to reduce conflicts, hazards, and resource damage. Frequent patrols.

Source: BLM Handbook H-8320—Planning for Recreation and Visitor Services. Washington, DC. August 2014.

C.4 RECREATION SITE INVENTORY

The inventory of sites and areas below includes currently developed and undeveloped sites that are important for public recreation and education in the SPRNCA. The list includes sites that were designated and developed under the current San Pedro River Riparian Management Plan and sites that were designated in the plan but not developed. Some of the sites receive regular maintenance, and others are basically under custodial management and/or are unmaintained. The list also includes sites that were not specifically designated in the San Pedro River Riparian Management Plan, but that are important for providing access to recreation in the SPRNCA.

The sites in **Table C-3** below would be considered and analyzed for site specific management to accommodate public recreation and educational/interpretative purposes, and to protect resources, for the primary recreation purposes and management conditions indicated. Site management plans would be developed consistent with the general objectives of the recreation management zone in which they are located.

Table C-3
SPRNCA Recreation Management Sites

Site Name	Primary Recreation Purposes	Management Conditions
Babocomari Trail and Access	<ul style="list-style-type: none"> • Trail recreation along the canyon • Access from SR82 to the Babocomari River trail in the canyon for dispersed recreational opportunities • Viewing wildlife in scenic riparian canyon 	<ul style="list-style-type: none"> • Non-motorized trail along the old railroad grade. • Access point from SR 82. • Connection to San Pedro trail system • Vehicle access controls • Signing
Boston Millsite	<ul style="list-style-type: none"> • Learning about historic mineral processing and the significance of the site • Viewing remnants of structures 	<ul style="list-style-type: none"> • Access by non-motorized trail • Signing
Boquillas Ranch Headquarters	<ul style="list-style-type: none"> • Learning about historic ranching along the San Pedro River, homesteading • Viewing remnant of historic structures 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing
Brunckow Cabin	<ul style="list-style-type: none"> • Learning about historic ranching and the significance of this site • Viewing building remnants 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing
Charleston Townsite	<ul style="list-style-type: none"> • Learning about the Charleston Townsite and its significance in the mining boom of the late 1800s • Learning about military training activities • Viewing historic building remnants 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing

Site Name	Primary Recreation Purposes	Management Conditions
Charleston Trailhead	<ul style="list-style-type: none"> • Access to San Pedro River and Charleston Road, and the historic town • Learning about historic roads, mining and the significance of Charleston • Viewing historic bridge 	<ul style="list-style-type: none"> • Access from Charleston Road • Gravel parking area, fencing • Interpretive displays, signing • Non-motorized trail access
Clanton Ranch	<ul style="list-style-type: none"> • Learning about historic ranching and the significance of this site in local and Territorial Tombstone history • Viewing building remnants 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing
Ciénega Site, St David	<ul style="list-style-type: none"> • Learning about the ciénega, open water and wetland habitat, and the significance of this site • Viewing and learning about wildlife 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing
Contention City	<ul style="list-style-type: none"> • Learning about historic mineral processing, ghost town, and the significance of this site • Viewing historic building remnants 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing
Curtis Flats Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System • Learning about historic homesteading, early Mormon settlers 	<ul style="list-style-type: none"> • Access from county road (Curtis Flats Rd.) • Parking area, fencing • Interpretive displays, signing • Trail connection to San Pedro Trail at Summers Well
Escapule Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail system • Learning about historic settlements • Orientation and learning about the SPRNCA 	<ul style="list-style-type: none"> • Access from county road (Escapule Rd.) • Gravel road and parking area • Interpretive displays, signing
Fairbank Cemetery	<ul style="list-style-type: none"> • Learning about historic settlers and connection to Fairbank • Viewing graves 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive trail through site • Interpretive displays, signing, • Hitching rails, bench
Fairbank Townsite	<ul style="list-style-type: none"> • Learning about the historic townsite and railroads, and its significance • Viewing building remnants • Learning and orientation about the SPRNCA • Access to the San Pedro Trail System • Picnicking 	<ul style="list-style-type: none"> • Access from state highway (SR82) • Visitor contact station • Interpretive displays, signing • Parking area, fencing • Accessible paths • Picnic tables, grills, benches • Water and electric system, toilet, • Site host caretaker unit
Fairbank Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System • Orientation and learning about the SPRNCA 	<ul style="list-style-type: none"> • Access from SR82 • Gravel parking, trails • Interpretive displays, signing
Grand Central Mill Site	<ul style="list-style-type: none"> • Learning about historic mining and the significance of this site • Viewing building remnants 	<ul style="list-style-type: none"> • Access by non-motorized trail (Fairbank Loop) • Interpretive displays, signing

