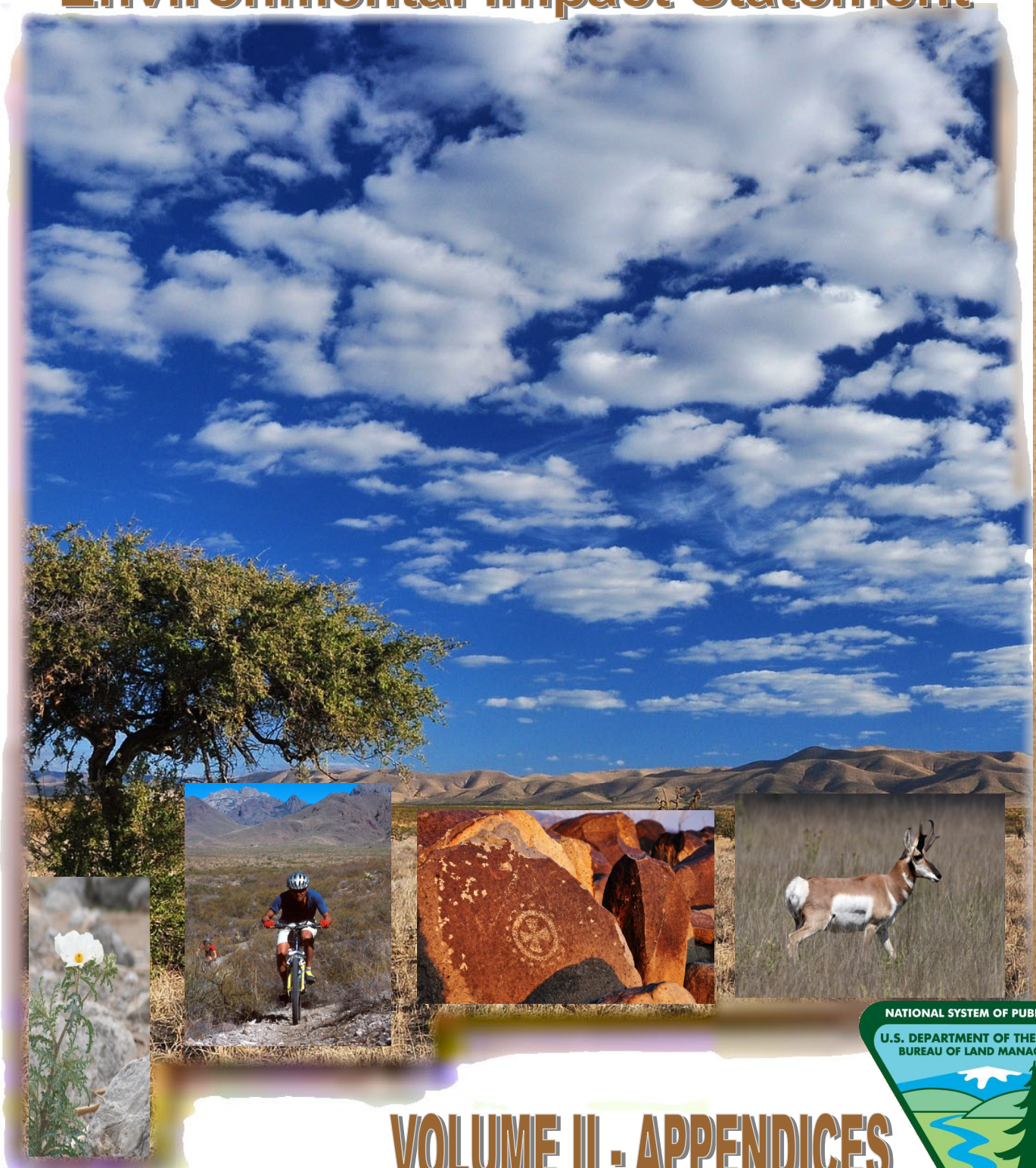
# TriCounty
## Draft Resource Management Plan/ Environmental Impact Statement



BLM

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

## VOLUME II - APPENDICES

April 2013

# APPENDIX A

## ACTS OF AUTHORITY AND MANDATES FOR THE BLM

# APPENDIX A
# ACTS OF AUTHORITY
# AND MANDATES FOR THE BLM

A number of Federal statutes have been enacted over time to establish and define the authority of the Bureau of Land Management (BLM) to make decisions on the management and use of resources on public land. Following is a list of major legal authorities relevant to BLM land use planning.

