United States Department of the Interior

Bureau of Land Management

APPENDIX

SPRNCA Allotment Lease Renewals

DOI-BLM-AZ-G020-2021-0013-EA

April 2022

U.S. Department of the Interior
Bureau of Land Management
Gila District
Tucson Field Office
3201 East Universal Way
Tucson, AZ 85756
Phone: (520) 258-7200
FAX: (520) 258-7238

BLM

APPENDIX A. FIGURES

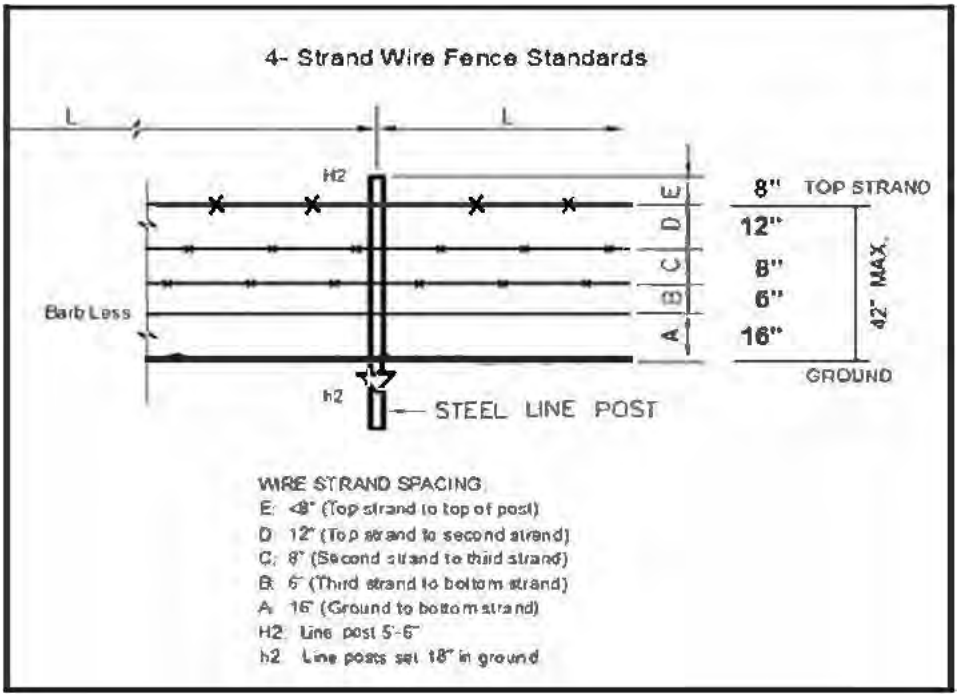

Figure A-1. Wildlife-friendly fence standards.

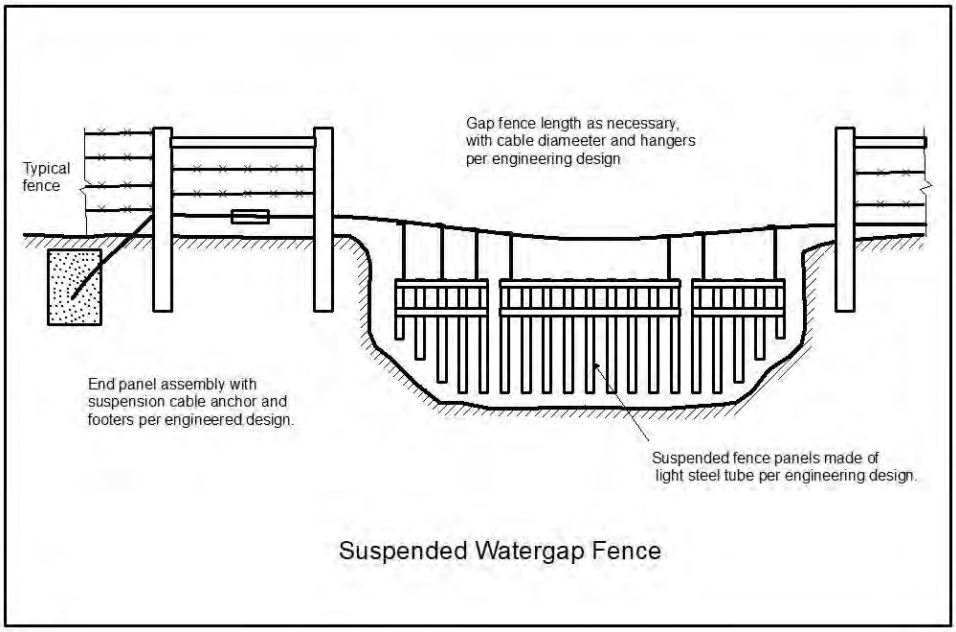

Figure A-2. Example of typical suspended water gap fence.

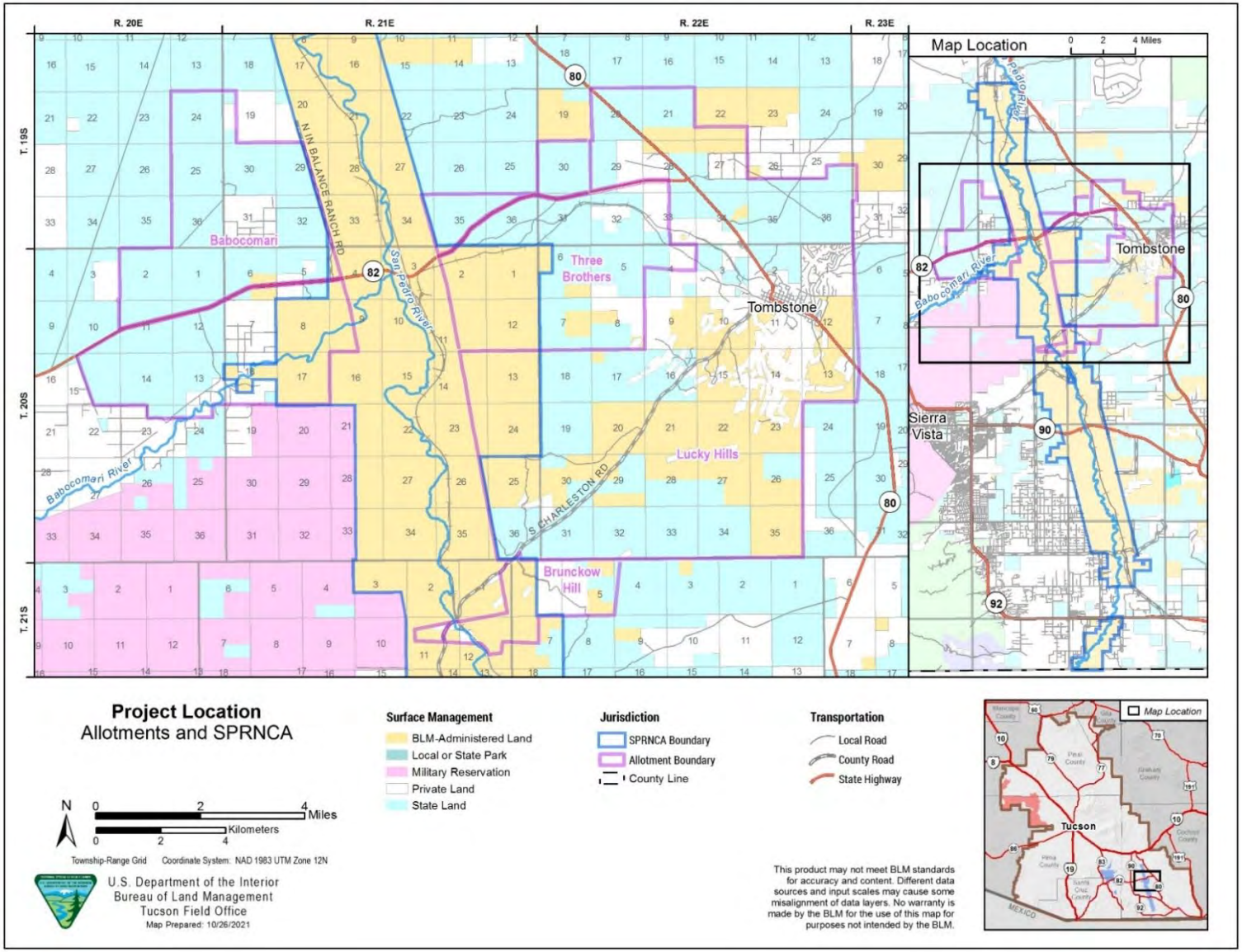

Figure A-3. SPRNCA Allotments' location and vicinity.

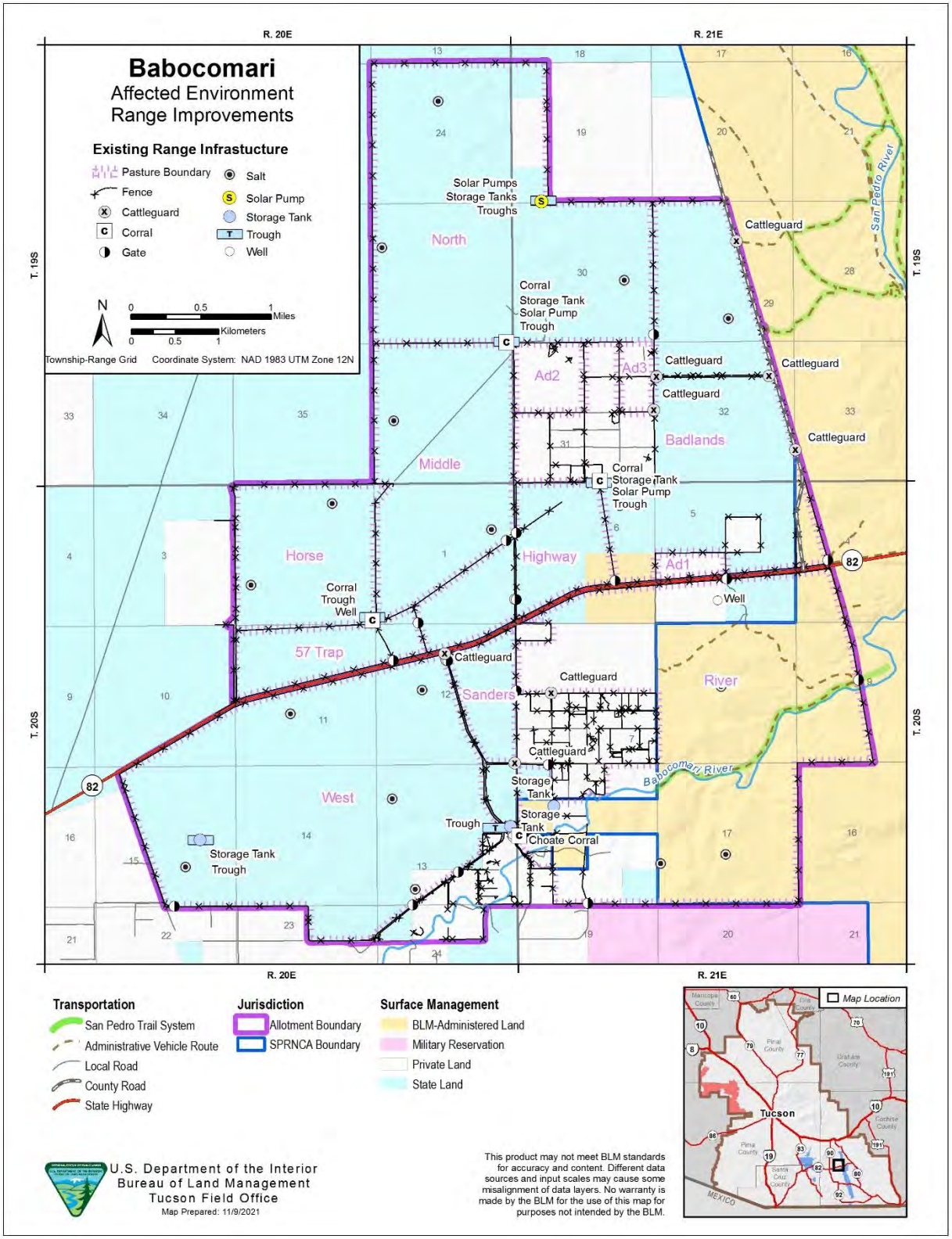

Figure A-4. Existing range infrastructure on the Babocomari Allotment.

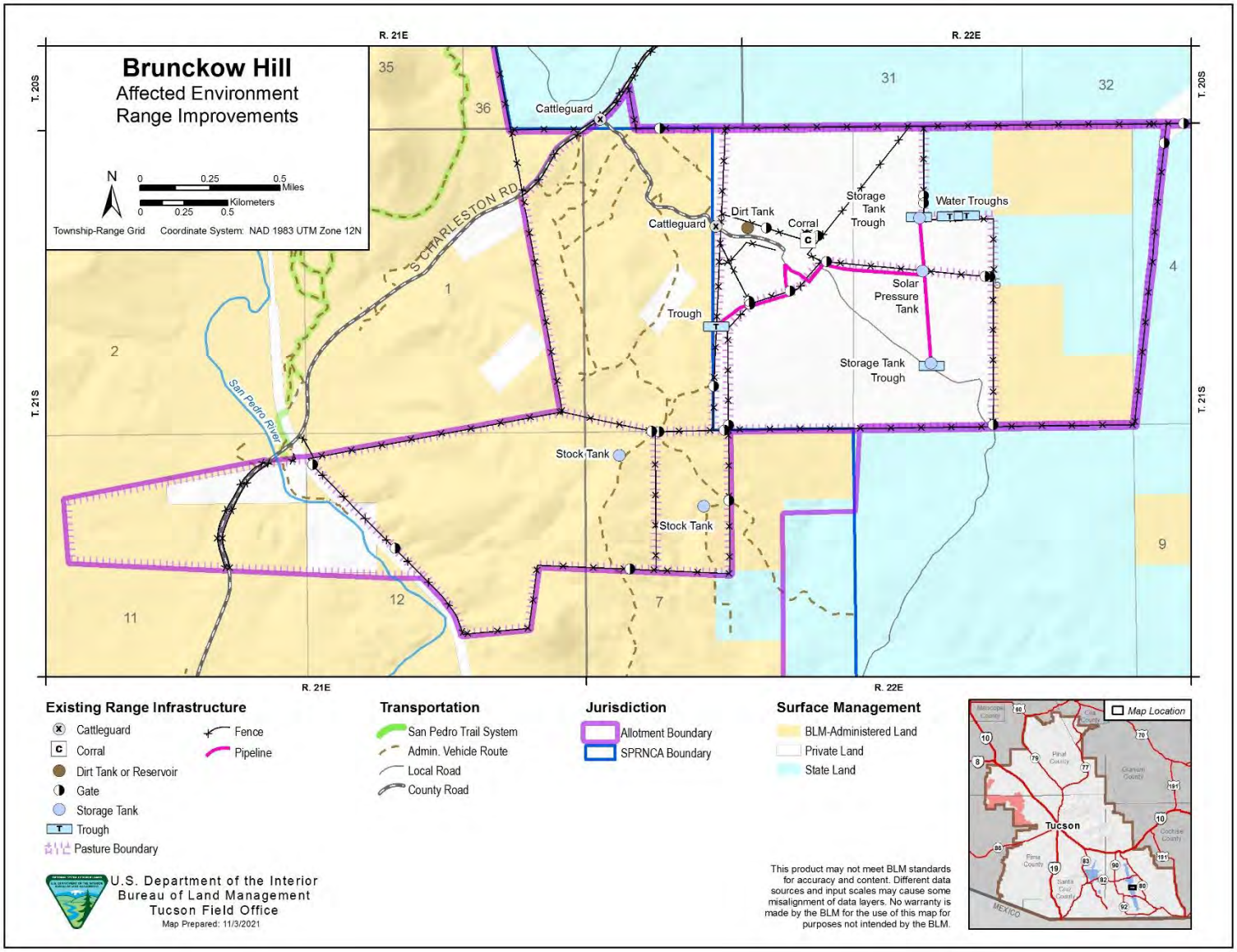

Figure A-5. Existing range infrastructure on the Brunckow Hill Allotment.

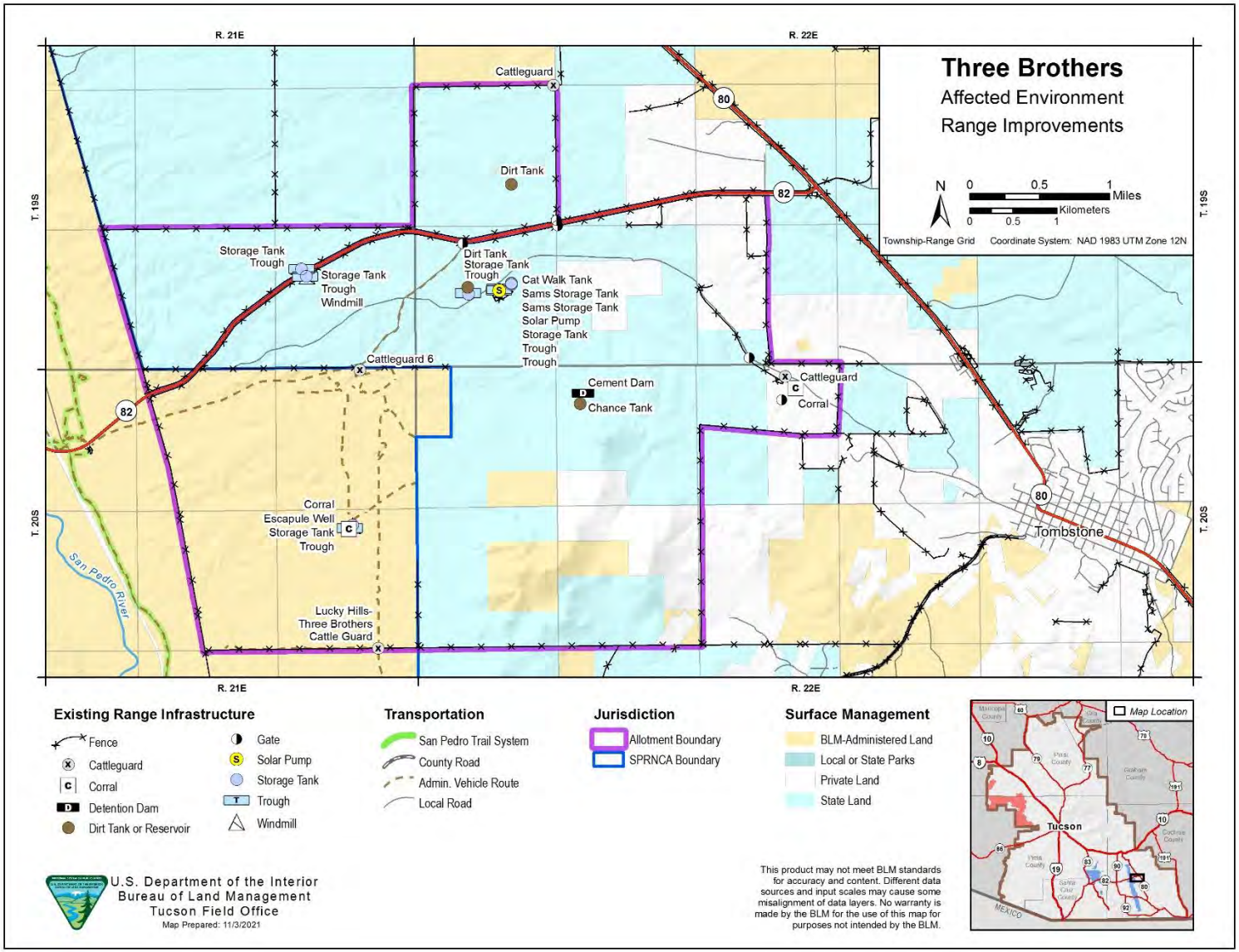

Figure A-6. Existing range infrastructure on the Three Brothers Allotment.

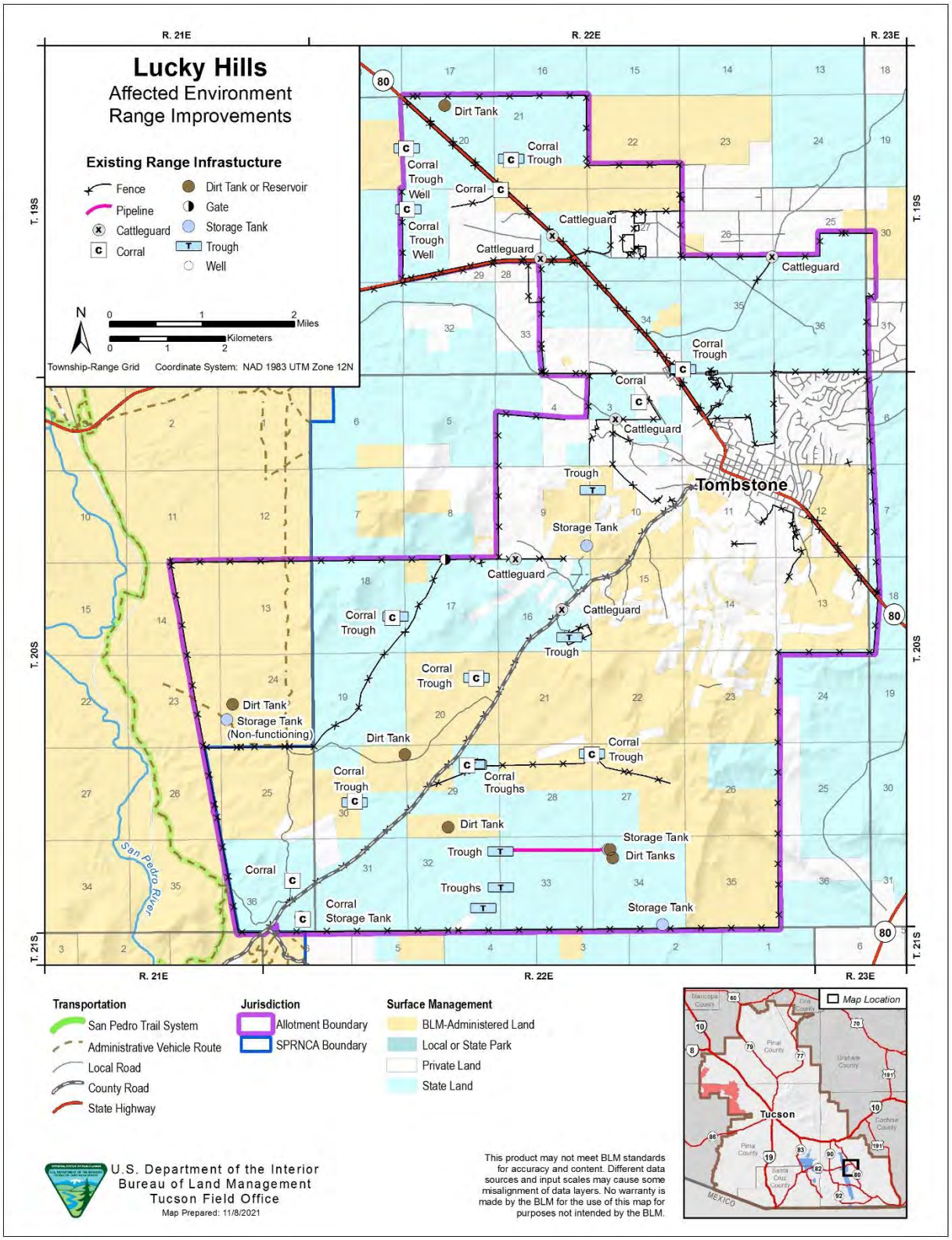

Figure A-7. Existing range infrastructure on the Lucky Hills Allotment.

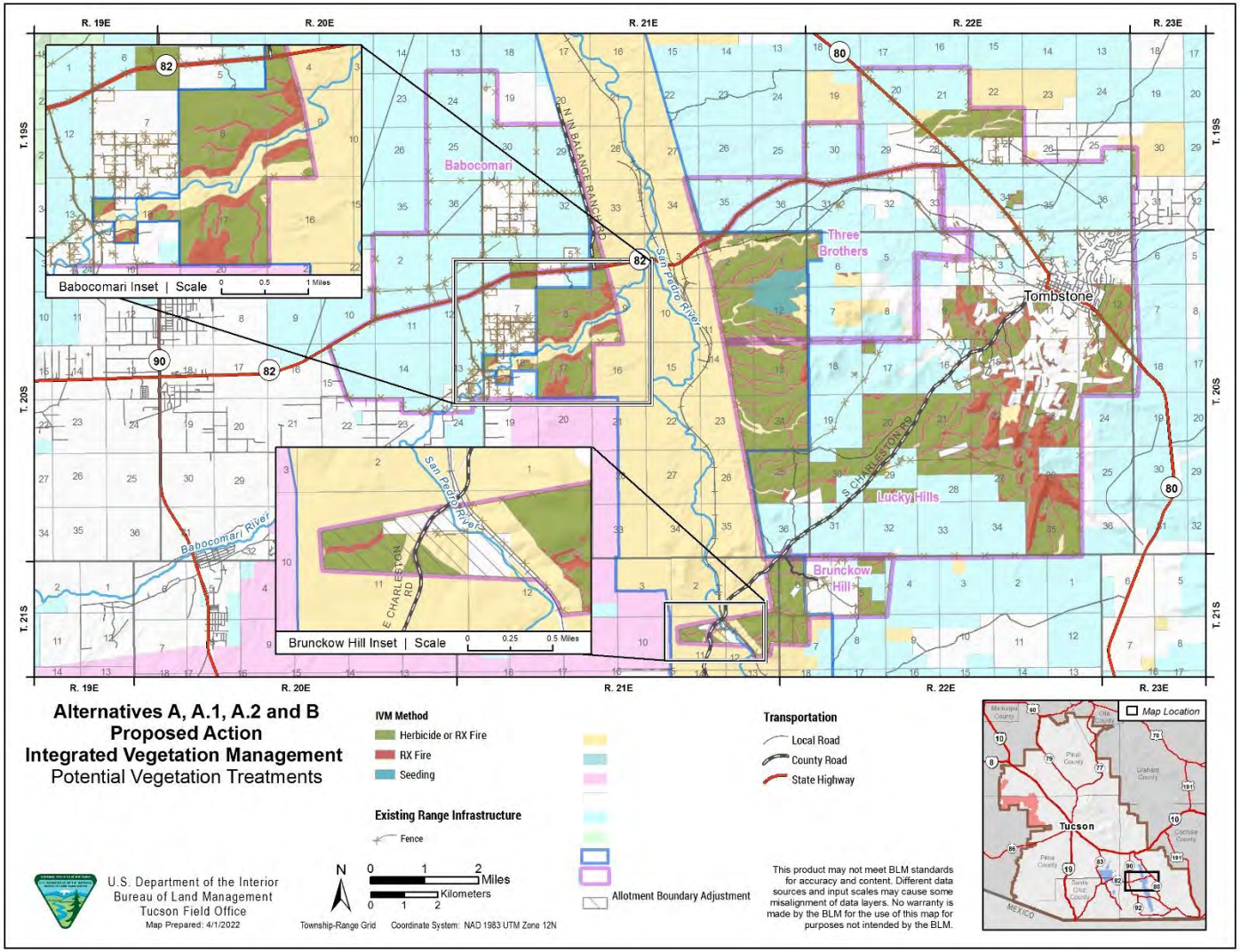

Figure A-8. Proposed Integrated Vegetation Manament (IVM) treatments under Alternatives A – Proposed Action, A.1, A.2, and Alternative B – No Grazing with IVM.

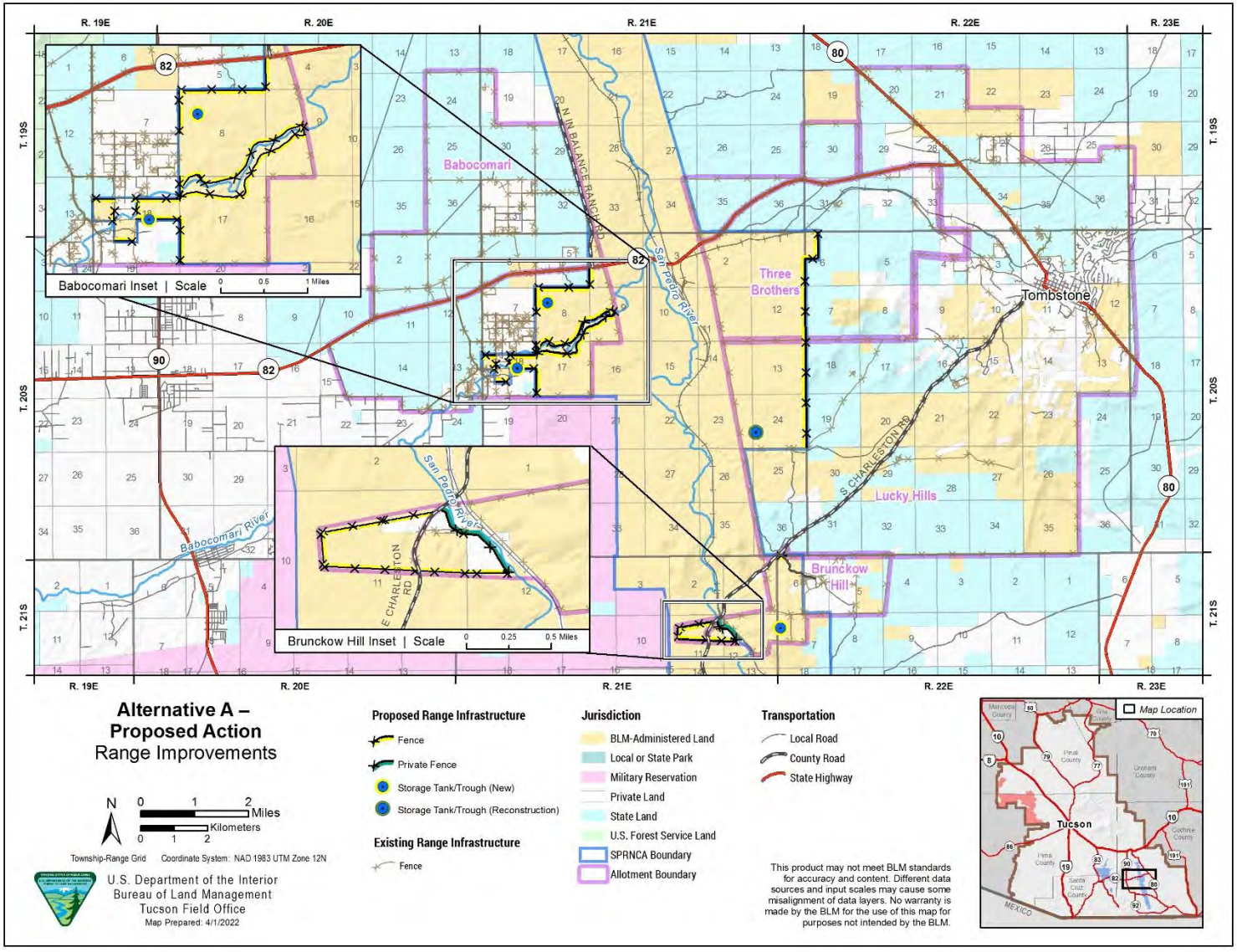

Figure A-9. Alternative A - Proposed Action: proposed range infrastructure on the SPRNCA Allotments.

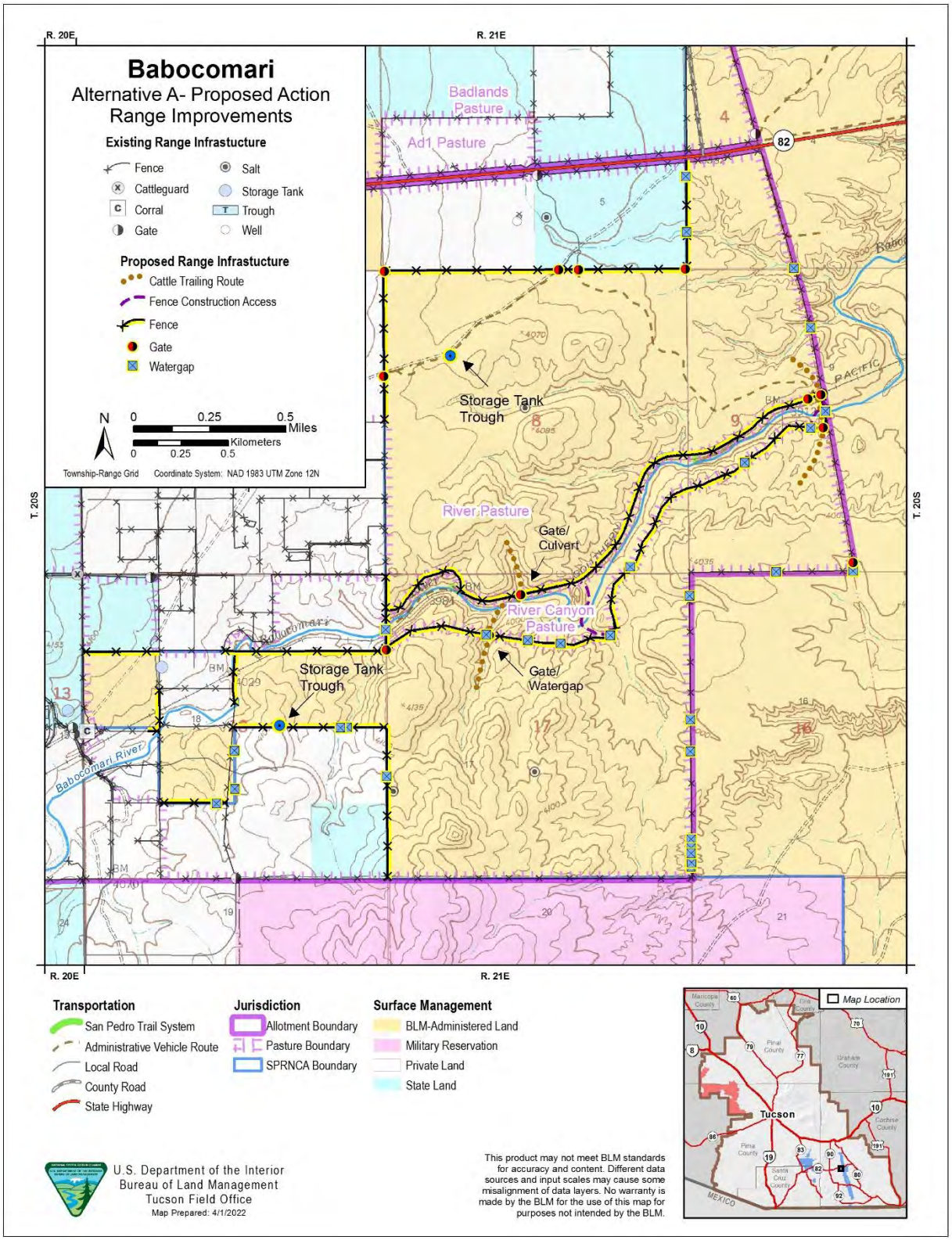

Figure A-10. Alternative A - Proposed Action: Close-up on the proposed range infrastructure on the Babocomari Allotment.

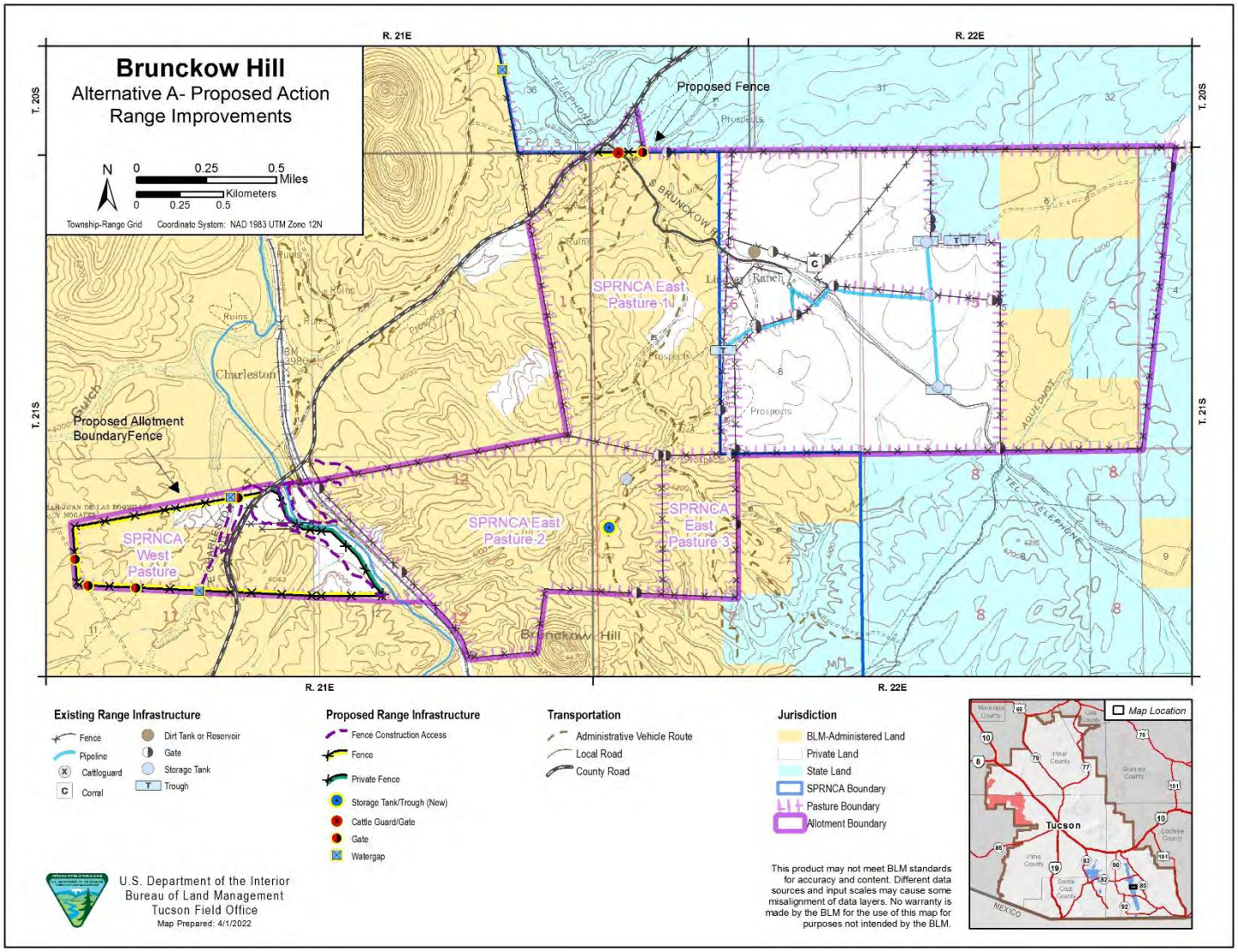

Figure A-11. Alternative A - Proposed Action: proposed range improvements for the Brunckow Hill Allotment.

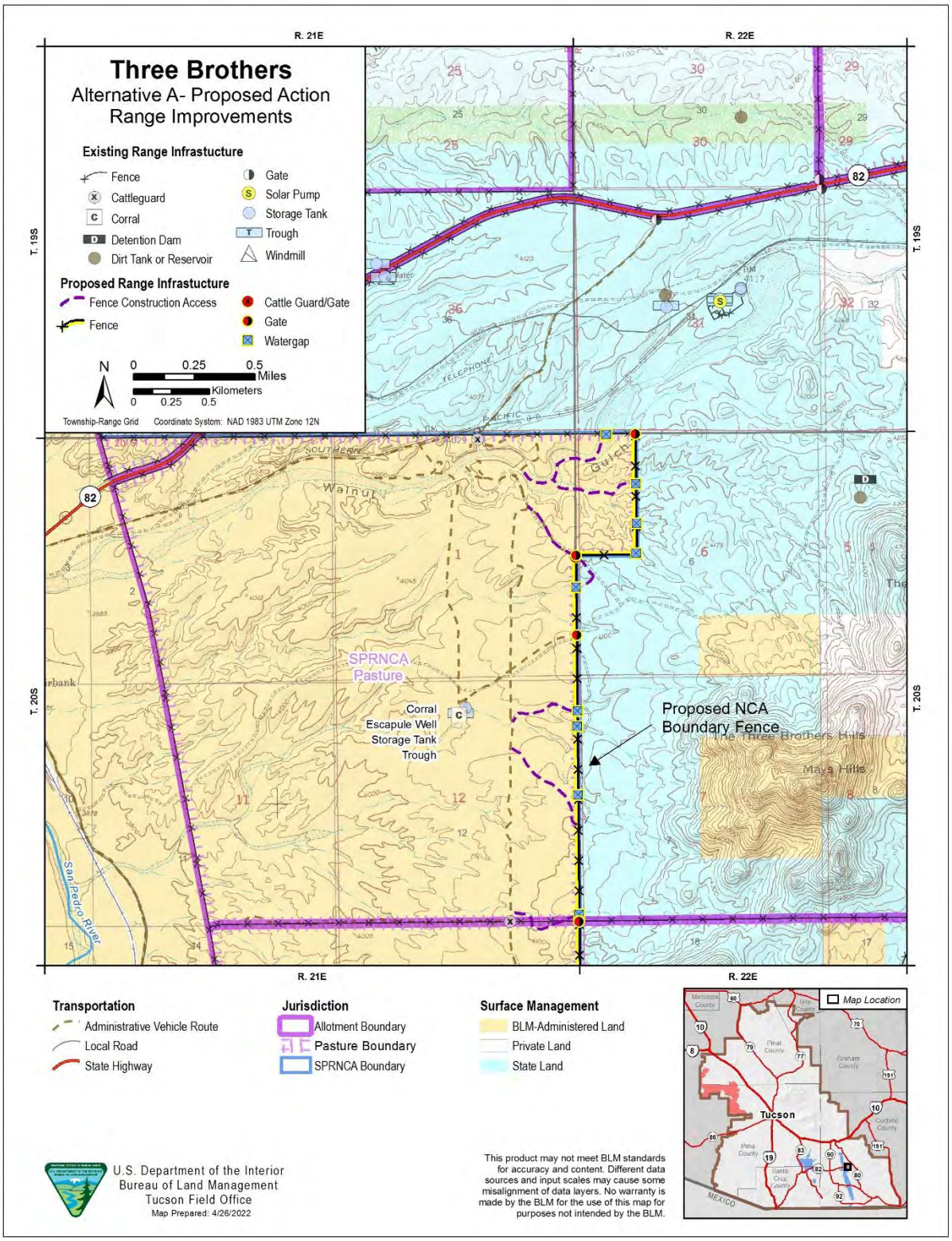

Figure A-12. Close-up of Alternative A - Proposed Action: Proposed range infrastructure on the Three Brothers Allotment.