Site Name	Primary Recreation Purposes	Management Conditions
Hereford Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System • Picnicking • Orientation and learning about the SPRNCA 	<ul style="list-style-type: none"> • Access from county road (Hereford Rd) • Gravel access road and parking area, fencing • Interpretive displays, signing • Picnic shelter and tables • Toilet
Hereford Camping Area	<ul style="list-style-type: none"> • Vehicle campground for 15 to 30 units • Access to San Pedro Trail system 	<ul style="list-style-type: none"> • Access from county road (Hereford Rd) • Potential site along Del Valle Road within ¼ mile of entry point. • Subject to specific site plan and project planning
Horsethief Access Point	<ul style="list-style-type: none"> • Access to San Pedro Trail system north of SR 90 • Orientation and learning about the SPRNCA 	<ul style="list-style-type: none"> • Access from state highway (SR90) on existing road • Off-highway parking, fencing, trailhead • Interpretive displays, signing
Horsethief Camping Area	<ul style="list-style-type: none"> • Vehicle campground with approx. 30 to 50 units • Access to San Pedro Trail system 	<ul style="list-style-type: none"> • Access from state highway (SR90) • Potential site along existing road, within ¼ mile of entry point • Subject to specific site plan and project planning
Kingfisher Pond Site	<ul style="list-style-type: none"> • Viewing and learning about the river, riparian and open water habitat • Viewing avian and other wildlife along paths • Learning about the site's history and quarry reclamation 	<ul style="list-style-type: none"> • Access by non-motorized trail • Trails and footpaths through upland and riparian habitat, and pond shoreline • Interpretive displays, signs and benches
Land Corral Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System, and the St. David Ciénega • Orientation to the SPRNCA and the St. David Ciénega • Learning about wetland habitat, wildlife, and historic ranching 	<ul style="list-style-type: none"> • Access from Cary Road (partly county maintained) • Gravel parking area, fencing • Interpretive displays, signing • Non-motorized trails
Lehner Mammoth-Kill Site	<ul style="list-style-type: none"> • Learning about Paleoindian people and megafauna • Viewing the site of discovery and research 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive trail through the site • Interpretive displays, signing
Lehner Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System and the Lehner Mammoth-Kill Site • Learning about the pre-history of the area 	<ul style="list-style-type: none"> • Access from Lehner Road • Gravel road and parking area, fencing • Interpretive displays, signing
Lewis Springs	<ul style="list-style-type: none"> • Access to the SPRNCA • Camping and picnicking in a backcountry setting 	<ul style="list-style-type: none"> • Access from state highway (SR90) • Off-highway parking area, fencing • Interpretive displays, signs
Little Boquillas Trailhead	<ul style="list-style-type: none"> • Access and orientation to the SPRNCA and San Pedro Trail System • Learning about historic ranching and corrals • Viewing historic corrals 	<ul style="list-style-type: none"> • Access from state highway (SR82) • Gravel road and parking, fencing • Interpretive displays, signing
Miller Backcountry Camp	<ul style="list-style-type: none"> • Backcountry camping in a primitive setting 	<ul style="list-style-type: none"> • Access by non-motorized trail • Primitive toilet • Tent pads, fireplaces, storage locker