**Federal Land Policy and Management Act** (FLPMA) of 1976, as amended (43 United States Code [U.S.C.] 1701, et seq.) provides the authority for BLM's land use planning. This statute and its implementing regulations define principles for the management of public land and its resources. This Act directs the Secretary of the Interior to develop, maintain, and when appropriate, revise land use plans that provide for the use of public land managed on the basis of multiple-use and sustained yield unless otherwise specified by law. Through FLPMA, BLM is responsible for the balanced management of the public land and resources and their various values. FLPMA specifically states that public land will be managed under the principles of multiple-use, and it further indicates that multiple use includes harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment.

- Section 102 (a) (7) and (8) sets forth the policy of the United States concerning the management of BLM land.
- Section 201 requires the Secretary of the Interior to prepare and maintain an inventory of all BLM land and its resources and other values, giving priority to areas of critical environmental concern and, as funding and workforce are available, to determine the boundaries of the public land, provide signs and maps to the public, and provide inventory data to State and local governments.
- Section 202 (a) requires the Secretary of the Interior, with public involvement, to develop, maintain, and when appropriate, revise land use plans that provide by tracts or areas for the use of the BLM land.
- Section 202 (c) (9) requires that land use plans for BLM land be consistent with Tribal plans and, to the maximum extent consistent with applicable Federal laws, with State and local plans.
- Section 202 (d) provides that all public land, regardless of classification, are subject to inclusion in land use plans, and that the Secretary of the Interior may modify or terminate classifications consistent with land use plans.
- Section 202 (f) and 309 (e) provide that Federal, State, and local governments and the public be given adequate notice and an opportunity to comment on the formulation of standards and criteria for, and to participate in, the preparation and execution of plans and programs for the management of the public land.
- Section 302 (a) requires the Secretary of the Interior to manage BLM land under the principles of multiple use and sustained yield in accordance with (when available) land use plans developed under Section 202 of FLPMA, except that, where a tract of BLM land has been dedicated to specific uses according to any other provisions of law, it shall be managed in accordance with such laws.
- Section 302 (b) recognizes the entry and development rights of mining claimants, while directing the Secretary of the Interior to prevent unnecessary or undue degradation of public land.

- Section 603 specifically directs BLM to carry out a wilderness review of public land and directs the BLM to manage such land in a manner so as not to impair the suitability of such area for preservation as wilderness.

The **National Environment Policy Act of 1969,** as amended (42 U.S.C. 4321, et seq.), requires the consideration and public availability of information regarding the environmental impacts of major Federal actions significantly affecting the quality of the human environment. The law further requires the Federal authorized officers to identify and describe the significant environmental issues associated with their decisions and to develop alternatives to a proposed action (including the alternative of no action). Federal authorized officers must disclose the direct, indirect, and cumulative effects of the decisions; adverse environmental effects that cannot be avoided; the relationship between short-term uses of the human environment and the maintenance of long-term productivity; and any irreversible or irretrievable commitments of resources made by the decision.

The **Clean Air Act of 1990,** as amended (42 U.S.C. 7418), requires Federal agencies to comply with all Federal, State, and local requirements regarding the control and abatement of air pollution. This includes abiding by the requirements of State implementation plans. The Clean Air Act provides that each State is responsible for ensuring achievement and maintenance of air quality standards within its borders so long as such standards are at least as stringent as Federal standards established by the U.S. Environmental Protection Agency (EPA).

The **Clean Water Act (CWA) of 1987,** as amended (33 U.S.C. 1251), establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water. Upon passage of the Environmental Quality Acts and adoption of the water quality standards, State agencies were empowered to enforce water quality standards as long as they are at least as stringent as the Federal standards established by the EPA. The State of New Mexico has not been delegated authority from the Federal Government for any of the major water quality programs under the CWA, including the National Pollutant Discharge Elimination System, Pretreatment, Sludge Management, and Wetlands. Also, Section 404 of the CWA, administered by the U.S. Army Corps of Engineers, requires that waters of the United States be protected by permits prior to dredge or fill activities in such areas. Waters include intermittent streams, mud flats, and sand flats. Wetlands that meet jurisdictional criteria of Section 404 of the CWA are partially protected in that a permit is required before any dredge or fill activity can occur in such areas.