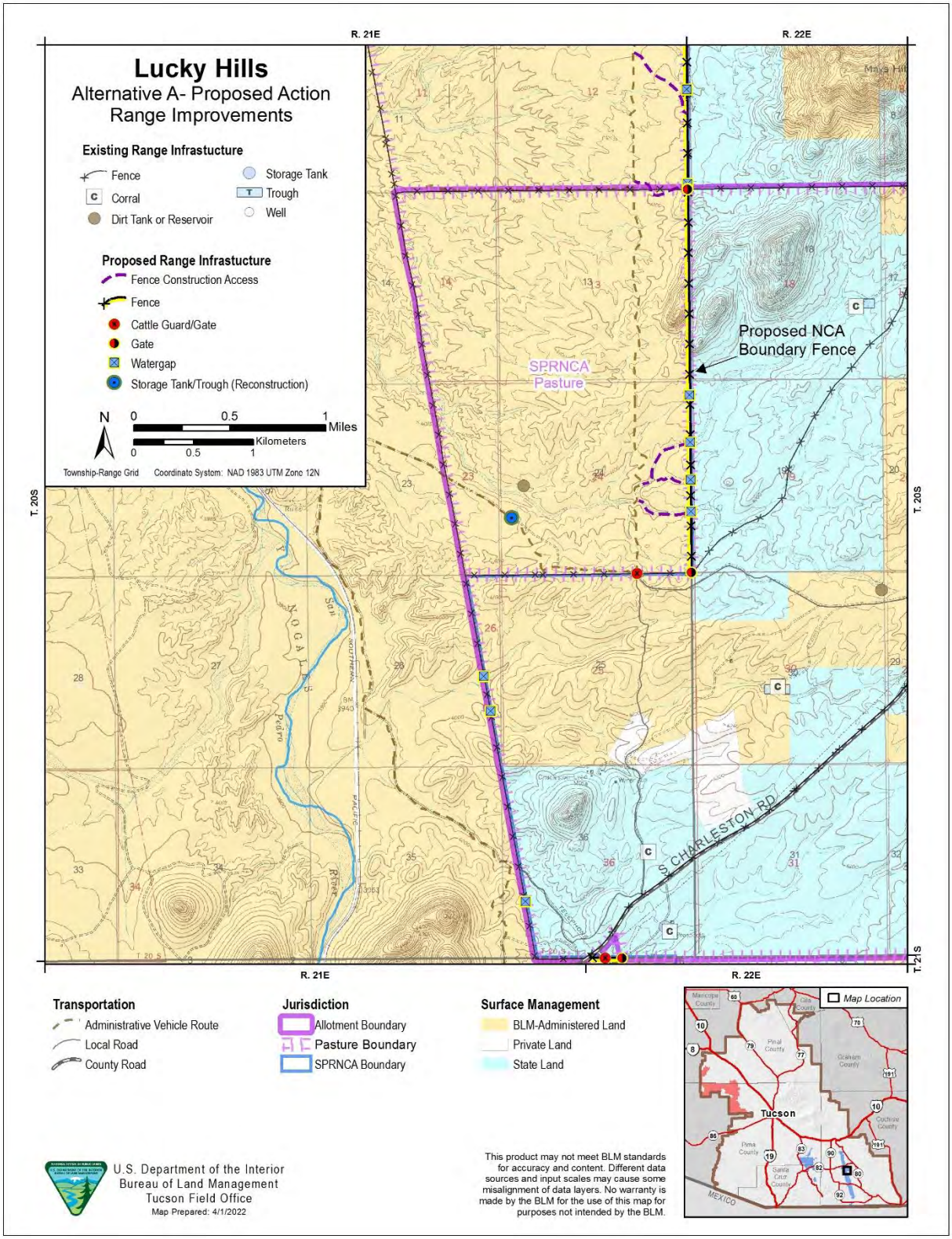

Figure A-13. Close-up of Alternative A - Proposed Action: Proposed range infrastructure on the Lucky Hills Allotment.

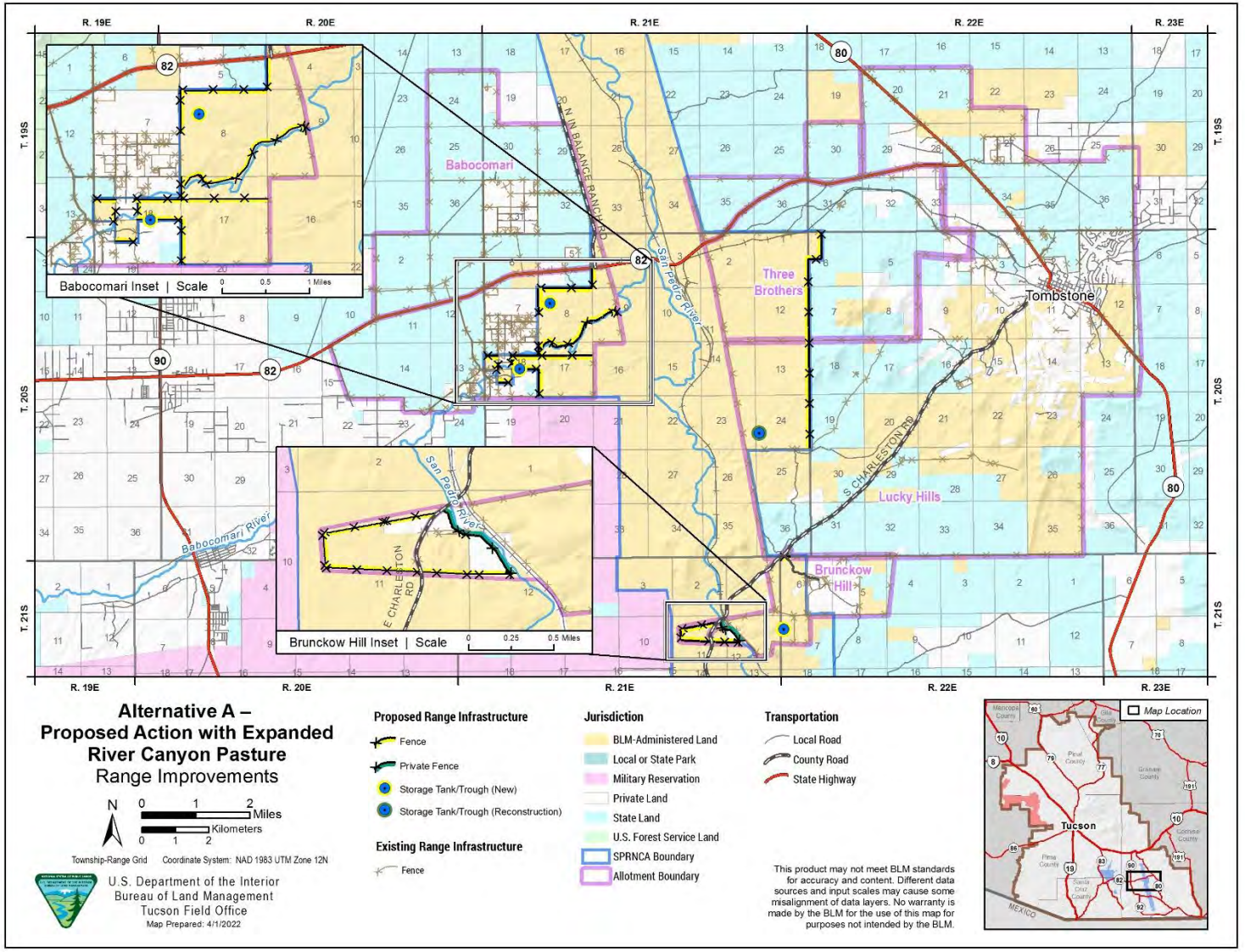

Figure A-14. Alternative A - Modified Proposed Action with the Expanded Babocomari River Canyon Pasture.

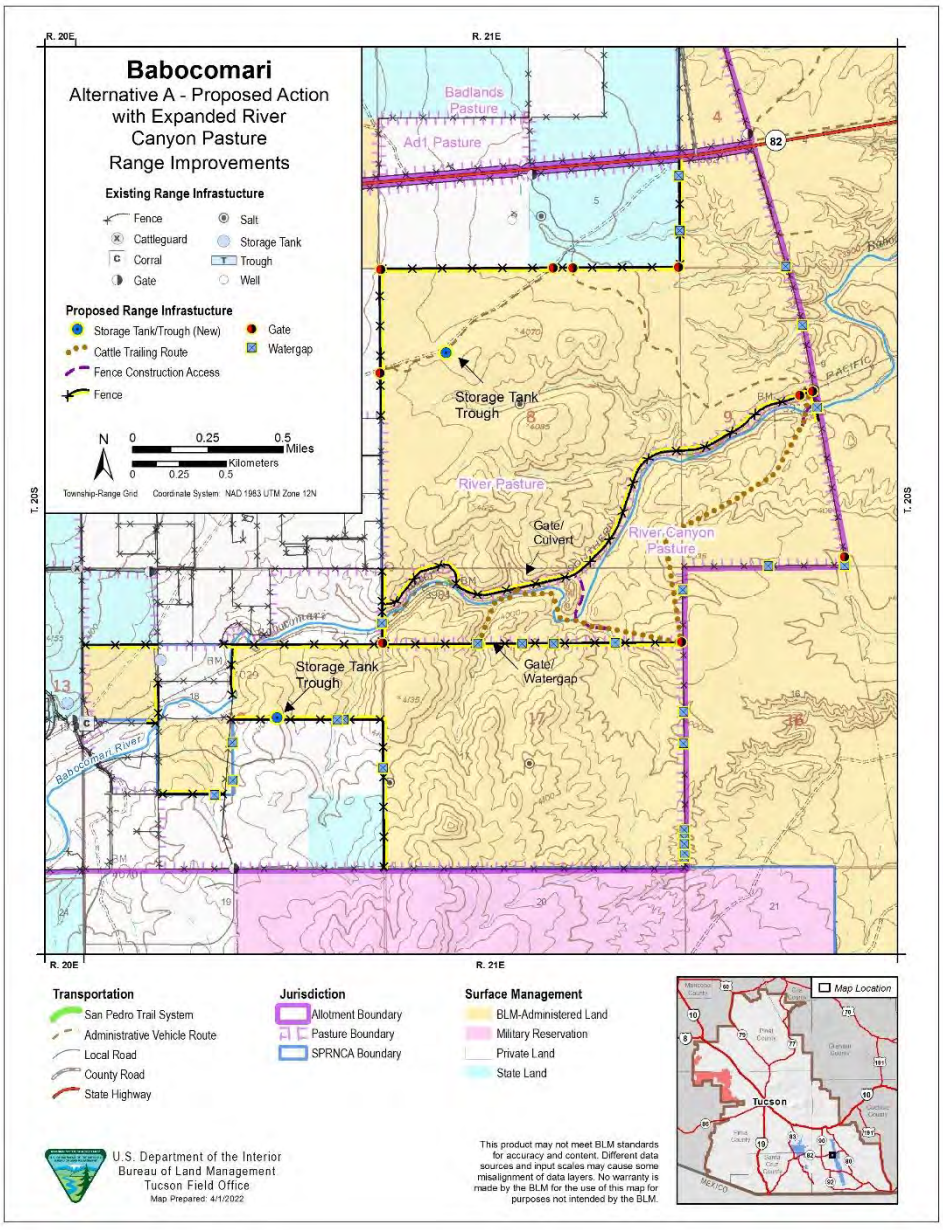

Figure A-15. Alternative A – Close-up of the Expanded Babocomari River Canyon Pasture.

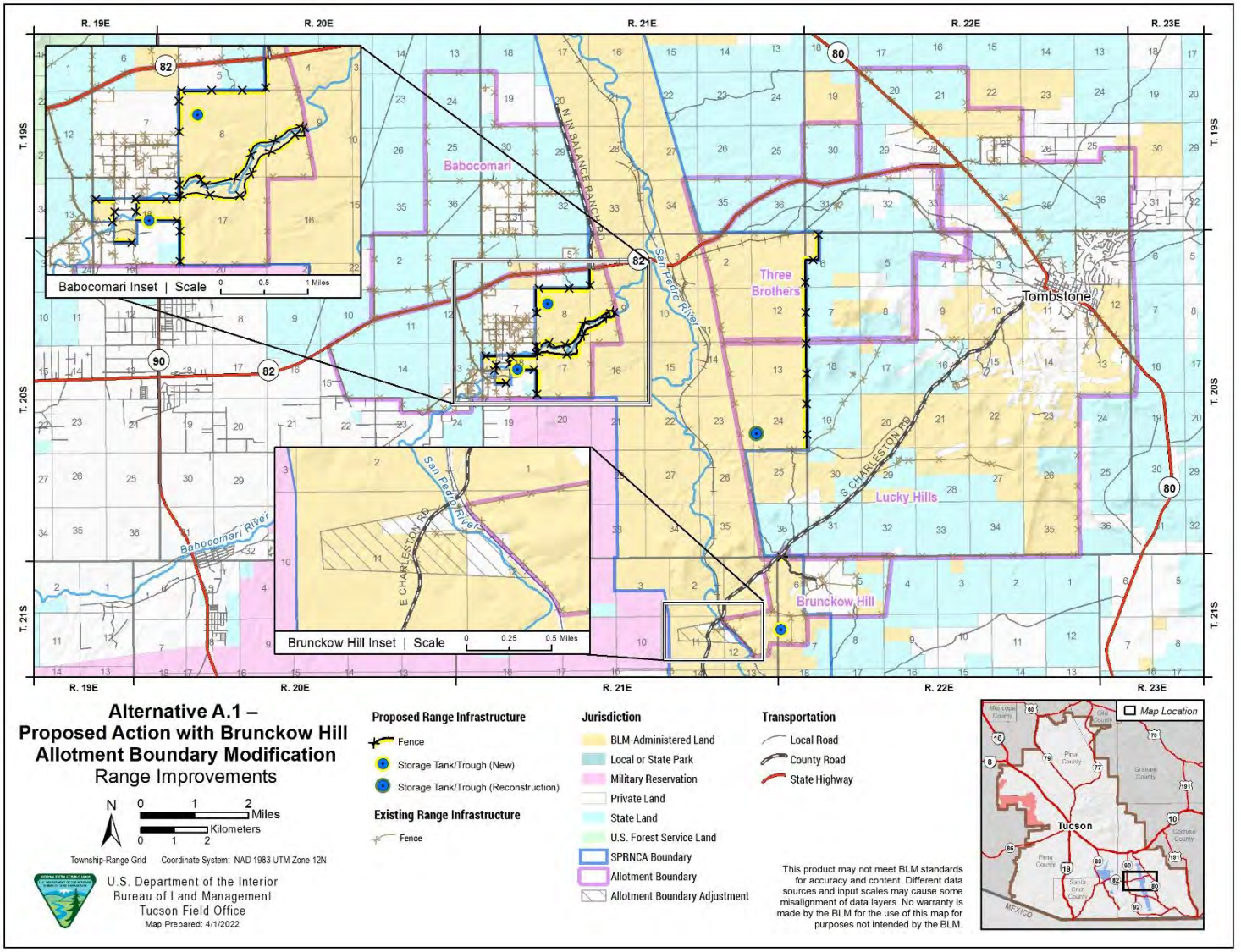

Figure A-16. Alternative A.1 – Proposed Action with Brunckow Hill Allotment boundary modifications.

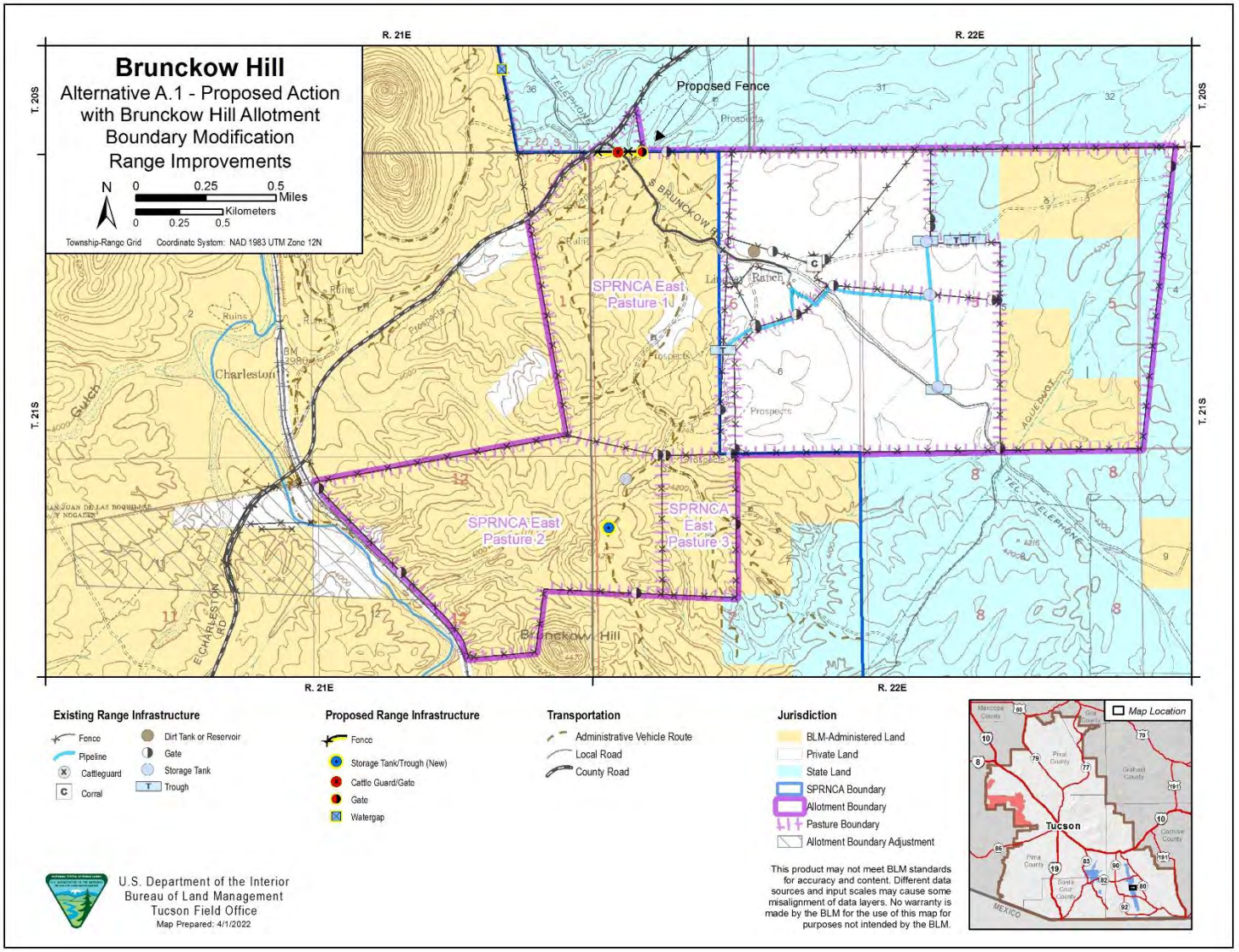

Figure A-17. Alternative A.1 – Close-up of the modification of the Brunckow Hill Allotment.

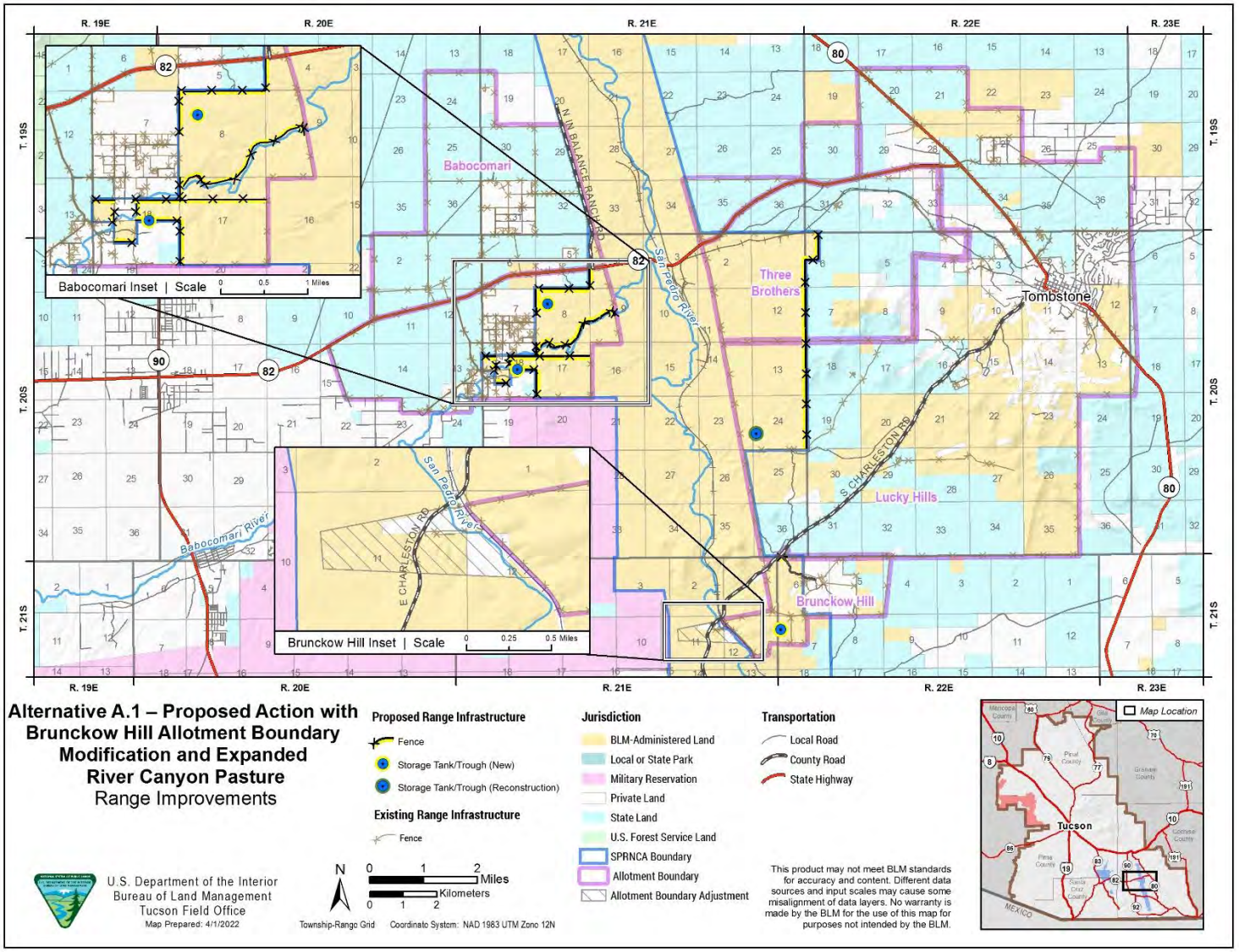

Figure A-18. Alternative A.1 – Proposed Action with Brunckow Hill Allotment boundary modifications and an Expanded Babocomari River Canyon Pasture.

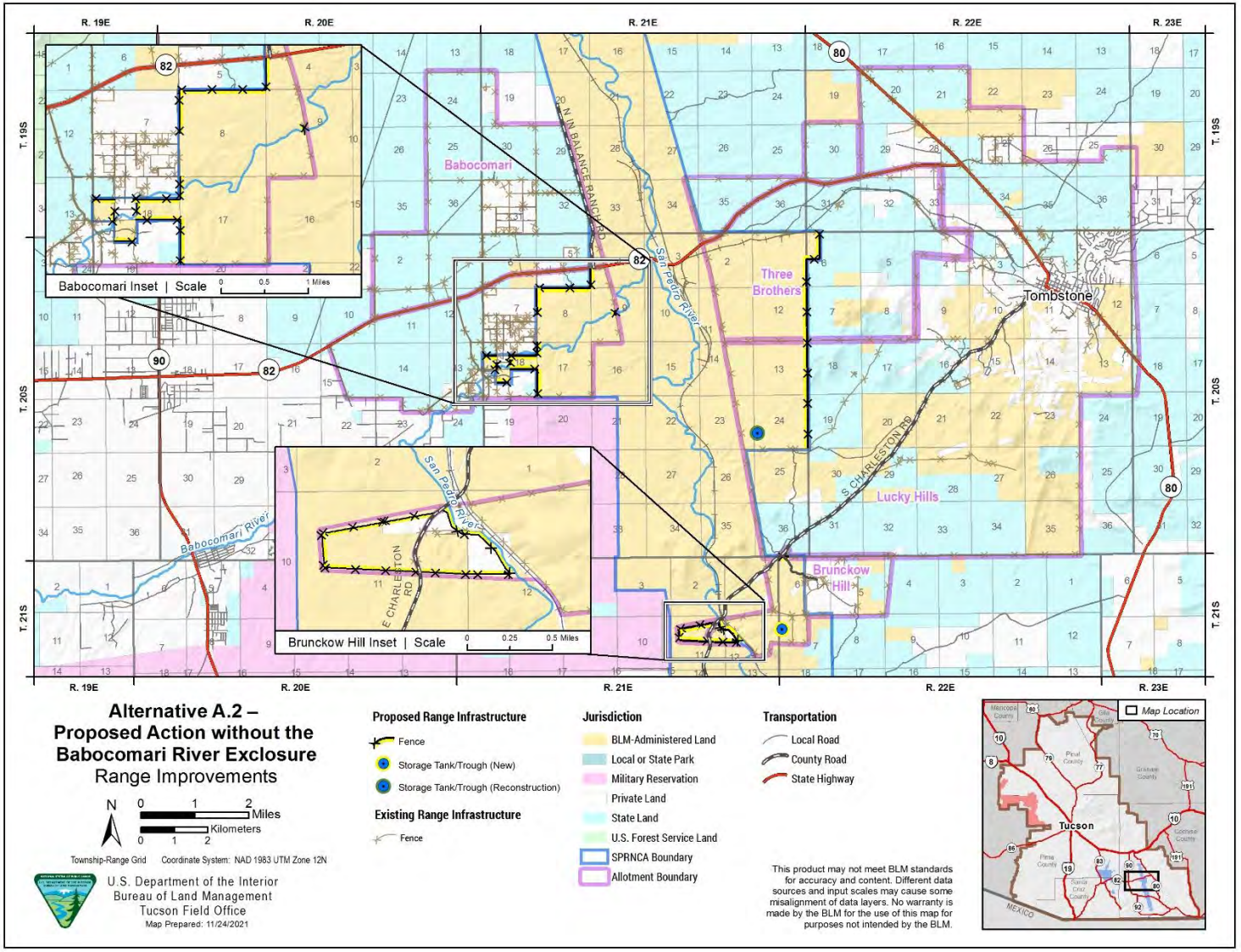

Figure A-19. Alternative A.2 - Proposed Action without the Babocomari River Canyon Pasture.

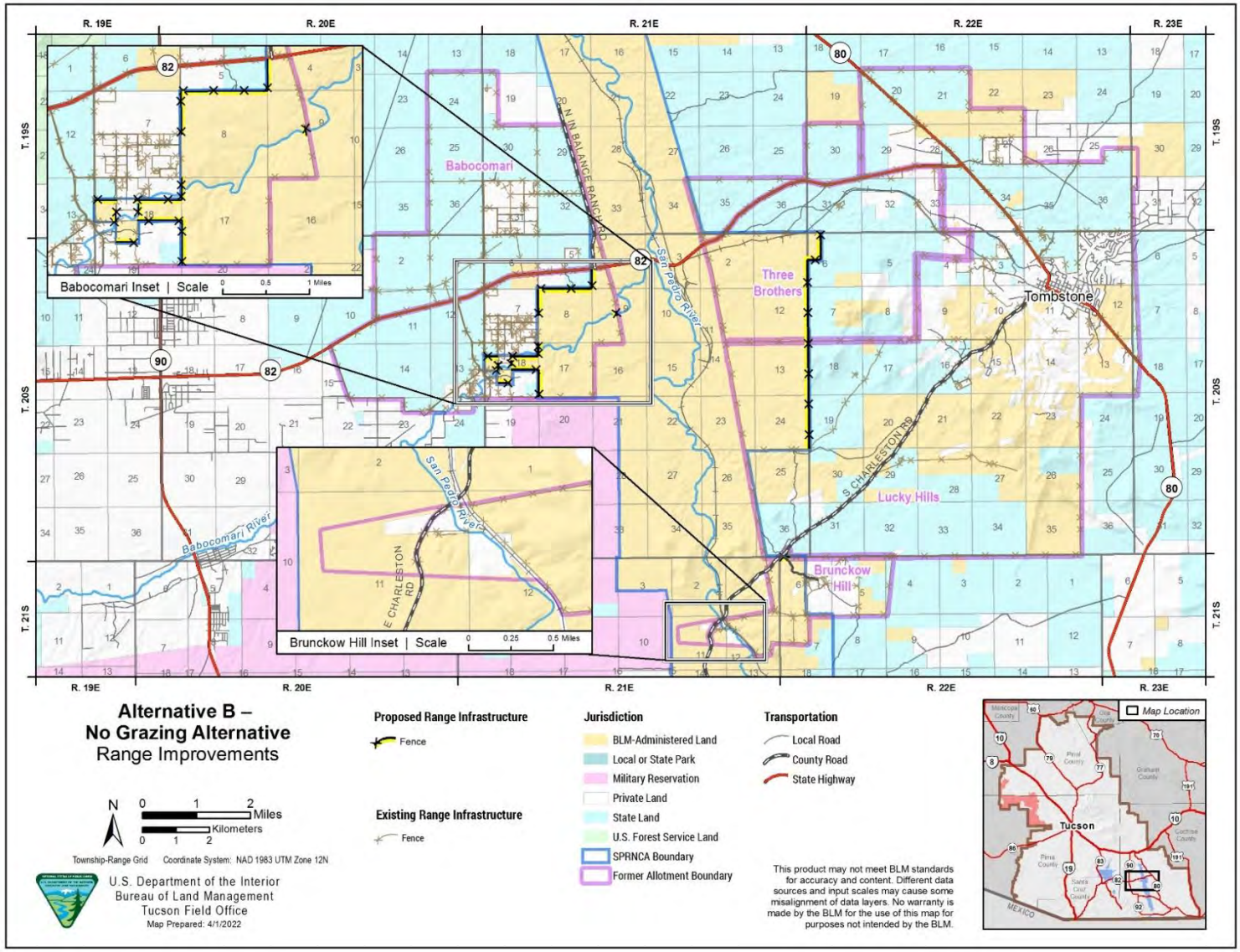

Figure A-20. Proposed fencing under Alternative B - No Grazing with IVM alternative and Alternative D – No Grazing without IVM. IVM treatments shown in Figure A-8.

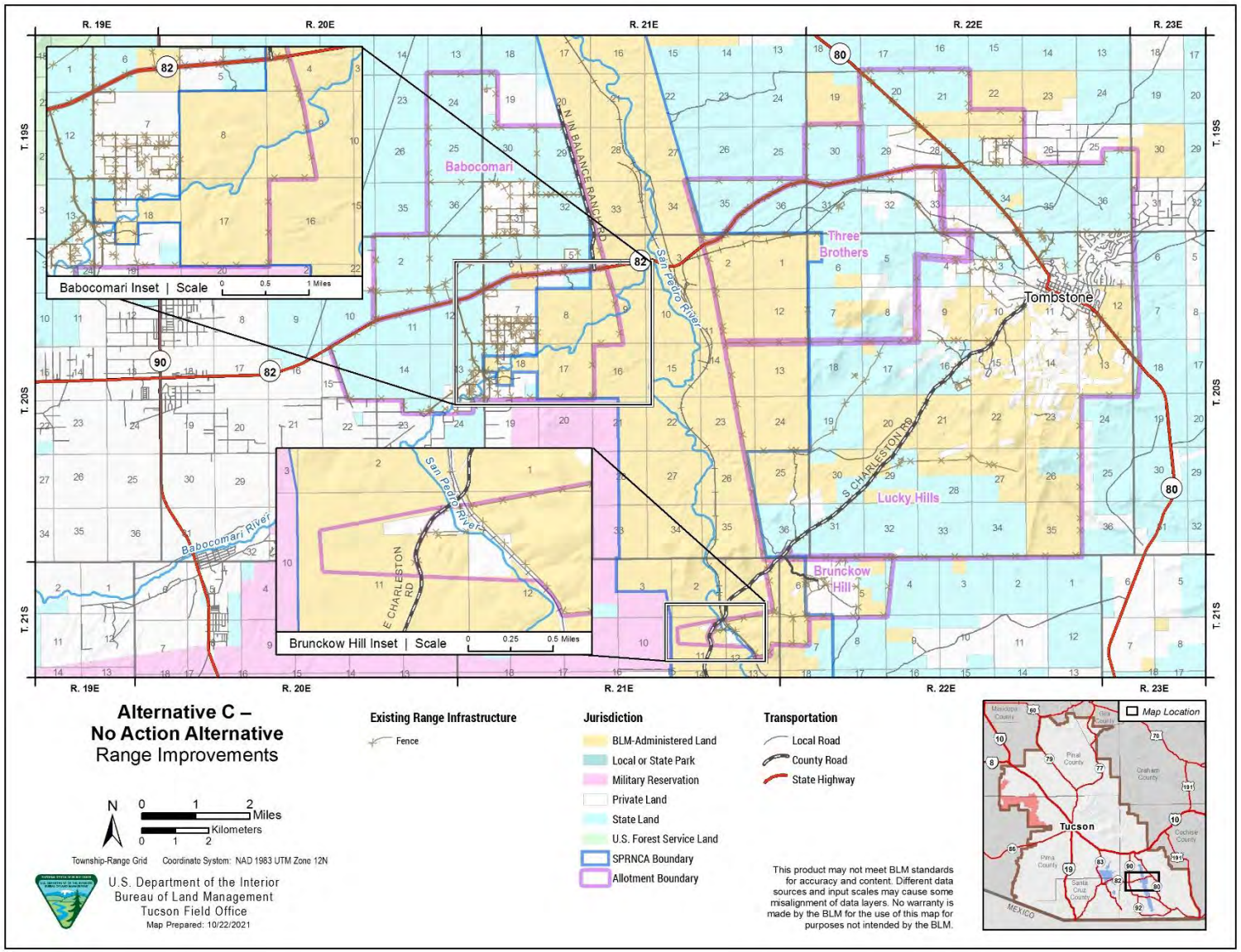

Figure A-21. Alternative C - No Action alternative.

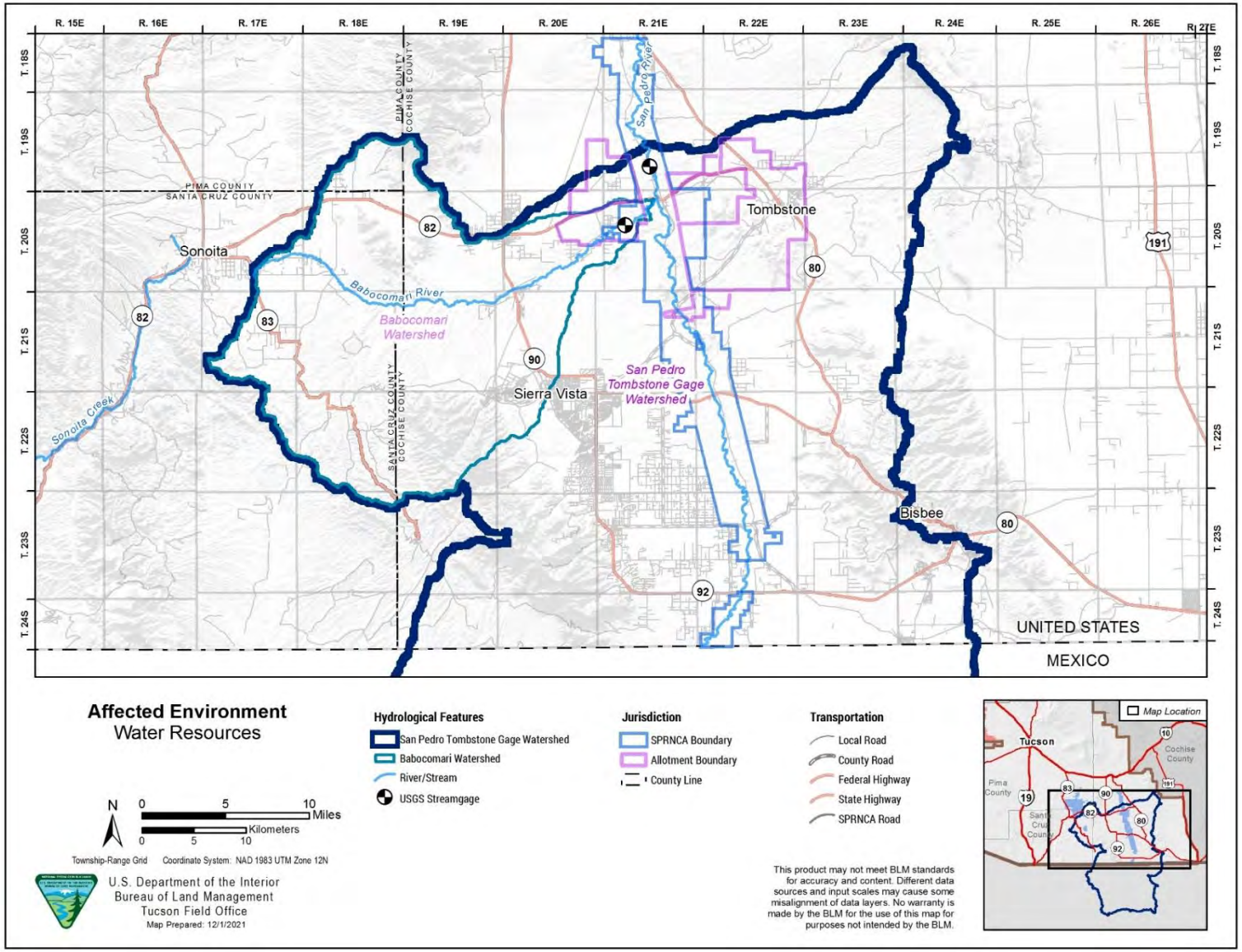

Figure A-22. Water resources in and around the project area.

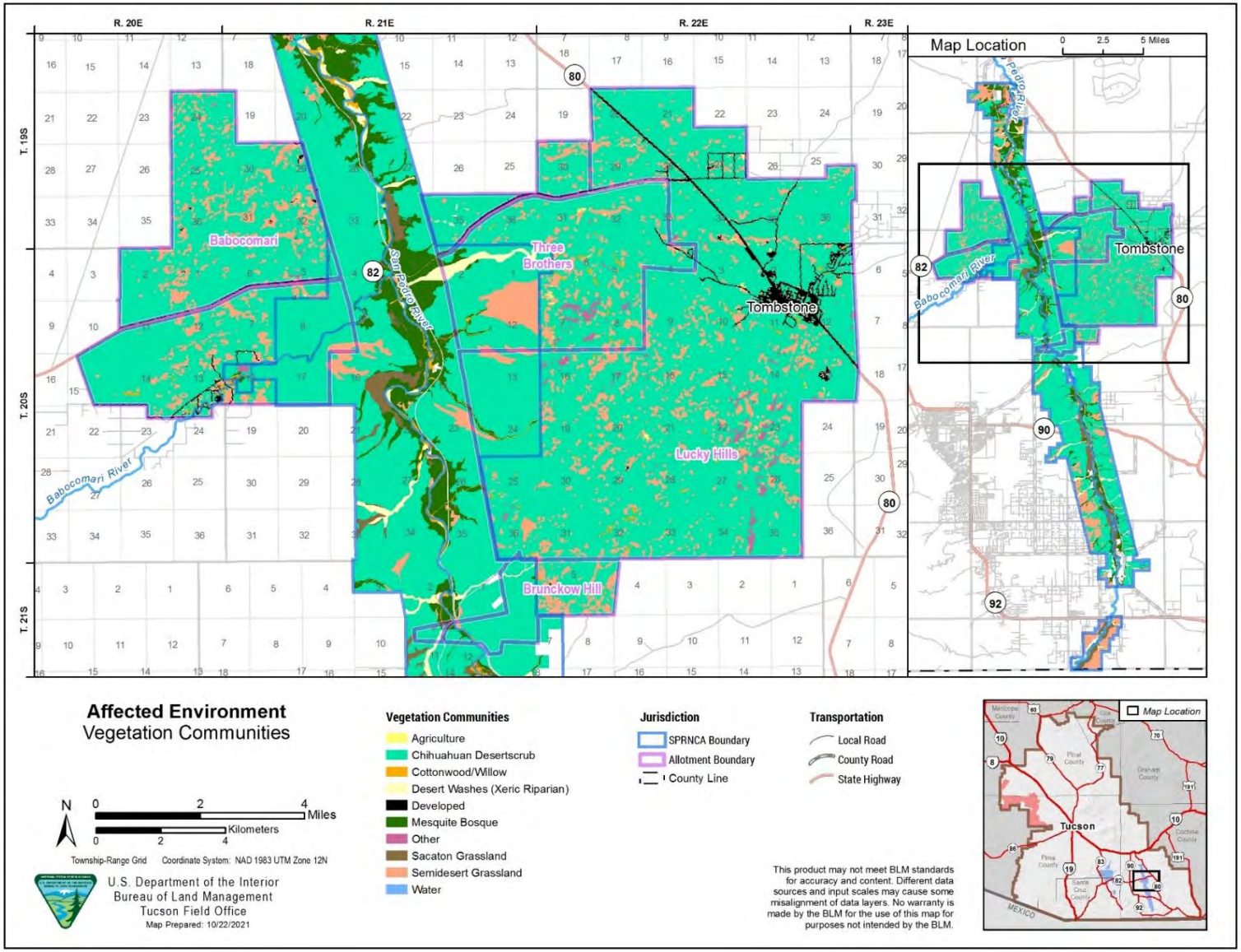

Figure A-23. Vegetation communities in and around the project area.

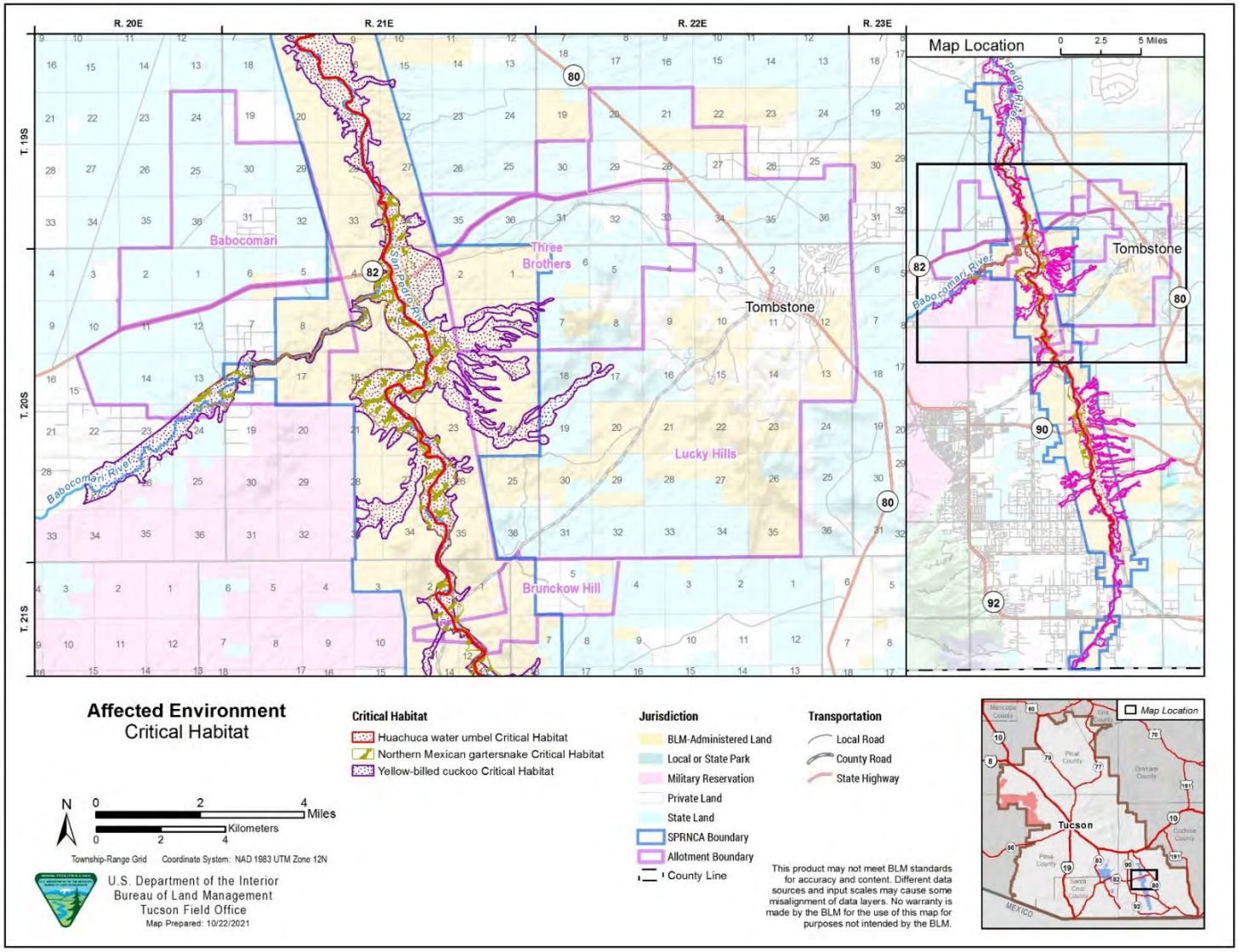

Figure A-24. Critical habitat in and around the project area.