Site Name	Primary Recreation Purposes	Management Conditions
Millville Site	<ul style="list-style-type: none"> • Learning about historic mineral processing and the significance of this site • Viewing historic building remnants 	<ul style="list-style-type: none"> • Interpretive displays, signing • Nonmotorized trail access • Interpretive displays, signing • Benches
Millville Trailhead	<ul style="list-style-type: none"> • Access to San Pedro Trail System and interpretive trails 	<ul style="list-style-type: none"> • Access from county road (Charleston Rd.) • Gravel road and parking, fencing • Toilet • Interpretive displays, signing
Murray Springs Clovis Site	<ul style="list-style-type: none"> • Learning about Paleoindian people and megafauna • Viewing the site of discovery and research 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive trail through site • Interpretive displays, signing, benches • Shade shelter
Murray Springs Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System and the Murray Springs Clovis Site 	<ul style="list-style-type: none"> • Access from county road (Moson Rd.) • Gravel road and parking area, fencing • Toilet • Interpretive displays, signing
Palominas Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System south of SR 92 • Orientation to the SPRNCA • Learning about the international border, historic ranching and farming 	<ul style="list-style-type: none"> • Access from state highway (SR 92) • Gravel road, parking, fencing • Picnic shelter, tables • Toilet • Interpretive displays, signing
Petroglyph Site	<ul style="list-style-type: none"> • Learning about prehistoric and native peoples • Viewing petroglyphs 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive displays, signing • Viewing area, bench
Presidio Santa Cruz de Terrenate	<ul style="list-style-type: none"> • Learning about the early Spanish colonization and interactions with native peoples and environment, and the significance of the site • Viewing remnants of historic structures 	<ul style="list-style-type: none"> • Access by non-motorized trail • Interpretive trail through the site • Toilet • Interpretive displays, signing • Benches
San Pedro House	<ul style="list-style-type: none"> • Viewing and learning about wildlife, birds, and different habitats • Learning about historic ranching and farming along the San Pedro River • Learning about the San Pedro Riparian National Conservation Area, its multiple resources, and conservation purposes • Access and orientation to the SPRNCA and San Pedro Trail System • Viewing and learning about native vegetation • Picnicking 	<ul style="list-style-type: none"> • Access from state highway (SR90) • Staffed visitor contact station at San Pedro Ranch House • Interpretive trails to the river, riparian area and ponds, connection to San Pedro Trail • Interpretive displays, signing • Interpretive pavilion, outdoor class room, native plant gardens • Site host camp unit • Picnic shelters, tables • Water and electric system, toilet
Summers Lane	<ul style="list-style-type: none"> • Access to the San Pedro River and the SPRNCA • Learning about historic homesteads 	<ul style="list-style-type: none"> • Access from county road (Summers Lane) • Primitive parking area, fencing • Trail into the SPRNCA on reclaiming road • Interpretive display, signing

Site Name	Primary Recreation Purposes	Management Conditions
Summers Well	<ul style="list-style-type: none"> • Access to the San Pedro Trail system north of Millville trailhead • Learning about the SPRNCA, historic homesteading, ranching, and wagon roads • Viewing remnants of structures 	<ul style="list-style-type: none"> • Access from state highway (SR80) • Non-motorized trail access • Interpretive display, signing
Terrenate Trailhead	<ul style="list-style-type: none"> • Access to the Presidio Santa Cruz de Terrenate trail • Orientation to the SPRNCA 	<ul style="list-style-type: none"> • Access form county road (In-Balance Ranchy Rd.) • Gravel parking area, fencing • Interpretive displays, signing • Multi-use trail to the Presidio Santa Cruz de Terrenate site
Waters Road Trailhead	<ul style="list-style-type: none"> • Access to the San Pedro Trail System between Hereford Road and Waters Road • Orientation to the SPRNCA • Learning about historic farming 	<ul style="list-style-type: none"> • Access from county road (Waters Rd.) • Off road parking, gravel, fencing • Interpretive displays, signing
Whitehouse Well Wetland	<ul style="list-style-type: none"> • Learning about spring fed (artesian well) wetland habitat • Viewing refugia wetland habitat and wildlife • Learning about wildlife species conservation and refugia 	<ul style="list-style-type: none"> • Access by non-motorized trail • Wetland project fencing • Interpretive display, signing

This page intentionally left blank.