The **Endangered Species Act (ESA) of 1973,** as amended (16 U.S.C. 1531, et seq.), provides a means whereby the ecosystems upon which threatened and endangered species depend may be conserved and to provide a program for the conservation of such threatened and endangered species (Section 1531(b), Purposes). The ESA requires all Federal agencies to seek to conserve threatened and endangered species, use applicable authorities in furtherance of the purposes of the ESA (Section 1531(c) (1), Policy), and avoid jeopardizing the continued existence of any species that is listed or proposed for listing as threatened and endangered or destroying or adversely modifying its designated or proposed critical habitat (Section 1536(a), Interagency Cooperation). The U.S. Fish and Wildlife Service (USFWS) is responsible for administration of this Act, which also requires all Federal agencies to consult (or confer) in accordance with Section 7 of the ESA with the Secretary of the Interior, through the USFWS and/or the National Marine Fisheries Service, to ensure that any Federal action (including land use plans) or activity is not likely to jeopardize the continued existence of any species listed or proposed to be listed under the provisions of the ESA, or result in the destruction or adverse modification of designated or proposed critical habitat (Section 1536(a), Interagency Cooperation, and Title 50 Code of Federal Regulations Part 402 [50 CFR 402]). Mitigation measures are developed through the consultation process and are put forth as suggested conservation measures included in a formal USFWS Biological Opinion, which addresses

whether the proposed action would jeopardize the continued existence of any officially listed endangered or threatened species.

The **Land Use Planning Handbook** (BLM Handbook Number H-1601-1) provides supplemental guidance for implementing the BLM land use planning requirements established by Sections 201 and 202 of FLPMA and the regulations in 43 CFR 1600. The handbook provides guidance for preparing and amending land use plan decisions through the planning process, and for maintaining resource management plans. The handbook also provides guidance for developing implementation plans and program-specific and resource-specific decisions.

The **Statewide Resource Management Plan Amendment/Environmental Impact Statement for New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management** (*Standards and Guidelines*) established a set of standards and guidelines for public land health and guidelines for livestock grazing management in New Mexico. Standards of land health are expressions of physical and biological conditions or degree of function required for healthy and sustainable land, and defines minimum resource conditions that must be achieved. Standards describe conditions needed for healthy sustainable public rangelands and relate to all uses of public land. They provide the measure of resource quality and functioning condition by which the health of public land will be assessed. To measure the effectiveness of each standard, a set of indicators and associated criteria were identified. Specific standards and indicators are defined for upland sites, biotic communities (including native, threatened, endangered, and special status species), and riparian sites.

Guidelines are practices, methods, or techniques determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting those standards. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers and permittees achieve standards. Guidelines for livestock grazing are described in the *Standards and Guidelines*. The livestock grazing guidelines were designed to improve public land health and are to be implemented at the watershed, allotment, or pasture level if it is determined that the standards are not being met and that livestock grazing is the cause. Guidelines for activities other than livestock grazing are not mandated through regulation; however, they may be developed should the need arise. If it is determined that the standards are not being met as a result of another activity (i.e., road placement, recreation, etc.), program leads would determine appropriate actions to ensure that standards can be met or that significant progress can be made toward meeting those standards.

The **Federal Water Pollution Control Act** (33 U.S.C. 1323) requires the Federal land manager to comply with all Federal, State, and local requirements, administrative authority, process, and sanctions regarding the control and abatement of water pollution in the same manner and to the same extent as any nongovernmental entity.

The **Safe Drinking Water Act** (42 U.S.C. 201) is designed to make the nation's waters "drinkable" as well as "swimmable." Amendments in 1996 established a direct connection between safe drinking water and watershed protection and management.

The **Resource Conservation and Recovery Act of 1976** (Public Law [P.L.] 89-72) gave the EPA the authority to control hazardous waste from "cradle to grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The Act also set forth a framework for the management of nonhazardous wastes.

The **National Trails System Act of 1968,** as amended (16 U.S.C. 1241-1249), provides that the establishment of national recreation and national scenic trails would closely follow original routes of national historic significance. The purpose of the Act is to provide for the ever-increasing outdoor

recreation needs of an expanding population and to promote the preservation of public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas, and historic resources of the nation.

The **Wilderness Act,** as amended (16 U.S.C. 1131, et seq.) authorizes the President to make recommendations to Congress for Federal land to be set aside for preservation as wilderness.

The **Antiquities Act of 1906** (16 U.S.C. 431-433) protects cultural resources (objects of antiquity) on Federal land and authorizes the President to designate national monuments on Federal land based on historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest. By administrative decision, paleontological resources were included under the protection of this Act until FLPMA was passed.

The **Archaeological Resources Protection Act of 1979** (16 U.S.C 470) secures, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public land and American Indian land, to foster increased cooperation and exchange of information among governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979.