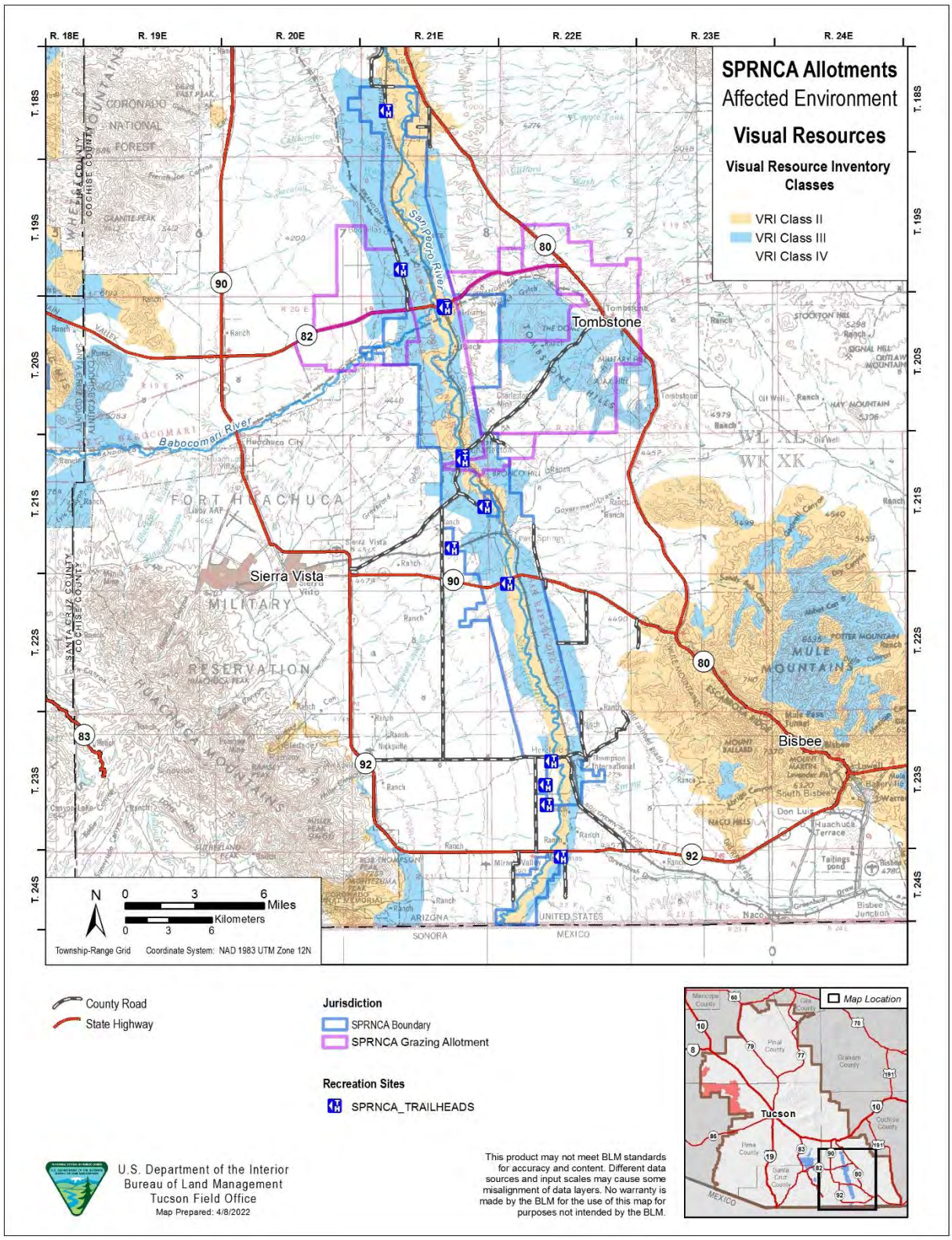

Figure A-25. Visual Resource Inventory Classes in the SPRNCA allotments and the surrounding Upper San Pedro Basin landscape.

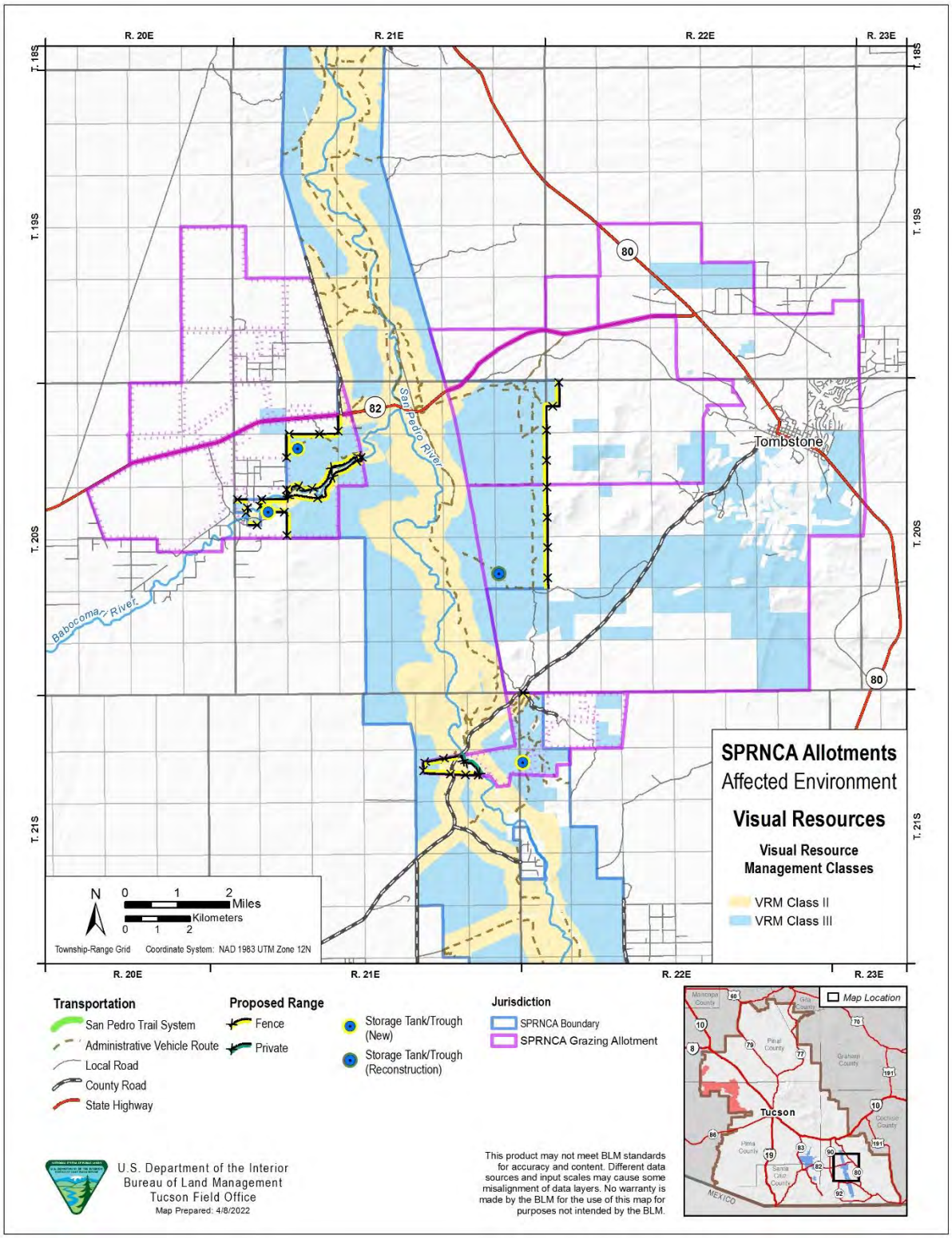

Figure A-26. Visual Resource Management Classes for the SPRNCA allotments, and the new fence and livestock water construction projects under the Proposed Action and Alternatives in VRM Class II and Class III areas.

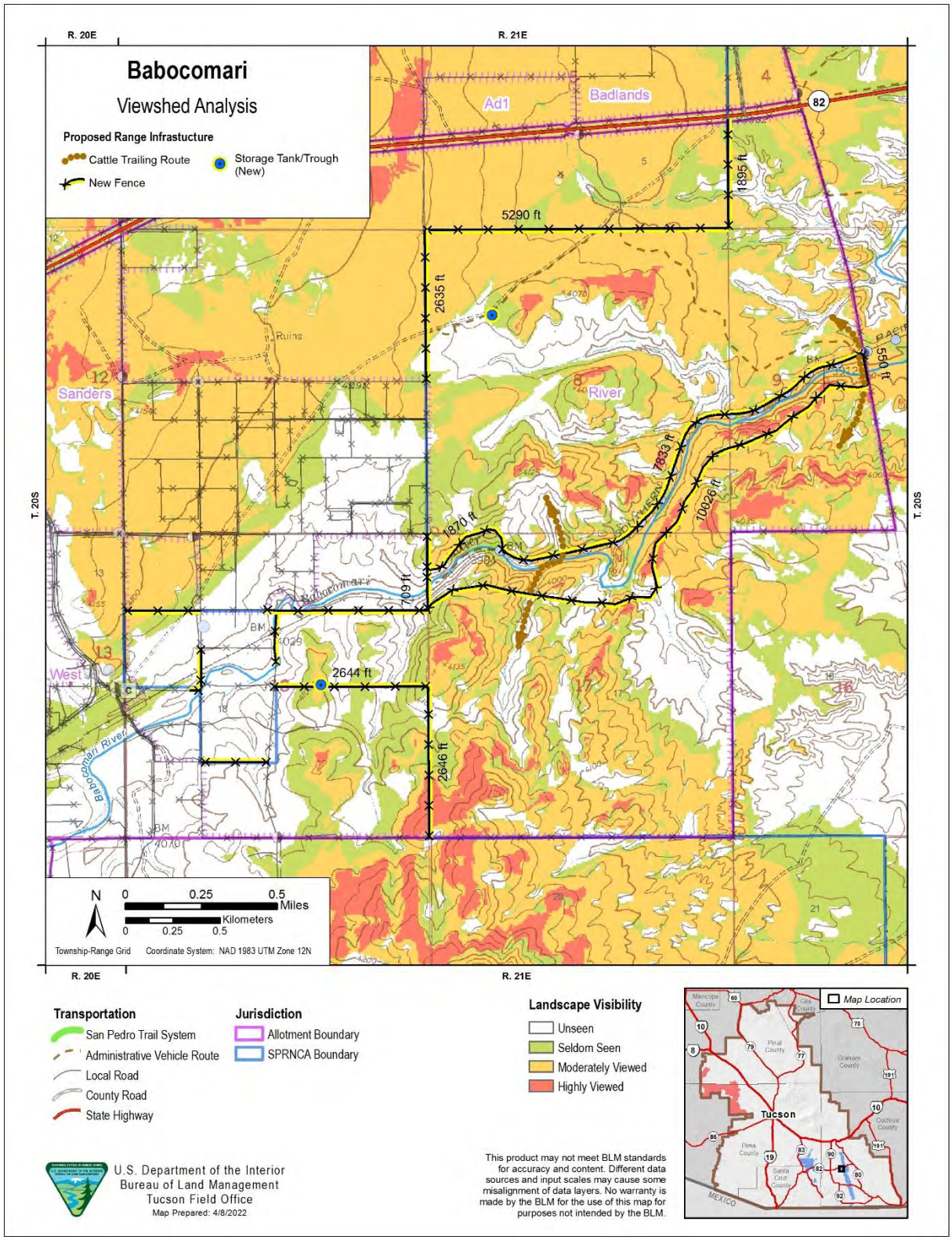

Figure A-27. Landscape visibility classes in the Babocomari Allotment from the project KOPs and the range improvements under the Proposed Action and Alternatives, with sections of the SPRNCA boundary and River Canyon Pasture fencing on highly viewed slopes.

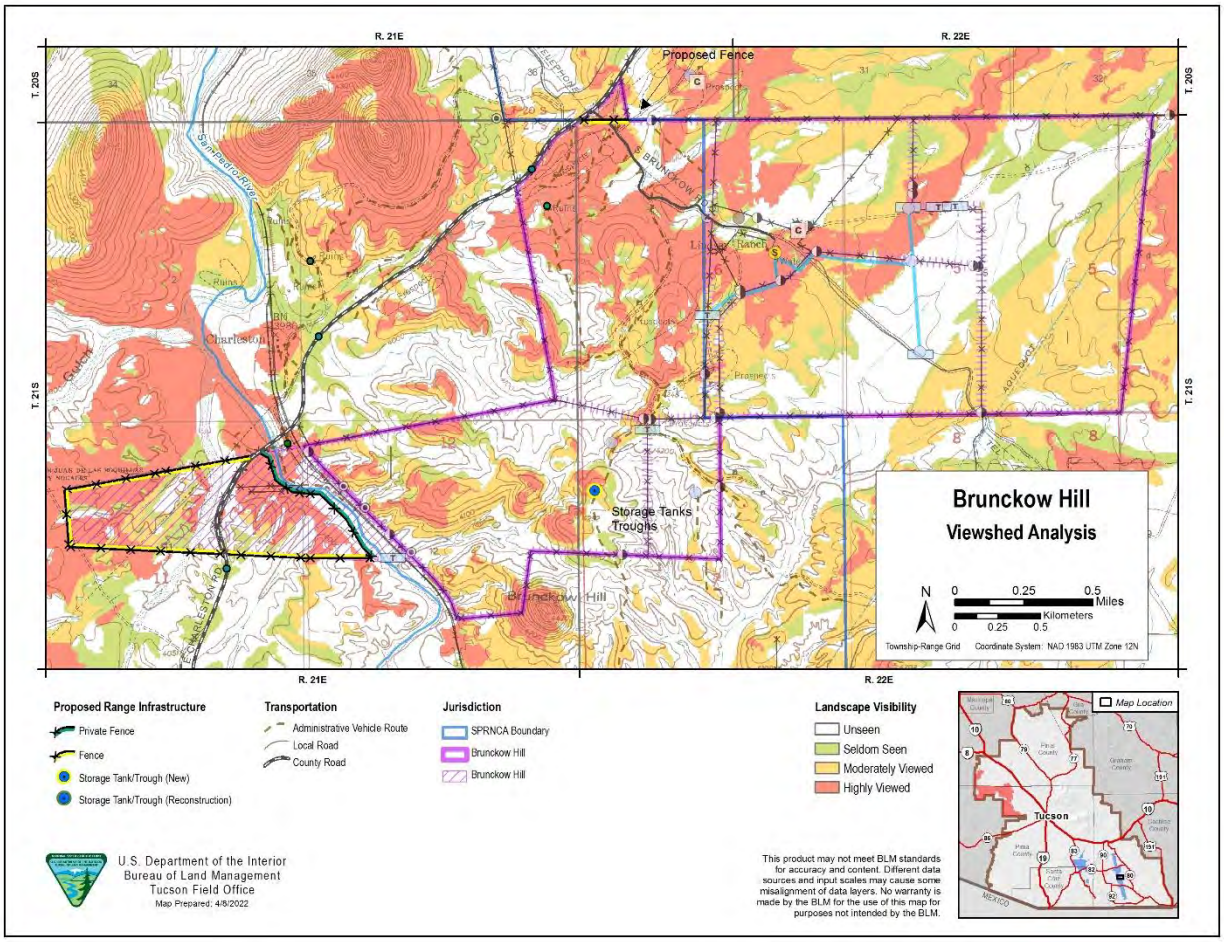

Figure A-28. Landscape visibility classes in the Brunckow Hill Allotment from the project KOPs and the range improvements under the Proposed Action and Alternative A.2, with sections of the SPRNCA boundary, riparian fencing, and allotment boundary fencing in highly viewed river valley and bajada slopes.

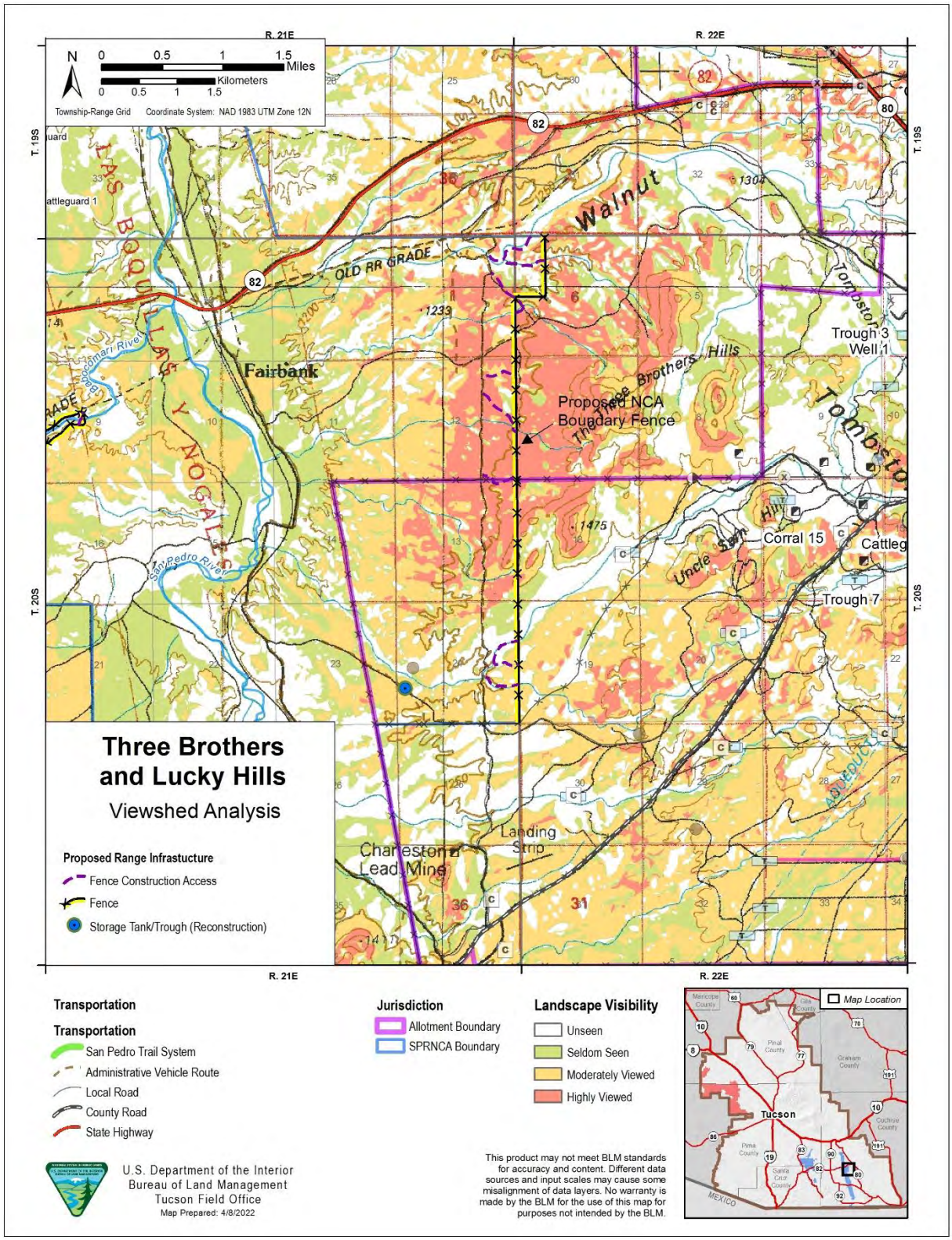

Figure A-29. Landscape visibility in the Three Brothers-Lucky Hills Allotments from the project KOPs and the proposed range improvements, with several miles of the SPRNCA boundary fence on highly viewed slopes.

APPENDIX B. SPECIES COMMON AND SCIENTIFIC NAMES

Species Common Name	Species Scientific Name
Amphibians	
Bullfrog	*Lithobates catesbeianus*
Desert toad	*Incilius alvarius*
Lowland leopard frog	*Lithobates yavapaiensis*
Salamanders	*Caudata* spp.
Birds	
American kestrel	*Falco sparverius*
Arizona Bell's vireo	*Vireo bellii arizonae*
Arizona Botteri's sparrow	*Peucaea botterii*
Cactus wren	*Campylorhynchus brunneicapillus*
Cassin's kingbird	*Tyrannus vociferans*
Common yellowthroat	*Geothlypis trichas*
Cowbird	*Molothrus,* spp.
Curve-billed thrasher	*Toxostoma curvirostre*
Gambel's quail	*Callipepla gambelii*
Grasshopper sparrow	*Ammodramus savannarum*
Gray hawk	*Buteo plagiatus*
Great horned owl	*Bubo virginianus*
Greater roadrunner	*Geococcyx californianus*
Loggerhead shrike	*Lanius ludovicianus*
Mallard duck	*Anas platyrhynchos*
Merlin	*Falco columbarius*
Mourning dove	*Zenaida macroura*
Northern flicker	*Colaptes auratus*
Red-tailed hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Scaled quail	*Callipepla squamata*
Southwestern willow flycatcher	*Empidonax traillii extimus*
Summer tanager	*Piranga rubra*
Swainson's hawk	*Buteo swainsoni*
Turkey vulture	*Cathartes aura*
Verdin	*Auriparus flaviceps*
Vermillion flycatcher	*Pyrocephalus obscurus*
Western screech owl	*Megascops kennicottii*
Western yellow-billed cuckoo	*Coccyzus americanus*
White-crowned sparrow	*Zonotrichia leucophrys*
Wilson's warbler	*Cardellina pusilla*
Yellow warbler	*Setophaga petechia*
Yellow-breasted chat	*Icteria virens*
Zone tailed hawk	*Buteo albonotatus*
Fish	
Desert pupfish	*Cyprinodon macularius*
Desert sucker	*Catostomus clarkii*

Species Common Name	Species Scientific Name
Gila topminnow	*Poeciliopsis occidentalis*
Gila chub	*Gila intermedia*
Longfin dace	*Agosia chrysogaster chrysogaster*
Sonora sucker	*Catastomus insignis*
Western mosquitofish	*Gambusia affinis*
Mammals	
American badger	*Taxidea taxus*
Deer mice	*Peromyscus* spp.
Hooded skunk	*Mephitis macroura*
Jaguar	*Panthera onca*
Javelina	*Tayassu tajacu*
Kangaroo rats	*Dipodomys* spp.
Lesser long-nosed bat	*Leptonycteris yerbabuenae*
Mule deer	*Odocoileus hemionus*
Raccoon	*Procyon lotor*
White-tailed deer	*Odocoileus virginianus*
Plants	
Agaves	*Agave* spp.
Alkali sacaton	*Sporobolus airoides*
Arizona ash	*Fraxinus velutina*
Arizona cottontop	*Digitaria californica*
Arizona eryngo	*Eryngium sparganophyllum*
Bermuda grass	*Cynodon dactylon*
Big sacaton grass	*Sporobolus wrightii*
Bulrush	*Schoenoplectus americanus*
Bush muhly grass	*Muhlenbergia porteri*
Creosote bush	*Larrea tridentata*
Curly mesquite grass	*Hilaria belangeri*
Deer grass	*Muhlenbergia rigens*
Desert willow	*Chilopsis linearis*
Equisetum	*Equisetum* sp.
Fremont cottonwood	*Populus fremontii*
Goodding's willow	*Salix gooddingii*
Grama grasses	*Bouteloua* spp. (i.e. *Bouteloua curtipendula, B. eriopoda, B. chrondrosioides, B. gracillis, B. barbata, B. repens*)
Huachuca water umbel	*Lilaeopsis schaffneriana var. recurva*
Johnson grass	*Sorghum halepense*
Lehmann lovegrass	*Eragrostis lehmanniana*
Littleleaf sumac	*Rhus microphylla*
Mariola	*Parthenium incanum*
Netleaf hackberry	*Celtis reticulata*
Ocotillo	*Fouquieria splendens*
Rushes	*Juncus* spp.
Sedges	*Carex* spp.
Seep willow	*Baccharis salicifolia*
Soap tree yucca	*Yucca elata*
Spike rush	*Eleocharis palustris*

Species Common Name	Species Scientific Name
Tamarisk	*Tamarix spp*
Tarbush	*Flourensia cernua*
Threeawn grasses	*Aristida* spp. (i.e. *Aristida ternipes, A. purpurea, A. adscendionis*)
Tobosa grass	*Pleuraphis mutica*
Velvet ash	*Fraxinus velutina*
Velvet mesquite	*Prosopis velutina*
Vine mesquite grass	*Panicum obtusum*
Whitethorn acacia	*Vachellia constricta*
Reptiles	
Gila monster	*Heloderma suspectum*
Gopher snake	*Pituophis catenifer*
Kingsnakes	*Lampropeltis* spp.
Northern Mexican gartersnake	*Thamnophis eques megalops*
Ornate box turtle	*Terrapene ornata*
Rattlesnakes	*Crotalus* spp. *and Sistrurus catenatus*
Western diamondback rattlesnake	*Crotalus atrox*
Whiptail lizards	*Teiidae*
Zebra-tailed lizard	*Callisaurus draconoides*

APPENDIX C. RESPONSE TO PUBLIC SCOPING COMMENTS

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Several commentors	1.	Public Law	Grazing is inconsistent with PL 100-696 and the intent of Congress to designate the SPRNCA.	Public Law (P.L.) 100-696 does not specifically prohibit livestock grazing as a use from the SPRNCA nor does P.L. 100-696 explicitly define what "conserve, protect, and enhance the riparian area and the aquatic, wildlife, archeological, paleontological, scientific, cultural, educational, and recreational resources of the conservation area" means. Thus, the BLM has established goals and objectives in the San Pedro Riparian National Conservation Area (SPRNCA) Resource Management Plan (RMP) (2019) which further define what "conserve, protect, and enhance" mean for the SPRNCA conservation values per P.L. 100-696. The allotment-specific Desired Plant Community (DPC) objectives that the BLM establishes for each of the four SPRNCA allotments in the Land Health Evaluations (LHEs) tier directly from the SPRNCA RMP goals and objectives. Thus, if the BLM is achieving the allotment-specific DPC objectives, then the BLM is complying with the requirements of P.L. 100-696.
Kirk G. Stitt	2.	Public Law	The management plan which allows grazing is inconsistent with the law [PL 100-696].	Please see the response to comment #1.
Robert Luce	3.	Public Law	According to the Scoping Document, the Secretary of the Interior is to make a determination on whether or not the law [PL 100-696] is being followed. The Scoping Document contains no indication that the Secretary has reviewed the issue of renewal of the four leases.	The BLM implements P.L. 100-696 on behalf of the Secretary of the Interior. The SPRNCA RMP (2019) allocates the four SPRNCA allotments as available for livestock grazing.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Robert Luce	4.	Public Law	BLM's review of the grazing lease renewals should first and foremost question whether or not continuation of the leases after the lease period in effect at the time the former state lands were added to the SPRNCA was compatible with the reason for creation of the SPRNCA in 1988.	Please see the response to comment #1.
Jeff Burgess	5.	Public Law	Considering that this means the SPRNCA is supposed to be managed as a riparian preserve, Alternative B, the No Grazing Alternative, is the only one that fully complies with the legal provisions of the Arizona-Idaho Conservation Act.	Please see the response to comment #1.
Kristin Yannone	6.	Public Law	The Act creating the [SPRN]CA required that a comprehensive plan be adopted within two years. No reference to such a plan was available on the project ePlanning site, nor in a Google search. The BLM's webpage does not provide a link to a plan.	The comprehensive plan to which P.L. 100-696 refers was the San Pedro River Riparian Management Plan which was finalized in 1989. The SPRNCA RMP (2019) replaced the San Pedro River Riparian Management Plan. Both the San Pedro River Riparian Management Plan and the SPRNCA RMP can be found here: https://eplanning.blm.gov/eplanning-ui/project/36503/570
Ann Prezyna	7.	Public Law	Grazing is incompatible with protecting this conservation area, which is under increasing threat due to continued drought conditions.	Please see the response to comment #1. In addition, the Proposed Action in the scoping packet included adaptive management measures. In the preliminary EA, the BLM made changes to simplify the adaptive management framework which includes measures designed to address resource conditions that might be impacted by drought conditions.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
WWP/SC/TG	8.	Public Law	Clearly, livestock grazing in the SPRNCA does not comport with the fundamental tenets of the FLPMA because the risk to the resources is both unnecessary and undue and has the potential to permanently impair the very values the SPRNCA was designated to conserve, to protect, and to enhance.	Please see the response to comment #1. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA. The Proposed Action in the preliminary EA includes adaptive management measures to make progress towards the achievement of the Arizona Standards for Rangeland Health and comply with the SPRNCA RMP (2019).
Michael Gregory	9.	Public Law	I was part of the group that drafted the original language and was closely involved with the subsequent legislative process and I assert with no qualifications that the original intent was to exclude cattle grazing from the SPRNCA.	Please see the response to comment #1. P.L. 100-696 does not exclude livestock grazing in the SPRNCA.
Ron Stewart	10.	Public Law	Leasing is legally not allowed in the SPRNCA. … These leases were supposed to expire and then be terminated. They were renewed once, improperly. Now is the time to redress this misapplication of the enabling legislation	Please see the response to comment #1.
John Welch (Archaeology Southwest)	11.	Cultural	A previous BLM study found: "Livestock use impacts on cultural resources include: displacement (vertical and horizontal) and breakage of artifacts, and the mixing of depositional associations through trampling; destruction or enhanced deterioration of structures and features through rubbing; and an acceleration of natural erosional processes. Plants valued by Native American traditionalists could be trampled or consumed by livestock, adversely affecting plant availability at some locations. For purposes of analysis it is assumed that the impacts of livestock use are distributed in proportion to the actual distribution of livestock, with the most intensive impacts occurring at livestock use concentration areas. Cultural	The BLM has previously analyzed for and disclosed such potential impacts as detailed in the SPRNCA DEIS/DRMP (2018:3-78): "Activities such as low-impact recreation and dispersed grazing generally result in only minor surface disturbances with limited potential for direct effects to cultural resources. Past studies have demonstrated that grazing impacts on cultural resources are primarily of concern in areas of concentrated livestock use, such as around water sources and corrals (c.f.; Roney 1977; Van Vuren 1982; Osborn et al. 1987; Osborn and Hartley 1991; Broadhead 2001). Direct impacts where concentrated activities occur may include trampling, chiseling, and

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			Resources located on lands having erosional or other types of watershed deterioration problems attributed to livestock use impacts are assumed to receive high impacts. Cultural resources are non-renewable, and impacts of livestock use on cultural resources are cumulative" (Bodie-Coleville EIS 1982:4-92).	churning of site soils, cultural features and artifacts, artifact breakage, and impacts from standing, leaning, or rubbing against historic structures or other aboveground cultural features such as rock art. Indirect impacts may include accelerated erosion and gullying, subsequent exposure, and increased potential for illegal artifact collection and/or vandalism." The potential for impacts is now being further analyzed at this project-specific level, and will be performed in accordance with the *Arizona BLM Vegetation and Range Management Programmatic Agreement,* executed among the BLM, USFS, USFWS, Arizona SHPO, and ACHP (September 2020).
John Welch (Archaeology Southwest)	12.	Cultural	We urge BLM to prioritize attention to the protection of ancestral O'odham (Sobaipuri) and Apache sites. These cultural resources are difficult to identify and easy to damage or degrade. Livestock grazing poses particularly poignant threats to Sobaipuri and Apache sites. Authorization for livestock grazing within SPRNCA should be withheld until intensive and comprehensive cultural resource inventories conducted in close collaboration with duly designated O'odham and Apache cultural representatives can confirm that none of these site types, or any other site types that are sensitive to livestock grazing, are within SPRNCA lands the BLM is making available for grazing.	The BLM lands located within the SPRNCA within the four SPRNCA Allotments were made available for livestock grazing in the SPRNCA RMP (2019). BLM consulted with AZ SHPO and completed the Section 106 process on the SPRNCA RMP (2019). Cultural resources assessment and compliance with Section 106 of the National Historic Preservation Act (54 USC 306108) will be conducted for grazing lease authorizations in accordance with the *Arizona BLM Vegetation and Range Management Programmatic Agreement,* executed among the BLM, USFS, USFWS, Arizona SHPO, and ACHP (September 2020).
Richard Curtis	13.	Cultural	Will surveys be made of the archeological, historical and cultural resources prior to developing and implementing the infrastructure to	Cultural resources assessment and compliance with Section 106 of the National Historic Preservation Act (54 USC 306108) will be conducted for grazing lease authorizations

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			ensure the resources are identified and protected?	and proposed range infrastructure in accordance with the *Arizona BLM Vegetation and Range Management Programmatic Agreement,* executed among the BLM, USFS, USFWS, Arizona SHPO, and ACHP (September 2020).
WWP/SC/TG	14.	Cultural	We are concerned about the validity of any pending cultural impacts analysis……The BLM has a record of rubberstamping grazing authorizations with a baseless caveat – "if the allotments are properly managed[.]" However, as the BLM is well aware, and as we discuss in more detail throughout this letter, livestock do not stay where they are supposed to be, especially in the SPRNCA, and therefore they are not "properly managed." We therefore ask the BLM to carefully revisit its assumptions about the impacts of livestock grazing on cultural resources within the SPRNCA.	See the response to comment #12.
John Welch (Archaeology Southwest)	15.	Cultural/ Public Law	…have yet to find reliable evidence—from within SPRNCA or other desert uplands or riparian corridors—that livestock grazing can contribute to the fulfillment of the U.S. Congress' intent in PL 100-696. All reliable scientific evidence indicates that livestock grazing constitutes a significant impact on cultural resources, per NEPA, and an adverse effect on historic properties, per NHPA, including cultural and historic properties present in SPRNCA. The best available evidence indicates that livestock can and do cause damage to most types of cultural resource sites. Livestock grazing also alters vegetation, soils, and drainage conditions, usually for the worse and always to the detriment of cultural resources.	The question of whether livestock grazing is compatible with Congressional intent as expressed in P.L. 100-696 is described in the response to comment #1. Please also see the response to comment #11 for concerns about impacts on cultural resources. Impacts of the Proposed Action to vegetation and soils (including drainage conditions) are addressed in the preliminary EA (see preliminary EA Sections 3.4.2 and 3.3.6).

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
John Welch (Archaeology Southwest)	16.	Cultural/ Public Law	I am aware this is a scoping process and no decisions are being made at this time, but it seems illogical and impractical to ignore the essential question of whether livestock grazing advances and contributes to the fulfillment of Congress' expressed intent in P.L. 100-696. No documentation offered to analyze the proposed allotment lease renewals answers this fundamental question. Accordingly, because the clear preponderance of existing scientific evidence (and my own observations of the results of grazing within SPRNCA) indicates that livestock grazing constitutes an adverse effect on historic properties, and causes significant impacts on cultural resources, we recommend that BLM either refrain from authorizing livestock grazing within SPRNCA boundaries or conduct additional studies to assess these adverse effects and significant impacts. In any case, livestock grazing appears to be among the greatest threats to the "the riparian area and the aquatic, wildlife, [and] archaeological…resources." Current management of the allotment lands within SPRNCA is not preventing adverse effects and significant impacts.	The question of whether livestock grazing is compatible with Congressional intent as expressed in P.L. 100-696 is described in the response to comment #1. Please also see the response to comment #12 for concerns about impacts on cultural resources. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA. The Proposed Action in the preliminary EA includes adaptive management measures to prevent impacts that do not comply with the Arizona Standards for Rangeland Health and the SPRNCA RMP resource objectives (2019).
Joelle Buffa	17.	Border Wall	Construction of the border barrier across the San Pedro, together with pumping and other water use that occurred from construction of other portions of the border wall may have further impacted ground water recharge in the SPRNCA.	Impacts to water resources from groundwater pumping in the basin were analyzed in the SPRNCA Proposed RMP Final Environmental Impact Statement (FEIS) (2019). The impacts from pumping are tiered to the analysis in the SPRNCA Proposed RMP FEIS (2019) (See EA Section 3.3.7). Construction of the border barrier does not affect the resources that are affected by the proposed livestock grazing lease renewals and additional actions. This is reflected in the analysis area for these resources in the

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				preliminary EA. The geographic extent of areas affected by grazing does not include the border barrier area.
LSPWA	18.	Border Wall/Impacts	No environmental clearances were conducted for the border wall which likely will have major impacts to the SPRNCA. Therefore, we strongly recommend that the draft EA prepare a thorough and detailed analysis of the impacts of grazing, fence construction, and development of supplemental water supplies on federal and state listed species and their habitat, SPRNCA priority species and their habitat, general wildlife, wildlife movement corridors, migratory birds, flood flows, bank stability, recreational and birding activities. The draft EA should also discuss how the proposed fencing will be funded and maintained.	For concerns about the border barrier, see the response to comment #17. The preliminary EA includes a detailed analysis of impacts from livestock grazing and associated range infrastructure. The Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations do not require that funding sources for projects be disclosed.
WWP/SC/TG	19.	NEPA	Please disclose whether or not the CRMP for the Three Brothers allotment has been completed and if so, please provide that document for public review during the comment period.	The Three Brothers Allotment does not have a Coordinated Resource Management Plan (CRMP).
Joelle Buffa	20.	NEPA	The renewal of the 4 grazing leases in question should be reconsidered in the context of the current drought, the effects of groundwater recharge caused by the drought and water use by adjacent communities, and the impacts to the San Pedro River flow from the recently installed border wall.	Animal Unit Month (AUM) carrying capacity levels were set for these allotments in the Eastern Arizona Grazing EIS using good, fair, and poor range conditions. While these AUM carrying capacities were set in the 1980s, the Proposed Action in the preliminary EA includes adaptive management measures which would allow the BLM to adjust AUMs based on the resource conditions, including factors such as drought. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA. The effects of water use by adjacent communities is included in the analysis of

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				related resource issue sections (see preliminary EA Chapter 3). Please see the response to comment #17 for concerns about the border wall.
Robert Luce	21.	NEPA	The question of whether to renew the 10-year leases on the four existing grazing allotments: Babocomari, Brunckow Hill, Three Brothers, and Lucky Hills should not depend on whether or not the allotments meet Arizona Standards for Rangeland Health or meet Land Health Evaluation standards. Both standards are based on the assumption that grazing is the best possible use of land within the four allotments in question.	The BLM lands l within the four SPRNCA Allotments were made available for livestock grazing in the SPRNCA RMP (2019). For additional information about the public law that established the San Pedro Riparian National Conservation area, see the response to Comment #1. The LHEs were used to determine the achievement of the Arizona Standards for Rangeland Health and identify any causal factors for non-achievement of these Standards. This analysis is being used to determine alternatives to address the causal factors for the non-achievement to make progress towards achieving the Arizona Standards for Rangeland Health.
CBD	22.	NEPA	To remain in compliance with the National Environmental Policy Act ("NEPA"), the BLM must fully analyze all connected and cumulative impacts of this proposed action, including a "hard look" scientific analysis of the connection between critical habitat protection and authorized grazing activities.	The preliminary EA analyzes the effects of the Proposed and alternative actions based on BLM studies and best available science. In addition, the preliminary EA includes reasonably foreseeable future trends and planned actions which consider all connected and cumulative impacts of the Proposed Action.
Conservation CATalyst	23.	NEPA	Using the best available science as required by NEPA, the BLM must take a hard look, substantive examination of its proposed authorization and then scientifically justify the negative impacts in terms of water availability, water quality, habitat availability, protected species recovery, invasive species, fire risk, recreational and educational opportunities, and ecosystem-level drought resilience.	The preliminary EA analyzes and examines the effects from the Proposed Action and alternatives on water resources, federally listed species, SPRNCA priority species, migratory birds, general wildlife and their habitat, as well as invasive species, and wildfire risk. Impacts of the Proposed Action on recreational and educational opportunities are described in

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				Section 3.3.1 and 3.3.2 of the preliminary EA, respectively. In summary, recreational and educational opportunities would continue to be available and the Proposed Action does not change any of the existing educational sites/trails or programs. Specific recreational and educational sites (e.g., Brunkow Cabin, riparian habitat), as well as access, would be protected through Best Management Practices (BMPs) and adaptive management strategies.
WWP form letter (numerous submissions)	24.	NEPA	The agency must analyze at least one alternative that eliminates livestock grazing from all portions of all allotments that fall within the boundaries of the San Pedro RNCA.	The scoping packet included Alternative B which was the No Grazing alternative. In response to public comments that voiced concerns about the BLM failing to meet Standard 3 of the Arizona Standards for Rangeland Health, the BLM added proposed IVM treatments into the Proposed Action and alternatives. As a result, the BLM is now analyzing two No Grazing alternatives – Alternative B (the original No Grazing alternative) has been revised to be the No Grazing with IVM alternative and the BLM added Alternative D which is the No Grazing without IVM alternative (which is similar to the original Alternative B).
Richard Spotts	25.	NEPA	The NEPA must carry forward and objectively analyze a "No Grazing Alternative". The normal "No Action" alternative would not suffice because it would tend to look at continuation of the inadequate status quo or current management. The "No Grazing Alternative" would provide the proper baseline for evaluating the other alternatives.	See the response to comment #24.
WWP/SC/TG	26.	NEPA	The BLM must analyze our proposed alternatives:	This will be analyzed in detail as part of the No Grazing alternatives (Alternative B and D). See

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			• We recommend the BLM close all allotments and/or portions of allotments that occur inside the SPRNCA.	the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA.
Cascabel Conservation Association	27.	NEPA	The Cascabel Conservation Association endorses and incorporates by reference the comments of the Lower San Pedro Watershed Alliance, submitted on June 7, 2021 by Ms. Diane Laush.	Noted, thank you for your comment.
Kristin Yannone	28.	NEPA	Also missing were the required reports to congress, the first to be filed by 1993 and every ten years thereafter. These documents must be made available with sufficient time for review before the comment period is concluded. The BLM completed an RMP for the area in 2019. It is not clear if this document complies with the required reports.	The required reports to Congress have been replaced with the National Landscape Conservation System (NLCS) Annual Manager Reports which report on the state of the Conservation Values and the on-going activities in each National Conservation Area (NCA) and National Monument (NM) including the SPRNCA. These reports are provided to Congress.
WWP/SC/TG	29.	NEPA	For BLM to proceed with this project on the assumption that this is a "renewal" results in an inaccurate baseline for the National Environmental Policy Act (NEPA) analysis. As BLM is aware, establishing an accurate baseline is not an independent legal requirement, but rather a practical requirement in environmental analysis often employed to identify the environmental consequences of a proposed agency action. American Rivers v. FERC , 201 F.3d 1186, 1195 n. 15 (9th Cir. 1999).	There are currently four active grazing leases associated with the SPRNCA. The BLM is considering the renewal and modification of the leases to meet the resource objectives established in the SPRNCA RMP. The scoping packet included Alternative B which was the No Grazing alternative and Alternative C which was the No Action alternative. In response to public comments that voiced concerns about the BLM failing to meet Standard 3 of the Arizona Standards for Rangeland Health, the BLM added proposed IVM treatments into the Proposed Action and alternatives. As a result, the BLM is now analyzing two No Grazing alternatives – Alternative B (the original No Grazing alternative) has been revised to be the No Grazing with IVM alternative and the BLM added Alternative D which is the No Grazing

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				without IVM alternative (which is similar to the original Alternative B). Alternative C (No Action alternative) will look at the impacts if the BLM were to renew the existing livestock grazing leases with no changes to the existing terms and conditions and no additional actions (including no IVM treatments). The No Grazing without IVM (Alternative D) alternative will be the baseline against which the BLM will compare the impacts from the action alternatives and No Action alternative.
WWP/SC/TG	30.	NEPA	The current and proposed livestock use of the SPRNCA is not and has never been adequately analyzed under any land use plan, including the 2019 RMP.	The current and proposed livestock use of the SPRNCA was analyzed in the SPRNCA Proposed RMP Proposed and Final EIS (2019).
WWP/SC/TG	31.	NEPA	Here, because the BLM based its No Action alternative on the false premise that livestock grazing was permitted on four allotments, and BLM plans to compare the impacts of the other action alternatives to this misleading baseline, the entire NEPA analysis for this project is rendered inadequate.	See the response to comment #29 for an explanation of which alternative will be the baseline against which the BLM will compare the impacts of the other alternatives.
WWP/SC/TG	32.	NEPA	The BLM identifies several other issues that will be eliminated from analysis that should now be analyzed because they were not analyzed in the 2019 RMP NEPA process: • the introduction and spread of non-native invasive species by livestock in the SPRNCA; • how would livestock grazing impact native invasive shrub cover; • how would livestock grazing and fencing in the uplands impact erodible soils and erosion rates; • how would livestock water use impact base flows; • how would livestock grazing impact paleontological resources; • how would livestock grazing impact Tribal uses.	The BLM analyzed the impacts of cattle grazing on non-native invasive species in brief in the preliminary EA because there are BMPs in place to limit the introduction and spread of invasive plants. The impacts from livestock grazing on invasive shrub cover are included in the vegetation section (see preliminary EA Section 3.4.2) and the conclusion is that there is no indication that the current and future grazing lease has or will have any impact to native invasive shrub cover. There is similar shrub cover on grazed

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				and ungrazed portions of the SPRNCA and evidence that shrub encroachment has been a longstanding issue in the San Pedro Valley due to changes in climate and historic land uses. Impacts of the Proposed Action and alternatives on erodible soils, erosion rates, and base flows are analyzed in the preliminary EA (see preliminary EA Sections 3.3.6 and 3.3.7). The BLM initiated project-specific, government-to-government consultation with Tribes on January 13, 2021 and will continue consulting throughout the EA process. Whether grazing in this area poses impacts to Tribal interests - and whether the BLM should analyze for such potential impacts - is a matter for Tribes to bring forth via the government-to-government relationship.
WWP/SC/TG	33.	NEPA	For any and all grazing alternatives and if the BLM proceeds to a decision that would authorize grazing, we recommend the BLM add the following language to any and all grazing permits or leases within the SPRNCA: “Permittees or lessees with allotments within the boundaries of the SPRNCA are allowed to voluntarily retire their grazing permits or leases and be eligible for compensation from a third party conservation group”	Terms and conditions are meant to assist in achieving management objectives thus the proposed term and condition does not meet the definition of a “term and condition”. BLM Handbook 4110 describes the process for relinquishment where permit/lease holders may voluntarily relinquish their grazing preference. However, these allotments were allocated for grazing under the SPRNCA RMP. The RMP would need to be amended to "retire" (make unavailable for grazing) a grazing allotment. This process is outside the scope of the EA. A term and condition is not needed for a permit/lease holder to relinquish their grazing preference and authorization.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
WWP/SC/TG	34.	NEPA	Section 2.2.1 does not appear to exist in the Scoping Packet, but this section is referenced on page 23 of that document (under section 2.2.3.1).	In the scoping packet, Section 2.2.1 was located under Section 2.2 and was titled "Adaptive Management Parameters Common to all Allotments". In response to public comments, the BLM revised the Proposed Action. As a result, in the preliminary EA, Section 2.2.1 is now titled "AUM Reduction Common to All Allotments". In the preliminary EA the previous Section 2.2.1 is now Section 2.2.2.
WWP/SC/TG	35.	NEPA	Please justify the ongoing degradation of SPRNCA resources that will result from, and the large amount of financial support needed for grazing infrastructure required for, implementation of the proposed action and all grazing alternatives. Please compare this with the "no grazing" alternative in terms of costs for infrastructure, ongoing restoration, and degradation of natural resources within the SPRNCA.	The cost of, as well as who is financially responsible for, the Proposed Action and alternatives described in the preliminary Environmental Assessment (EA) is outside the scope of the National Environmental Policy Act (NEPA) analysis for the proposed SPRNCA lease renewals. In addition, if the BLM were to implement either No Grazing alternative (see the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA), the BLM would still need to implement fence infrastructure. This is because the allotments include lands inside and outside the SPRNCA as well as state- and privately-owned lands. Any current and potential impacts from grazing and the proposed range infrastructure is analyzed and disclosed in the impacts analysis section of the preliminary EA (see preliminary EA Chapter 3).
WWP/SC/TG	36.	NEPA	We are attaching two documents we have provided to the BLM previously, and ask that they be incorporated into the project record and be carefully considered by the BLM while developing	The BLM will take these documents into consideration during development of the EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			the EA (or preferably EIS) and alternatives for this project. (a 2018 letter from 22 scientists and an annotated bibliography)	
WWP/SC/TG	37.	NEPA	We request that all information used as part of the decision-making process for this project be posted online on a publicly available manner, preferably on a website that allows open access for all members of the public during all comment and objection periods for this project.	The BLM identifies all of the scientific literature and other sources used in the analysis in the reference section of the preliminary EA.
WWP form letter (numerous submissions	38.	NEPA/Public Law	Finally, the agency needs to explain how allowing livestock in a national riparian conservation area during a period of extraordinary drought, and in light of climate change impacts to rivers and wildlife, meets the agency's duty to conserve, protect, and enhance these lands.	See the response to comment #1. In addition, the BLM has built in adaptive management to address resource conditions that are affected by factors such as drought. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA.
WWP form letter (numerous submissions)	39.	EIS	The BLM must recognize that a proposal to authorize four 10-year leases in a Riparian National Conservation Area requires the full review and analysis of an Environmental Impact Statement (EIS), rather than the abbreviated analysis and timeframe for public comment allowed in an Environmental Analysis (EA).	The BLM prepares an EA-level analysis to determine whether or not there are significant impacts from a given action and thus whether or not an EIS needs to be prepared. In addition, the analysis in the EA is tiered to the EIS analysis in the SPRNCA Proposed RMP and Final EIS where appropriate (see preliminary EA Chapter 3).
Defenders of Wildlife	40.	EIS	There are a growing number of threats on all fronts (increased groundwater pumping due to pop. growth and regional development, border wall construction and associated habitat altering activities, prolonged drought/climate change, etc.) These are all increasing pressure on already fragile wildlife, including T&E species and habitat within the SPNRCA. This warrants the need for a thorough cumulative impacts analysis provided by an EIS. The decision about whether or not to authorize proposed grazing should only be made after careful consideration of the numerous and	Increased groundwater pumping and prolonged drought and climate change are included in the affected environment section for the pertinent resources of the preliminary EA. Construction of the border barrier does not affect the resources that are affected by the proposed livestock grazing lease renewals and additional actions. This is reflected in the analysis area for these resources in the preliminary EA. The geographic extent of areas

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			increasing threats confronting the wildlife and habitat that were intended to be protected by the designation of the SPRNCA.	affected by grazing does not include the border barrier area. In response to the question of whether or not an EIS is needed, see the response to comment #39.
Kristin Yannone	41.	EIS	The BLM's NEPA Handbook identifies that an EIS is appropriate for areas with identified "unique characteristics". The NEPA Handbook (H-1790-1 BLM NEPA Handbook 508) states at page 71 that where the area's unique characteristics have been identified through the planning process or otherwise, that the preparation of an EIS is appropriate.	The BLM's NEPA Handbook at page 71 cites the Council on Environmental Quality (CEQ) regulations which require the BLM to consider twelve factors for evaluating intensity. One of those factors is "unique characteristics of the geographic area". In the EA analysis, the BLM must consider this factor along with CEQ's eleven other considerations for evaluating intensity. The BLM prepares an EA-level analysis to determine whether or not there are significant impacts from a given action and thus whether or not an EIS needs to be prepared.
Kristin Yannone	42.	EIS	In the allotted review time, it has not been possible for me to analyze each LHA. However, given these examples of failing rangeland health, an exhaustive study isn't needed in order to show that the BLM must prepare an EIS.	In response to public comments that voiced concerns about the BLM failing to meet Standard 3 of the Arizona Standards for Rangeland Health, the BLM made changes to the Proposed Action between the scoping packet and the preliminary EA. The revised Proposed Action in the preliminary EA includes temporarily suspending AUMs by 50% of authorized use, adaptive management (simplified from the version that was in the scoping packet), and integrated vegetation management (IVM) treatments to improve resource conditions and make progress towards achieving Standard 3. In addition, the LHEs describe that shrub encroachment has been a longstanding occurrence in the San Pedro Watershed and that high shrub cover was observed at

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				Assessment Inventory and Monitoring (AIM) plots in un-grazed areas of the SPRNCA (see draft LHEs section 7.3.1 and 7.3.2). This long-standing trend, which is present on both grazed and un-grazed areas of the SPRNCA, is contributing to not meeting Standard 3. For concerns about preparing an EIS, see the response to comment #39.
Kristin Yannone	43.	EIS	The [SPRN]CA has been identified as one of the four major north-south migratory bird corridors along with the Rio Grande, Santa Cruz, and the Colorado River. See San Pedro Riparian National Conservation Area IBA – Arizona Important Bird Areas Program (aziba.org). A riparian area in the desert is critically important to all wildlife, especially in times of extreme drought. These impacts must be analyzed in an EIS.	Impacts to federally-listed species, SPRNCA priority species, migratory birds, general wildlife, and their habitats are analyzed in the preliminary EA Section 3.4, Issues Analyzed in Detail, in addition Section 7 consultation with the U.S. Fish and Wildlife Service will be completed prior to authorization of these actions. The analysis in the preliminary EA for these resources is tiered to the EIS analysis in the SPRNCA Proposed RMP and Final EIS where appropriate (see preliminary EA Chapter 3).
Kristin Yannone	44.	EIS	Latest scientific analyses project that the ongoing drought is likely to continue into the future for at least four more years. Climate change is certainly irreversible for the near and middle term at least. Invasive species are expanding and present an increased threat of wildfire, all related to climate change. The environmental effects are highly controversial, as that term is used in the NEPA Handbook. This must be analyzed in detail in an EIS.	The effects of livestock grazing and associated infrastructure on the landscape is studied and well documented. Thus, there is not controversy surrounding the effects that livestock grazing has on the landscape. The Proposed Action in this preliminary EA includes adaptive management measures which would allow the BLM to adjust AUMs based on the resource conditions as a result of factors such as drought. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				In addition, climate change, invasive species, and wildfire threat are included in the analysis of related resource issues in the preliminary EA.
Kristin Yannone	45.	EIS	The [SPRN]CA adjoins Mexico and has been used extensively by undocumented immigrants for decades. The area around the [SPRN]CA is one of intensive efforts to enforce immigration law and the military/ICE presence in the area is very heavy; nearby Fort Huachuca in Sierra Vista trains 9000 students each year. Between this military presence and the many immigration-related problems are complex and are cumulative impacts to the resources in the [SPRN]CA. They must be included in the NEPA document and are likely to be highly controversial mandating the preparation of an EIS.	See the response to comment #17 for concerns related to the border. Uses outside the SPRNCA which might impact SPRNCA resources are analyzed in the cumulative effects section of the SPRNCA RMP (2019) and this preliminary EA tiers to that analysis. See the response to comment #39 for concerns about preparing an EIS.
Richard Spotts	46.	EIS	It is improper "segmenting" to address renewal of these four grazing permits in a narrowly-defined EA when these are basically "connected actions" with other decisions on other SPRNCA grazing permits, various "range improvement" projects, and cause indirect and cumulative impacts that are at larger spatial and temporal scales. Under the CEQ NEPA context and intensity criteria for "significant", protected areas or ecosystems, and those with endangered or threatened species (like the SPRNCA), are especially worthy of EIS level analysis when proposed actions may harm those resources or species. As such, BLM should prepare an EIS that analyzes these four allotments in the proper larger context.	The four grazing allotments included in the preliminary EA are the only four grazing leases currently on the SPRNCA. The preliminary EA includes an analysis of the effects of these four grazing leases and accompanying range improvement projects all in one document and thus there are not any issues regarding “segmenting”. In addition, past, present, and reasonably foreseeable actions and trends are also addressed in the affected environment of each resource that is analyzed in the preliminary EA. For concerns about the preparation of an EIS, please see the response to comment #41.
WWP/SC/TG	47.	EIS	The BLM may, emphasis on may, have been able to proceed through this process on the basis of an Environmental Assessment had BLM chosen to proceed with a single allotment. However, it is	See response to comments #39 and #46.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			clear that the context and intensity of this proposal to authorize grazing on four separate allotments in this protected area require the preparation of an EIS.	
Joe Flynn	48.	Cost	If cattle are allowed on the SPRNCA, the owners of the cattle should pay the full cost of the "about 39,640 feet of fencing to provide a barrier along the SPRNCA boundary for the four allotments."	See response to comment #35.
WWP form letter (numerous submissions	49.	Cost	The public deserves to know how much the fencing, stock tanks, troughs, and other livestock infrastructure will cost, and how much money the ranchers will be required to pay for the privilege of grazing these publicly owned lands.	See the response to comment #35. The formula for calculating the grazing fees was established by Congress. Any action analyzed at the local level cannot influence these fee amounts.
Jeff Burgess	50.	Cost	You would also be saving the taxpayers the expense of building all of the new livestock watering sites and fences that would be required to implement your proposed action, Alternative A, the Adaptive Management Alternative. This alternative also calls for frequent monitoring of "ecological triggers and thresholds" that would drive the adaptive management decisions. Most of these monitoring expenses could also be saved if the No Grazing Alternative were implemented. Also, I doubt you have enough resources to complete all of the proposed monitoring for very long anyway.	See the response to comment #35.
Richard Curtis	51.	Cost	Will the amount the farmers pay for grazing privileges cover the costs the taxpayers will be required to pay for the infrastructure and to manage the grazing allotments?	See the response to comment #35.
John Welch (Archaeology Southwest)	52.	Cost/ Monitoring	We recommend that the BLM clarify who, specifically, is responsible for the management and monitoring of allotments that include both SPRNCA and non-SPRNCA lands. Are these allotments managed and monitored by BLM personnel with primary responsibilities for	The BLM Tucson Field Office is responsible for the management and monitoring of all BLM lands within the BLM Tucson Field Office boundary.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			SPRNCA or by BLM personnel who have primary responsibilities outside of SPRNCA? It may be that BLM will judge as peripheral to allotment health and planning the issue of whether BLM personnel with primary responsibilities for SPRNCA are also assigned to assist in the management of lands outside of SPRNCA. Nonetheless, we think citizens, traditional owners (i.e. tribes), and stakeholders all need to have clear understandings of whether BLM budget allocations for SPRNCA personnel and management are being used primarily in pursuit of the SPRNCA mission.	While BLM budgets are a concern to stakeholders and the public, that is an issue that is outside the scope of both the LHEs and the EA.
Jeff Burgess	53.	Cost/ Monitoring/ Riparian	As I mentioned above, I doubt you have the resources to conduct the proposed quarterly or monthly monitoring of the Water Quality Adaptive Management criteria. One reason I say that is because of the lack of riparian monitoring information in the Babocomari Allotment's draft LHE. The riparian monitoring information that's provided is referred to in the assessment of the allotment's compliance with the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (S&Gs). The portion of the LHE that assesses compliance with S&Gs Standard 2: Riparian-Wetland Sites takes up only two pages in the 58-page LHE. These two pages explain that the upper reach of the Babocomari River on the allotment was assessed as being in proper functioning condition (PFC) in the fall of 2013. However, most of the river on the allotment is in the lower reach. A PFC assessment conducted on the river's lower reach in 2013 found that it was Functional-At-Risk, primarily due to the effects of livestock grazing. But in 2018, the LHE explains, this stretch was reassessed as being in Proper Functioning Condition. But the LHE doesn't state if these two assessments were	The two PFC assessments, one conducted in 2013 and one conducted in 2018, were both conducted at the end of October (October 24, 2013 and October 26, 2018 respectively). The PFC assessments that are compared in the LHE are of the lower reach of the Babocomari River, which stretches from the USGS gage to the eastern SPRNCA boundary (see Section 6.2.2 of the Babocomari LHE). The BLM is in the process of establishing quantitative riparian monitoring on locations along the Babocomari and San Pedro Rivers in addition to the PFC assessments. The discussion of resources to conduct the monitoring is outside the scope of the analysis.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			conducted during the same time of year, nor does it show the locations where they were made. Even Table D-37 in the LHE's appendices, which shows the notes taken during the 2013 & 2018 assessments, doesn't indicate where they were completed. Despite this paucity of riparian monitoring, the LHE states that, based only on these two unknown locations in a 2-mile-long stretch of the river, the Babocomari Allotment is meeting Standard 2 for Riparian-Wetland Sites. And this is despite the fact that the allotment's existing livestock management plan allows annual grazing along the river! Can you please provide more recent and specific information about riparian habitat monitoring on the Babocomari Allotment?	
Tom Leskiw	54.	Socio-economic	The minuscule receipts received by the Federal Treasury for grazing uses in the Desert Southwest, especially relative to tourism, is but one additional reason why there should be no grazing within SPRNCA. The vast amount of funding necessary to analyze, build and MAINTAIN 39,640 feet of fencing could be better spent elsewhere. In my extensive time spent exploring SPRNCA, I often encountered dilapidated and/or non-functional range infrastructure such as fencing. Please don't sacrifice water quality and fragile riparian health in favor of a pipe dream that this infrastructure will be different.	The formula for calculating the grazing fees was established by Congress. Any action analyzed at the local level cannot influence these fee amounts. For concerns about water quality and riparian health, see the responses to comments #91 and #142 (below). See the response to comment #35 for concerns about cost.
WWP/SC/TG	55.	Socio-Economic	The economic impact analysis cannot be dismissed from analysis either. This economic analysis was deferred during the RMP process until this NEPA process. The BLM cannot, yet again, defer the analysis of livestock grazing impacts, economic or otherwise, to some imagined future process. The BLM must analyze and disclose how much economic impact it would	The socio-economic impacts are discussed and disclosed in Section 3.3.4 of the preliminary EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			be to the community if these permittees were no longer allowed to graze their commercial cattle operations within the SPRNCA.	
WWP/SC/TG	56.	Socio-Economic	We can find no reference that supports the BLM statement in the Scoping Packet (at page 11) that "livestock grazing in the proposed project area has been a small but consistent local economic driver and would continue to contribute to the local economy under the Proposed Action." From what we understand, and the information available publicly, livestock producers are operating at a loss (despite the embarrassingly low AUM fees on BLM and other federal public lands) and are seeking government help to artificially prop up their business operations.	Please see the response to comment #55.
Robert Luce	57.	Socio-economic impacts	Also, BLM should examine the public benefit of renewing grazing leases on these four allotments, an action that will require 39,640 feet of new fencing at public expense. The RMP stated: "Across the SPRNCA's four grazing allotments of 7,030 acres, there is a maximum of 592 AUMs available. Billed use, however, varies annually". According to the RMP this level of grazing use is estimated to support one job and approximately $11,000 in labor annually (RMP citation: Jaworski 2013)." The Government Accounting Office said in 1991: "According to the most current data available, the economic benefits derived from livestock grazing on BLM lands in the hot desert areas are minimal" (United States Government Accounting Office 1991).	Please see the response to comment #55.
Robert Luce	58.	Recreation	The grazing allotment review should provide an analysis of how BLM justifies trading significant recreational values for minimal grazing income for the county.	Recreational opportunities would continue to be available in the project area. Economic benefits of recreational and other uses were analyzed in the SPRNCA RMP (2019) and would continue to be generated. An analysis of

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				economic trade-offs is outside the scope of the NEPA analysis. The impacts to recreation from the Proposed Action are discussed in Section 3.3.1 of the preliminary EA.
WWP form letter (numerous submissions	59.	Recreation	Ask the agency to protect the Outstandingly Remarkable Values of the Babocomari and San Pedro Rivers and no to compromise the ability of these rivers to be designated as Wild and Scenic Rivers.	The preliminary EA includes analysis of the impacts of the Proposed Action on the following river values in the relevant resource-specific sections: free flowing condition, water quality, and Outstandingly Remarkable Values (ORVs). ORVs in the San Pedro River study corridor include: scenery, recreation, fish and wildlife habitat, cultural, historic, botanic and paleontological. ORVs in the Babocomari River study corridor include: scenery, recreation, fish, wildlife historic, and cultural. Additional discussion about impacts to the ORVs are described in Section 3.3.3 of the preliminary EA.
Kristin Yannone	60.	Recreation	The Act designating the [SPRN]CA clearly found that the San Pedro River met the eligibility standard for inclusion and the BLM's own webpage suggests that the suitability standard was met (see the approved RMP at page 1-5. An eligibility determination should be made before any grazing decisions are analyzed since the livestock grazing cannot be allowed to degrade a river system's suitability for inclusion in the Wild and Scenic River System. Impacts to wild and scenic rivers are identified in the BLM NEPA Handbook (at page 71) as justifying an EIS.	Both the San Pedro and Babocomari Rivers have been determined to be eligible and suitable for inclusion in the National Wild and Scenic Rivers System with a Recreational classification; no further determinations are needed. Both rivers are under protective management, and decisions to protect river values indicated in the SPRNCA RMP Record of Decision (ROD) (2019) (pages 2-21, 2-22), and the management guidelines in Appendix P of the SPRNCA Proposed RMP and Final EIS (2019), will be implemented to avoid or mitigate impacts of the Proposed Action and alternatives.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				The BLM's NEPA Handbook at page 71 cites the CEQ regulations which require the BLM to consider twelve factors for evaluating intensity. One of those factors is "unique characteristics of the geographic area" which includes wild and scenic rivers, both designated and suitable. In the EA analysis, the BLM must consider this factor along with CEQ's eleven other considerations for evaluating intensity. The BLM prepares an EA-level analysis to determine whether or not there are significant impacts from a given action and thus whether or not an EIS needs to be prepared. See the response to comment #59.
Kristin Yannone	61.	Recreation	Recreation can be adversely impacted by livestock grazing particularly in fragile ecosystems. Moreover, the cumulative impacts of recreation, which is promoted by the BLM and the State of Arizona in the [SPRN]CA, are complicated and the impacts may be controversial (see the NEPA Handbook at page 71), making an EIS mandatory.	Impacts of the Proposed Action on recreational and educational opportunities are described in Section 3.3.1 and Section 3.3.2 of the preliminary EA respectively. In summary, recreational and educational opportunities would continue to be available and the Proposed Action does not change any of the existing educational sites/trails or programs. Specific recreational and educational sites (e.g., Brunkow Cabin, riparian habitat), as well as access, would be protected through BMPs and adaptive management strategies. The effects of recreation on the landscape are well studied and documented. Thus, there is not controversy surrounding the effects that recreation has on the landscape. See response to comment #39 for a response to the concern for the need for an EIS.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Richard Spotts	62.	Recreation	The NEPA must honestly disclose and objectively analyze how proposed livestock grazing and associated "range improvements" may adversely affect the Outstandingly Remarkable Values of the San Pedro and Babocomari Rivers and thereby harm the ability for protection under the Wild and Scenic Rivers Act.	The impact of the Proposed Action and alternatives on the study rivers' free flowing condition, classification and ORVs will be discussed in Section 3.3.3 of the preliminary EA. See the response to comment #59.
WWP/SC/TG	63.	Recreation	BLM must analyze the impacts of the proposed action, which would significantly expand the footprint of livestock grazing infrastructure within the SPRNCA, on the recreational user's experience. The planned gates, fences, and other infrastructure may be located in discrete areas, but the impacts are far reaching within the SPRNCA, spanning far more than 8 linear miles of the SPRNCA and San Pedro River as well as significant impacts on the Babocomari River.	The analysis in the preliminary EA includes the footprint of grazing infrastructure (fences, new waters). See the response to comment #35. See the response to comment #61 regarding additional information about the impacts of the Proposed Action on recreational and educational opportunities within the SPRNCA.
WWP/SC/TG	64.	Recreation	The BLM must also include an analysis of the impacts to recreational users for a "no grazing" alternative which would include significantly reduced impacts because of the elimination of livestock feces in the river and riparian area, as well as uplands, the reduced conflicts, danger, and fear that recreational users feel when they encounter livestock, and the improved recreational experience of bird watchers and other wildlife enthusiasts who will no doubt see more wildlife while stepping in fewer cow pies.	See the response to comment #61 regarding how the impacts of the Proposed Action on recreational and educational opportunities within the SPRNCA is addressed in the preliminary EA. In addition, see the response to comment #35.
WWP/SC/TG	65.	Recreation	BLM inaccurately dismisses the impacts to visitors from livestock grazing at the Charleston Bridge parking lot by stating that the adjacent allotment is not currently grazed and will not be grazed, but this ignores the fact that visitors do not stay within the parking lot and livestock do not stay within their allotments or pastures. Therefore, the BLM must include an analysis of the impacts of livestock grazing, fence construction,	See the response to comment #61 regarding how the impacts of the Proposed Action on recreational and educational opportunities within the SPRNCA are addressed in the preliminary EA. For concerns about unauthorized livestock, see comment #71 (below).

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			maintenance, and operation of range infrastructure on recreational users.	
WWP/SC/TG	66.	Recreation	The BLM cannot ignore the impacts to educational resource values either. The BLM is correct that historic, natural heritage, and educational opportunities occur throughout the SPRNCA, but BLM is incorrect when it claims that livestock grazing or the proposed action would not destroy those educational features. When livestock trample stream banks, consume vegetation, destroy soil crusts, and alter vegetation communities, the opportunities to lean about intact riparian and upland ecosystems is lost. Additionally, were the BLM to eliminate livestock grazing from the SPRNCA, the area would be a valuable source of data collection and research opportunities to compare an ungrazed riparian and upland area to the vast majority of BLM lands that are grazed.	See the response to comment #61 regarding how the impacts of the Proposed Action on recreational and educational opportunities within the SPRNCA are addressed in the preliminary EA. The preliminary EA includes an analysis of two No Grazing alternatives which consider the effects of removing livestock grazing from the SPRNCA. See the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA.
WWP/SC/TG	67.	Recreation	Furthermore, "[g]razing will be managed to protect free-flowing conditions, water quality, tentative classification, and ORVs." ama-WSR-18. New range projects will be allowed only if the design is consistent with free-flowing conditions, water quality, tentative classification, and ORVs. ama-WSR-20. Only minor structures and developments (such as watershed restoration/enhancement projects, vegetation management, bank stabilization or channel restoration projects) are allowed and then only to preserve, protect, and enhance the river segment classifications. ama-WSR-26. Instead, the BLM here proposes to add fencing, including massive gap fencing that looks more like something you would see at the newly constructed (without any engineering or NEPA analysis and incredibly ecologically destructive and completely useless for stopping people)	Potential impacts on the eligibility/suitability of both study rivers are discussed in Section 3.3.3 of the preliminary EA. In summary, no stream diversions or impoundments are proposed which would affect free-flowing conditions. Impacts on water quality and ORVs would be mitigated by adaptive management actions and BMPs. The scoping packet included the "Babocomari River Canyon Exclosure" which would have been implemented if water quality thresholds were exceeded multiple times. In response to public comments that voiced concern about the riparian habitat and water quality, the BLM is now proposing to implement the fencing for what was formerly called the "Babocomari

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			border wall. See figure below from Appendix A of the Scoping Packet, and compare to photo by Dr. Robin Silver of border wall across San Pedro River. The implementation of the measures necessary to keep livestock from destroying the Babocomari and San Pedro rivers and corridors will impair the ORVs of both rivers and corridors, violate the RMP, and likely violate the Wild and Scenic Rivers Act. Yet, BLM proposes these violations of law and this destruction of rare and important river and riparian habitat all for a handful of livestock operators, a few dozen livestock and all for the bargain basement price charged to livestock permittees of $1.35 per AUM, or at best $24,948 per year in grazing fees. In light of the costs associated with managing livestock permits, the costs of infrastructure needed to facilitate cows in the SPRNCA – this seems both unlawful and unwise.	River Canyon Exclosure" and is now called the "River Canyon Pasture" immediately so that cattle could be removed promptly if water quality adaptive management is triggered. See preliminary EA Section 2.2.5.2 for additional information about how the River Canyon Pasture and fence would be implemented. The fencing for the River Canyon Pasture would be implemented to protect the riparian area and water quality; the water gaps across the Babocomari River would be designed to allow the stream flow and debris flow to pass or break away in a flood. The water gaps would be constructed using low impact methods and designed for minimum visual contrast. Visual impacts localized in the immediate vicinity of project sites would be inevitable but would only affect the immediate project surroundings. Impacts of the Proposed Action on visual resources are analyzed in detail in Section 3.4.7 of the preliminary EA. No water gap fence is proposed across the San Pedro River. In the Brunckow Hill Allotment, the BLM and the lessee have identified that building fences across the San Pedro River is not feasible and thus the BLM will not construct any fencing across the San Pedro River. In addition, see the response to comment #35 for concerns about cost.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Ron Stewart	68.	Recreation	The fencing required to contain cows in these allotments effectively excludes the public from what are supposed to be accessible areas.	BMPs would be implemented to provide access through the SPRNCA boundary fence and pasture fences on existing roads and trails and for ingress to foot paths for hunting access.
WWP form letter (numerous submissions	69.	Recreation/ Cultural	The agency must analyze the impacts on recreational users of their plan to put cows, fences, gates, and huge gap fences across the Babocomari River, as well impacts of livestock on educational and cultural resources.	See the response to comment #61 regarding how the impacts of the Proposed Action on recreational and educational opportunities within the SPRNCA is addressed in the preliminary EA. Impacts of livestock on cultural resources is analyzed in detail in the preliminary EA in Section 3.4.6. In addition, the preliminary EA analyzes in detail the impacts on the visual quality of the recreational activity areas in Section 3.4.7 of the preliminary EA. Impacts to recreation and educational opportunities are analyzed in brief in Sections 3.3.1 and 3.3.2 of the preliminary EA. BMPs will be used to minimize impacts on the setting, including features that attract educational opportunities. Proposed range infrastructure would be designed to avoid creating barriers to dispersed recreation.
WWP/SC/TG	70.	Recreation/ Riparian	As we state above, the proposed fencing and gap fencing will indeed impact the free flowing condition of the San Pedro and Babocomari rivers. The fencing will affect scenic quality and negatively impact visitor experiences. The E. coli contamination that will continue will have a negative impact on water quality, will put recreational users at risk, and will impair Outstandingly Remarkable Values. The BLM contends that the protective measures will	The water gap fences would be designed to either allow passage of stream flow and debris flows or break away and would not create an impoundment or diversion affecting free flowing conditions. For concerns about ORVs, see the response to comment #59.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			alleviate impacts, however (and as stated above), BLM has absolutely no ability or resolve to keep cows where they belong and therefore the "protective measures" are meaningless.	See the response to comment #141 (below) for concerns about water quality. Impacts to visual resources are analyzed in the preliminary EA in Section 3.4.7. For concerns about unauthorized livestock, see response to comment #71 (below).
WWP form letter (numerous submissions	71.	Unauthorized Livestock	The agency must develop a plan to address the ongoing and longstanding problem of cows trespassing into the San Pedro RNCA and must disclose how these new 10-year leases will exacerbate that problem.	Unauthorized livestock use on the SPRNCA is outside the scope of the LHEs and the EA. While occasional unauthorized use specifically associated with these allotments does occur, BLM handles that through its administrative processes, working with the livestock owner to resolve the issue. Issues related to BLM lease holders are often simple to resolve, as communication channels already exist. Most of the reported unauthorized use occurs in portions of the SPRNCA not allocated for grazing and is a result of livestock not related to BLM leases. When lands are not allocated for grazing, the BLM's administration of unauthorized use is limited to civil actions and further action cannot be taken until an owner is identified. When BLM employees or the public document unauthorized livestock, every attempt is made to identify a brand, determine ownership, and have the livestock removed by the owner. The BLM is working to improve its tracking of such reports and its responsiveness back to the reporting public, acknowledging concerns and actions taken.
Ann Prezyna	72.	Unauthorized Livestock	Regular reports of trespass cattle by Robin Silver, a neighbor, have been ignored.	Please see the response to comment #71.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
LSPWA	73.	Unauthorized Livestock	BLM is proposing to increase the number of cattle on three (Babocomari, Brunckow Hill, and Lucky Hills) for the four allotments. Trespass cattle has been a continuing issue with respect to BLM management of grazing as documented in the 2019 SPRNCA RMP/FEIS. If BLM intends to increase the number of cattle within the SPRNCA allotments for the next 10 years, then the public needs to know exactly how efficient BLM has been at monitoring and responding to trespass livestock. BLM must disclose all information related to trespass livestock including the location of trespass, length of time the livestock were in trespass and the number of trespass livestock. Disclosure of this information will provide the public with accurate information with respect to BLM's grazing management history. This information will aid the public in determining whether the grazing leases should be re-authorized.	The BLM is not proposing to increase the amount of forage utilized by cattle on any of the four SPRNCA allotments. The BLM is proposing to authorize the exact same number of Animal Unit Months (AUMs) as was previously authorized under the existing livestock grazing leases on the four SPRNCA Allotments. The primary change is changing the Type Use from "Active" to Type Use "Adaptive". In making that change the BLM has rewritten the way the terms appear on the livestock grazing leases such that the maximum number of livestock that may be run across the entire allotment at any given time appear under "Livestock Number". The amount of forage utilized by these livestock may not exceed the number of AUMs as defined on the leases. See response to comment #71 for response to concerns about unauthorized livestock use on the SPRNCA.
Duane Ediger	74.	Unauthorized Livestock	In the context of existing leases, cattle commonly enter the San Pedro RNCA. This must stop. Before any leases are offered or renewed, the Bureau needs to implement an iron-clad system that will prevent the damage that results from these intrusions.	Please see the response to comment #71.
Robert Luce	75.	Unauthorized Livestock	Trespass livestock has always been an issue on the SPRNCA. The National Riparian Service Team (NRST) (BLM 2012) stated: although the SPRNCA's original management plan stopped permitted livestock grazing along the river, a key finding of the NRST 2012 assessment was that more needs to be done to eliminate trespass livestock on the SPRNCA. According to the evaluation, livestock use is retarding recovery of	Please see the response to comment #71.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			sections of the river. Unauthorized grazing was found all along the river, but the detrimental impacts were more visible in localized areas within certain reaches, i.e. Babocomari and St David (and currently Hereford). Livestock from the four allotments in question are likely to be part of the source of the trespass. BLM has not done an adequate job of explaining how it intends to improve the trespass situation on the SPRNCA. Certainly, eliminating livestock grazing on the four allotments would help	
LSPWA	76.	Grazing	**Scoping comments for draft EA**: BLM must justify why the grazing allotments should be reauthorized when the allotments continue to fail to meet all of the rangeland health standards.	See the response to comment #42.
LSPWA	77.	Grazing	It is apparent that grazing in the uplands is contributing to the *E. coli* in the Babocomari and San Pedro Rivers. Therefore, we request that BLM disclose all *E. coli* information and any studies that they have related to *E. coli*, livestock, and human health issues with respect to the Babocomari and Brunckow Hill Allotments.	All water quality data is available at https://www.waterqualitydata.us. All studies and information used have been disclosed in the LHEs and EA.
Robert Luce	78.	Grazing	The number of Animal Unit Months (AUM) of grazing allowed on the allotments in questions was set pre-1990 when normal precipitation and moisture conditions existed in Cochise County, Arizona. At present, Cochise County is in a severe drought and presumably perennial and annual grasses are in very poor condition and would benefit from not being grazed for at least fifty years.	AUM carrying capacity levels were set for these allotments in the Eastern Arizona Grazing EIS using good, fair, and poor range conditions. While these AUM carrying capacities were set in the 1980s, the Proposed Action in this EA includes adaptive management measures which would allow the BLM to adjust AUMs based on the resource conditions as a result of factors such as drought. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Robert Luce	79.	Grazing	The Scoping Document states: The lessee uses variables such as rainfall pattern, pasture readiness, and use of private land irrigated pastures to determine where the livestock should be placed at any given time. Does BLM possess data that confirms leasees are applying the proper criteria to establish pasture readiness on public land? The rainfall pattern criteria alone should indicate no grazing level or only a very low level is appropriate. There was, after all, no monsoon in 2020. The Scoping Documents should contain actual data to support how ranchers for each allotment are making land use determinations on the SPRNCA.	The current leases do not have any range readiness criteria and as a result those statements regarding “pasture readiness” have been removed from the preliminary EA. The Proposed Action in the preliminary EA includes adaptive management measures which would allow the BLM to adjust AUMs based on the resource conditions as a result of factors such as drought. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA.
CBD	80.	Grazing	The Brunchow Hill allotment is the only allotment in the Project Area that appears relatively intact and largely free from substantial grazing impacts. Even though this allotment has not been directly stocked for many years, transient cattle sign can still be found from the numerous unauthorized cattle found throughout the SPRNCA. Even as an isolated patch of river mostly free of the destructive impacts from cattle, it still faces threats from drought, invasive species, climate change, and groundwater loss as more and more upstream locations on the San Pedro River are becoming ephemeral. Why is the BLM willing to sacrifice decades of riparian recovery by again authorizing cattle on this allotment?	The BLM is not newly authorizing livestock on the Brunckow Hill Allotment. The Brunckow Hill Allotment has been allocated 84 Animal Unit Months (AUMs). Livestock grazing was originally authorized through a State Land grazing lease when the SPRNCA was acquired by BLM in the late 1980s and early 1990s. Livestock has continued to be authorized on the Brunckow Hill Allotment through BLM grazing leases. In addition, the SPRNCA RMP (2019) allocated the BLM lands within the Brunckow Hill Allotment within the SPRNCA as available for livestock grazing. See response to comment #71 for response to concerns about unauthorized livestock use on the SPRNCA. Impacts from drought, invasive species, climate change, and groundwater loss are included in the analysis of related resource issues in the preliminary EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				See response to comment #79 for information on adjusting authorized AUMs in response to drought.
CBD	81.	Grazing	The Project Area is characterized by Exceptional (D4) drought and has been for the duration of the current calendar year. Why then is BLM's plan to increase cattle grazing at this time? How can the agency charged with administering a Conservation Area such as SPRNCA possibly consider authorizing such undeniably reckless land uses? Considering the climatic circumstances, why are cattle not being immediately removed from the landscape instead, especially in Conservation Areas?	The BLM is not proposing to increase the amount of forage utilized by cattle on any of the four SPRNCA allotments. The BLM is proposing to authorize the exact same number of Animal Unit Months (AUMs) as was previously authorized under the existing livestock grazing leases on the four SPRNCA Allotments. The primary change is changing the Type Use from "Active" to Type Use "Adaptive". In making that change the BLM has rewritten the way the terms appear on the livestock grazing leases such that the maximum number of livestock that may be run across the entire allotment at any given time appear under "Livestock Number". The amount of forage utilized by these livestock may not exceed the number of AUMs as defined on the leases. See response to comment #79 and #81 for concerns about drought and other conditions.
CBD	82.	Grazing	A forthcoming EA for this Proposed Action must consider and fully analyze all reasonable alternatives including no grazing, and using the best science available justify why continued grazing (and increased stocking) during an extended exceptional drought is the best path forward for the SPRNCA and the critical habitat contained within its boundaries.	The preliminary EA considers and analyzes all reasonable alternatives, including two No Grazing alternatives. See the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA. The EA also uses the best available science in the analysis.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				The Proposed Action does not include increasing the stocking rate. For additional explanation see the response to comment #73. Please see the response to comments #79 and #81 for how drought conditions will be addressed.
Cascabel Conservation Association	83.	Grazing	Large livestock, even in small numbers for short periods of time compact and pulverize soil, remove and prevent vegetation, and promote soil erosion. During very specific periods, they can be used to push seeds into the soil, but this requires close attention and timing… elements inherently lacking in this plan.	The preliminary EA will include analysis of the impacts of the Proposed Action on soils and vegetation in Section 3.3.6 and 3.4.2 of the preliminary EA respectively.
Kristin Yannone	84.	Grazing	The LHA does not state what those changes in grazing management were or how the allotment was impacted by the severe drought in 2018 through 2020 (and continuing in 2021). Only one soil type was achieving Standard 3, desired rangeland condition.	The changes in grazing management refer to changes in when the lessee chose to put the cattle in the River Pasture. Specifically, the lessee chose to put the cattle in the River Pasture later in the fall. Under the existing Babocomari lease, the River Pasture is available for livestock use yearlong and adjustments in grazing management are voluntary.
WWP/SC/TG	85.	Grazing	Furthermore, the portion of the Brunckow allotment west of the railroad grade has reportedly been ungrazed for three decades so the loss of acres for grazing to the lessee would be insignificant. Brunckow LHE at 30. The BLM will require the installation of fencing and other infrastructure (which will harm SPRNCA resources) before livestock can be grazed in the western portion of the Brunckow allotment. The BLM should therefore close this portion of the allotment to livestock grazing. This portion of the allotment is not used for economic gain, can provide an excellent site to study the long-term impacts of livestock grazing and the impacts of the cessation of livestock grazing in terms of	While the portion of the Brunckow Hill Allotment west of the railroad grade has reportedly been un-grazed for the past 30 years, livestock have been authorized to use that area through BLM grazing leases. In addition, BLM is analyzing an alternative in detail that considers eliminating that portion of the allotment from the allotment boundary. In the scoping packet this was Alternative A.2 (Proposed Action with Brunckow Hill Allotment Boundary Modification). The BLM determined that the previous Alternative A.1 (Proposed Action with an Expanded Babocomari River Canyon Exclosure) was in fact not a separate alternative but rather an option that was part of