The **National Historic Preservation Act,** as amended (16 U.S.C. 470), expands protection of historic and archaeological properties to include those of national, State, and local significance and directs Federal agencies to consider the effects of proposed actions on properties eligible for or included in the National Register of Historic Places. The Act mandates that when Federal undertakings (i.e., Federal projects or federally funded or licensed projects) are planned and implemented, the responsible Federal agencies give due consideration to historic properties (i.e., resources eligible for the National Register of Historic Places), regardless of land status. Regulations for *Protection of Historic Properties* (36 CFR 800) define a process for demonstrating such consideration by consulting with the State Historic Preservation Officers, Federal Advisory Council on Historic Preservation, and other interested organizations and individuals.

The **Paleontological Resources Preservation Act** (PRPA; P.L. 111-11, Title VI, Subtitle D; 16 U.S.C. 470aaa *et seq*.) is the BLM's new authority for the collection of paleontological resources with or without a permit from public lands. It directs the BLM to manage, protect, and preserve paleontological resources using scientific principles and expertise as well as to provide for public education and awareness, to issue permits for scientific research, and to curate federal paleontological resources. It is BLM's new authority for casual collection of common invertebrate and plant paleontological resources. It institutes confidentiality of paleontological locality information, and criminal and civil penalties for commercial sale, theft, damage, and illegal export and transport of paleontological resources.

The **American Indian Religious Freedom Act of 1978** (42 U.S.C. 1996) establishes a national policy to protect and preserve the right of American Indians to exercise traditional Indian religious beliefs or practices.

The **Historic Sites Act of 1935** (16 U.S.C. 461-467) defines a national policy to identify and preserve historic sites, buildings, objects, and antiquities of national significance. The law authorizes the Secretary of the Interior to conduct surveys, collect and preserve data, and acquire historic and archaeological sites.

The **Archaeological and Historic Preservation Act of 1974** (16 U.S.C. 469-469c) provides for preservation of archaeological and historical information that might otherwise be lost as a result of Federal construction projects and other federally licensed activities and programs. This Act stipulates that up to 1 percent of the funding appropriated by Congress for Federal undertakings can be spent to recover,

preserve, and protect archaeological and historical data. A subsequent amendment authorized the 1 percent limit to be administratively exceeded under certain circumstances.

The **Native American Grave Protection and Repatriation Act of 1990** (25 U.S.C. 3001-3013) protects the human remains of indigenous peoples and funerary objects, sacred objects, and items of cultural patrimony on Federal land. The Act also provides for the repatriation of such remains and cultural items previously collected from Federal land and in the possession or control of a Federal agency or federally funded repository.

The **Curation of Federally Owned and Administered Archaeological Collections** (36 CFR 79) stipulates standards for facilities that curate federally owned archaeological collections, which include not only artifacts but also all associated records and reports, to ensure long-term preservation of such collections.

The **White House Memorandum on Government-to-Government Relations with Native American Tribal Governments of 1994** set forth guidelines requiring Federal agencies to adhere to directives designed to ensure that the rights of sovereign Tribal governments are fully respected.

The **Recreation and Public Purposes Act of 1926,** as amended (43 U.S.C. 869, et seq.), authorizes the Secretary of the Interior to lease or convey BLM land for recreational and public purposes under specified conditions.

The **Land and Water Conservation Fund of 1964** (16 U.S.C. 460l-4, et seq.) provides funding to assist in preserving, developing, and assuring accessibility to outdoor recreation resources including but not limited to parks, trails, wildlife land, and other land and facilities desirable for individual active participation.

The **Surface Mining Control and Reclamation Act of 1977** (30 U.S.C. 1201, et seq.) requires application of unsuitability criteria prior to coal leasing, and also to proposed mining operations for minerals or mineral materials other than coal.

The **Mineral Leasing Act of 1920,** as amended (30 U.S.C. 181, et seq.) authorizes the development and conservation of oil and gas resources.

The **Onshore Oil and Gas Leasing Reform Act of 1987** (30 U.S.C. 181, et seq.) requires that potential oil and gas resources be adequately addressed in planning documents; the social, economic, and environmental consequences of exploration and development of oil and gas resources be determined; and any stipulations to be applied to oil and gas leases be clearly identified.

The **General Mining Law of 1872,** as amended (30 U.S.C. 21, et seq.), allows the location, use, and patenting of mining claims on sites on public domain land of the United States.

The **Mining and Mineral Policy Act of 1970** (30 U.S.C. 21a) establishes a policy of fostering development of economically stable mining and minerals industries and their orderly and economic development as well as studying methods for disposal of waste and reclamation.

The **Geothermal Steam Act of 1970** (30 U.S.C. 1001-1027) governs the lease of geothermal steam and related resources on public land. The Act prohibits issuing geothermal leases on virtually all USFWS-administered land.

The **Minerals Material Disposal Act of 1947,** as amended, establishes the authority under which BLM disposes of timber and other vegetative and forest products.