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			recovery time for this ecosystem type. Authorizing or permitting livestock grazing in this area would impair, rather than conserve, protect, or enhance SPRNCA resources and there is no justification for opening up this area to livestock grazing.	the Proposed Action. The BLM revised the Proposed Action to include the old Alternative A.1 to be an option under the Proposed Action and shifted the old Alternative A.2 to Alternative A.1. See Alternative A.1 (Proposed Action with Brunckow Hill Allotment Boundary Modification). The purpose of excluding the San Pedro River from the other portions of the allotment is to protect endangered species and their designated critical habitat located within the Brunckow Hill Allotment on the San Pedro River while accommodating livestock grazing on private property.
Renell Stewart	86.	Grazing	All the allotment lessees also graze on other BLM land, State land and private land. By not renewing their SPRNCA allotment they will not be putting these ranchers out of business. Perhaps BLM could research the feasibility of swapping BLM "nonSPRNCA" acreage for BLM SPRNCA acreage on some allotments?	. All of the BLM land outside of the SPRNCA is already under BLM grazing leases. Also see preliminary EA Section 2.8.4.
LSPWA	87.	Grazing/ NEPA	What is the disposition of the Babocomari grazing allotment? Has the permit been transferred and if so to whom? Who owns the base property now? We request that BLM consider a provision for "volunteer permit retirement and buyout" so that permittees have an option to stop grazing.	The disposition of the Babocomari Allotment is unrelated to the analysis and decision of the lease renewal. The transferee information will be available on the public Rangeland Administration System (RAS) site once the lease transfer is signed and finalized. See the response to comment #33 for information on "voluntary permit retirement and buyout".
LSPWA	88.	Adaptive Management	**Scoping comments for draft EA**: The draft EA should include a description of the Adaptive Management actions put in place for those allotments that did not meet the rangeland health standards 1, 2, or 3.	The proposed adaptive management is described in Section 2.2.2 and as a subsection under Section 2.2.5, Section 2.2.6, Section 2.2.7, and Section 2.2.8. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				management framework between the scoping packet and the preliminary EA.
LSPWA	89.	Adaptive Management	**Scoping comments for draft EA**: The draft LHEs indicate that no Allotment met Standard 3. BLM must explain why their Adaptive Management actions continue to result in non-attainment of Rangeland health standards.	The adaptive management is part of the Proposed Action in the new lease renewal for the SPRNCA Allotments, not something BLM has implemented in the past. See the response to comment #42 for an explanation of the changes the BLM has made to the Proposed Action between the scoping packet and the preliminary EA to improve resource conditions and make progress towards achieving Standard 3 of the Arizona Standards for Rangeland Health.
Jeff Burgess	90.	Adaptive Management	In other words, if there's evidence that cattle are pooping in the river too much then grazing will be restricted along the river. But don't you already have data that shows this proposed Water Quality Adaptive Management criteria has been exceeded? If so, it's another reason to implement the No Grazing Alternative.	The adaptive management criteria for water quality have not yet been exceeded. In addition, the Proposed Action includes implementing a period of use restriction for the Babocomari Allotment (in the River Canyon Pasture [see the response to comment #67 for an explanation of the changes that were made to the Babocomari River Canyon Exclosure and associated fence between the scoping packet and the preliminary EA]) which is expected to improve water quality conditions.
Jeff Burgess	91.	Adaptive Management	The Adaptive Management Alternative's description explains that if the Water Quality Adaptive Management criteria are exceeded on the allotment, it would result in the creation of something called the Babocomari River Canyon	The River Pasture boundary falls along the SPRNCA boundary and thus needs to be fenced regardless of alternative, with the exception of the No Action alternative.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			Exclosure to exclude cattle from the riparian habitat. There's also an Alternative A.1 for the Adaptive Management Alternative that would create an Expanded Babocomari River Canyon Exclosure if the criteria are exceeded. Both of these two options would require the construction of a lot of new fences. But I don't understand why these fences are being proposed when it's my understanding that there's already a River Pasture on the allotment. Can you please explain?	In response to this comment the BLM is going to consider an alternative in the preliminary EA where cattle would be excluded from the BLM-managed land (Alternative A.2) within the River Pasture (which includes all of the SPRNCA located within the Babocomari Allotment) if the water quality adaptive management criteria are exceeded as described in Section 2.4 of the preliminary EA.
Alice Hamers/ Michael Gregory	92.	Adaptive Management	The Agency's heralding of the "adaptive management" concept as a way to improve its miserable record in this matter is just the current version of a series of terminological flimflams used to allow continued deterioration of the resource by unwarranted livestock grazing.	Adaptive management provides concrete land health parameters in order to ensure that the BLM is achieving adaptive management objectives outlined in the LHEs which tier from the SPRNCA RMP (2019) resource objectives, as required by P.L. 100-696.
Audubon	93.	Adaptive Management	We noted in our comments for the draft RMP that neither the Lucky Hills (9,448 acres of public land) or Three Brothers allotments (2,691 acres of public land) have a Coordinated Resources Management Plan (CRMP), considered to be a basic start point to implement adaptive management strategies. We consider the completion of CRMPs to be an essential requirement of a grazing lease renewal.	Coordinated Resource Management Plans (CRMPs) are not BLM-driven documents and thus whether or not a CRMP is in place is outside the scope of the LHEs and EA. Coordinated Ranch Management Plans (CRMPs) are utilized between agencies and lease holders to prioritize treatments and lay out current conditions. They are also driven by the use of NRCS funds to implement projects. The Lucky Hills Allotment does have a CRMP from 1997. The Three Brothers Allotment does not currently have a CRMP in place. The current lease holder could work with NRCS on developing a CRMP.
Lamar Smith	94.	Adaptive Management	As the definition above indicates, a key area is specific to a particular use or value. As defined, the use is livestock grazing, i.e. the data collected are used to evaluate the effects of livestock	In the Land Health Evaluations (LHEs), BLM identified some of the Assessment Inventory and Monitoring (AIM) random points as key areas based on the principle of a key area. The

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			grazing as a basis for making management adjustments. Key areas could also be selected that are specific to habitat of certain wildlife species, etc. Random selection of monitoring locations is oriented toward having a statistical assessment of conditions over an entire area. These may or may not be of any particular value in evaluating livestock grazing. From the information presented, it is not possible to ascertain whether the plots chosen for monitoring by BLM really represent key areas or not.	LHEs explain why some random AIM points did not meet the criteria for continued allotment monitoring (see Section 4.3.2 of the LHEs). The random AIM study plots will not be used for the adaptive management.
Lamar Smith	95.	Adaptive Management	In the present document BLM is not using utilization to determine “compliance” with utilization standards, but has substituted “foliar cover” of grasses and shrubs instead. The plan sets rigid limits on measured foliar cover of grasses, shrubs and bare ground which trigger automatic reductions in stocking rates, just as rigid standards for utilization have done elsewhere. The same considerations apply to foliar cover and bare ground as for utilization. A reduction in foliar cover or an increase in bare ground may be due to weather conditions, time of measurement, grazing, insects outbreaks, or even to sampling error. This is pointed out in each of the Allotment Evaluations. Just as with utilization, there is no basis for thinking that a reduction in foliar cover or increase in bare ground in one year will result in a permanent and significant change in the characteristics of the DPC and its ability to meet range health objectives over a longer period. BLM is just substituting foliar cover and ground cover for utilization and misusing it in the same way.	Perennial grass foliar cover is an indicator of overall land health. If there is inadequate foliar cover due to drought, grazing, or other disturbances, BLM needs to make management adjustments. The BLM has an obligation to ensure that the BLM is meeting the requirements of Public Law 100-696 by ensuring that all uses on the SPRNCA, including livestock grazing, conserve, protect, and enhance the Conservation Values for which the SPRNCA was designated. Thus, the BLM must use quantitative vegetation thresholds which further define the vegetation objectives in the SPRNCA RMP to make management adjustments.
Lamar Smith	96.	Adaptive Management	Foliar cover of grasses and forbs, on the other hand, is highly affected by current growing conditions (weather or time of year), and by recent grazing by livestock, wildlife or insects. Changes	The BLM is collecting basal cover to assess long term trends and will also take that data into consideration. Foliar cover was chosen for the adaptive management because it is a good

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			in foliar cover, at least in the short run, do not reliably indicate the effect of grazing on the plant community in terms of density, distribution or composition of species. Foliar cover of shrubs is also affected by time of year (especially on deciduous shrubs), grazing, drought or other influences. It is widely accepted that canopy cover is not only a better attribute in terms of assessing the effect of shrub cover on the community but it is also easier and probably more repeatable attribute to measure and/or estimate than foliar cover. So, as a management objective, i.e. one to be attained as part of the DPC, basal cover of herbaceous plants and/or canopy cover of shrubs would seem to be preferable to foliar cover. As a management guideline for short term monitoring, utilization would seem to be preferable to foliar cover because it is more directly related to the amount of use by grazing animals than is foliar cover.	indicator of overall land health for that year. The BLM will be conducting monitoring or routine inspections on a yearly basis. Foliar cover is a more accurate representation of cover than canopy cover because of differences in foliar spread between species. The BLM is interested in how perennial grass cover is affected by variations in annual precipitation, recent grazing, and other disturbances because the purpose of the adaptive management is to protect land health from all of these factors, not just grazing, given the requirements of Public Law 100-696. Please see the response to comment #7 for an explanation of the changes that were made to the adaptive management framework between the scoping packet and the preliminary EA.
Lamar Smith	97.	Adaptive Management	Bare ground also fluctuates seasonally and annually in response to weather, growing conditions, grazing, and other variables. Changes in bare ground are closely related to changes in litter or plant cover. In particular, litter cover will vary among years and seasons, and an increase in litter means a decrease in bare ground or other ground cover categories. Experience in southeastern Arizona has shown that litter cover varies considerably seasonally due to termite activity and weathering, with the lowest levels occurring during the growing season and higher levels during the dormant season as plant parts die and fall to the ground. Thus, setting a long-term objective to maintain or reduce bare ground over a period of years, as long as that objective is consistent with site potential and has some	At these sites, bare ground is less dependent on litter cover and more due to rock cover, therefore the BLM doesn't expect bare ground to be as variable on an annual basis. Bare ground is a reasonable indicator of land and watershed health.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			objective basis, seems reasonable. But using percentage of bare ground as an annual indicator of desired grazing use is not valid.	
Lamar Smith	98.	Adaptive Management	BLM proposes to set standards for foliar cover of grasses and shrubs and for bare ground to be used to make adjustments in stocking rates. Each of the allotment evaluations describes the limits and consequences of exceeding those limits for each ecological site and attribute. First, as previously discussed, this use of foliar cover of grasses and percentage bare ground to make automatic, inflexible management decisions is totally contrary to the concept of adaptive management and the generally accepted principles of good range management. It misuses monitoring data in the same way as BLM and other agencies have used utilization estimates in the past, but using a less credible indicator with stricter rules and pre-determined actions.	The BLM has an obligation to ensure that the BLM is meeting the requirements of Public Law 100-696 by ensuring that all uses on the SPRNCA, including livestock grazing, conserve, protect, and enhance the Conservation Values for which the SPRNCA was designated. Thus, the BLM must use quantitative vegetation thresholds which further define the vegetation objectives in the SPRNCA RMP to make management adjustments.
Lamar Smith	99.	Adaptive Management	But a larger issue is similar to the one raised with regard to destocking actions taken as a result of not meeting cover standards. Where is the evidence that exceeding the E. coli standard twice in 3 years justifies a 25% reduction in stocking, and an additional 25% for each subsequent year? Why not 10% or 50%? The only source cited was one from the front range of Colorado which said that when stocking rates were reduced to 25% of former levels the contamination rate was the same as in an ungrazed area. … In other words, the stocking rate reductions being proposed by BLM have no basis in fact, but are only speculation. If the contamination is due to humans, wildlife, dogs, etc., which they say is possible, reducing livestock may have little or not effect.	While the referenced source is from a different region and is not directly comparable, it does suggest that changes in stocking rate can affect *E. coli* levels. When faced with uncertainties in effects from actions due to the strict requirements of P.L. 100-696, the BLM must take the most conservative action in regard to discretionary activities authorized under FLPMA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Lamar Smith	100.	Adaptive Management	Second, there is no evidence presented to justify that a 25% reduction in grass foliar cover should result in a 50% reduction in stocking rate, or that a 50% reduction in grass cover should result in 100% reduction in stocking rate, or that an increase in bare ground to 40% should result in a 50% reduction in stocking rate (or similar numbers for other ecosites and allotments). If there is any scientific basis for these requirements, it was not presented. (it doesn't exist because it is not scientific to start with). This is an example of purely arbitrary, inflexible and artificial use of so-called standards to provide a basis for litigation and appeals. There is also no reason to suppose that reducing stocking by these amounts will increase the foliar cover or decrease bare ground to the target levels. For example, GRZ 01 (Brunckow Allotment) has an objective of >2% grass foliar cover, but presently has 0% although it has been ungrazed for more than 30 years (pages 30 and 35 Brunckow Allotment Evaluation).	The BLM used AIM data in un-grazed portions of the SPRNCA, ecological site descriptions, and professional judgement to create the vegetative thresholds which more specifically define the vegetation objectives in the SPRNCA RMP. In the preliminary EA, the BLM made changes to simplify the adaptive management framework such that percentages of adaptive management objectives are no longer used to trigger management changes. Under the revised adaptive management, livestock numbers would be reduced by 50% of remaining authorized use (through temporary suspension) if an adaptive management objective is not being met. If adaptive management objectives continue to not be met after 3 years, livestock would be completely removed (through temporary suspension) from the portion of the allotment within the SPRNCA. When faced with uncertainties in effects from actions due to the strict requirements of P.L. 100-696, the BLM must take the most conservative action in regard to discretionary activities authorized under FLPMA.
Lamar Smith	101.	Adaptive Management	Finally, setting the trigger values was based generally on ecological sites. This process assumes that the expected foliar cover values are constant across an ecological site, which ignores that there is considerable variation within the concept of an ecological site due to differences in precipitation (can vary from 12-16 inches/year), soil depth, slope, aspect, or other factors. In fact, BLM did recognize this in some cases. For example, the target for grass cover was set on	The BLM recognized the variability in perennial grass cover across the Limy Upland ecological site in particular because it comprises more of the SPRNCA Allotments than others. The condition of other ecological sites for which BLM has established adaptive management criteria are much more consistent and comprise less of the allotments.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			Babo 05 at >1% (it had 0%) while the target for GRZ 02 was set at >10%, although both are on the same Limy Upland site. The rationale was that Babo 05 “had a lower site potential” (page 18 Babocomari).	
Lamar Smith	102.	Adaptive Management	Under the AM Tab [on the StoryMap] -- "If the data resulting from monitoring at the key areas show that the health of the allotments is deteriorating, the BLM can then adjust the amount of grazing permitted on the allotments." This above sentence should include the following caveat - *provided that livestock are determined to be the primary causal agent for deterioration of rangeland health*.	The adaptive management criteria established for making management changes are all affected by livestock grazing. Other objectives not affected by livestock grazing (such as shrub cover, see response to comment #76) are not included in the adaptive management criteria. See also the response to comment #95 for more information on adaptive management and causal factors.
Lamar Smith	103.	Adaptive Management	Under the AM Tab [on the StoryMap] -- BLM's analysis is apparently based on foliar cover of both herbaceous and woody vegetation. Foliar cover is not a useful metric for monitoring trend in herbaceous vegetation due to yearly variability as well as impacts such as herbivory and fire.	See response to comments #95 and #96.
Lamar Smith	104.	Adaptive Management	Under the AM Tab [on the StoryMap] -- The following AM process has no scientific basis that I know of: " One of the key areas on the Babocomari Allotment is GRZ-02. This key area is subject to a perennial grass foliar cover objective of ≥10%. GRZ-02 is also expected to meet an additional bare ground objective of <35%. If BLM finds that the perennial grass cover is reduced to 75% of the key area objective (for example, if foliar cover is reduced to 7.5%, instead of at least 10%), then the number of cattle on the allotment within the boundaries of the SPRNCA will be reduced by 50%. If perennial grass foliar cover continues to decline below 50% of the objective (in this case, to 5% or less), all cattle will be removed from the	See response to comment #100.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			portion of the Babocomari Allotment within the SPRNCA until key area objectives are being met."	
Lamar Smith	105.	Adaptive Management	Here are 2 more examples of AM actions with no apparent foundation in science: 1. "A similar plan is made for the bare ground data. If bare ground exceeds 45%, 50% of cattle will be removed from the SPRNCA section of the allotment. If bare ground exceeds 55%, then all cattle are removed until key area objectives are being met." Use of foliar cover of grasses and percentage bare ground to make automatic, inflexible management decisions is totally contrary to the concept of adaptive management and the generally accepted principles of good range management. 2. "If two baseflow E. coli samples in 3 years exceed the state standard, then the AUMs will be reduced by 25% the first year exceeding the threshold, and by an additional 25% for each subsequent year that the threshold is exceeded. As soon as two E. coli samples in 3 years exceed the state standard, an additional management action of building the Babocomari River Canyon exclosure fence will be triggered. This would exclude cows from the riparian area of the allotment, reducing the grazing acreage by 132 acres. No cows will be allowed back onto the allotment until the fencing is complete."	See response to comments #97, #99, and #100. In addition, the BLM has revised the adaptive management such that temporary suspension of AUMs are required if there is not an improvement in bare ground cover as compared to current conditions (see preliminary EA Sections 2.2.5.1, 2.2.6.1, 2.2.7.1, and 2.2.8.1). When faced with uncertainties in effects from actions, due to the strict requirements of P.L. 100-696, the BLM must take the most conservative action in regard to discretionary activities authorized under FLPMA.
WWP/SC/TG	106.	Adaptive Management	Please explain the phrase “professional judgement” as used in the Scoping Packet to determine ecological triggers and thresholds. Were livestock permittees part of the development of this “professional judgement?”	The term “professional judgement” as used in the Scoping Packet refers to the knowledge and experience of BLM resource specialists. Livestock permittees were not part of the development of the “professional judgement”.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				"Natural resource managers' knowledge based on their experiences is one of the most widely available types of information for setting benchmarks. This information is very valuable, especially when it comes from multiple land managers with many years of experience with a variety of situations across the landscape (Knapp et al. 2011). Best professional judgement should be used to validate the results of any benchmark approaches. In addition, it should always be used as one of several lines of evidence. *Best practices for the implementation of benchmarks based on best professional judgement:* • Work in interdisciplinary teams • Be aware of individual or group bias • When possible, use best professional judgment along with other information types to set benchmarks • Document your process" (https://aim.landscapetoolbox.org/setting-benchmarks/)
Lamar Smith	107.	Adaptive Management/ NEPA	It is not apparent that BLM has involved the stakeholders (lessees and others) in developing this approach or that it intends to do so in the future. In addition, the strict limits on foliar cover and bare ground that the process invokes are the antithesis of flexible management.	BLM had several meetings with the four lessees to go over the specific adaptive management parameters and provided numerous opportunities for the four lessees to discuss with BLM and to provide feedback. In addition to individual meetings with the lessees, the BLM also met with the Upland Working Group and went over the adaptive management approach with this group as well. This comment period also provides an opportunity for stakeholders to be involved and to provide feedback to the BLM on the approach.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				The BLM will monitor or inspect allotments annually and, in coordination with the lessee, adjust grazing management based on monitoring data. Flexibility in the number of livestock and timing is included in the terms and conditions of the lease.
Lower San Pedro Watershed Alliance (LSPWA)	108.	Adaptive Management/ Resource Condition	**Draft LHEs:** The draft LHEs completed in 2021 for each allotment indicated that no Allotment achieved the conditions to meet rangeland health Standard 3. Based on the documentation in the draft LHEs, it does not appear that any of the allotments have ever met the Desired Resource Condition. Consequently, your Adaptive Management Policy appears to be ineffective. In order to protect the values of the SPRNCA pursuant to [the] authorizing legislation, we believe that renewal of the grazing leases should not be authorized.	See the response to comment #89.
LSPWA	109.	Monitoring	**Scoping comments for draft EA**: The draft EA should include a table which indicates the dates and results for all complete and partial LHEs conducted on each allotment since the SPRNCA was established. Identify the date a complete LHE was performed on each allotment pursuant to "Arizona Standards for Rangeland Health and Guidelines for Grazing Administration" (BLM 1997) in which Rangeland health Standards 1, 2, and 3 were evaluated during the same period.	These three LHEs are the first complete LHEs for the four SPRNCA Allotments. The past monitoring information provided in the LHEs is the relevant information for the LHE analyses and determinations. For additional monitoring and assessment information related to the SPRNCA and the SPRNCA Allotments please see the Analysis of the Management Situation (AMS) report (BLM 2017), specifically Section 2.4.3, which can be found here: https://eplanning.blm.gov/public_projects/lup/36503/119612/145976/2017-09-01_AMS_FINAL_v8.pdf
Robert Luce	110.	Monitoring	Land that should not be in grazing leases at all does not need to meet the Arizona Standards for Rangeland Health or require Land Health Evaluations aimed at justifying grazing. The San Pedro watershed includes uplands and associated perennial and intermittent and dry washes all the	The Arizona Standards for Rangeland Health are applicable to all BLM-managed lands regardless of whether they are located within livestock grazing allotments or not.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			way from the Huachuca, Whetstone, and Mule Mountains down to the river. What happens on the uplands affects the river, so the two habitat types cannot be arbitrarily separated when it comes to the negative impacts of grazing on the riparian habitat along the river and its side drainages. Grazing should be limited to native mammals and birds.	The Arizona Standards for Rangeland Health require separate assessment of uplands and riparian areas. In addition, Standard 3 accounts for watershed processes and evaluates how upland health affects the riparian area.
AGFD	111.	Monitoring	Finally, each draft LHE appears to reference Heritage Data Management System (HDMS) information in a report generated through the Department's online Environmental Review Tool (ERT). The citations for this information should clearly identify the source of this information so that anyone reading the document can understand the specific nature of the data referenced. Also, regarding the information referenced, in Section 2.3.4 of each LHE, the number of migratory bird species mentioned as being protected under the Migratory Bird Treaty Act and possibly occurring on the allotment appears to be referencing the number of species documented within a 5-mile buffer of the allotment, based on review of the ERT reports. The ERT reports provide a list of those special status species that have been documented within a specified buffer around an area of interest, as well as an additional list of species predicted within that vicinity. For clarity, the Department recommends BLM revisit those sections of the LHEs to ensure they accurately represent the information obtained through the HDMS/ERT.	The comment is accurate; BLM used HDMS/ERT data, in addition to IPaC, eBird, and BLM observation data, to compile the lists used for analysis of impacts as these data sources are generally regarded as the most comprehensive and current sources for the information required. The BLM will continue to use the best and most current available data for impact analysis and will continue to update the queries as needed during the process. Citations for the data will be included in the draft released for public review.
Lamar Smith	112.	Monitoring	However, in this document, BLM defines the DPC solely by setting objectives for foliar cover of grasses, foliar cover of shrubs, and ground cover. Those attributes are related to Standard 1, but since they do not specify anything about species composition, vegetation structure (other than	The BLM chose the key indicators that, based on resource specialist expertise, were most indicative of the overall land health. For Standard 1, the BLM assessed the 17 Indicators of Rangeland Health, including

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			shrub foliar cover), or other attributes, it is not obvious that this meets the requirement for describing a DPC or monitoring progress toward or away from achieving the DPC, i.e. there is no mention of composition, structure or distribution.	Indicators 10 and 12 which assess vegetative composition and structure. Overall, across the landscape, having appropriate proportions of shrub and perennial grass foliar cover aid in infiltration and reduce soil erosion. Thus, the indicators that BLM chose for the DPC objectives do provide protection of the soil resources.
Lamar Smith	113.	Monitoring	IF such "standards" are going to be used, then it is imperative that some indication of precision of the measurements is included, i.e. confidence intervals. Suppose the goal is to have 10% or more grass foliar cover, and the measurement is 5% (half) which would result in 100% removal of livestock. But the measured value of 5% could be as much as 10% or as low as 2%. In other words, there is no assurance that the actual foliar cover is less than 10%. If the objective were 20% and the measured value was 15% (i.e. a 25% reduction) then the confidence interval on the measurement would be 9-21%, i.e. it includes the target value. Accepting a lower level of confidence would decrease the confidence levels somewhat. The alternative would be to use each of the 3 transects as one sample to estimate average percent cover. In this this case normal statistics could be used to calculate a confidence interval around the estimated mean, but the sample size would only be 3 – not likely to be very precise?	The BLM did not develop confidence intervals for each land health indicator per ecological site and allotment for these LHEs because points were in both random and non-random locations and there were not enough points in each ecological site per allotment to perform this type of analysis. Rather, the BLM looked at each point individually and assessed the AIM monitoring data and indicators of rangeland health based on appropriate ecological site. The BLM chose sites for the adaptive management that the BLM considered representative of the ecological site and developed the objectives based on the best available monitoring data and the expected ranges of cover from the ecological site descriptions, while considering the site-specific factors that affect each site. Though the BLM understands there are some uncertainties with this approach, the AIM program and data collection is an ongoing process. As the BLM collects additional data on the SPRNCA and continues to involve stakeholders – including lessees, there will be opportunities to do more robust data analysis to possibly develop confidence intervals and update adaptive management objectives.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				Adaptive management objectives for each sampling point are based on the best available monitoring data, site-specific factors, and the expected range of values from ecological site descriptions. As an additional two years of AIM data is collected, the adaptive management objectives may be modified with the input of stakeholders, including lessees. If adaptive management objectives are modified a new decision would be issued to reflect those changes. In addition, due to the strict requirements of P.L. 100-969, the BLM must take the most conservative action regarding discretionary activities authorized under FLPMA.
Lamar Smith	114.	Monitoring	It should be pointed out that the Arizona Standards for Rangeland Health evaluation is not the same thing as a qualitative Rangeland Health Evaluation following the Rangeland Health Handbook. The AZ standards have specific criteria to be evaluated. While some of these are very similar to the Rangeland Health Checksheet. For example, Standard 1 looks at most of the same indicators of soil and site stability that the Soil and Site Stability rating of rangeland health includes. Standard 2 is solely based on PFC, which is not a rangeland health category. Standard 3 involves some aspects of the rangeland heath indicators, but is tied to management objectives, while rangeland health is not. This raises some confusion in the interpretation of the data.	The Interpreting Indicators of Rangeland Health (IIRH) is mostly a qualitative assessment but the BLM used quantitative AIM data to inform determinations for Standards 1 and 3.
Lamar Smith	115.	Monitoring	The allotment evaluations show that many of the years during which monitoring data were collected, including that on the AIM plots, have been below average in precipitation. Although there have been some wet years, the area has seen considerable drought in recent years. This	BLM will continue to collect monitoring data on the SPRNCA Allotments to get a clearer picture of cover and bare ground, including collecting two more years of AIM data at key areas to fine tune adaptive management

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			no doubt has affected the measurements of cover and bare ground. However, the possibility that present measurements do not represent typical levels was not discussed.	thresholds. For more information, see Section 2.2.2 of the preliminary EA.
Lamar Smith	116.	Monitoring	The Lucky Hills/Three Brothers Evaluation includes some Clay Loam Upland areas. The Evaluation states that no standard for maximum shrub cover was set for this site because "shrubs offer soil protection on this site". Yet the ESD for this site states that excessive runoff can result in erosion as ground cover is reduced on this site, and the site description describes the potential community as basically grassland, i.e. the presence of considerable shrub cover represents an invasion of the site and contributes to the reduction of herbaceous cover on the site. It is hard to accept that relatively high levels of shrub cover are to be considered the DPC on this site when it is apparent that they contribute to accelerated sheet and gully erosion. It is true that the shrubs offer some protection and that where perennial grass has largely disappeared there may be little recruitment of such cover unless land treatments such as pitting, contour furrowing, reseeding, etc.. are carried out.	The Clay Loam Upland monitoring locations have transitioned to a "Mesquite, annuals" state. BLM agrees that extensive land treatments would be required to transition the site back to a Native Mid-Grassland. At this point in time, BLM chose not to set shrub cover objectives for Clay Loam Uplands because there is very low perennial grass cover and shrubs are the primary vegetative functional group providing soil stability. In the preliminary EA, the BLM revised the Proposed Action to include IVM treatments, including erosion control treatments, to make progress towards the achievement of Land Health Standards.
Lamar Smith	117.	Monitoring	BLM states in its storymap that key areas were established randomly -- If key areas are randomly established they are NOT necessarily key areas as defined by the range management profession.	See the response to comment #94.
Ron Stewart	118.	Monitoring	Finally, standards from the past about the use of desert scrubland for cattle grazing need to be reassessed.	Reassessing the Standards for Rangeland Health is outside of the scope of this NEPA analysis.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
LSPWA/ Scoping packet Section 2.2.1	119.	Monitoring/ Adaptive management	**Scoping comments for draft EA**: The draft EA should include an explanation of why two additional years of "Assessment, Inventory, and Monitoring" (AIM) data collection and subsequent evaluation is necessary to implement Adaptive Management actions.	AIM data from one year of monitoring does not adequately capture the annual variations in precipitation, recent grazing at a site, or other disturbances that affect perennial grass cover and bare ground. Two additional years of data collection will allow for better informed adaptive management thresholds at the key areas. For more information, see Section 2.2.2 of the preliminary EA. In addition, in the preliminary EA, the BLM has revised the Proposed Action to include temporary suspension of AUMs by 50% of authorized use, for all BLM lands within the allotments, until DPC objectives are met.
Joelle Buffa	120.	Resource Condition	Your chart states that all four of the grazing allotments are currently not meeting the standard for "Desired Resource Condition." This is not well explained. The health of the natural resources should be maintained or improved (if not meeting standard) before grazing is allowed to continue.	See response to comment #89.
Lamar Smith	121.	Resource Condition	There appear to be some inconsistencies in the evaluation of Standards 1 and Standard 3 on some of the sites. Some sites are rated in N-S, or S-M departure in one category or another, but the measured cover objectives do not meet the standards set. Standard 3 specifically says that the DPC defined for the site will provide for meeting Standard 1, in addition to other criteria. However, the chart in the Story Map under Land Health Evaluation shows all four allotments not meeting Standard 3 while all four meet Standard 1. That could only happen if the soil protection for upland sites was meeting Standard 1 but the DPC was not meeting Standard 3 for other reasons, e.g. water quality, TES species habitat, livestock forage production, etc. However, this was not mentioned in the discussion.	Assessment of Standard 1 was heavily based on the 17 Indicators of Rangeland Health at each monitoring location. Many of the indicators related to soil stability and hydrological function were indicative of meeting Standard 1. Standard 3 is most related to relative dominance of plant functional structural groups (Indicator 12). In many cases, sites did not have the expected relative dominance of plant functional groups, however, when taking into account other indicators of range health related to soil stability and hydrologic function, sites were meeting Standard 1.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
WWP/SC/TG	122.	Resource Condition	The BLM should also consider and fully analyze an alternative that eliminates livestock grazing from all areas of all allotments not meeting Rangeland Health Standards….. At this point, and as the failure to meet Standard 3 makes clear, the BLM should not allow any livestock grazing on any allotment that is not meeting the Desired Resource Conditions. This means that livestock grazing should be eliminated on all allotments.	The EA analyzes two No Grazing alternatives which analyze no grazing on any BLM lands within the four SPRNCA Allotments. See the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA. This would functionally be the same analysis as analyzing all areas of the allotments that are not meeting a Rangeland Health Standard. For more information, see Section 2.8.2 of the preliminary EA.
Jeff Burgess	123.	Resource Conditions/ Riparian	In contrast to the inadequate monitoring of riparian habitat on the allotment, the Babocomari LHE, and its appendices, include many pages about monitoring that's been conducted on the allotment's uplands. The LHE explains this monitoring determined that the allotment isn't meeting the S&Gs Standard 3: Desired Resource Condition. The contents of the other two LHEs are similar, and they also state that those three allotments aren't meeting Standard 3 either. The reason that's given is the same for all four allotments - there's too much brush and not enough grass. All of these things indicate to me that you aren't really focused on riparian protection, as the law requires, but on creating documentation to justify government assistance, such as EQIP funds, for the ranchers to kill brush in order to grow more grass for their cattle to eat. These vegetative conversions are often called watershed improvement projects that benefit downstream riparian areas. But research has shown there's not a significant difference in erosion rates between healthy landscapes covered in woody vegetation versus grass. Moreover, upland wildlife habitat is nearly destroyed for years because it takes a long time for arid land to recover from	Perennial grasses promote infiltration and reduce soil erosion more effectively than shrubs in desert ecosystems. In addition, perennial grasses provide critical wildlife habitat and forage for wildlife. In response to public scoping comments that voiced concern about the BLM not meeting Standard 3 of the Arizona Standards for Rangeland Health and associated DPC objectives, in the preliminary EA the BLM revised the Proposed Action to include IVM treatments. Precipitation, landscape position, ground cover, and other factors that affect treatment effectiveness would be taken into consideration during treatment unit development (see preliminary EA Section 2.2.4). The Arizona Standards for Rangeland Health require separate assessment of uplands and riparian areas. In addition, Standard 3 accounts for watershed processes which evaluates how upland health affects the riparian area.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			being torn up, or sprayed with herbicides, in order to kill woody vegetation - particularly when there's a drought. Additionally, after the land has been stripped of most of its existing vegetation, it's very susceptible to catastrophic erosion during heavy rainstorms, like our summer monsoon storms. Why doesn't the Adaptive Management Alternative describe any of these vegetative conversions that are obviously being planned?	
Audubon	124.	Vegetation Treatment	Audubon remains concerned about the Upland Vegetation Resource Objectives (SPRNCA RMP ROD, p. 2-7): • **ob-VEG-UP-1: Manage, on Three Brothers 2,008 acres and on Lucky Hills 1,698 acres, of upland vegetation toward restoring the perennial native grass component to address shrub encroachment.** Livestock exclusion elsewhere on SPRNCA has allowed for establishment of a diversity of desert shrubs, half shrubs and forbs. Herbicide treatment would kill these non-target plants and adversely affect the biological diversity. Of particular sensitivity to herbicide treatment are MLRA 41-3 Limestone Hills. This ecological site has a broad diversity of Chihuahuan desert plants valuable to wildlife and contributors to the biodiversity of SPRNCA.	The BLM is not evaluating the RMP objectives at this time. Evaluation of the RMP objectives is outside of the scope of the EA and LHEs. In response to public scoping comments that voiced concern about the BLM not meeting Standard 3 of the Arizona Standards for Rangeland Health and associated DPC objectives, in the preliminary EA the BLM revised the Proposed Action to include IVM treatments. The BLM analyzed the impacts from herbicide treatments in Chapter 3 of the preliminary EA. Additionally, the BLM addresses potential impacts from herbicide treatments to non-target plants in the preliminary EA Section 3.4.2.
Audubon	125.	Vegetation Treatment	Use of prescribed fire should be the preferred management tool for any woody plant treatments. Mechanical treatments may very well cause accelerated soil erosion, defeating the purpose of SPRNCA. Great caution should be exercised implementing woody plant treatments during our extended drought and evidence of climate change. The transition models for granitic hills and uplands both have unknown outcomes from herbicide treatments and a prediction that increased shrubs may be the site potential.	The proposed IVM treatments in the Proposed Action include broadcast herbicide application, prescribed fire, seeding, and erosion control (see preliminary EA Section 2.2.4). Mechanical treatments are not part of the Proposed Action (see preliminary EA Section 2.8.5). Precipitation, landscape position, ground cover, and other factors that affect treatment effectiveness would be taken into consideration

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
				during treatment unit development (see preliminary EA Section 2.2.4).
Audubon	126.	Vegetation Treatment	Our comments to the draft SPRNCA RMP expressed concern with attempts to remove currently stable shrub habitats in the uplands. Previous efforts to restore fully realized disclimax shrub land to grasslands by BLM Safford District in the 1970's and 1980's have been unsuccessful. Further, projections of a warming climate will favor shrub establishment, particularly legumes such as mesquite, mimosa, and acacia. The abstract from the Roundy and Jordan 1988 study near Bowie, Arizona concludes with "Vegetation development after disturbance by grazing or rootplowing is primarily by woody plant rather than herbaceous vegetation." An additional caution is that in drought shrub treatments may favor the non-native Lehman's lovegrass rather than native grasses.	See response to comment #124. The proposed IVM treatments are intended to reduce shrub cover and promote perennial grass cover to proportions more conducive to overall land health, not eliminate shrubs from upland communities. Herbicide application and prescribed fire would not occur if there were insufficient perennial grasses in the community. The individual treatment unit development process involving ID team review and application of BMPs would aid in success of any planned treatment.
CBD	127.	T&E	A drainage in the Lucky Hills allotment, that is designated critical habitat for yellow-billed cuckoos and inside the boundaries of SPRNCA. The photo shows understory vegetation of grasses and forbs that was virtually absent, compromising the value of the habitat for breeding and foraging cuckoos.	Impacts to western yellow-billed cuckoo are analyzed in the preliminary EA in Section 3.4.5, in addition Section 7 consultation with the U.S. Fish and Wildlife Service will be completed prior to authorization of these actions.
CBD	128.	T&E	Photo shows "a common scene" within the boundaries of the SPRNCA inside of the Three Brothers allotment. Cattle trails weave in and out of the wash and surrounding banks are broken up and degraded. Washes and drainages are littered with cow feces. This area is critical habitat for western yellow-billed cuckoo.	See the response to comment #127.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
CBD	129.	T&E	The Project Area contains designated critical habitat for northern Mexican garter snakes and yellow-billed cuckoos. These scoping comments have already clearly documented Endangered Species Act violations by BLM regarding these two species. We therefore hold BLM accountable for explaining these violations as they seek to reauthorize cattle grazing in legally protected places.	Past, present, reasonably foreseeable future trends and planned actions are a part of the preliminary EA analysis and are included in the analysis of impacts to all species. Section 7 consultation with the U.S. Fish and Wildlife Service will be completed prior to authorization of these actions.
CBD	130.	T&E	In addition to the vertebrate species mentioned above, ESA-listed plants such as Huachuca water umbel and Arizona Eryngo are both found immediately upstream and downstream of the allotments in review. Prime recovery habitat for both species is being destroyed real time largely in part to both authorized and unauthorized cattle grazing. We hold BLM accountable for providing a reasonable discussion and justification for authorizing actions that contribute to the death of the San Pedro River ecosystem.	Section 7 consultation with the U.S. Fish and Wildlife Service will be completed prior to authorization of these actions.
CBD	131.	T&E	The BLM must adequately explain how this project would avoid negative outcomes and illegal impacts to critical habitat given its intended strategy. It must examine the effects of livestock grazing on invasive plant introduction and spread, on the recovery of listed species and maintenance of their critical habitat, and on wildfire risk. Furthermore, a mere mention of these issues in an upcoming EA must not be considered as equivalent to a reasoned 'hard look' or qualitative analysis, as a reasoned analysis should have some degree of scientific merit and qualitative substance. Anything short of a hard-look, scientifically comprehensive analysis of the proposed action in the context of current climate, drought, and shrinking aquifer variables, as well as applicable legal requirements associated with	The preliminary EA looks at the effects of livestock grazing on invasive plant introduction and spread, on the recovery of listed species and associated critical habitat, and on wildfire risk using the best available scientific information. Section 7 consultation will provide the conservation measures necessary for the protection of species and their designated critical habitats. The list of issues intended for analysis in the scoping packet was not a final document, merely an opportunity for the interested public to provide input to the issues they consider important while the process is ongoing.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			adverse modification of critical habitat, will be in violation of NEPA.	
Conservation CATalyst	132.	T&E	It is a negligent proposal, especially considering that the Project Area contains designated critical habitat for northern Mexican garter snakes and yellow-billed cuckoos, and the SP[R]NCA contains the best remaining breeding habit for cuckoos in the U.S. Federally protected plants such as Huachuca water umbel and Arizona Eryngo are also found immediately upstream and downstream of the allotments in review. This area also has resident breeding mountain lions and other carnivores that would be detrimentally impacted by conflicts with cattle.	Impacts to federally listed species, SPRNCA priority species, migratory birds, general wildlife, and their habitats, are analyzed in detail in Chapter 3 of the preliminary EA (see preliminary EA Sections 3.4.4 and 3.4.5)\, in addition Section 7 consultation with the U.S. Fish and Wildlife Service will be completed prior to authorization of these actions.
Ann Prezyna	133.	T&E	There are rare and endangered species on the river that are harmed by the damage cattle cause to native vegetation. They also impact the soil stability along the riverbank, and compete with native wildlife for forage.	The current conditions and expected impacts to riparian areas along the Babocomari River from the Proposed Action and alternatives, along with the best available scientific literature, are considered and analyzed in the preliminary EA. See also response to comment #132.
Audubon	134.	T&E	The migratory bird list in the appendices should include Cassin's Sparrow, Bell's Vireo, Lucy's Warbler, and Yellow Warbler. These migratory birds are all Arizona Game and Fish Department Tier 1b Species of Greatest Conservation Need (SGCN) and USFWS Birds of Conservation Concern. Grace's Warbler is a rare migrant at SPRNCA and not a likely species to respond or benefit from livestock management practices.	Noted. Analysis will include migratory birds known to inhabit the region.
Audubon	135.	T&E	Audubon recommends establishing avian monitoring transects or point counts in association with the key areas and AIM monitoring sites for the allotments and elsewhere on SPRNCA. Focal birds that Audubon recommends monitoring for trend on SPRNCA are:	Thank you for your recommendation. The BLM plans to use the AIM data to help inform avian habitat conditions and trends in conjunction with other species occurrence data. BLM would be happy to work with Audubon on avian monitoring and will continue working with Audubon on this endeavor.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			• **Cottonwood-willow**: Western Yellow-billed Cuckoo, Yellow Warbler, Gray Hawk, Summer Tanager, Common Yellowthroat. • **Mesquite bosque**: Bell's Vireo, Lucy's Warbler, Vermilion Flycatcher, Gray Hawk, Yellow-billed Cuckoo. • **Big sacaton and plains grasslands**: Botteri's Sparrow, Eastern (Lilian's) Meadowlark. • **Semidesert grasslands**: Cassin's Sparrow, Rufous-winged Sparrow, Grasshopper Sparrow, Scaled Quail, Eastern (Lilian's) Meadowlark, Eastern (Azure) Bluebird, wintering Longspur species (McGowan's and Chestnut Collared), and Brewer's Sparrow.	
Audubon	136.	T&E	We note an update for the federally listed species appendices, critical habitat for the Yellow-billed Cuckoo western population segment is designated not proposed.	Noted, the final document will reflect the latest updates.
CBD	137.	Riparian	The ecological and aesthetic integrity of the riparian area on the lower Babocomari river is being destroyed by unsupervised and excessive permitted grazing. Riparian stretches of the Babocomari allotment have virtually no groundcover and numerous examples of channelization and stream degradation from cattle trailing. Stream flow is contaminated by feces. This is critical habitat for two federally listed species, and the value of this habitat has been seriously and illegally compromised for both species by permitted grazing. Why are these examples of ongoing degradation of riparian zones and designated critical habitat not described or even mentioned in the Land Health Evaluations?	The riparian conditions from the PFC assessments are described in the LHE. The water quality impacts and associated data are also described in the LHE.
CBD	138.	Riparian	Why are there no Key Area measurements taken in this important riparian area that is critical habitat for two federally listed species?	See response to comment #53 for concerns about quantitative riparian monitoring.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
CBD	139.	Riparian	According to BLM, Desired Plant Community objectives… "detail a site-specific plant community, which when obtained, will assure rangeland health, State water quality standards, and habitat for endangered, threatened, and sensitive species. Thus, DPC objectives will be used as an indicator of ecosystem function and rangeland health." The riparian conditions illustrated above represent an excruciating failure to assure habitat for endangered, threatened, and sensitive species, as well as to protect water quality.	PFC assessments were performed to evaluate riparian conditions. The riparian conditions on the allotments were found to be in properly functioning condition. The Proposed Action includes adaptive management criteria to protect water quality.
Creation Care team at SELC	140.	Riparian	As a Water Sentinel, I have seen the high E. coli (bacteria in the culture) counts after the cattle have been in and around the San Pedro River at Fairbank (October 22, 2018 report, ADEQ). The water is unsafe and the Baboquivari [Babocomari] wash ran brown and full of bacteria as well.	The data from the 2018 ADEQ report has been used in the LHEs.
WWP form letter (numerous submissions	141.	Riparian	The agency must be held accountable for failing to protect public health by allowing livestock to contaminate the San Pedro and Babocomari Rivers with E. coli, violating Arizona's clean water standards.	Water quality objectives are established in the SPRNCA RMP (2019). As part of this lease renewal process, the BLM has developed adaptive management to minimize *E. coli* exceedances that are directly attributable to livestock grazing associated with BLM-managed land.
Defenders of Wildlife	142.	Riparian	The BLM disclose the contribution of livestock to contamination of the San Pedro and Babocomari Rivers with E. coli, and the degree to which this contamination is violating Arizona's clean water standards.	The current conditions and expected impacts to riparian areas and water quality along the Babocomari River from the Proposed Action and alternatives, along with the best available scientific literature, is considered and analyzed in the preliminary EA.
Richard Curtis	143.	Riparian	In particular public health must be protected by not allowing livestock to contaminate the San Pedro and Babocomari Rivers with E. coli as this would be a violation of Arizona's clean water standards. How will the BLM ensure that cattle will not contaminate the rivers in the San Pedro Riparian National Conservation Area?	The Proposed Action includes an adaptive management and monitoring strategy to adjust livestock management if water quality thresholds are exceeded.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
Lamar Smith	144.	Riparian	It is not clear why Arizona would designate the San Pedro River or the Babocomari Creek for full body contact. During flood flows E. coli contamination would be the least of your worries. During base flow, there is usually not enough water to do more than wade, which does not constitute full body contact. Would it not be more reasonable to designate a lower standard and warn visitors not to get their head under water?	The BLM does not have the authority to set the designated use of a water body nor set water quality standards for those uses. That is the authority of the EPA and designated state agency (ADEQ) as specified in the Clean Water Act.
Lamar Smith	145.	Riparian	The guideline used for deciding whether the allotment exceeds water quality standards for E. coli is if 2 or more sample within a 3 year period indicate an exceedance within the allotment when samples upstream do not. In other words, if this occurs it is assumed that the contamination comes from within the allotment. …… Table 19 (page 35 in Babocomari Evaluation) does not seem to substantiate the statements made above. The table shows 16 measurements, of which 8 exceeding standards. However, of the 8 that exceeding standards, 7 were taken during flood flow, which does not tie them to the allotment. Nine were taken during baseflow, 6 in the allotment and 3 above it, and only 1 exceeded standards in the allotment. Thus, the requirement for 2 or more during a 3 year period was not met.	The sampling data and literature indicate that livestock have the potential to cause water quality exceedances. The adaptive management monitoring for *E. coli* is designed to help determine if the extent of the exceedances during baseflows are a result of the livestock in the allotment and take management actions if necessary. The water quality adaptive management has not yet been triggered. The proposed 50% temporary suspension of AUMs is a result of not meeting DPC objectives (see preliminary EA Section 2.2.1).
Lamar Smith	146.	Riparian	Mesquite Bosques and Riparian Forests In each of the allotment evaluations it is stated that mesquite bosques were once widely distributed in Arizona but now exist only as “remnants” of their former extent. That may be true in some areas but is a highly questionable and misleading statement with respect to the SPRNCA. Most of the studies of the history of this part of the San Pedro River have concluded that both mesquite bosques and cottonwood/willow	The LHE only describes the current status of vegetation. The past and potential future status of these vegetation communities is analyzed in Section 3.4.3 of the preliminary EA.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			forests were rare at the time the River was first described by explorers and early settlers. Arroyo cutting, which lowered water tables and converted former floodplains into stream terraces, in the late 1800s to early 1900 resulted in conversion of former marshes and sacaton bottoms to mesquite. After some widening of the channels, favorable conditions for willows/cottonwoods were created and the gallery forests seen today were mainly established from the 1930s into the 1950s. Thus, neither the mesquite forests or the cottonwood/willow forests are "relicts" of a formerly more extensive vegetation – they are fairly recent developments.	
WWP/SC/TG	147.	Riparian	The BLM claims that the impact of livestock water use on base flows was analyzed in the RMP process, but this is inaccurate. Even if the issue had been analyzed at some level (which it was not), the specific number of tanks, troughs, pumps, and pipeline were not analyzed and this analysis must be completed now.	See SPRNCA RMP Section 3.2.3 (SPRNCA Proposed RMP p. 3-15 through 3-25) and SPRNCA RMP Table 3-8 (SPRNCA Proposed RMP p. 3-20) for analysis of water use in the SPRNCA Proposed RMP and Final EIS. See preliminary EA Section 3.3.7 for a summary of the analysis from the SPRNCA Proposed RMP and Final EIS of livestock water use on base flows.
WWP/SC/TG	148.	Riparian	The BLM's plan to allow livestock to cross the Babocomari River ten times (for ten days) during the season of use is highly likely to cause significant damage to the Babocomari River, including damage to bank structure, vegetation, and will increase sedimentation and E. coli loading downstream from both sedimentation disruption and new "deposits" of E. coli laden cow pies while cows are crossing the river. In order to determine the level of impacts from this proposed alternative, BLM must consider and fully analyze an alternative that does not authorize livestock crossings.	BLM is considering two No Grazing alternatives (Alternative B and D). For more information see preliminary EA Section 2.8.3. See the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA.
WWP/SC/TG	149.	Riparian	The 2019 RMP prohibits livestock crossing permits through the riparian area of the SPRNCA.	The SPRNCA RMP (2019) does prohibit livestock crossing permits through the riparian

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			amaGRAZ-10. This prohibits the proposed authorization of livestock trailing across the Babocomari River on the Babocomari allotment.	area of the SPRNCA, however the BLM would not be issuing livestock crossing permits. The Proposed Action would allow livestock owned or controlled by the lessee of the Babocomari Allotment to cross the Babocomari River from one side of the allotment to the other side of the allotment. These livestock are authorized to graze on the Babocomari Allotment and therefore does not require the issuance of a crossing permit under 43 CFR 4130.6-3. A livestock crossing permit is required for an individual who is not a lessee/permittee of the allotment that is to be crossed. Livestock crossing the Babocomari Allotment, as described in the Proposed Action, is not considered crossing/trailing and is not prohibited by the SPRNCA RMP (2019).
WWP/SC/TG	150.	Riparian	The 2019 RMP also sets a BLM objective to "conserve, protect, and enhance desert washes with adequate cover and width while considering habitat connectivity and adequate patch size." ob-WILD-6. Livestock trailing through riparian areas and/or washes will violate this objective.	Impacts from livestock grazing on desert washes is analyzed in the preliminary EA as part of the vegetation and priority species analyses (see preliminary EA Sections 3.4.2 and 3.4.4).
WWP/SC/TG	151.	Riparian	Trailing of livestock will result in crushed, broken, browsed, grazed, and otherwise damaged vegetation in the riparian area, in addition to significant damage to bank structure from trampling. This is a violation of the 2019 RMP Grazing Objective ob-GRAZ-2, to "maintain productive, diverse upland, riparian, and wetland plant communities of native species." Bank damage will accelerate erosion, in violation of the Safford District RMP to reduce accelerated soil erosion. Safford District Proposed RMP, p. 44.	Impacts from livestock grazing on riparian resources are analyzed in the preliminary EA in Section 3.4.3.2. See the response to comment #142.
WWP/SC/TG	152.	Riparian	The 2019 RMP directs that new range infrastructure will be located away from riparian areas and wetlands if they conflict with achieving	The purpose of the new range infrastructure proposed within riparian areas is to reduce or preclude livestock access to the riparian areas.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			or maintaining riparian or wetland function or goals for threatened or endangered species. ama_GRAZ-11. This prohibits any gap fencing or structures within the riparian area and within the San Pedro or Babocomari Rivers.	The proposed gap fencing would be necessary to keep livestock from the riparian areas.
WWP/SC/TG	153.	Riparian	The BLM must address the critically important issue of water quality in the forthcoming EA. This would violate the RMP. ob-WSR-5. This would also violate the Safford District 1994 RMP which requires the BLM to reduce non-point source pollution that may originate on public lands (WS01) and to manage upland vegetation on public land for watershed projection, including the reduction of non-point source pollution	The preliminary EA includes a thorough analysis of the impacts of livestock grazing on water quality including *E. coli* (see preliminary EA Section 3.4.1). In addition, the Proposed Action includes adaptive management to address water quality issues.
WWP/SC/TG	154.	Riparian	The BLM must include an analysis of E. coli re-suspension and distribution in the water column and downstream in its analysis of livestock grazing on sediment and water quality, in addition to impacts on fish and amphibian habitat. This analysis must include the impact of grazing in the uplands on sedimentation and E. coli contamination because the uplands are a well-known source of sedimentation and E. coli contamination of the Babocomari and San Pedro rivers. We believe BLM must address this public health threat and cannot ignore these past exceedances.	The preliminary EA includes a thorough analysis of the impacts of livestock grazing on water quality including *E. coli* (see preliminary EA Section 3.4.1). In addition, the BLM has built adaptive management into the Proposed Action to address future exceedances of water quality objectives (see preliminary EA Section "Water Quality" under Section 2.2.5.1).
WWP/SC/TG	155.	Riparian	Third, BLM's plan to install fencing due to E. coli contamination addresses the possible contamination of the river from livestock within the actual river or adjacent riparian corridor, but fails to address the E. coli contamination that BLM is fully aware comes from the uplands. Fencing would also negatively impact visual quality and ORVs, as we discuss above.	The impacts from the Proposed Action and alternatives to water quality are analyzed in the preliminary EA, including impacts in the uplands. In addition, the preliminary EA analyzes impacts from all of the proposed range infrastructure.
WWP/SC/TG	156.	Riparian	Fourth, as related to water quality and E. coli contamination of the river, the BLM should update its scientific references. The 1983 Gary et al.	See response to comment #99.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			citation is woefully outdated, not directly applicable to the ecosystem of the SPRNCA, and, as we note elsewhere in this letter, ignores much more recent, location specific information the BLM has been provided by experts in this field as recently as 2020.	
WWP/SC/TG	157.	Riparian	It is clear that BLM's plan to manage livestock in the Babocomari allotment will result in repeated, if intermittent, violations of state water quality standards. Not only does this put public health at risk, it is also a violation of the new RMP for the SPRNCA, specifically ob-WAT-1 (reduce or prevent contamination of surface and groundwater by nonpoint source pollution (e.g., upland cowpies) to meet State requirements.)	See the response to comment #141.
CBD	158.	Riparian/Grazing	The BLM must produce a NEPA document that reviews and discusses published scientific literature regarding riparian restoration and the vital importance of first removing optional ecosystem stressors like grazing (this removal would be an obvious first step to mitigate current drought). The BLM must scientifically analyze significant negative impacts from improper grazing regimes (year-long grazing in critical habitat riparian zones) and increasing stocking rates during exceptional drought.	The preliminary EA analyzes the impacts of current grazing. The EA analyzes a No Grazing without IVM alternative (Alternative D), which will serve as the baseline against which the BLM will compare the impacts from the action alternatives and No Action alternative. See the response to comment #24 for an explanation of the changes that were made to the No Grazing alternative between the scoping packet and the preliminary EA. See the response to comment #29 for an explanation of which alternative will be the baseline against which the BLM will compare the impacts of the other alternatives
Arizona Game & Fish Department (AGFD)	159.	Water	As the EA is developed, the Department requests BLM consider additional lease Terms and Conditions relating to artificial livestock waters. Due to extended drought conditions as well as diminishing natural water resources, wildlife heavily depend upon developed livestock waters.	BLM welcomes the opportunity to work with AGFD on artificial livestock waters that could also serve as wildlife waters. This type of action does not require additional terms and conditions on the leases.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			Whenever practicable, water should be made available for wildlife use year round.	
AGFD	160.	Water	The Department also requests ongoing involvement with BLM as livestock waters are maintained, enhanced, or developed in order to incorporate, wherever practicable, water trough ramps to allow safe wildlife ingress and egress and/or development of wildlife-only water features in association with the livestock waters.	BLM welcomes the opportunity to work with AGFD on any wildlife project. Livestock grazing regulation requires the use of wildlife escape devices on all troughs. SPRNCA currently has four artificial wildlife-only waters that would continue to be maintained.
CBD	161.	Water	First, and most importantly, groundwater in the project area and beyond is rapidly disappearing. Not only does BLM not advocate for protection against the threat of groundwater pumping, they include no measurement, scientific examination, or meaningful discussion of the issue in the Land Health Evaluations for these grazing allotments up for renewal. The entire LHE sections pertaining to water resources are just a few short paragraphs with no mention of groundwater, with the exception of the following line in the Babocomari LHE, which simply states "Baseflows in the Babocomari are predicted to continue to decrease into the future as a result of groundwater pumping in the basin (Pool and Dickinson 2007; Lacher 2011, 2017)."	The projected trend for the Upper San Pedro regional groundwater flow system was evaluated in the SPRNCA Proposed RMP and Final EIS (2019). This preliminary EA references the trend for the Upper San Pedro regional groundwater flow system as described in the SPRNCA Proposed RMP and Final EIS (2019), thus helping to provide the context for these proposed grazing lease renewals.
CBD	162.	Water	The proposed grazing authorizations must reasonably (and legally) be examined in the context of these cumulative and significant ecosystem-level stressors. These are ten-year authorizations; what is the projected trend for the San Pedro River aquifer ten years from today? Where is this data analysis and discussion in the Supporting Documents for this proposal?	See response to comment #161. This preliminary EA also addresses these resource conditions in the affected environment section, including reasonably foreseeable trends in baseflows as it relates to the water quality, riparian, priority species, and threatened and endangered species analyses.
CBD	163.	Water	In future project documents, we request that the BLM provide a 'hard-look' analysis and in-depth scientific discussion of the cumulative impacts of the disappearing San Pedro River aquifer and how it directly relates to and impacts the projected	Please see the response to comment #161.

Commenter/ Section	Cmt #	Topic	Comment	BLM Response
			future riparian conditions on these grazing allotments. Then, using the best available science justify how adding the addition stressor of grazing cattle is conducive to conserving, protecting, and enhancing the rare remnant desert riparian ecosystem that is the SPRNCA.	
Conservation CATalyst	164.	Water	Why is BLM's plan to increase cattle grazing during a historic drought, instead of immediately removing this stressor from the landscape, especially in Conservation Areas?	See response to comment #73 for response to the number of cattle authorized to graze on the allotments. See response to comment #78 for how drought conditions will be addressed.

APPENDIX D. ARIZONA VEGETATION AND RANGE MANAGEMENT PROGRAMMATIC AGREEMENT

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

RECITALS

WHEREAS, the regulations that implement Section 106 of the National Historic Preservation Act (NHPA), found at 54 United States Code (U.S.C.) §§ 300101 to 307108, as amended (hereafter referred to as Section 106), allow an agency official to develop alternate procedures to implement Section 106 through the use of programmatic agreements (36 Code of Federal Regulations (C.F.R.) § 800.14(b)) for when effects on historic properties are similar and repetitive or regional in scope, and where routine management activities are undertaken at federal installations, facilities, or other land management units. The purpose of this Programmatic Agreement (Agreement) is to develop alternate procedures for routine vegetation and range management activities on federal, state, tribal, municipal, county, and private lands throughout Arizona; and

WHEREAS, decisions to fund, authorize, permit or license land management activities constitute undertakings as defined in 36 C.F.R. § 800.16(y) that may have the potential to affect historic properties and are therefore subject to review pursuant to 36 C.F.R. Part 800, the regulations implementing Section 106; and

WHEREAS, historic properties (defined in 36 C.F.R. § 800.16 (l)(1)) are prehistoric and historic sites, buildings, structures, districts, and/or objects that are listed in or eligible for listing in the National Register of Historic Places (NRHP, National Register) including artifacts, records, and material remains that are related to and located within such properties. The term also includes properties of traditional, religious, and cultural importance to a tribe and that meet the National Register criteria; and

WHEREAS, this Agreement may be used by a single agency or multiple agencies collaborating on a single undertaking to satisfy their Section 106 responsibilities; and

WHEREAS, when multiple federal agencies are involved, the lead federal agency shall be determined on a case-by-case basis for each individual undertaking conducted under this Agreement (see Stipulation IV, Designating the Lead Federal Agency and Its Responsibilities). In cases where there is one federal agency involved, that agency is the lead federal agency; and

WHEREAS, participating federal agencies recognize that the lead federal agency for an undertaking is responsible for compliance with Section 106 (see Stipulation IV, Designating the Lead Federal Agency and Its Responsibilities); and

WHEREAS, this Agreement does not supersede other agreements, or other established agency standards, without approval by the relevant parties to those agreements. The federal agency must notify the State Historic Preservation Officer (SHPO) as to which agreement is being used; and

WHEREAS, the area of potential effects (APE) shall be defined for each individual undertaking by the lead federal agency pursuant to Stipulations IV (Designating the Lead Federal Agency and Its Responsibilities) and VII (Defining the Area of Potential Effects) of this Agreement; and

WHEREAS, the Bureau of Land Management (BLM) is the lead federal agency only in the development and administration of this Agreement and BLM is a signatory to this Agreement but is not responsible for the implementation of Section 106 unless identified as the lead federal agency for a specific undertaking; and

WHEREAS, the BLM has consulted with the SHPO regarding the development of this Agreement, and the SHPO is authorized to enter this Agreement pursuant to Sections 101 and 106 of the NHPA, as amended and pursuant to 36 C.F.R. § 800.2(c)(1)(i) and 800.6(b)(1)(i) in order to fulfill its role of advising and assisting federal agencies in carrying out their responsibilities; therefore, SHPO is a signatory to this Agreement; and

WHEREAS, the BLM has coordinated the development of this Agreement with the Southwest Region Three U.S. Forest Service (USFS). The USFS participation in this Agreement shall apply to administrative units located in Arizona, and the USFS is a signatory to this Agreement; and

WHEREAS, the BLM has coordinated the development of this Agreement with the U.S. Fish and Wildlife Service (USFWS), Interior Region 8 (Arizona). The USFWS participation in this Agreement shall apply to administrative units located in Arizona, and the USFWS is a signatory to this Agreement; and

WHEREAS, the BLM has coordinated development of this Agreement with other federal land managing agencies, including the Bureau of Reclamation (Reclamation), Department of Defense (DOD), and the National Park Service (NPS); Reclamation is an invited signatory to this Agreement; and

WHEREAS, the BLM has coordinated development of this Agreement with state agencies including the Arizona State Land Department (ASLD), Arizona Game and Fish Department (AGFD), Arizona Department of Transportation (ADOT), Arizona Department of Forestry and Fire Management (ADFFM), Arizona Farm Bureau (AZFB), and Arizona State Parks and Trails (ASPT); The ADFFM, ADOT, AGFD, ASLD, AZFB are invited signatories to this Agreement, and ASPT has requested to be a concurring party; and

WHEREAS, the BLM has coordinated with agencies that may fund vegetation and range management activities (activities) under this Agreement, including the Arizona Association of Conservation Districts (AACD), Bureau of Indian Affairs (BIA), and the Natural Resources Conservation Service (NRCS). AACD, BIA, NRCS, are invited signatories to this Agreement; and

WHEREAS, the BLM has consulted on the development of this Agreement with all Arizona counties, several municipalities, and certified local governments, and Pima County has requested to be an invited signatory. The City of Phoenix Archaeology Office, the City of Phoenix Historic Preservation Office, Mohave County, and the Town of Marana, have requested to be concurring parties to this Agreement; and

WHEREAS, the BLM has consulted, and shall continue to consult, with the federally recognized Tribes that may attach religious or cultural significance to historic properties affected by an undertaking, including Ak-Chin Indian Community, Chemehuevi Indian Tribe of the Chemehuevi Reservation, Cocopah Tribe of Arizona, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Fort Sill Apache Tribe of Oklahoma, Gila River Indian Community, Havasupai Tribe of the Havasupai Reservation, Hopi Tribe of Arizona, Hualapai Indian Tribe of the Hualapai Indian Reservation, Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony, Mescalero Apache Tribe of the Mescalero Reservation, Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Navajo Nation, Paiute Indian Tribe of Utah, Pascua Yaqui Tribe of Arizona, Pueblo of Acoma, Pueblo of Jemez, Pueblo of Zuni, Quechan Tribe of the Fort Yuma Indian Reservation, Salt River Pima-Maricopa Indian Community of the Salt River Reservation, San Carlos Apache Tribe of the San Carlos Reservation, San Juan Southern Paiute Tribe of Arizona, Tohono O'odham Nation of Arizona, Tonto Apache Tribe of Arizona, Ute Mountain Ute Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation of the Camp Verde Indian Reservation, and the Yavapai-Prescott Indian Tribe, (collectively, Tribes); and

WHEREAS, for projects affecting historic properties on tribal lands of the Colorado River Indian Tribes, Gila River Indian Community, Hopi Tribe, Hualapai Indian Tribe, Navajo Nation, Pascua Yaqui Tribe, Pueblo of Zuni, San Carlos Apache Tribe, Salt River Pima-Maricopa Indian Community, Tohono O'odham Nation, and/or White Mountain Apache Tribe, consultation shall occur with the Tribal Historic Preservation Officer (THPO), as appropriate; and

WHEREAS, the BLM has invited Tribes to be concurring parties to this Agreement. If this Agreement is used to review undertakings occurring on, or affecting historic properties on,

tribal lands, the appropriate THPO must become a Signatory to this Agreement before the undertaking may proceed pursuant to Stipulation XVI (Additional Signatories); and

WHEREAS, nothing in this Agreement shall affect any individual agency's decision-making responsibilities under applicable tribal, state, and federal law, and the federal agency for individual undertakings shall follow consultation protocols to ensure relevant land managing agency's responsibilities (including, but not limited to determinations of eligibility) are considered; and

WHEREAS, for undertakings involving federal and tribal lands, federal and tribal land managers shall follow the Native American Graves Protection and Repatriation Act (NAGPRA), 43 C.F.R. § 10, regarding the discovery and treatment of human remains. For undertakings involving state and private lands, the agencies shall follow the procedures found in Arizona Revised Statutes (A.R.S.) § 41-844 for state land and A.R.S. § 41-865 for private land; and

WHEREAS, the BLM has invited the Advisory Council on Historic Preservation (ACHP) to participate in this Agreement, and ACHP has agreed to participate and is a signatory to this Agreement; and

WHEREAS, for purposes of this Agreement, signatories, and invited signatories to this Agreement, collectively, shall be identified as Signatories; and

WHEREAS, all time periods in this Agreement are calendar days unless otherwise specified; and

WHEREAS, no provision of this Agreement shall be construed by any of the Signatories to this Agreement as abridging or debilitating any sovereign powers or rights of the Tribes; or interfering with the government-to-government relationship between the United States and Tribes; and

WHEREAS, the Parties to this Agreement share a common desire to develop a programmatic approach for implementing Section 106 of the NHPA that takes into account the effects of federal undertakings on historic properties, addresses meaningful tribal consultation, as well as public participation, minimizes redundancy, and reduces the need for case-by-case review of routine administrative, conservation, and land management activities when historic properties will not be affected or when standard protocols and treatments can be applied; and

WHEREAS, additional parties may participate in this Agreement after its execution, pursuant to Stipulation XVI (Additional Signatories); and

WHEREAS, the (lead) federal agency for each undertaking implemented under this Agreement shall ensure that public involvement reflects the nature and complexity of the undertaking and its effect on historic properties in accordance with 36 C.F.R. § 800.2(d); and

WHEREAS, for the purposes of this Agreement, "Consulting Parties" collectively refers to the Signatories, concurring parties, and all Tribes regardless of their decision to sign this Agreement; and

NOW, THEREFORE, the BLM, USFS, USFWS, SHPO, and ACHP agree that undertakings conducted under this Agreement shall be implemented in accordance with the following Stipulations in order to take into account the effects of the undertaking on historic properties.

STIPULATIONS

The BLM, USFS, and USFWS agree that the following Stipulations shall be carried out for undertakings conducted under this Agreement.

I. DEFINITIONS

All definitions in this Agreement follow 36 C.F.R. § 800.16 and/or as otherwise defined in Appendix A.

II. PROFESSIONAL QUALIFICATIONS

A. All actions conducted under this Agreement that involve the identification, evaluation, analysis, recording, treatment, monitoring or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall meet professional standards under regulations (Section 112 of the NHPA; 36 C.F.R. § 800.2 (a)(1)) set forth in the Secretary of the Interior's (SOI) Professional Qualification Standards (48 Federal Register 44738-44739) or Office of Personnel Management (OPM) 0193 series Archaeologist, grade GS-9 or higher. Undertakings occurring on state, county, or private land shall meet the requirements of the Arizona Antiquities Act (AAA) permit. Undertakings occurring on tribal land shall be conducted in accordance with each individual Tribe's permitting policy.

B. The participating agencies acknowledge that Tribes "possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them" (36 C.F.R. 800.4 (c)(1)). Participating agencies acknowledge and respect traditional knowledge and traditional education systems on their own terms and recognize that inclusion of individuals with this knowledge is a vital component for the identification, evaluation, analysis, recording, treatment, or monitoring of historic properties.

C. Others providing archeological assistance may assist in cultural resources investigations as dictated by relevant land management agency policy. The lead federal agency pursuant to Stipulation IV (Designating the Lead Federal Agency and Its Responsibilities) must conform to the policy of the appropriate land managing agency. Additionally, all work must be done under the direct supervision of a SOI-qualified archaeologist or OPM 0193 series Archaeologist, grade GS-9 or higher. See Appendix A (Definitions) for the definition of direct supervision.

III. COORDINATION AMONG ALL CONSULTING PARTIES

A. Unless otherwise requested, electronic mail shall serve as the official correspondence method for all communications regarding this Agreement and the undertakings covered by this Agreement. If a Consulting Party wishes to opt out of electronic communication, they may submit notification of their communication preference to the federal agency for the undertaking.

B. Agreed upon agency communication protocols are provided in Appendix I.

IV. DESIGNATING THE LEAD FEDERAL AGENCY AND ITS RESPONSIBILITIES

For undertakings conducted under this Agreement, the protocol for designating the lead federal agency provided in Appendix B (Designating the Lead Federal Agency) shall be followed. This Stipulation applies to undertakings that involve more than one federal agency, as follows:

A. When an undertaking subject to review under Section 106 of the NHPA is carried out by more than one federal agency, the Section 106 regulations allow for some or all those agencies to designate one lead federal agency [36 C.F.R. § 800.2(a)(2)].

B. In consultation with other involved agencies, the lead federal agency shall have the following responsibilities:

1. Determine the scope of the undertaking and identify Consulting Parties;

2. Determine whether the undertaking meets the criteria for exempted or screened undertakings in accordance with Appendices D (Exempted Undertakings) and E (Screened Undertakings) of this Agreement;

3. Coordinate with relevant agencies on the level of effort for inventories, description of the undertaking, definition of the APE, and all determinations of NRHP eligibility and Findings of Effect related to Section 106 review. Communication may occur informally through electronic mail and telephone calls and shall be documented to the project file;

4. Coordinate with participating agencies to ensure appropriate government-to-government consultation with Tribes is conducted, beginning as early in project planning as possible; and

5. Maintain records for consultation and the annual report (see Stipulation XV, Annual Report and Meeting).

V. CONSULTATION PROCESS

Throughout the duration of this Agreement, the federal agency for each undertaking shall seek, discuss, and consider the views of Consulting Parties, and shall, where feasible, seek agreement with them when making decisions under the Stipulations of this Agreement (36 C.F.R. § 800.16(f)).

A. The federal agency shall submit documentation relating to undertakings under this Agreement to Consulting Parties following the provisions of this Agreement. Unless otherwise agreed, or specified within a Stipulation to this Agreement, those parties shall have 30 days from receipt of the request to review the submitted documentation and provide response, comment, or request additional time.

B. If the Consulting Parties have not responded to the submitted documentation within 30 days of receipt, the federal agency shall make at least one attempt to follow up with them, via electronic mail and/or telephone, to verify a Consulting Party does not have any input with regard to the issue under consideration. If, after this effort, there has been no response from a Consulting Party, the federal agency shall proceed to the next step in the relevant process under this Agreement.

C. If a Consulting Party requires additional time for consultation, a request for extension shall be made in writing within the original review period specified for the consultation. The federal agency shall attempt to accommodate such requests, provided they do not adversely affect other scheduled planning efforts.

D. The federal agency shall consider all comments submitted during the review period and shall consult with the appropriate Consulting Parties to resolve disagreements. If comments cannot be incorporated into the document, the federal agency shall provide a written response outlining the decision.

1. If comments received from a Consulting Party require only minor editorial corrections, such as addressing spelling, grammatical, formatting, and punctuation errors, the federal agency shall execute the changes and complete the consultation.

2. If substantive changes are required, the federal agency shall provide draft copies of the revised documents to the Consulting Parties with a request for second review and comment. Consulting Parties shall have 14 days to provide comments on the revised draft.

3. Following the completion of consultation with appropriate Consulting Parties, the federal agency shall provide copies of the final document to the Consulting Parties, along with copies of comments received during consultation and a summary of the federal agency’s responses to those comments.

VI. CONSULTATION WITH TRIBES

A. Each federal agency acknowledges its government-to-government responsibilities to the Tribes for Section 106 review and implementation of the Agreement and commits to accord tribal officials the appropriate respect and dignity as leaders of sovereign nations.

B. Each federal agency will engage the Tribes in meetings and discussions regarding the undertaking at the earliest stages possible.

C. The objective of consultation is for the federal agency to seek, discuss, and consider the views of Tribes, and where feasible, seeking agreement with them regarding matters arising in the Section 106 process. In consultation with tribes, the federal agency will identify any potential historic properties, properties with cultural or religious significance to tribes (including landscape-level resource concerns). Also identify tribal concerns associated with the undertaking in order to avoid, minimize or mitigate effects on historic properties.

D. The timeline for consultation will follow Stipulation V (Consultation Process).

VII. DEFINING THE AREA OF POTENTIAL EFFECTS

A. The federal agency, in consultation with SHPO/THPO and Tribes, shall define the APE based on the potential of the undertaking to alter, directly, indirectly, or cumulatively, any of the characteristics of a historic property that make the property eligible for, or qualify the property for inclusion in, the National Register.

B. If the APE is located within or adjacent to Traditional Cultural Properties (TCP), National Historic Landmarks, National Historic Trails, or other classes of historic properties, for which integrity of setting, location, feeling, and/or association contribute to NRHP eligibility, then those properties shall be taken into consideration when defining the APE.

VIII. IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

A. Guidelines for Identification and Documentation of Historic Properties

1. Each land managing agency's site recording criteria shall be followed. The criteria utilized shall be explicitly stated in the inventory report.

2. For private land, Arizona State Museum (ASM) site recording criteria and SHPO guidance for identifying and documenting historical in-use structures shall be followed.

3. Documentation shall follow agency and SHPO reporting standards (e.g., Inventory Standards & Accounting form, Survey Report Summary Form for negative surveys, technical reports), as appropriate.

4. Phased identification and evaluation of historic properties may be completed under this Agreement pursuant to Stipulation IX (Phased Identification and Evaluation).

B. Guidelines for Determining Appropriate Level of Inventory

1. Depending on the scope of the undertaking, the land managing agency may consider the need for 100% (Class III) or sample (Class II) inventory (see Appendix A, Definitions and Appendix H, Survey Strategies, Part B).

2. When a federal agency proposes to perform 100% survey of the APE, no consultation with the SHPO regarding the level of inventory or extent of survey shall be required.

3. Based upon existing inventory information (i.e., Class I inventory), the federal agency may determine that further inventory shall not be necessary for all or a portion of the APE if a 100% inventory has previously been performed and if the fieldwork/documentation are consistent with current professional standards (see SHPO Guidance Point No. 5: *SHPO Position on Relying on Old Archaeological Survey Data*).

4. When less than 100% inventory is proposed (excluding conditions listed in Appendix H, Vegetation Management Protocol, Part D.2 for previously disturbed areas), the federal agency shall coordinate the alternative inventory strategy with the SHPO/THPO, Tribes, the appropriate land managing agency(ies), and other applicable entities.

5. Alternative inventory strategies should be considered. They include, but are not limited to, remote sensing such as aerial photography (including alternate light source, drone, and satellite imagery), predictive modeling, and geophysical survey technologies (magnetometry, electrical resistivity, ground-penetrating radar, and LIDAR).

C. Determinations of Eligibility

1. Prehistoric and historic sites, buildings, structures, districts, and objects (property types as defined in National Register Bulletin 15) and TCPs (as defined by National Register Bulletin 38) shall be evaluated for National Register eligibility. The federal agency shall ensure that cultural resources and TCPs within the APE are evaluated for eligibility for inclusion in the National Register by applying the National Register criteria (36 C.F.R. § 63) in consultation with the SHPO/THPO, and any tribe that attaches religious and/or cultural significance to the properties.

   a. Unevaluated properties will be treated as eligible for the purposes of Section 106;

2. Participating agencies, the SHPO/THPO, and Tribes agree that certain classes of properties may be determined eligible for the National Register in accordance with Appendix C (Eligible Properties) without additional consultation.

3. If a class of property is not listed in Appendix C (Eligible Properties) then the federal agency shall coordinate with the other land managing agency(ies) to obtain agreement on the Determinations of Eligibility prior to consultation with SHPO/THPO, Tribes, and other Consulting Parties.

4. If the federal agency, SHPO/THPO, and Tribes cannot agree on the eligibility of a property, a formal determination of eligibility shall be obtained from the Keeper of the National Register, whose decision shall be final.

IX. PHASED IDENTIFICATION AND EVALUATION

A. Phased identification of historic properties may be used when a large-scale project is to be implemented over time and it is not reasonably possible to complete the Section 106 compliance for all aspects of the undertaking prior to reaching a National Environmental Policy Act (NEPA) decision, project authorization, issuance of a license or permit, or obligation of federal financial assistance. In a phased approach, the federal agency, in coordination with Consulting Parties, may seek final project authorization prior to completion of the identification of historic properties and evaluation of significance in the entire project area, if all the following requirements are met:

1. Justification has been provided to the SHPO in an initial Section 106 consultation report as to why completion of the identification and evaluation of properties within the entire APE is not feasible. The report should also clearly state the process and time frames for completing that work and that the identification and protection requirements of this protocol shall be completed prior to the authorization of on-the-ground work in each phase of the project.

2. The initial consultation shall also address the expected nature and distribution of properties in the entire project area and anticipated effects shall be discussed and considered in the initial project-wide Section 106 compliance report.

3. Each subsequent phase of the project shall have a completed Section 106 compliance report that includes concurrence on the Determinations of Eligibility and project effects from SHPO/THPO prior to the authorization of on-the-ground work.

4. The protection measures in Appendices G (Rangeland Management Protocol, Part D) and H (Vegetation Management Protocol, Part E) shall be enough to protect historic properties in the entire project area and can be implemented with no prior consultation with the SHPO/THPO.

5. Protection measures that are not listed in Appendices G (Rangeland Management Protocol) and H (Vegetation Management Protocol) should be consulted on with SHPO/THPO prior to implementation.

B. If the federal agency subsequently determines that adverse effects on historic properties in any phase of the project cannot be avoided, they shall consult with the SHPO/THPO, Tribes, and other Consulting Parties in accordance with this Agreement or 36 C.F.R § 800.6 and shall amend its decision, if necessary, to disclose the effects.

X. ASSESSMENT OF EFFECTS

A qualified archaeologist (as defined in Appendix A) shall make recommendations of effects for the federal agency's consideration. In making its finding of effect, as follows, the federal agency, in coordination with the appropriate land manager, shall consider the direct, indirect, and cumulative effects of the undertaking (e.g., physical, visual, auditory, atmospheric effects), to historic properties. If the federal agency finds there are historic properties that may be affected by the undertaking, the federal agency shall make one of the following Findings of Effect:

A. No Historic Properties Affected
For all undertakings not exempted under Appendix D (Exempted Undertakings) or screened under Appendix E (Screened Undertakings), if the federal agency determines that either there are no historic properties within the APE, or that historic properties are present but will not be affected by the undertaking, the federal agency shall issue a finding of "no historic properties affected" pursuant to 36 C.F.R. § 800.4(d)(1). The federal agency shall document the finding to the project file and for the annual report, pursuant to Stipulation XV (Annual Report and Meeting).

B. No Adverse Effect
The federal agency shall consult with SHPO/THPO, and tribes pursuant to 36 C.F.R. § 800.5(c) for any undertaking where the activity may affect historic properties, but the effects would not alter a characteristic that would qualify the property for listing in the NRHP. The federal agency shall consult with Consulting Parties and shall request that any comments be submitted within 10 business days of receipt of agency consultation letter or notification.

C. No Adverse Effect with Protection/Mitigation Measures (Conditional No Adverse Effect)
For those undertakings where historic properties may be affected, but where those effects can be avoided or lessened, the federal agency shall apply the criteria of adverse effect in accordance with 36 C.F.R. § 800.5 and take protective measures to ensure that historic properties are not adversely affected by applying the protective measures listed in Appendices G (Range Management Protocol) and H (Vegetation Management Protocol). The federal agency shall consult with

Consulting Parties and shall request that any comments be submitted within 10 business days of receipt of agency consultation letter or notification.

D. Adverse Effect
If the federal agency applies the criteria of adverse effect in 36 C.F.R. § 800.5 and determines that the effects of the undertaking to historic properties cannot be avoided or minimized by applying the protection measures listed in Appendices G (Rangeland Management Protocol) and H (Vegetation Management Protocol), it shall issue a finding of adverse effect and consult further to resolve the adverse effect pursuant to Stipulation X (Resolution of Adverse Effects) Part E, below.

E. Resolution of Adverse Effects

1. Standard Measures for Resolving Adverse Effects
   a. Adverse effects on certain types of historic properties may be resolved by following the process in Appendix F (Standard Measures for Resolving Adverse Effects) as an alternative to preparing a Memorandum of Agreement (MOA) or project-specific Programmatic Agreement (PA). For undertakings that require resolution of adverse effects that cannot be resolved using the standard measures, the federal agency shall notify the ACHP of the finding of adverse effect and invite them to participate in a MOA or project-specific PA.

   b. The federal agency shall propose the applicable standard measures for resolving adverse effects, as provided in Appendix F, and request comments from the SHPO/THPO and other appropriate Consulting Parties to the undertaking, if applicable. The federal agency shall provide the SHPO/THPO and the Consulting Parties with information on the undertaking, each historic property and its significance, the anticipated adverse effect to the property, and a justification for resolving adverse effects, as proposed, under Appendix F to this Agreement.

   c. Where the federal agency, SHPO/THPO, and other Consulting Parties, if appropriate, agree in writing that resolving adverse effects under Appendix F is warranted, and any Consulting Party with a role in authorizing the undertaking concurs in writing, the Section 106 process is completed and the federal agency shall ensure that a Historic Property Treatment Plan (HPTP) for resolving the adverse effects is prepared in accordance with Appendix F.

   d. The Consulting Parties shall have 30 days to provide comments.

   e. Any Consulting Party to the undertaking may object to the federal agency's decision regarding the proposal to resolve the adverse effects of the undertaking through standard measures pursuant to Appendix F. The federal agency, in consultation with the SHPO/THPO and other

applicable Consulting Parties, shall consider the objection. Should the federal agency determine that resolving the adverse effects of the undertaking under Appendix F is not warranted, the federal agency shall then prepare a MOA or project-specific PA pursuant to this Stipulation X.E.2(a) below.

f. The federal agency shall provide draft copies of the HPTP to the SHPO/THPO, tribes, and other Consulting Parties if applicable, to the undertaking for review and comment. The Consulting Parties shall have 30 days to provide comments.

g. After treatment measures to resolve adverse effects outlined in the HPTP have been implemented, the federal agency shall ensure that a preliminary report of findings is completed and shall submit the report to all Consulting Parties to the undertaking for review and comment. The specific requirements for the preliminary report of findings, as well as the review process and time frames, shall be stipulated in the HPTP. The federal agency shall not authorize the start of construction until consultation on the preliminary report of findings has been approved by the SHPO/THPO and other Consulting Parties to the undertaking or no objections have been received.

h. The federal agency may authorize the start of construction if, upon review of a preliminary report of findings, either the SHPO/THPO and other Consulting Parties to the undertaking agree that the HPTP was adequately implemented or no objections have been received.

i. The federal agency shall ensure that a draft report is prepared and submitted to the SHPO/THPO and other Consulting Parties to the undertaking for review and comment within a timeframe specified in the HPTP. All comments shall be considered prior to finalizing the draft report, and a final report shall be distributed to the SHPO/THPO and all other Consulting Parties.

2. MOA or Project-Specific PA
   a. When the federal agency determines resolution of an adverse effect under Appendix F is not warranted, or is not agreed to, the federal agency shall, in consultation with the SHPO/THPO and other applicable Consulting Parties, prepare an MOA in accordance with 36 C.F.R. § 800.6 or a project-specific PA in accordance with 36 C.F.R. § 800.14(b). The federal agency shall invite ACHP to participate. The process for preparing and reviewing the MOA or project-specific PA shall be negotiated among the Consulting Parties to the undertaking.

   b. The MOA or project-specific PA shall be executed upon its filing with the ACHP.

XI. POST-REVIEW DISCOVERIES

The federal agency shall follow the procedures in 36 C.F.R. § 800.13(a)(1) for post-review discoveries if potential historic properties are discovered or if unanticipated effects on known historic properties are found after the agency has completed Section 106 consultation for the undertaking.

A. Cultural Resources

1. If a post-review discovery is made during implementation of an undertaking conducted under this Agreement, all activities within a 50-foot radius of the discovery shall cease, and the federal agency shall take steps to protect the discovery and promptly report the discovery to the SHPO/THPO, Tribes, and appropriate land managing agencies, municipalities, or private land owner.

2. The federal agency, in coordination with the appropriate land managing agency, shall identify actions to resolve adverse effects, notify the SHPO/THPO, any Tribes that might attach religious and cultural significance to the affected property, if appropriate, within 48 hours of the discovery. The notification shall describe the assessment of National Register eligibility of the property and, if necessary, propose treatment to resolve adverse effects to the Register-eligible property. The SHPO/THPO, Tribe(s), if appropriate, shall respond within 48 hours of the notification. The agency official shall consider their recommendations regarding National Register eligibility and proposed treatment, then carry out appropriate treatment. The federal agency shall provide the SHPO/THPO, land managing agency, and Tribes a report of the actions when they are completed.

3. If there is no agreement among the parties, the protocol in Stipulation XXI (Dispute Resolution) will be followed.

B. Human Remains

1. If human remains and associated cultural items are encountered on federal or tribal lands, the land manager shall follow the regulations at 43 C.F.R. § 10. A NAGPRA Plan of Action shall be implemented.

2. If human remains, funerary objects, sacred ceremonial objects, or objects of national or tribal patrimony are discovered on state, county, municipal, or private lands, either through archaeological excavation or during construction, and a Burial Agreement is in place, the federal agency shall require the person in charge to immediately cease all activity within a 100-foot radius of the discovery, take steps to protect the discovery, and immediately notify the SHPO/THPO, Tribes, appropriate land owner(s),

and the Director of the ASM. The requirements of A.R.S. § 41-844 for discoveries on state land and A.R.S. § 41-865 for discoveries on private land shall also be followed.

XII. PERMITTING REQUIREMENTS

Archaeological investigations shall be conducted in accordance with a permit issued by the land management agencies, or the ASM for projects on state, county, and municipal land.

XIII. CURATION

Any collections of archaeological materials and associated records that result from activities undertaken as part of this Agreement shall be curated in accordance with federal laws and regulations, including 36 C.F.R. § 79, or with the ASM curation policy for collections from state, county, municipal, and private lands.

XIV. EMERGENCY ACTIONS

A. Emergency actions are those actions deemed necessary by a participating agency as an immediate and direct response to an emergency, which is a disaster or emergency declared by the President, tribal government, or the governor of the state, or other immediate threats to life or property. Emergency actions under this Agreement are only those implemented within 30 days from the initiation of the emergency and shall follow 36 C.F.R. § 800.12(b)(2).

   Local emergencies (i.e., those emergencies outside the definition of 36 C.F.R. § 800.12) may be identified by any local government (state agency, county, or municipality) or Tribe and reviewed by the relevant land manager in consultation with the SHPO/THPO and Tribes on a case-by-case basis. Emergency action includes immediate rescue and salvage operations as well as wildland fire suppression activities conducted to preserve life or property and implemented within 30 days from the initiation of the emergency.

XV. ANNUAL REPORT AND MEETING

A. Participating agencies shall annually compile a report of the undertakings for which they are the designated federal agency. Information in the report shall include, but is not limited to, a list of agencies involved in each undertaking, a summary of actions taken (including all findings and determinations), a list of all exempted and screened undertakings, and inadvertent effects or post-review discoveries.

B. Participating agencies shall submit the report to all Consulting Parties to this Agreement no later than January 31 for each year the Agreement is in effect. The Consulting Parties shall have 30 days to review and provide comments regarding the effectiveness or appropriate implementation of this Agreement. Any Consulting Party can request a meeting with relevant participating agencies to address concerns. All communications shall be via electronic mail unless otherwise requested.

XVI. ADDITIONAL SIGNATORIES

A. Any Consulting Party can request to become an invited signatory after execution of this Agreement. The process for becoming an invited signatory is to send a request in writing to the BLM Arizona State Office to join this Agreement. The BLM will then prepare a signature page and send it to the party for their signature. The party shall then return the signed signature page to the BLM, and the BLM shall incorporate it into the Agreement. The BLM will file any additional signature pages with the ACHP and provide a copy of the signature page to the Consulting Parties.

B. For undertakings occurring on, or affecting historic properties on, tribal lands, the THPO or tribe's designated representative must become a signatory to this Agreement before that undertaking may proceed. If such an undertaking is proposed, the BLM will prepare a signature page and send it to the THPO/tribal representative for their signature. The THPO/tribal representative shall then return the signed signature page to the BLM, and the BLM shall incorporate it into the Agreement. The BLM will file any additional signature pages with the ACHP and provide a copy of the signature page to the Consulting Parties. The addition of tribal signatories under this process shall not require formal amendment to this Agreement.

XVII. AMENDMENTS

Any signatory or invited signatory to this Agreement may request that it be amended. The signatory or invited signatory that requests the change shall seek input from the Consulting Parties for a period of 30 days. Any amendment to this Agreement must be signed by the SHPO and all other Signatories. The party that proposed the amendment shall provide electronic copies of the amendment to all Consulting Parties.

XVIII. ADDITIONAL PROTOCOLS, SCREENED UNDERTAKINGS, OR EXEMPTIONS

Consulting Parties may propose additional protocols, screened undertakings, or exemptions by notifying the signatories, in writing, of the details of the new proposal. The Signatories to this Agreement shall respond within 30 days with their response to the proposal. If agreement is reached on the new proposal, the party that proposed the new protocol, screened undertaking, or exemption shall distribute it to all Consulting Parties, and the BLM will add it as an attachment to this Agreement without formal amendment.

XIX. WITHDRAWAL FROM THE AGREEMENT

A. Any Consulting Party to this Agreement may withdraw from the Agreement after first providing a 30-day written notice explaining the reasons for withdrawal and providing signatories an opportunity to consult regarding amendment of this Agreement to prevent withdrawal.

B. Withdrawal from this Agreement by a federal or state land managing agency or THPO/tribe on tribal lands shall require the federal agency to comply with 36 C.F.R. Part 800 with respect to all undertakings on or affecting lands within that party's jurisdiction, in lieu of this Agreement. Withdrawal from this Agreement by a federal or state land managing agency or a participating Tribe does not terminate the Agreement.

XX. TERMINATION

A. If any signatory or invited signatory determines that it wants to terminate this Agreement, they shall provide a 30-day written notification to the Signatories to explain the reasons for proposing termination and shall consult to seek an amendment to the Agreement in lieu of termination.

B. Should such consultation result in an amendment to this Agreement avoiding termination, the signatories and invited signatories shall proceed to amend the Agreement pursuant to Stipulation XVII (Amendments) and carry out its provisions as amended.

C. Termination of the Agreement by a signatory or invited signatory shall only apply to the lands under their respective jurisdiction. Upon termination of this Agreement in its entirety, all consultation shall comply with 36 C.F.R. Part 800, subpart B or other relevant agreements with respect to individual undertakings that would otherwise be reviewed under this Agreement.

D. Should the BLM, USFS, USFWS, SHPO, or ACHP terminate this Agreement, either individually or collectively, the Agreement shall be terminated in its entirety. Upon termination of this Agreement in its entirety, all consultation shall comply with 36 C.F.R. Part 800, subpart B or other relevant agreements with respect to individual undertakings that would otherwise be reviewed under this Agreement.

XXI. DISPUTE RESOLUTION

Should any Consulting Party to this Agreement object at any time to any actions proposed or the way the terms of this Agreement are implemented, the federal agency shall consult with the party that raised the objection, and the SHPO/THPO to resolve the objection. If within 30 days the federal agency determines that such objection cannot be resolved, the federal agency shall:

A. Forward all documentation relevant to the dispute, including the federal agency's proposed resolution, to the ACHP. The ACHP shall provide the federal agency with its advice on their solution to the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the federal agency shall prepare a written response that considers any timely advice or comments regarding the dispute from the ACHP, SHPO/THPO, and other Consulting Parties, and provide them with a copy of this written response. The federal agency shall then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the 30-day period, the federal agency may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the federal agency shall prepare a written response that considers any timely comments regarding the dispute from the SHPO and other Consulting Parties to this Agreement and provide them and the ACHP with a copy of such written response.

C. The federal agency's responsibility to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

XXII. CONFIDENTIALITY

Pursuant to this Stipulation, all Consulting Parties agree to appropriately safeguard and control the distribution of any confidential information they may receive as a result of their participation in this Agreement. Such safeguarded information, including private property information, is exempt from disclosure under the Freedom of Information Act (FOIA) (5 U.S.C. § 552 as amended by Public Law No. 104-231, 110 Stat. 3048) and Section 1619 of the Farm Bill, codified as 7 U.S.C. 8791(b)(2)(A), and 25 U.S.C. 32A - §, Prohibition on Disclosure.

Information concerning the nature and location of any historic property (historic or prehistoric) or archaeological resource may be considered sensitive and protected from release under the provisions of the FOIA (5 U.S.C. § 552, as amended by Public Law No. 104-231, 110 Stat. 3048; and specifically 54 U.S.C. 307103(a)), Section 9 of the Archaeological Resources Protection Act (16 U.S.C. § 470hh), Section 304 of the NHPA (54 U.S.C. § 307103), and A.R.S. 39-125.

XXIII. DURATION

This Agreement shall remain in effect for a period of 10 years after the date it takes effect, unless terminated prior to that time pursuant to Stipulation XX (Termination). At least one year prior to the expiration date, BLM shall inform the Signatories and shall consult to determine if the Agreement should be allowed to expire or whether it should be extended. This Agreement may be extended for an additional term, the length of which is to be agreed to by the Signatories. The extension shall be codified through an amendment to this Agreement pursuant to Stipulation XVII (Amendments). Where there is no agreement by all the Signatories, the Agreement shall not be extended and shall be terminated.

XXIV. ANTI-DEFICIENCY ACT

The federal government's obligations under this Agreement are subject to the availability of appropriated funds, and the Stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act (31 U.S.C. § 1341). The federal government shall make reasonable and good faith efforts to secure the necessary funds to implement this Agreement in its entirety.

XXV. COUNTERPART SIGNATURES

This Agreement may be executed in counterparts, each separately and together constituting one and the same document. Execution and delivery of this Agreement by facsimile or electronic mail shall be sufficient for all purposes and shall be binding on any party to this Agreement.

Execution of this Agreement by the BLM, USFS, USFWS, SHPO, and the ACHP, and the implementation of its terms are evidence that they have taken into account the effects of the undertaking on historic properties and has afforded the ACHP an opportunity to comment.

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

BUREAU OF LAND MANAGEMENT

RAYMOND SUAZO Digitally signed by RAYMOND SUAZO
Date: 2020.09.11 08:51:22 -07'00'

Raymond Suazo Date
Arizona State Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE

JAMES MELONAS Digitally signed by JAMES MELONAS Date: 2020.09.18 10:43:27 -06'00' 9/18/20

Sandy Watts — Date
Acting Regional Forester

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT (ARIZONA)

_____

Amy Lueders Date
Regional Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA STATE HISTORIC PRESERVATION OFFICER

14 Sep 2020

Kathryn Leonard — Date
State Historic Preservation Officer

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ADVISORY COUNCIL ON HISTORIC PRESERVATION

9/30/2020

Aimee Jorjani — Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA ASSOCIATION OF CONSERVATION DISTRICTS

_____

Frank Kentz Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA DEPARTMENT OF FORESTRY AND FIRE MANAGEMENT

_____

David Tenney Date
Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA DEPARTMENT OF TRANSPORTATION

_____

John S. Halikowski Date
Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA GAME AND FISH DEPARTMENT

_____

Ty E. Gray Date
Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA STATE LAND DEPARTMENT

_____

Lisa A. Atkins Date
Commissioner

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

BUREAU OF INDIAN AFFAIRS

_____

Darryl Lacounte Date
Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

BUREAU OF RECLAMATION

_____

Terry Fulp Date
Regional Director, Lower Colorado Basin

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

NATURAL RESOURCES CONSERVATION SERVICE

_____

Keisha Tatem Date
State Conservationist

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA FARM BUREAU

_____

Stefanie Smallhouse Date
State President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PIMA COUNTY

_____

Chuck Huckelberry Date
County Administrator

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

AK-CHIN INDIAN COMMUNITY

_____

Robert H. Miguel, Jr. Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

ARIZONA STATE PARKS AND TRAILS

_____

Robert Broscheid Date
Executive Director

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

CHEMEHUEVI INDIAN TRIBE OF THE CHEMEHUEVI RESERVATION

_____

Charles F. Wood Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

CITY OF PHOENIX ARCHAEOLOGY OFFICE

_____

Name Date
Title

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

CITY OF PHOENIX HISTORIC PRESERVATION OFFICE

_____

Name Date
Title

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

COCOPAH TRIBE OF ARIZONA

_____

Sherry Cordova Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

COLORADO RIVER INDIAN TRIBES

_____

Dennis Patch Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

FORT MCDOWELL YAVAPAI NATION

_____

Bernadine Burnette Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

FORT MOJAVE INDIAN TRIBE

_____

Timothy Williams Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

FORT SILL APACHE TRIBE OF OKLAHOMA

_____

Lori Gooday-Ware Date
Chairperson

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

GILA RIVER INDIAN COMMUNITY

_____

Stephen Roe Lewis Date
Governor

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

HAVASUPAI TRIBE OF THE HAVASUPAI RESERVATION

_____

Muriel Uqualla-Coochwytewa Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

HOPI TRIBE OF ARIZONA

_____

Timothy Nuvangyaoma Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

HUALAPAI INDIAN TRIBE OF THE HUALAPAI INDIAN RESERVATION

_____

Dr. Damon R. Clarke Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

KAIBAB BAND OF PAIUTE INDIANS OF THE KAIBAB INDIAN RESERVATION

_____

Ona Segundo Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

LAS VEGAS TRIBE OF PAIUTE INDIANS OF THE LAS VEGAS INDIAN COLONY

_____

Curtis Anderson Date
Chairperson

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

MESCALERO APACHE TRIBE OF THE MESCALERO RESERVATION

_____

Arthur "Butch" Blazer Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

MOAPA BAND OF PAIUTE INDIANS OF THE MOAPA RIVER INDIAN RESERVATION

_____

Vickie Simmons Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

MOHAVE COUNTY

_____

Name Date
Title

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

NAVAJO NATION

_____

Jonathan Nez Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PAIUTE INDIAN TRIBE OF UTAH

_____

Tamra Borchardt-Slayton Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PASCUA YAQUI TRIBE OF ARIZONA

_____

Robert Valencia Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PUEBLO OF ACOMA

_____

Brian D. Vallo Date
Governor

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PUEBLO OF JEMEZ

_____

David M. Toledo Date
Governor

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

PUEBLO OF ZUNI

_____

Val R. Panteah, Sr. Date
Governor

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

QUECHAN TRIBE OF THE FORT YUMA INDIAN RESERVATION

_____

Jordan D. Joaquin Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY OF THE SALT RIVER RESERVATION

_____

Martin Havier Date
President

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

SAN CARLOS APACHE TRIBE OF THE SAN CARLOS RESERVATION

_____

Terry Rambler Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

SAN JUAN SOUTHERN PAIUTE TRIBE OF ARIZONA

_____

Carlene Yellowhair Date
Chairperson

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

TOHONO O'ODHAM NATION OF ARIZONA

_____

Ned Norris Jr. Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

TONTO APACHE TRIBE OF ARIZONA

_____

Jeri DeCola Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

TOWN OF MARANA

_____

Jamsheed Mehta Date
Town Manager

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

UTE MOUNTAIN UTE TRIBE

_____

Harold Cuthair Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

WHITE MOUNTAIN APACHE TRIBE

_____

Gwendena Lee-Gatewood Date
Chairwoman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

YAVAPAI-APACHE NATION OF THE CAMP VERDE INDIAN RESERVATION

_____

Jon Huey Date
Chairman

PROGRAMMATIC AGREEMENT

AMONG

THE BUREAU OF LAND MANAGEMENT,

SOUTHWESTERN REGION THREE U.S. FOREST SERVICE,

U.S. FISH AND WILDLIFE SERVICE, INTERIOR REGION EIGHT,

ARIZONA STATE HISTORIC PRESERVATION OFFICER, AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE EFFECTS OF

VEGETATION AND RANGE MANAGEMENT ACTIVITIES IN ARIZONA

YAVAPAI-PRESCOTT INDIAN TRIBE

_____

Robert Ogo Date
Acting President

APPENDICES

APPENDIX A: DEFINITIONS

Appendix A includes the definitions that pertain to this Agreement. New definitions can be added without amending the Agreement.

Activities: as used in this Agreement, activities include but are not limited to, the management of vegetation communities, wildlife habitat, watershed management, runoff and erosion control, grazing, and infrastructure improvements associated with range, habitat, and fuel-management projects.

Adverse Effect: applies when an undertaking may alter, directly, indirectly, or cumulatively, any of the characteristics that qualify a historic property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (see criteria of adverse effect at 36 C.F.R. § 800.5).

Advisory Council on Historic Preservation (ACHP): an independent federal agency established pursuant to Section 201 of the NHPA. Under Section 106 of the NHPA, the ACHP must be afforded an opportunity to comment on federal, federally assisted, or federally licensed undertakings that may affect historic properties.

Archaeological Site: generally, any material remains of past human life or activities in history or prehistory, which are of archaeological interest including, but not be limited to: pottery, basketry, bottles, weapons, projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items that are of human design, manufacture, possession, or use. Specific archaeological site definitions shall follow appropriate land managing agency or ASM and SHPO guidelines.

Area of Potential Effects (APE): the geographic area(s) within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 C.F.R. § 800.16(d)). The APE must include all areas of direct, indirect, and reasonably foreseeable cumulative effects including, but not limited to, staging areas, temporary construction easements, access roads, and utility corridors.

Association: an aspect of integrity and the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Association requires the presence of physical features that convey a property's historic character (National Register Bulletin 15).

AZSITE: Arizona's online cultural resources database.

Character-Defining Feature: a prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details, and materials may be such features (NPS 1996).

Class I Inventory: includes background research consisting of archival research, a literature review, and site files check that is sufficient to identify past survey coverage and generate expectations about the types and frequencies of cultural resources that might be expected during field survey. This research should include a 1-mile buffer zone surrounding the survey area for block survey parcels (half-mile in highly urbanized areas), and a half-mile buffer either side of a linear survey corridor (measured from the center line).

Class II "Sample" Inventory: includes background research and a sample field survey. The sampling strategy must be agreed to by the federal agency in consultation with the SHPO/THPO, Tribes, and land manager prior to fieldwork and discussed in the report. In survey methodology, sampling is the examination of a subset (a statistical sample) of the entire APE to estimate characteristics of the larger area.

Class III Inventory: includes background research and an intensive field survey (generally 100%) meeting current agency and/or ASM standards.

Concurring Parties: interested parties who may be asked to sign a MOA or PA but do not have the rights to amend or terminate the MOA or PA.

Conservation District: an NRCS client who has entered into a working relationship or cooperative agreement with a conservation district.

Consultation: the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process (36 C.F.R. § 800.16(f)).

Consulting Parties: parties with consultative roles in the Section 106 process, including the ACHP (if participating); SHPO, THPO(s); Tribes; land managing agencies; local governments; applicants for federal assistance, permits, licenses or other approvals; and any party with a legal or demonstrated interest to the undertaking, such as private land owners or lessees, or concern with the undertaking's effect on historic properties (36 C.F.R. § 800.2(c)). For the purposes of this Agreement, Consulting Parties collectively refers to the signatories, invited signatories, concurring parties, and all Tribes regardless of their decision to sign this Agreement.

Coordination: communication (electronic mail and/or phone calls) among Consulting Parties to increase cooperation among the parties and increase the effectiveness of defining their responsibilities when formal consultation is not necessary.

Cultural or Ethnographic Landscape: a geographic area that contains a variety of cultural and natural resources that culturally affiliated groups define as possessing cultural value. The cultural/ethnographic landscape has prominent or distinctive aspects, qualities, or characteristics that contribute significantly to its physical character. Small plant communities, animals, subsistence, and ceremonial grounds are often components of the cultural/ethnographic landscape.

Cultural Resources: prehistoric and historic districts, sites, buildings, structures, objects, cultural landscapes, sacred sites, and TCPs. Within the broad range of cultural resources are those that have recognized significance, which are called historic properties, as defined below.

Cultural Resources Inventory: the study of an area to identify the cultural resources that are, or may be, present. This term is inclusive of Class I, Class II, and Class III Inventories, as defined above.

Design: an aspect of integrity, design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials (National Register Bulletin 15).

Direct Supervision: for purposes of this Agreement, direct supervision means the activities of a field survey team must be directly overseen (i.e., in the field) by a crew chief, field director, project director, or principal investigator listed on the relevant permit and/or meeting the SOI Standards for Archaeology or the OPM 0193 series Archaeologist, grade GS-9 or higher.

Ecological Site: a distinctive kind of land with specific soil and physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation and its ability to respond similarly to management actions and natural disturbances.

Effect: an alteration to a historic property that results when an undertaking changes the characteristics of a property that qualifies it for inclusion in the National Register (36 C.F.R. § 800.16(i)). Direct and indirect effects may include physical, visual, atmospheric, and auditory effects; cumulative effects must also be considered.

Emergency or Disaster: a disaster or emergency under Section 106 is one declared by the President, tribal government, or the governor of a state and that poses an immediate threat to life (human or animal) or property (36 C.F.R. § 800.12(a)). Local emergencies, as described in Stipulation XIV (Emergency Actions) are declared by state agencies, county governments, municipal governments and, on a case by case basis, the landowner.

Feeling: an aspect of integrity, feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character. For example, a rural historic district retaining original design, materials, workmanship, and setting will relate the feeling of agricultural life in the 19th century. A grouping of prehistoric petroglyphs, unmarred by graffiti and intrusions and located on its original isolated bluff, can evoke a sense of tribal spiritual life (National Register Bulletin 15).

Fence: a barrier typically installed to control the movement of animals, humans, and/or vehicles. They are typically constructed of upright posts with horizontal boards, rails, pickets, or wire. Fences may also include iron structures with open work of horizontal or vertical bars.

Fire Management: all activities related to wildfires including planned and unplanned ignitions, initial attack and fire suppression activities such as digging lines, dozer/mechanical lines, hand lines, road improvements, mastication, black lining fuel breaks, and the use of prescribed or managed fire for fuel and habitat management activities.

Fire Sensitive Sites:

- Historic sites with standing or downed wooden structures (including telephone trees) or other flammable features or artifacts;
- Rock art sites (depending on rock type, exposure, fuel type, and fuel loading);
- Cliff dwellings;
- Prehistoric sites with flammable architectural elements and other flammable features or artifacts;
- Prehistoric sites with exposed building stone of soft or porous material such as volcanic tuff;
- Culturally modified trees, including aspen art and peeled/scarred trees;
- Certain TCPs (based on consultation with Tribes).

Hand Thinning: removal of vegetation using handheld tools (e.g., rakes or hoes, shovels, hand-held saws, chainsaws, pruning tools).

Historic Property: any prehistoric or historic district, site, building, structure, or object listed in, or eligible for inclusion in, the National Register. This term includes artifacts, records, and remains that are related to and located within such properties. The phrase "eligible for inclusion in the National Register" means properties formally determined as such by the SOI or by the federal agency in consultation with SHPO/THPO. Properties that have been determined eligible for inclusion are accorded the same protections as properties listed in the National Register (36 C.F.R. § 800.16(l)(1)).

Historic Period: for purposes of this Agreement, the historic period shall be defined as beginning when Europeans first entered an area or made recorded observations of the area. In the Southwest, that is usually around the year 1540. The historic period is defined as ending 50 years before the present.

Invited Signatory: an agency with specific duties, as outlined in this Agreement, and with the same rights as signatories to terminate or amend the Agreement.

Lead Federal Agency: the agency responsible for ensuring compliance under Section 106 when multiple federal agencies are involved in the undertaking.

Limited Ground Disturbance: ground disturbance limited to the existing construction footprint, or ground disturbance that does not exceed 2 feet in any direction, or as listed in Appendix E (Screened Undertakings) that has little potential to alter, directly or indirectly, any of the characteristics that qualify a historic property for inclusion in the National Register.

Location: an aspect of integrity, location is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its

location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved (National Register Bulletin 15).

Materials: an aspect of integrity, materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. A property must retain the key exterior materials dating from the period of its historic significance. If the property has been rehabilitated, the historic materials and significant features must have been preserved. The property must also be an actual historic resource, not a recreation; a recent structure fabricated to look historic is not eligible. Likewise, a property whose historic features and materials have been lost and then reconstructed is usually not eligible (National Register Bulletin 15).

National Register of Historic Places (NRHP, National Register): the official list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture maintained by the Keeper of the National Register on behalf of the SOI (36 C.F.R. Part 60).

Negative Survey: a cultural resources inventory survey in which no cultural resources, excluding isolated occurrences, are identified, and a finding of "No Historic Properties Affected" is appropriate, following Arizona SHPO Guidance Point No. 10: *SHPO Guidance for Use and Submittal of the Survey Report Summary Form*.

No Adverse Effect: applies when an undertaking will not alter, directly, indirectly, or cumulatively, any of the characteristics that qualify a historic property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

No Historic Properties Affected: applies when there are no cultural resources in the APE, there are cultural resources in the APE but none are determined to be National Register eligible, or there are historic properties in the APE but they will be avoided by the undertaking.

Predictive Modeling: an application of statistical sampling techniques (Class II "Sample" Inventory), based on known scientific data that projects or extrapolates the number, classes, distribution, and frequencies of properties. Predictive models can be used in land use planning, during the early stages of planning for an undertaking, for targeting field survey, or other management purposes.

Prescribed Fire: a planned fire used for vegetation management in accordance with the applicable laws, policies, and regulations to meet specific objectives.

Previously Disturbed: refers to areas where previous construction or other activity by human or natural agents, has physically altered soils within the APE to the point where there is no potential for an *in situ* archaeologically significant property to be affected by a federal undertaking as

determined by the land managing agency archaeologist. These areas can include, but are not limited to, the original footprint of existing structures (e.g., ponds, tanks, distribution canals), and plow zones, as documented historically or by a producer's signed affirmation.

Producer: an owner, operator, manager, landlord, or tenant who produces food, fiber, or plant materials - typically a farmer, rancher, dairy farmer, nurseryman, or private forester.

Property Type: buildings, sites, structures, districts, and objects that are listed in or eligible for inclusion in the National Register.

Qualified Archaeologist: a professional archaeologist who meets the SOI Standards for Professional Qualifications (48 Federal Register 44716, September 29, 1983) or the OPM 0193 series Archaeologist, grade GS-9 or higher. For projects on state, county, and municipal land, the qualified archaeologist must also be listed as a Principal Investigator on an AAA permit.

Range Management: any activity or program on or relating to the management of lands used primarily as watersheds, for the grazing of animals, for recreation, and as habitat for wildlife. These activities include, but are not limited to, restoring or harvesting vegetation, managing livestock grazing activities, range improvements such as providing reliable water for livestock and wildlife, reducing or stabilizing soil erosion problems, and reducing or controlling excess runoff.

Setting: an aspect of integrity, setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the *character* of the place in which the property played its historic role. It involves *how*, not just where, the property is situated and its relationship to surrounding features and open space (National Register Bulletin 15).

Signatories or Signatory: per 36 C.F.R. § 800.6, parties who assume obligations under this Agreement. Signatories can agree to amend this Agreement. The term includes full and invited signatories but does not include others who sign this Agreement as concurring parties.

Significance: used to indicate a cultural resource's eligibility for the National Register according to the criteria in 36 C.F.R. § 60.4.

Slope: the steepness of the terrain. Normally documented using percent slope. Slopes of 40% or greater are generally not surveyed.

State Historic Preservation Officer (SHPO): the official appointed or designated by the Governor, pursuant to Section 101(b)(1) of the NHPA, to administer the State Historic Preservation Program (36 C.F.R. § 800.16(v)).

Structures: a property type that is not designed to shelter human activity but to perform other necessary functions (e.g., bridges, dams, canals, roads, railroads, fences, wells, roads, pipelines, storage tanks, troughs, dams, gully treatments).

Traditional Cultural Property (TCP): as defined in National Register Bulletin 38, is a property that is listed in, or is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are: (1) rooted in that community's history; and (2) important in maintaining the continuing cultural identity of the community.

Tribal Historic Preservation Officer (THPO): an individual designated by a Tribe to administer the tribal historic preservation program, through appointment by the Tribe's chief governing authority or as a tribal ordinance may otherwise provide (NHPA Section 101(d)(2)(B)). On tribal lands, a THPO, representing the Tribe, may assume the duties of the SHPO, in whole or in part, as certified by the NPS (36 C.F.R. § 800.16(w)).

Tribal Lands: all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities (36 C.F.R. § 800.16(x)). Within the scope of this Agreement, the NHPA definition is identical to the NAGPRA definition (25 U.S.C. § 3001(15)).

Undertaking: a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval. (36 C.F.R. § 800.16(y)).

Vegetation Management: vegetation treatment methods include prescribed fire treatments, hand thinning treatments, mechanical thinning treatments, chemical thinning treatments, biological treatments, wood cutting permits, and planting.

Workmanship: an aspect of integrity, workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site. Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative techniques. (National Register Bulletin 15).

APPENDIX B: DESIGNATING THE LEAD FEDERAL AGENCY

Once an agency determines it has an undertaking with the potential to affect historic properties, it should also determine whether other federal agencies are likely to be responsible for carrying out the undertaking, providing funding, or issuing licenses, permits, approvals, or assistance. The federal agencies involved shall collectively designate the lead federal agency for each individual undertaking or undertakings grouped together under this Agreement. There can be co-leads.

A. Circumstances when agencies should consider designating a lead federal agency for Section 106 review:

   1. Where a lead agency must obtain approval by another federal agency (e.g., a project requires a permit, right-of-way, or easement from another federal agency);

   2. Where one agency's project crosses or impacts another agency's property (e.g., range management activities such as a waterline or fence line crosses land managed by more than one federal agency);

   3. Where one agency's project involves funding from another federal agency; and

   4. Where multiple federal agencies, with varying responsibilities in approving or assisting an undertaking, conducting independent Section 106 reviews would impose significant workloads and confusion, on Consulting Parties as well as duplication of efforts (e.g., large scale, multi-jurisdictional projects).

B. In general, the lead federal agency should be the agency with the greater degree of involvement in the undertaking. An agency generally has a greater degree of involvement in the following order of priority:

   1. The agency manages the land where most of the undertaking, or its effects, take place;

   2. The agency provides all or a significant amount of financial assistance for the undertaking;

   3. The agency has broader control over how the undertaking may be designed or located.

C. Resolving disputes regarding which federal agency should be designated as the lead federal agency for a Section 106 review should be guided by the following provisions:

   1. To resolve disputes involving the identification of a lead federal agency, the federal agencies shall schedule a conference call or in-person meeting with the SHPO/THPO to discuss the undertaking and each agency's Section 106 responsibilities.

   2. If no agreement on the designation of the lead federal agency can be reached, then each agency remains individually responsible for complying with Section 106 for the

undertaking either using this Agreement, another appropriate agreement, or 36 C.F.R. 800, subpart B, and informing the SHPO/THPO of the decision.

3. No agency can be forced to take over as the lead federal agency or accept another agency as lead federal agency for the undertaking.

4. Making changes to the lead federal agency for a Section 106 review involves the following:
    a. If a federal agency decides it no longer wants an agency to continue as lead on its behalf, it must notify that agency, Tribes, SHPO/THPO, and other Consulting Parties that it is going to individually be responsible for its Section 106 obligations.

    b. If a lead federal agency chooses to stop being the lead federal agency in the Section 106 review for an undertaking, it must notify the non-lead federal agencies, Tribes, SHPO/THPO, and other Consulting Parties that it will no longer be representing other federal agencies. The federal agencies may designate a new lead federal agency, or otherwise each agency remains responsible for their own individual Section 106 reviews.

D. Documenting and formalizing the designation of a lead federal agency for a Section 106 review involves the following:

1. Develop an appropriate written document memorializing which federal agency is the lead federal agency for Section 106 review for the undertaking. The document should outline:
    a. How the agencies intend to coordinate information sharing, including the treatment of any confidential information, and other tasks;

    b. Any work that non-lead federal agencies may have during the Section 106 review (e.g., any work to identify and evaluate historic properties, host consultation meetings, review reports, or provide other administrative support); and

    c. How the lead federal agency will involve non-lead agencies by describing agency roles and responsibilities, communication protocols, and points of contact.

2. Notify all Consulting Parties of this lead federal agency arrangement in writing.
    a. The document should include provisions for dispute resolution among the agencies to address situations where agencies may disagree on the steps taken to comply with Section 106, such as level of consultation or outreach effort.

APPENDIX C: ELIGIBLE PROPERTIES

List of cultural resources automatically considered eligible for the purpose of this Agreement:

A. For eligibility determinations under this Agreement, the following types of cultural resources, provided they are 50 years old or older and retain some aspect(s) of integrity (i.e., association, design, feeling, location, materials, setting, workmanship), shall be automatically considered eligible for the National Register without further SHPO/THPO consultation or concurrence:

   1. Archaeological sites with clear evidence for the presence of architecture (pueblos, pit houses, sleeping circles, wikiups, rock rings, sweat lodges, etc.);

   2. A prehistoric site that contains a diverse artifact assemblage with temporally or culturally diagnostic materials and can yield additional information important in prehistory;

   3. Historic or prehistoric sites with clearly visible evidence of human remains and/or funerary objects;

   4. Rock art sites (e.g., petroglyphs, pictographs);

   5. Intaglios/geoglyphs and other ground figures; and

   6. TCPs that meet the definition of a historic property per NRB 38.

B. The list may be expanded to include other properties in consultation with the SHPO and other Signatories to this Agreement.

C. Unevaluated archeological sites and other cultural resources shall be treated as eligible properties for purposes of Section 106 until a formal determination has been completed in consultation with SHPO/THPO.

APPENDIX D: EXEMPTED UNDERTAKINGS

Signatories agree that the following activities have no or limited ground disturbance and therefore have no or limited potential to adversely affect historic properties. The agency archaeologist must review the scope of work to ensure the conditions for an exemption are met. Agencies should document exempt undertakings in the annual report according to Stipulation XV. The list of exempted undertakings is below:

1. Permitted activities or acquisition of easements, rights-of-way, and leases that do not authorize surface disturbance or have the potential to affect historic structures or TCPs.

2. Minor, routine, or preventive operation and maintenance of existing structural range improvements less than 50 years old (e.g., cattle guards, gates, fences, signs, storage tanks, troughs, earthen berms, dams) that do not involve additional ground disturbance beyond the original footprint.

3. Planning, vegetation or wildlife monitoring activities, enhancements, or practices that do not involve ground disturbance.

4. Pond/canal/ditch cleaning/repair/replacement or lining projects limited to activities occurring within the previously disturbed construction area and disposal of spoil on an existing spoil bank.

5. Replacement of gas, water, or electric lines associated with range or wildlife facilities within the same footprint.

6. Stocking native fish.

7. Hand planting of native plants involving minimal excavation of less than 6 inches in depth and width.

8. Routine maintenance of existing designated trails using hand-held tools (e.g., rakes, hoes, shovels, hand-held saws, chainsaws, pruning tools) and involving no new ground disturbance beyond the existing footprint.

9. Activities, such as the removal of log jams and debris, limited to within active stream beds, not including terraces, cut banks, etc. Activities must be completed by hand.

10. Aerial or hand broadcast seeding with no ground disturbance.

11. Gathering of fuelwood, using existing access roads only, under authorization of a personal use fuelwood permit.

12. Installing bear feeding stations (for the purpose of capture and relocation of nuisance bears), bird nesting platforms, and temporary animal traps.

13. Fishery habitat management activities confined to stream beds or below the high-water mark within lakes, ponds, and reservoirs (such as willow plantings or placement of fish habitat).

14. Establishing long-term study plots for range monitoring or botanical research projects that do not include ground disturbance.

15. Inventory, data, and information collection including the collection of samples that do not include ground disturbance; This may apply to land use and land cover, geologic, mineralogic and resource evaluation activities; cadastral and geophysical surveys; and the approval of permits for such activities.

16. Placement, repair, and maintenance of monitoring stations or stream gauges in active stream beds.

17. Traditional tribal collecting activities provided the activities are on federal land. Permits are required on state trust land.

18. Actions already allowed under an existing permit, like routine maintenance, that has an existing Section 106 review up to current standards and will not require a new Section 106 review unless otherwise stated.

APPENDIX E: SCREENED UNDERTAKINGS

Signatories agree that the following activities involve limited ground disturbance and therefore have limited potential to adversely affect historic properties. Screening by a qualified archaeologist is necessary to determine if any known historic properties are present within the proposed APE. If there is existing inventory that meets current standards, or the proposed activity has limited potential to adversely affect a historic property, an activity on the screened list maybe be exempted from further review. If the screening requirements are not met, the project will follow the provisions in Stipulation V (Consultation Process).

Screened undertaking criteria on this list do not require formal consultation if the criteria for exemption from further review are met; however, the federal agency using these screened undertakings is responsible for documenting how the criteria of exemption are met and informing Consulting Parties, if applicable. The screening and criteria of exemption are listed below:

1. Activities, enhancements, and practices applied by aerial application of chemical or biological agents. The screening process for such undertakings shall include determining whether the aerial application would affect areas of traditional collection or is within TCPs; required consultation is with Tribes only.

2. Applications involving sprayers attached to vehicles that remain on existing roadways. See Appendix H (Vegetation Management Protocol), Part F.3 for best management practices involving all-terrain vehicle (ATV)-mounted equipment. The screening process for such undertakings shall include determining whether the aerial application would affect areas of traditional collection or is within TCPs; required consultation is with Tribes only.

3. Herbicide application on foot or by vehicle-mounted equipment, provided application does not occur within an archaeological habitation site or known traditional plant gathering places; See Appendix H (Vegetation Management Protocol), Part F.3 for best management practices involving ATV-mounted equipment. The screening process for such undertakings shall include determining whether the aerial application would affect areas of traditional collection or is within TCPs; required consultation is with Tribes only.

4. All types of new fence construction (e.g., wild horse and burro, pronghorn, elk fences, snow fences, barbed wire and T-post fences, small exclosures) and associated corner braces. The screening process for such undertakings shall include determining whether the new fence construction and associated activities would affect historic properties.

5. Installation of above-ground pipeline provided there is no ground disturbance. The screening process for such undertakings shall include determining whether there are known historic sites in the area that could be affected and that should be avoided.

6. Activities that involve less than 1 square meter of cumulative ground disturbance, including geotechnical boring and exploratory potholing, unless within known historic properties.

7. Activities where previous natural or human disturbance has modified the landscape so extensively that the likelihood of finding eligible historic properties is negligible (e.g., vertical expansion of existing pits, parking lots, and areas of heavy vehicle disturbance).

8. Road maintenance within existing road prisms that have been previously surveyed and have no known historic properties. This does not include reconstruction, re-alignment, installation, or replacement of existing culvert or new road construction.

9. Installation and repair of signposts and monuments unless within known sites.

10. Vegetation inventory-related activities (e.g., auguring soil holes, vegetation sampling) that will not involve subsurface disturbance except individual auger or hand excavations that do not exceed 1 square foot in depth and width and that are spaced at least 8 feet apart. The screening process for such undertakings shall include determining whether there are known sensitive sites in the area that could be affected and that should be avoided.

11. Conservation activities, enhancements, and practices implemented in areas of agricultural development and within the existing depth of tillage documented by historic record or producer's signed statement. If actions will exceed the historic tillage depth, then standard consultation will be required.

12. Routine operations, repairs, modification, maintenance, or the demolition of any building or structure less than 50 years old.

13. Activities involving construction, repair, or improvements to a building or structure. The screening process for such undertakings shall include determining whether the building or structure is less than 50 years old and not in a historic property.

14. Tenant-type maintenance of historic buildings, i.e., routine maintenance and repair of historic buildings entailing no structural change, or any change of color, form, function, design, workmanship, or materials. The screening process for such undertakings shall include determining whether the activity will not have an adverse effect on a historic property.

15. Seismic activities on the surface of regularly maintained roads (i.e., within existing road prism) that do not affect known sites. The screening process for such undertakings shall include determining whether there are known sites in the area and if additional survey may be required depending on the activity being proposed.

16. Hand cutting of vegetation where slash is lopped and scattered but not dragged, piled, or burned within known site boundaries. The screening process for such undertakings shall include determining whether there are known sites that need to be avoided.

17. Broadcast seeding equipment attached to a rubber-tired or rubber-tracked vehicle following best management practices for herbicide in Appendix H (Vegetation Management Protocol), Part F.3. The screening process for such undertakings shall include determining whether there are known historic properties that should be avoided.

18. Vegetation removal where the trees or brush are removed using soil surface disturbing treatment methods, such as shearing, chipping, grinding, or shredding tools attached to a rubber-tired or rubber tracked vehicle in areas where the target woody species canopy does not exceed 40% and there is at least 20% ground cover from any combination of live basal vegetation, litter, and/or gravel cover. Work will not be performed during times when soil moisture and temperature exceeds the level at which rutting will occur. Operators will be instructed to avoid rocky or other areas in which standing structures may occur. See Appendix H (Vegetation Management Protocol), Part B, for details on determining these metrics.

19. Repair/replacement of water bars, culverts, and other existing trail infrastructure. The screening process for such undertakings shall include determining whether these are within or near known historic properties that should be avoided or if additional inventory is needed.

20. Removal of recent (less than 50 years old) structures and materials (e.g., abandoned automobiles, dumps, fences, and buildings) and reclamation of the site if the reclamation does not expand previous surface disturbance and is not within a historic property. The screening process for such undertakings shall include determining whether the building or structure (e.g., culverts) is less than 50 years old and not in a historic property.

21. Drilling of new wells may occur within a 10-foot radius of an existing well, provided that the new well or excavated soils are not placed within a known historic property.

APPENDIX F: STANDARD MEASURES FOR RESOLVING ADVERSE EFFECTS

Avoidance of effects on historic properties is advocated as the first protection measure. The federal agency shall propose and carry out standard measures for resolving adverse effects on specific categories of historic properties in consultation with the SHPO/THPO, Tribes, and other Consulting Parties.

The following standard measures will apply:

A. Development of a Historic Properties Treatment Plan which shall include, but is not limited to, the following:

1. Discussion of the National Register significance, eligibility, and integrity of a property within an appropriate historic context;

2. Research design and questions that are directly pertinent to those data sets that qualify the property for inclusion in the National Register under relevant criteria;

3. Provisions for tribal perspectives in the preparation of research designs, data recovery plans, and reports;

4. Results of previous research relevant to the affected property type;

5. Proposed data needs and proposed methods and techniques to acquire the data, including any special studies;

6. Field methods and techniques that will cost-effectively address the property's structure and content in the context of the defined research questions and the property's stratigraphic and geomorphic context;

7. Assumptions about the number and types of features expected and a proposed sampling strategy;

8. Site-specific maps portraying the proposed data recovery (i.e., proposed trench or test unit placement);

9. Laboratory processing and analyses, with justification of their relevance to the property and its research values;

10. Methods and techniques used in artifact, data, and other record management;

11. Provisions for ongoing tribal consultation, monitoring, and coordination, if tribal values or concerns are known or anticipated;

12. Qualifications of key personnel;

13. Disposition, including curation, of recovered materials and records resulting from implementation of the data recovery plan;

14. All required permits;

15. A report preparation schedule;

16. A Monitoring and Discovery Plan including provisions and procedures for evaluating and treating discoveries of unexpected finds shall be developed when necessary;

17. A plan for tribal community involvement and educational or interpretive programs; and

18. A plan for public involvement on educational or interpretive programs, focusing on the community or communities that may have interest in the results.

B. Historic Americans Buildings Survey/Historic American Engineering Record (HABS/HAER) documentation.

C. Standards and Guidelines

1. All archaeological data recovery will be conducted following:
   a. Archaeology and Historic Preservation: SOI's Standards and Guidelines, September 1983, U.S. Department of the Interior, NPS (48 Federal Register 44716, as updated) or its successor regulation;

   b. AAA standards, for archaeological investigations on state, county, and municipal lands in Arizona.

2. All HABS/HAER documentation will be completed by a professional architect or architectural historian per the SOI professional qualifications standards, and include the following:
   a. SOI Standards for Architectural and Engineering Documentation; and

   b. SOI Standards for the Treatment of Historic Properties, July 1997, U.S. Department of the Interior, NPS (36 C.F.R. Part 68) or its successor regulation.

APPENDIX G: RANGE MANAGEMENT PROTOCOL

Range management activities, authorizations and approvals, or funding of range management activities are considered undertakings subject to Section 106 review and analysis as defined in 36 C.F.R. 800.16(y). The effects of such undertakings on historic properties will vary depending on the type of range management activity, historic property types, and site density where management activities would be implemented. Participating agencies to this Agreement will follow this protocol to identify historic properties, to provide for the protection of historic properties, and to avoid and minimize adverse effects that may occur from implementation of range management activities.

Range management activities covered under this protocol only apply to federal undertakings (federal license or permit required or implemented using federal funding). These range management activities include grazing permit and lease renewals that involve planned ground disturbing activities; installation, maintenance and decommissioning of fencing, storage tanks and troughs, erosion control structures, corrals and holding pens, water pipelines, wildlife guzzlers, cattle guards, and wells; water haul sites (drinkers); dirt tank construction and cleaning; road maintenance (including culverts, ditches, signage, plating); and re-seeding or planting.

Additional range management activities may be considered for addition to the protocol following the procedures outlined in Stipulation XVIII (Additional Protocols, Screened Undertakings, or Exemptions) of this Agreement.

A. Cultural Resource Compliance for Grazing Permit and Lease Renewals

1. This section addresses Section 106 compliance for grazing, permit, and lease renewals. The regulations that implement Section 106 of the NHPA (36 C.F.R. Part 800) do not require a federal agency to conduct a 100% survey of the APE. Rather, the identification efforts should be conditioned by where effects are likely to occur and the likely impact of these effects on unevaluated, eligible, or listed properties. The following guidelines will be used to determine survey strategies under this protocol.

B. Level of Identification Efforts

1. The federal agency shall verify whether the proposed activity is covered under Appendix D (Exempted Undertakings) or Appendix E (Screened Undertakings). If the proposed activity qualifies as an exempted or screened undertaking, the federal agency shall follow that process.

2. The level of need and extent of new field surveys or inspections for grazing impacts will be determined through consultation with applicable landowners, permittees, or lease holders as needed. In making the decision on the level of survey to be conducted, if any, the archaeologist will consider the following and document the decision:
    a. Grazing history;
    b. Proposed changes in grazing management practices;

c. Known incidents of or high potential for damage to sites;
d. Presence of grazing-sensitive sites;
e. Presence of areas where cattle congregate;
f. Amount of the allotment previously surveyed for cultural resources;
g. Site density;
h. Information provided by employees, permittees, or other users.

3. The federal agency will review existing information to assess the project's potential to affect historic properties and ascertain the expected nature and distribution of historic properties that may be affected. Sources of information may include, but are not limited to published and unpublished documents and reports, land managing agency cultural resource inventory records, institutional site files (including ASM's Archaeological Records Office, grazing allotment management plans, and others), State and National Registers, statewide AZSITE cultural resources online database, tribal knowledge, local user/producer knowledge, and other information sources. Pursuant to SHPO Guidance Point No. 5: *SHPO Position on Relying on Old Archaeological Survey Data*, previous surveys should be evaluated to determine if they meet current standards; field visits may be necessary to assess the adequacy of the previous information.

4. If there are no known historic properties in areas that are being heavily impacted by livestock (e.g., areas where livestock are likely to congregate such as water sources, salt and mineral licks, shade areas) and the land management agency determines that the areas hold little to no potential for the presence of historic properties, then no further inventory work need be done.

If impacts may have occurred in areas that are likely to contain historic properties and there has been no previous field survey, the land management agency shall conduct additional survey of these areas.

C. Agreed-Upon Standard Site Protection Measures

1. Routine and repetitive range management activities tend to have similar effects that can be anticipated based upon previous implementation of similar practices. Routine and repetitive activities include installation, maintenance, and decommission of fencing, storage tanks and troughs, erosion control structures, corrals and holding pens, water pipelines, wildlife guzzlers, cattle guards, wells, water haul sites (drinkers), dirt tank construction and cleaning, road maintenance (including culverts, ditches, signage, plating), and re-seeding or planting.

2. When historic properties are identified as being impacted by range management activities, and the characteristics that make these properties eligible for the National Register are affected, the land managing agency shall implement protection measures to minimize and mitigate effects to historic properties.

3. The agencies may draw from the following mitigation measures to ensure that effects on historic properties are avoided or minimized. Once the mitigation measures are applied, the project can move forward without consultation.

D. Minimization and/or Mitigation Measures

1. Fencing or exclosures of livestock from individual sensitive historic properties or areas containing multiple sensitive historic properties being impacted by grazing;

2. Relocation of existing range management facilities and salting locations enough to ensure the protection of historic properties being impacted by concentrated grazing use;

3. Relocation or redesign of proposed range management activities and ground-disturbing management practices to avoid direct and indirect impacts to historic properties; and

4. Periodic monitoring to assess site conditions and to ensure that protection measures are effective.

5. Other mitigation measures, such as data recovery, will be developed and implemented in consultation with the SHPO/THPO and other Consulting Parties (see Stipulation X, Assessment of Effects).

E. The protection measures used to minimize and mitigate impacts to historic properties should be documented in the project file.

APPENDIX H: VEGETATION MANAGEMENT PROTOCOL

Authorizations and approvals or funding of vegetation management treatments are considered federal undertakings subject to Section 106 review and analysis as defined in 36 C.F.R. § 800.16(y). The effects of such undertakings on historic properties will vary, depending on the type of vegetation activity and the historic property types and site density where management activities are proposed. Consulting Parties to this Agreement will follow this protocol to identify historic properties and provide for the protection of historic properties to avoid and minimize adverse effects that may occur from implementation of vegetation management treatments.

Vegetation management treatments covered under this protocol includes but are not limited to prescribed fire, hand thinning, mechanical thinning, chemical thinning, and the use of grazing animals.

Vegetation management using goats or other grazing animals to reduce woody vegetation cover, control noxious weeds, reduce fuel loads for fire breaks, and similar targeted vegetation control activities are low impact activities, and may or may not be surveyed at the discretion of the federal agency archaeologist, without further consultation.

New activities may be considered for addition to the protocol following the procedures outlined in Stipulation XVII (Amendments) of this Agreement.

A. Pre-field Existing Information Research
   Consulting Parties to this Agreement will review all reasonable, existing information to assess the project's potential to affect historic properties and ascertain the expected nature and distribution of historic properties that may be affected. Sources of information may include, but are not limited to, published and unpublished documents and reports, land managing agency cultural resource inventory records, institutional site files (including ASM Archaeological Records Office and others), State and National Registers, statewide AZSITE cultural resources online database, tribal knowledge, local user/producer knowledge, and other information sources.

B. Survey Strategies
   A federal agency is not expected to conduct a 100% survey of the APE. Rather, the identification efforts should be conditioned by where effects are likely to occur and the likely impact of these effects on listed or eligible properties. The following guidelines will be used to determine survey strategies under this protocol:

   1. The magnitude (severity) and nature of anticipated effects, based on:
      a. Type and intensity of mechanical treatment.
      b. Type and intensity of prescribed fire, including fuel loading and fire prescription.
      c. Construction of containment lines, safety zones, and staging areas.

   2. The expected nature and distribution of historic properties, based on:
      a. Local knowledge and expertise from agency archaeologists.
      b. Local knowledge and expertise of landowners and lessees.

c. Cultural geographic information system (GIS) survey and site layers or hard copy survey and site atlases/maps.
d. Previous cultural heritage reports and site forms.
e. Cultural resources overviews and planning assessments.
f. Information obtained through tribal consultation or public input.
g. Information provided by other resource specialists or private landowners familiar with the project area.
h. Topographic maps, aerial photographs, or digital ortho-photo quadrangles.
i. Other available GIS layers, including soils, vegetation type, slope, and water.
j. Determination of known/expected fire-sensitive sites.

C. Mechanical Equipment Exemption
Mechanical removal of brush and other vegetation may not require survey if the ground cover and canopy cover meet the following criteria, as determined by a natural resource professional in coordination with a professional archaeologist:

1. The targeted woody species (such as Juniper, Pine, Mesquite, chaparral species) canopy cover does not exceed 40%, and at least 20% of the soil surface is covered by any combination of live basal vegetation, litter, rock, or gravel (i.e., bare ground is < 80%).
   a. Determination of ground cover and canopy cover will involve a combination of pedestrian survey and a cover estimation tool capable of estimating tree and shrub canopy cover as well as the percentage of the soil surface (ground) not covered by litter, live basal vegetation, gravel, or rock cover (i.e., bare ground), such as the Rangeland Analysis Platform (RAP) or a similar tool.

   b. A minimum of one pedestrian survey will be conducted for each major ecological site found in the project area. If either the targeted woody species canopy cover or ground cover appears to vary substantially within the ecological site area, additional surveys will be conducted to represent these areas.

   c. When supplementing pedestrian survey with the RAP or similar tool, the analysis areas should, to the extent possible, correspond to ecological sites. If either the targeted woody species canopy cover or ground cover appears to vary substantially within the ecological site area, additional analysis will be conducted to represent these areas.

   d. No single analysis area will exceed 640 acres. A minimum of one pedestrian survey will be conducted for each project area and at least 10% of the project area will be represented by pedestrian surveys.

2. Work will not be performed during times when soil moisture and temperature exceeds the level at which rutting will occur.

3. Work may be performed on frozen ground, provided that the conditions of this Appendix, Part B are met.

4. Operators will be instructed to avoid rocky or other areas in which standing structures may occur.

5. Documentation will be added to the project file and included in the annual report.

D. Field Survey

In most cases, the federal agency will be able to determine the level of survey needed, based on the following guidance. Where not specifically addressed below, the federal agency is encouraged to discuss sampling survey designs with the SHPO/THPO.

The following will guide the identification of areas selected for survey and the level of survey coverage:

1. For activities in areas previously surveyed to current standards (SHPO Guidance Point No. 5: *SHPO Position on Relying on Old Archaeological Survey Data*), no new survey is necessary.

2. For activities conducted within areas that were previously disturbed by chaining, disking, plowing, windrowing, crushing, or other extensive ground disturbing treatments, a sample survey strategy may be approved by the federal agency without consultation. The nature, degree, and extent of previous ground disturbing activities and the likelihood of finding cultural resources or locations within the treated areas that remain undisturbed shall be considered when making the decision to survey at less than 100%. This information will be documented and discussed in the survey report.

3. Activities conducted on slopes greater than 40% can be excluded from survey at the discretion of the federal agency without consultation.

4. For hand thinning activities, see Appendix E (Screened Undertakings), Part 16.

5. For mechanical vegetation treatments that are considered to have a low potential to adversely affect historic properties, a sample survey strategy may be approved by the federal agency in coordination with the SHPO/THPO and land managing agency. Information concerning the nature of the undertaking, site density, and evaluation of potential effects that led to this determination will be discussed in the survey report.

6. If existing inventories do not indicate the site density is lower than the regional average, or if the federal agency determines that the undertaking will result in ground disturbance that will adversely affect historic properties, the APE will be surveyed at 100%, except for the provisions in paragraphs H.D.1-3 above, or a

proposed sample survey strategy will be submitted to the SHPO/THPO and land managing agency for review.

7. For prescribed fire activities, surveys will include locations likely to contain fire-sensitive sites, based on existing pre-field information research, expected fire behavior, and other relevant data. Additional survey may be conducted at the land managing agency's discretion. The survey strategy shall identify the types of sites that are considered fire-sensitive, based on the list in Part H.E below, for each proposed project conducted under this Agreement, using the procedures described in Stipulation VIII (Identification and Evaluation or Historic Properties). If existing inventories indicate the presence or likelihood of fire-sensitive properties throughout the APE, the area will be surveyed 100% or a proposed sample survey strategy will be submitted to the SHPO/THPO for review.

E. Fire-Sensitive Sites

Cultural resources affected by fire fall into two categories. The first consists of sites vulnerable to the effects of even low-temperature fires and/or light fuel loads. The second group includes sites that generally have less risk for fire effects. However, depending on field conditions as well as specific site characteristics and expected fire behavior, the site types listed below may be fire-sensitive in certain fuel-reduction projects.

1. Known Fire-Sensitive Sites
    a. Historic sites with standing or downed wooden structures (including telephone trees) or other flammable features or artifacts.
    b. Rock art sites (depending on rock type, exposure, fuel type, and fuel loading).
    c. Cliff dwellings.
    d. Prehistoric sites with flammable architectural elements and other flammable features or artifacts.
    e. Prehistoric sites with soft or porous material such as volcanic tuff.
    f. Culturally modified trees, including aspen art and peeled/scarred trees.
    g. Certain TCPs (based on consultation with Tribes).

2. Other Project-Specific Fire-Sensitive Sites
    a. Other sites based on local field conditions and land managing agency specific concerns.
    b. Other sites based on consultation with SHPO/THPO, tribes, and others with local knowledge.
    c. Other sites based on consultation with fire management staff, fire behavior specialists, or fire effects researchers.

F. Agreed-Upon Standard Site Protection Measures

Various combinations of the following protection measures may be approved by the federal agency to protect sites for projects listed in this protocol without consultation.

1. Prescribed Burning
    a. Protect fire-sensitive sites with one or more of the following measures:

i. Exclude from project area;
ii. Hand line;
iii. Black line;
iv. Wet line;
v. Foam retardant;
vi. Structural fire shelter;
vii. Remove heavy fuels from site by hand;
viii. Prevent *in situ* heavy fuels that cannot be removed from ignition (e.g., flush cut, bury stumps);
ix. Implement the same protective measures for future maintenance burns;
x. Protect selected other sites from burning (judgmental);
xi. Allow burning over non-fire-sensitive sites, provided no ignition points are within site boundaries;
xii. No staging of equipment within site boundaries;
xiii. No slash piles within site boundaries.

b. Allow construction of safety zones and additional containment lines in areas surveyed at 100% and with archaeological monitoring, as appropriate, to assure historic properties are avoided.

2. Thinning, Hand, and Mechanical Treatments
   a. No mechanical treatments or ground disturbance within site boundaries; or
   b. Allow treatments within site boundaries, provided:
      i. Cutting is accomplished using hand tools only;
      ii. Large diameter trees are felled away from all features;
      iii. No dragging or piling of logs, trees, or thinned material across or within site boundaries;
      iv. All features and artifact concentrations are recorded and avoided;
      v. Periodic monitoring is used to assess impacts and, if impacts are noted, fuelwood cutting will be prohibited in the area;
      vi. No use of vehicles or other mechanized equipment within site boundaries except on existing roads during dry surface conditions or if there is at least two feet of snowpack and the ground is frozen (no digging in of equipment);
      vii. No staging of equipment within site boundaries; and
      viii. No slash piles within site boundaries.
   c. The federal agency may approve additional measures to further protect sites in consultation with land managing agencies and SHPO/THPO.

3. Herbicide Application Best Management Practices
   a. No application within the reported boundaries of prehistoric habitation sites.
   b. ATV use under dry surface conditions only and at speeds no greater than 10 miles per hour.

APPENDIX I: AGENCY COMMUNICATION PROTOCOLS

All participating agency contact information may be found at the Government to Government Consultation Toolkit website: https://sites.google.com/view/az-consultation-toolkit/home. Also see Appendix J (Links to Policy, Regulations, and Statutory References) for more information. Participating agencies will be required to maintain the contact and protocol information for the duration of this Agreement.

ACHP
Protocol: Use the e-106 system to notify of any adverse effects at: https://www.achp.gov/e106-email-form.

ADOT
Protocol: Letter addressed to the Environmental Planning Group Manager, cc: Cultural Resources Program Manager.

ASLD
General Process: Any projects involving state land require consultation with the Cultural Resources Section and the Grazing Unit. Projects will require the lessee to apply for an ASLD Range Improvement or Land Treatment permit. Projects involving a grazing lease will not require a separate right-of-entry permit.

Protocol: Coordinate with the appropriate Range Resource Area Manager and complete the online application at https://land.az.gov/applications-permits.

AGFD
General Process: Projects involving AGFD lands will involve AGFD decisions, rights-of-ways, permits, or other authorizations requiring individual review and analysis by AGFD. Therefore, the AGFD requests advanced coordination with the local regional office and the Project Evaluation Program.

Protocol: Letter addressed to Habitat, Evaluation, and Lands Branch Chief, cc: Project Evaluation Program Supervisor and Land and Water Program Supervisor. Submit letter(s) and documentation to PEP@azgfd.gov.

ASPT
General Process: Projects involving ASPT decisions, rights-of-ways, permits, or other authorizations will require individual review by ASPT.

Protocol: Letter addressed to Project Development Manager, ASPT Central Office.

BIA
General process: Agency managers for projects involving Indian lands should concurrently consult with the Tribe and BIA. Early notification is preferred, because those projects involving BIA funding or approval will require review and analysis under NEPA. BIA can provide advanced coordination with Tribal officials and Superintendents.

Protocol: Letter addressed to the Regional Director cc: Regional Archaeologist.

BLM
General Process: Projects involving BLM-managed public lands will involve BLM decisions, rights-of-ways, permits, or other authorizations requiring individual review and analysis under NEPA. Accordingly, the BLM requests advanced coordination with local field offices for projects initiated by other agencies.

Protocol: Letter addressed to Field Office Manager, cc: Field Office Cultural Specialist.

Mohave County
Protocol: Letter addressed to Mohave County Board of Supervisors, cc: Planning and Zoning Manager, Department of Development Services.

Pima County Office of Sustainability and Conservation
Cultural Resources & Historic Preservation Division
Protocol: Letter addressed to Pima County Administrator, cc: Governor's Archaeology Advisory Commission.

SHPO
Protocol: Letter addressed to State Historic Preservation Officer.
Submit initial consultation letters and documentation to azshpo@azstateparks.gov.

Town of Marana
Protocol: All letters should be sent to the Environmental Project Coordinator and Town Engineer.

USFS
General Process: Projects involving USFS-managed lands will involve USFS decisions, rights-of-ways, permits, or other authorizations requiring individual review and analysis under NEPA. Accordingly, the USFS requests advanced coordination with local Ranger Districts for projects initiated by other agencies.

Protocol: Letter addressed to the District Ranger that describes the undertaking and its location, decision(s) to be made, and description of the USFS nexus or role in the undertaking.

USFWS
General Process: Projects involving Fish and Wildlife Service - managed public lands or actions involving Fish and Wildlife Service decisions, rights-of-ways, permits, or other authorizations requiring individual review and analysis under NEPA. Accordingly, the Fish and Wildlife Service requests advanced coordination with local field offices for projects initiated by other agencies.

Protocol: Letter addressed to Field Office Manager, cc: Field Office Cultural Specialist.

APPENDIX J: LINKS TO POLICY, REGULATIONS, AND STATUTORY REFERENCES

Arizona Revised Statutes
A.R.S. § 41-844- https://www.azleg.gov/ars/41/00844.htm
A.R.S. § 41-865- https://www.azleg.gov/ars/41/00865.htm
A.R.S. § 39-125- https://www.azleg.gov/ars/39/00125.htm

Code of Federal Regulations
36 C.F.R. Part 60- https://www.energy.gov/sites/prod/files/2016/02/f29/CFR-2012-title36-vol1-part60.pdf
36 C.F.R. § 63- https://www.govinfo.gov/content/pkg/CFR-2001-title36-vol1/pdf/CFR-2001-title36-vol1-part63.pdf
36 C.F.R. Part 68- https://www.nps.gov/tps/standards/four-treatments/36cfr68.pdf
36 C.F.R § 79- https://www.nps.gov/archeology/tools/36cfr79.htm
36 C.F.R. § 800- https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf
43 C.F.R. § 10- https://www.law.cornell.edu/cfr/text/43/part-10

Federal Register
48 FR 44716- https://www.govinfo.gov/content/pkg/FR-1983-09-29/pdf/FR-1983-09-29.pdf
48 FR 44738-44739- https://www.govinfo.gov/content/pkg/FR-1983-09-29/pdf/FR-1983-09-29.pdf

Government-to-Government Consultation Toolkit
https://sites.google.com/view/az-consultation-toolkit/home

National Historic Preservation Act
https://www.nps.gov/history/local-law/FHPL_HistPrsrvt.pdf

National Register Bulletin
Bulletin 15- https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf
Bulletin 38- https://www.nps.gov/subjects/nationalregister/upload/NRB38-Completeweb.pdf

Office of Personnel Management
0193 Supervisory Archeology series- https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/standards/0100/gs0193.pdf

Secretary of the Interior's Standards for Archaeology
https://www.nps.gov/history/local-law/arch_stnds_9.htm

State Historic Preservation Office
Guidance Point No. 5- https://d2umhuunwbec1r.cloudfront.net/gallery/asp-archive/SHPO/downloads/SHPO_5_Old_Survey.pdf
Guidance Point No. 10- https://d2umhuunwbec1r.cloudfront.net/gallery/asp-archive/SHPO/downloads/SHPO-Guidance_Point10-2016.pdf

United States Code
5 U.S.C. § 552- https://www.justice.gov/oip/freedom-information-act-5-usc-552
7 U.S.C. § 8791(b)(2)(A)- https://www.law.cornell.edu/uscode/text/7/8791
16 U.S.C. § 470hh- https://www.law.cornell.edu/uscode/text/16/470hh
25 U.S.C. § 3001(15)- https://www.law.cornell.edu/uscode/text/25/3001
31 U.S.C. § 1341- https://www.law.cornell.edu/uscode/text/31/1341
54 U.S.C. §§ 300101 to 307108- https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf
54 U.S.C. § 307103- https://www.law.cornell.edu/uscode/text/54/307103

APPENDIX E. PRIORITY SPECIES AND HABITATS FROM THE APPROVED SPRNCA RMP

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	
Chihuahuan Desert scrub	
Mule deer	*Odocoileus hemionus*
Lesser long-nosed bats	*Leptonycteris yerbabuenae*

APPENDIX F. LIST OF FEDERALLY LISTED SPECIES KNOWN TO OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE ANALYSIS AREA[1]

Common Name	Scientific Name	Status	Occurs in project area?
Jaguar	*Panthera onca*	Endangered	No
Ocelot	*Leopardus paradalis*	Endangered	No
Mexican spotted owl	*Strix occidentalis lucida*	Threatened	No
Northern alpomado falcon	*Falco femoralis septentrionalis*	Experimental population, non-essential	No
Southwest willow flycatcher	*Empidonax traillii extimus*	Endangered	Yes
Yellow-billed cuckoo, wertern DPS	*Coccyzus americanus*	Threatened	Yes
Northern Mexican Gartersnake	*Thamnophis eques megalops*	Threatened	Potential
Chiricahua Leopard Frog	*Lithobates chiricahuensis*	Threatened	No
Desert Pupfish	*Cyprinodon macularius*	Endangered	No
Gila Topminnow	*Poeciliopsis occidentalis*	Endangered	No
Monarch butterfly	*Danaus plexippus*	Candidate	Yes
Huachuca water-umbel	*Lilaeopsis schaffneriana var. recurva*	Endangered	Yes
Arizona Eryngo	*Eryngium sparganophyllum*	Proposed Endangered	Yes
Wright's marsh thistle	*Cirsium wrightii*	Proposed Threatened	No
Critical habitats	**Status**		
Yellow-billed cuckoo, western DPS	Final designated		
Northern Mexican garter snake	Final designated		
Huachuca water-umbel	Final designated		

[1] From official species list provided through USFWS, IPaC

APPENDIX G. BEST MANAGEMENT PRACTICES

Herbicide applications (HA)

HA-01 A Pesticide Use Proposal (PUP) will be developed and approved for all herbicide applications.

HA-02 All herbicide applications will be supervised by a BLM certified pesticide applicator.

HA-03 All herbicide applications will follow the directions and application rates outlined on the product label or at BLM approved application rates if less than label authorized rates. Apply the least amount of herbicide needed to achieve the desired result.

HA-04 Only federally registered and BLM approved herbicides and adjuvants will be used.

HA-05 Herbicides utilized will take into account target vegetation, sensitive plant and animal species, well as sensitive land features such as water sources and soil characteristics.

HA-06 All herbicide applications will follow the stipulations outlined in the 2007 and 2016 update to the Western Veg PEIS and associated Records of Decision.

HA-07 Personal protective equipment will be used as directed by the herbicide label.

Soils (SO)

SO-01 Minimize and/or exclude herbicide applications is soils that have high mobility and in areas where herbicide runoff is likely, such as during periods of intense rainfall, saturated and impermeable soils, on steep slopes, and paved surfaces.

SO-02 Granular herbicides will not be applied on slopes of more than 15% if there is the potential of runoff carrying granules into non-target areas.

SO-03 Equipment (e.g., heavy equipment, vehicles, UTVs, etc.) will not be used on soils that are saturated to minimize soil disturbance (e.g., rutting, compaction).

SO-04 Soil characteristics and topography will be considered in vegetation management development to reduce the potential of soil erosion.

Vegetation (VG)

VG-01 Pre-application surveys for threatened, endangered, and sensitive plant species will be conducted via online resources (i.e., IPaC, HDMS), resource specialists, local subject matter experts, and/or on-site surveys.

VG-02 In riparian areas, use appropriate buffer zones for herbicides not labeled for aquatic use based on risk assessment guidance, with minimum widths of 100 feet for aerial, 25 feet for vehicle, and 10 feet for hand spray applications.

VG-03 Weed-free straw and mulch may be utilized during rehabilitation and other activities (e.g., revegetation, soil stabilization, erosion control, etc.).

VG-04 Use effective non-chemical methods of vegetation control when and where feasible.

VG-05 Reseed or plant disturbed areas and/or treatment areas, where appropriate, with desirable vegetation when the native plant community cannot recover and occupy the site sufficiently.

VG-06 When reseeding, native or sterile species for revegetation and restoration projects will be used to compete with invasive species until desired vegetation establishes.

VG-07 Refer to herbicide label when planning revegetation to ensure that subsequent vegetation will not be injured following application of the herbicide.

VG-08 Upon completion of the vegetation treatment, disturbance from off-road travel within the treatment unit within 50 feet of existing routes will be obscured (e.g., raking).

Water Restources (WR)

WR-01 Buffer widths between vegetation treatment areas and water sources will be developed based on treatment type and site-specific criteria to minimize impacts to water sources (e.g., wells, stock tanks, streams, springs). This includes pre-treatment field inspection of buffers for effectiveness.

WR-02 Herbicide treatments will be implemented between weather fronts, and at appropriate time of day to avoid high winds, that increase the potential for overland flow and avoid transport of herbicide in stormwater runoff.

WR-03 Application of herbicides not designated for aquatic use will be avoided in rapidly permeable soils (e.g. sandy) in areas that have potential for ground-surface water interaction, such as shallow water tables (depth to water less than 100 ft) to prevent groundwater contamination.

WR-04 Spray tanks will only be rinsed at approved staging areas; staging areas will be established away from bodies of water.

WR-05 Herbicide applications will occur as strips to reduce the total acreage of a single treatment at one time.

Visual Design (VIS)

VIS-1 Design measures under the Proposed Action and alternatives to blend IVM treatment units into the landscape and reduce visual contrast levels in VRM Class II and Class III areas include:

1. Define treatment area or unit boundaries using natural features, landforms, vegetation or structures.
2. Locate treatment unit boundaries to follow topographic breaks, along top of or bottom of steep slopes, ridges, drainages, rock outcrops.
3. Leave sparse tree or shrub cover strips of irregular width on treatment unit boundaries in very dense cover treatment areas to diffuse visual contrast of the new edge effect.
4. Treat herbicide kill areas with fire to remove visual impact of dead top growth cover.

Wildlife (WL)

WL-01 Conduct appropriate site-specific surveys at each project site for species listed or proposed for listing, special status species, keystone species, or other species of special conservation concern. If a proposed project is determined to be likely to adversely affect a proposed or listed species or its critical habitat and have effects not analyzed in the biological assessment and subsequent biological opinion, the BLM will re-consult with the USFWS.

WL-02 When appropriate, avoid treating vegetation during time-sensitive periods (e.g., nesting andmigration, sensitive life stages) for special status species in treatment area.

WL-03 Use area buffers around sensitive habitats such as wetlands, riparian zones and special status species locations to minimize adverse effects.

WL-04 Treatments should be rotated so that various successional stages, heights, and densities are developed over varying years and on different sites across the landscape.

WL-05 Treatment design and location will consider wildlife habitat concerns such as diversity, cover, movement corridors, and connectivity.

APPENDIX H. STANDARD OPERATING PROCEDURES

Listed below are the standard operating procedures (SOPs) for applying herbicide from the Final Programmatic Environmental Impact Statement Vegetation Treatments Using Herbicides on Bureau of Land Management Lands In 17 Western States (BLM 2007, Chapter 2, Table 2-8, pages 30-35).

Resource Element	Standard Operating Procedure
Guidance Documents	BLM Handbook H-9011-1 (*Chemical Pest Control*); and manuals 1112 (*Safety*), 9011 (*Chemical Pest Control*), 9012 (*Expenditure of Rangeland Insect Pest Control Funds*), 9015 (*Integrated Weed Management*), and 9220 (*Integrated Pest Management*).
General	Prepare operational and spill contingency plan in advance of treatment. Conduct a pretreatment survey before applying herbicides. Select herbicide that is least damaging to the environment while providing the desired results. Select herbicide products carefully to minimize additional impacts from degradates, adjuvants, inert ingredients, and tank mixtures. Apply the least amount of herbicide needed to achieve the desired result. Follow herbicide product label for use and storage. Have licensed applicators apply herbicides. Use only USEPA-approved herbicides and follow product label directions and “advisory” statements. Review, understand, and conform to the “Environmental Hazards” section on the herbicide product label. This section warns of known pesticide risks to the environment and provides practical ways to avoid harm to organisms or to the environment. Consider surrounding land use before assigning aerial spraying as a treatment method and avoid aerial spraying near agricultural or densely populated areas. Minimize the size of application area, when feasible. Comply with herbicide-free buffer zones to ensure that drift will not affect crops or nearby residents/landowners. Post treated areas and specify reentry or rest times, if appropriate. Notify adjacent landowners prior to treatment. Keep a copy of Material Safety Data Sheets (MSDSs) at work sites. MSDSs are available for review at http://www.cdms.net/. Keep records of each application, including the active ingredient, formulation, application rate, date, time, and location. Avoid accidental direct spray and spill conditions to minimize risks to resources. Consider surrounding land uses before aerial spraying. Avoid aerial spraying during periods of adverse weather conditions (snow or rain imminent, fog, or air turbulence). Make helicopter applications at a target airspeed of 40 to 50 miles per hour (mph), and at about 30 to 45 feet above ground.

Resource Element	Standard Operating Procedure
	Take precautions to minimize drift by not applying herbicides when winds exceed >10 mph (>6 mph for aerial applications), or a serious rainfall event is imminent. Use drift control agents and low volatile formulations. Conduct pre-treatment surveys for sensitive habitat and special status species within or adjacent to proposed treatment areas. Consider site characteristics, environmental conditions, and application equipment in order to minimize damage to non-target vegetation. Use drift reduction agents, as appropriate, to reduce the drift hazard to non-target species. Turn off applied treatments at the completion of spray runs and during turns to start another spray run. Refer to the herbicide product label when planning re-vegetation to ensure that subsequent vegetation would not be injured following application of the herbicide. Clean OHVs to remove seeds.
Air Quality See Manual 7000 (*Soil, Water, and Air Management)*	Consider the effects of wind, humidity, temperature inversions, and heavy rainfall on herbicide effectiveness and risks. Apply herbicides in favorable weather conditions to minimize drift. For example, do not treat when winds exceed 10 mph (>6 mph for aerial applications) or rainfall is imminent. Use drift reduction agents, as appropriate, to reduce the drift hazard. Select proper application equipment (e.g., spray equipment that produces 200- to 800-micron diameter droplets [spray droplets of 100 microns and less are most prone to drift]). Select proper application methods (e.g., set maximum spray heights, use appropriate buffer distances between spray sites and non-target resources).
Soil See Manual 7000 (*Soil, Water, and Air Management*)	Minimize treatments in areas where herbicide runoff is likely, such as steep slopes when heavy rainfall is expected. Minimize use of herbicides that have high soil mobility, particularly in areas where soil properties increase the potential for mobility. Do not apply granular herbicides on slopes of more than 15% where there is the possibility of runoff carrying the granules into non-target areas.
Water Resources See Manual 7000 (*Soil, Water, and Air Management*)	Consider climate, soil type, slope, and vegetation type when developing herbicide treatment programs. Select herbicide products to minimize impacts to water. This is especially important for application scenarios that involve risk from active ingredients in a particular herbicide, as predicted by risk assessments. Use local historical weather data to choose the month of treatment. Considering the phenology of the target species, schedule treatments based on the condition of the water body and existing water quality conditions. Plan to treat between weather fronts (calms) and at appropriate time of day to avoid high winds that increase water movements, and to avoid potential stormwater runoff and water turbidity.

Resource Element	Standard Operating Procedure
	Review hydrogeologic maps of proposed treatment areas. Note depths to groundwater and areas of shallow groundwater and areas of surface water and groundwater interaction. Minimize treating areas with high risk for groundwater contamination. Conduct mixing and loading operations in an area where an accidental spill would not contaminate an aquatic body. Do not rinse spray tanks in or near water bodies. Do not broadcast pellets where there is danger of contaminating water supplies. Maintain buffers between treatment areas and water bodies. Buffer widths should be developed based on herbicide- and site-specific criteria to minimize impacts to water bodies. Minimize the potential effects to surface water quality and quantity by stabilizing terrestrial areas as quickly as possible following treatment.
Wetlands and Riparian Areas	Use a selective herbicide and a wick or backpack sprayer. Use appropriate herbicide-free buffer zones for herbicides not labeled for aquatic use based on risk assessment guidance, with minimum widths of 100 feet for aerial, 25 feet for vehicle, and 10 feet for hand spray applications.
Vegetation See Handbook H-4410-1 (*National Range Handbook*), and manuals 5000 (*Forest Management*) and 9015 (*Integrated Weed Management*)	Refer to the herbicide label when planning re-vegetation to ensure that subsequent vegetation would not be injured following application of the herbicide. Use native or sterile species for re-vegetation projects to compete with invasive species until desired vegetation establishes. Use weed-free feed for horses and pack animals. Use weed-free straw and mulch for re-vegetation and other activities. Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment. Consider adjustments in the existing grazing permit, needed to maintain desirable vegetation on the treatment site. Minimize the use of terrestrial herbicides in watersheds with downgradient ponds and streams if potential impacts to aquatic plants are identified. Establish appropriate (herbicide-specific) buffer zones (see Tables 4-12 and 4-14 in the 2007 PEIS) around downstream water bodies, habitats, and species/populations of interest. Consult the ecological risk assessments (ERAs) prepared for the PEIS for more specific information on appropriate buffer distances under different soil, moisture, vegetation, and application scenarios.
Pollinators	Complete vegetation treatments seasonally before pollinator foraging plants bloom. Time vegetation treatments to take place when foraging pollinators are least active both seasonally and daily. Design vegetation treatment projects so that nectar and pollen sources for important pollinators and resources are treated in patches rather than in one single treatment. Minimize herbicide application rates. Use typical rather than maximum application rates where there are important pollinator resources.

Resource Element	Standard Operating Procedure
	Maintain herbicide free buffer zones around patches of important pollinator nectar and pollen sources. Maintain herbicide free buffer zones around patches of important pollinator nesting habitat and hibernacula. Make special note of pollinators that have single host plant species, and minimize herbicide spraying on those plants (if invasive species) and in their habitats.
Fish and Other Aquatic Organisms See manuals 6500 (*Wildlife and Fisheries Management*) and 6780 (*Habitat Management Plans*)	Use appropriate herbicide-free buffer zones for herbicides not labeled for aquatic use based on risk assessment guidance, with minimum widths of 100 feet for aerial, 25 feet for vehicle, and 10 feet for hand spray applications. Minimize treatments near fish-bearing water bodies during periods when fish are in life stages most sensitive to the herbicide(s) used and use spot rather than broadcast or aerial treatments. Use appropriate application equipment/method near water bodies if the potential for off-site drift exists. For treatment of aquatic vegetation: 1) treat only that portion of the aquatic system necessary to achieve acceptable vegetation management; 2) use the appropriate application method to minimize the potential for injury to desirable vegetation and aquatic organisms; and 3) follow water use restrictions presented on the herbicide label. Limit the use of terrestrial herbicides in watersheds with characteristics suitable for potential surface runoff that have fish-bearing streams during periods when fish are in life stages most sensitive to the herbicide(s) used. Consider the proximity of application areas to salmonid habitat and the possible effects of herbicides on riparian and aquatic vegetation. Maintain appropriate buffer zones around salmonid-bearing streams (see Appendix C, Table C-16, of the 2007 PEIS, and recommendations in the individual ERAs). Avoid using the adjuvant R-11® in aquatic environments, and either avoid using glyphosate formulations containing polyoxyethyleneamine (POEA) or seek to use formulations with the least amount of POEA, to reduce risks to aquatic organisms in aquatic environments.
Wildlife	Use herbicides of low toxicity to wildlife, where feasible. Use spot applications or low-boom broadcast operations where possible to limit the probability of contaminating non-target food and water sources, especially non-target vegetation over areas larger than the treatment area. Use timing restrictions (e.g., do not treat during critical wildlife breeding or staging periods) to minimize impacts to wildlife. Avoid using glyphosate formulations that include R-11® in the future, and either avoid using and formulations with POEA, or seek to use the formulation with the lowest amount of POEA available, to reduce risks to amphibians. Use appropriate buffer zones (see Table 4-12 and 4-14 in Chapter 4 of the 2007 PEIS) to limit contamination of off-site vegetation, which may serve as forage for wildlife.

Resource Element	Standard Operating Procedure
Threatened, Endangered, and Sensitive Species See Manual 6840 (*Special Status Species*)	Survey for special status species before treating an area. Consider effects to special status species when designing herbicide treatment programs. Use drift reduction agents to reduce the risk of drift hazard. Use a selective herbicide and a wick or backpack sprayer to minimize risks to special status plants. Avoid treating vegetation during time-sensitive periods (e.g., nesting and migration, sensitive life stages) for special status species in area to be treated. Implement all conservation measures for special status plant and animal species presented in the 2007 and 2016 PEIS BAs.
Livestock See Handbook H-4120-1 (*Grazing Management*)	Whenever possible and whenever needed, schedule treatments when livestock are not present in the treatment area. Design treatments to take advantage of normal livestock grazing rest periods, when possible. As directed by the herbicide product label, remove livestock from treatment sites prior to herbicide application, where applicable. Use herbicides of low toxicity to livestock, where feasible. Consider the different types of application equipment and methods, where possible, to reduce the probability of contamination of non- target food and water sources. Avoid use of diquat in riparian pasture while pasture is being used by livestock. Notify permittees of the herbicide treatment project to improve coordination and avoid potential conflicts and safety concerns during implementation of the treatment. Notify permittees of livestock grazing, feeding, or slaughter restrictions, if necessary. Provide alternative forage sites for livestock, if possible.
Cultural Resources and Paleontological Resources See handbooks H-8120-1 (*Guidelines for Conducting Tribal Consultation*) and H-8270-1 (*General Procedural Guidance for Paleontological Resource Management*), and manuals 8100 (*The Foundations for Managing Cultural Resources*), 8120 (*Tribal Consultation Under Cultural Resource Authorities*), and 8270 (*Paleontological Resource*	Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act as implemented through the Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act and state protocols or 36 Code of Federal Regulations Part 800, including necessary consultations with State Historic Preservation Officers and interested tribes. Follow BLM Handbook H-8270-1 (General Procedural Guidance for Paleontological Resource Management) to determine known Condition I and Condition 2 paleontological areas, or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts. Consult with tribes to locate any areas of vegetation that are of significance to the tribe and that might be affected by herbicide treatments. Work with tribes to minimize impacts to these resources. Follow guidance under Human Health and Safety in the PEIS in areas that may be visited by Native peoples after treatments.

Resource Element	Standard Operating Procedure
Management) See also: *Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act*	
Visual Resources See handbooks H-8410-1 (*Visual Resource Inventory*) and H-8431-1 (*Visual Resource Contrast Rating*), and manual 8400 (*Visual Resource Management*)	Minimize the use of broadcast foliar applications in sensitive watersheds to avoid creating large areas of browned vegetation. Consider the surrounding land use before assigning aerial spraying as an application method. Minimize off-site drift and mobility of herbicides (e.g., do not treat when winds exceed 10 mph; minimize treatment in areas where herbicide runoff is likely; establish appropriate buffer widths between treatment areas and residences) to contain visual changes to the intended treatment area. If the area is a Class I or II visual resource, ensure that the change to the characteristic landscape is low and does not attract attention (Class I), or if seen, does not attract the attention of the casual viewer (Class II). Lessen visual impacts by 1) designing projects to blend in with topographic forms; 2) leaving some low-growing trees or planting some low-growing tree seedlings adjacent to the treatment area to screen short- term effects; and 3) re-vegetating the site following treatment. When restoring treated areas, design activities to repeat the form, line, color, and texture of the natural landscape character conditions to meet established VRM objectives.
Wilderness and Other Special Areas See handbooks H-8550-1 (*Management of Wilderness Study Areas (WSAs)*), and H-8560-1 (*Management of Designated Wilderness Study Areas*), and Manual 8351 (*Wild and Scenic Rivers*)	Encourage backcountry pack and saddle stock users to feed their livestock only weed-free feed for several days before entering a wilderness area. Encourage stock users to tie and/or hold stock in such a way as to minimize soil disturbance and loss of native vegetation. Re-vegetate disturbed sites with native species if there is no reasonable expectation of natural regeneration. Provide educational materials at trailheads and other wilderness entry points to educate the public on the need to prevent the spread of weeds. Use the “minimum tool” to treat noxious and invasive vegetation, relying primarily on the use of ground-based tools, including backpack pumps, hand sprayers, and pumps mounted on pack and saddle stock. Use chemicals only when they are the minimum method necessary to control weeds that are spreading within the wilderness or threaten lands outside the wilderness.

Resource Element	Standard Operating Procedure
	Give preference to herbicides that have the least impact on non-target species and the wilderness environment. Implement herbicide treatments during periods of low human use, where feasible. Address wilderness and special areas in management plans. Maintain adequate buffers for Wild and Scenic Rivers.
Recreation See Handbook H-1601-1 (*Land Use Planning Handbook, Appendix C*)	Schedule treatments to avoid peak recreational use times, while considering the optimum management period for the targeted species. Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas. Adhere to entry restrictions identified on the herbicide product label for public and worker access. Post signs noting exclusion areas and the duration of exclusion, if necessary. Use herbicides during periods of low human use, where feasible.
Social and Economic Values	Consider surrounding land use before selecting aerial spraying as a method and avoid aerial spraying near agricultural or densely populated areas. Post treated areas and specify reentry or rest times, if appropriate. Notify grazing permittees of livestock feeding restrictions in treated areas, if necessary, as per herbicide product label instructions. Notify the public of the project to improve coordination and avoid potential conflicts and safety concerns during implementation of the treatment. Control public access until potential treatment hazards no longer exist, per herbicide product label instructions. Observe restricted entry intervals specified by the herbicide product label. Notify local emergency personnel of proposed treatments. Use spot applications or low-boom broadcast applications where possible to limit the probability of contaminating non-target food and water sources, especially vegetation over areas larger than the treatment area. Consult with Native American tribes and Alaska Native groups to locate any areas of vegetation that are of significance to the tribes and Native groups and that might be affected by herbicide treatments. To the degree possible within the law, hire local contractors and workers to assist with herbicide application projects and purchase materials and supplies, including chemicals, for herbicide treatment projects through local suppliers. To minimize fears based on lack of information, provide public educational information on the need for vegetation treatments and the use of herbicides in an integrated pest management program for projects proposing local use of herbicides.
Rights-of-way	Coordinate vegetation management activities where joint or multiple use of a ROW exists. Notify other public land users within or adjacent to the ROW proposed for treatment. Use only herbicides that are approved for use in ROW areas.

Resource Element	Standard Operating Procedure
Human Health and Safety	Establish a buffer between treatment areas and human residences based on guidance given in the HHRA, with a minimum buffer of ¼ mile for aerial applications and 100 feet for ground applications, unless a written waiver is granted. Use protective equipment as directed by the herbicide product label. Post treated areas with appropriate signs at common public access areas. Observe restricted entry intervals specified by the herbicide product label. Provide public notification in newspapers or other media where the potential exists for public exposure. Have a copy of MSDSs at work site. Notify local emergency personnel of proposed treatments. Contain and clean up spills and request help as needed. Secure containers during transport. Follow label directions for use and storage. Dispose of unwanted herbicides promptly and correctly.