The **Energy Policy Act of 2005** established federal policy for development of renewable and non-renewable sources of energy.

The **Taylor Grazing Act of 1934** (43 U.S.C. 315) establishes grazing districts of vacant, unappropriated and unreserved land in any parts of the public domain, excluding Alaska, that are not national forests, parks and monuments, American Indian reservations, railroad grant land, or revested Coos Bay Wagon Road grant land, and that are valuable chiefly for grazing and raising forage crops; the Act uses a permitting system to manage livestock grazing in the districts. In addition, the Act provides for the protection, administration, regulation and improvement of the grazing districts; promotes the adoption of regulations and cooperative agreements necessary to accomplish the purposes of the Act; regulates occupancy and use; preserves the land and resources from destruction or unnecessary injury; and provides for orderly improvement and development of the range. The Act also allows for the continuing study of erosion and flood control and performance of work to protect and rehabilitate areas subject to the Act. Willful violations of the Act, or of its rules and regulations, are punishable by fine.

The **Public Rangelands Improvement Act of 1978** (43 U.S.C. 1901) provides that the public rangeland be managed so that it becomes as productive as feasible in accordance with management objectives and the land use planning process established pursuant to 43 U.S.C. 1712.

The **Healthy Forest Initiative Act of 2002** expanded stewardship contracting authority, among other provisions including accelerating unnecessary delays and removing barriers to forest and rangeland restoration activities.

The **Healthy Forests Restoration Act of 2003** (P.L. 108-148) outlines administrative procedures for hazardous-fuel-reduction projects on Forest Service and BLM land to reduce wildfire risks to communities, municipal water supplies, and other at-risk Federal land and to protect, enhance, and restore forest ecosystem components.

The **Carlson-Foley Act of 1968** (P.L. 90-583) directs Federal agencies to enter upon land under their jurisdiction that has noxious plants (weeds) and to destroy noxious plants growing on such land.

The **Federal Noxious Weed Act of 1974** (7 U.S.C. 2801-2814) provides for the control and management of nonindigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. The Act requires that each Federal agency develop a management program to control undesirable plants on Federal land under the agency's jurisdiction; establish and adequately fund the program; implement cooperative agreements with State agencies to coordinate management of undesirable plants on Federal land; establish integrated management systems to control undesirable plants targeted under cooperative agreements. A Federal agency is not required to carry out management programs on Federal land unless similar programs are being implemented on State or private land in the same area.

The Act also directs the Secretaries of Agriculture and the Interior to coordinate programs for control, research, and educational efforts associated with noxious weeds. The Secretaries must identify regional control priorities and disseminate technical information to interested State, local, and private entities.

The **Plant Protection Act of 2000** (P.L. 106-224) prohibits the import, export, and movement in interstate commerce, or mailing of any plant pest unless authorized by the Secretary of Agriculture; authorizes the Secretary to prohibit or restrict the import, export, or movement in interstate commerce of

any plant, plant product, biological control organism, noxious weed, or means of conveyance to prevent the introduction or dissemination of a plant pest or noxious weed; and combines all or a portion of 11 Acts or resolutions into 1 Act.

The **Migratory Bird Treaty Act of 1918,** as amended (16 U.S.C. 703-712), implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.

**Bald and Golden Eagle Protection Act of 1940** (16 U.S.C. 668-668d, 54 Stat.250) as amended. This law provides for the protection of the bald eagle (the national emblem) and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the Act.

The **Fish and Wildlife Coordination Act of 1958,** as amended (16 U.S.C 661-667), proposes to assure that fish and wildlife resources receive equal consideration with other values during the planning of water resources development projects. The Act requires coordination with USFWS by the U.S. Department of Energy when a project is planned that may affect a body of water. It also requires coordination with the head of the State agency that administers wildlife resources in the affected state.

The **Sikes Act of 1960,** as amended (16 U.S.C. 670, et seq.), seeks to promote effectual planning, development, maintenance, and coordination of wildlife, fish, and game conservation and rehabilitation in military reservations.

The **Fish and Wildlife Conservation Act of 1980** (16 U.S.C. 2901-2911) authorizes financial and technical assistance to the States for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

**Executive Order 11644: Use of Off-Road Vehicles on the Public Lands** (as amended by Executive Order 11989) (37 *Federal Register* [FR] 2877 [1971]) establishes policies and provides for procedures that will ensure that the use of off-road vehicles on public land will be controlled and directed so as to protect the resources of those land, promote the safety of all users of those land, and minimize conflicts among the various uses of those land.

**Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations** (49 FR 7629 [1994]) requires that each Federal agency consider the impacts of its programs on minority populations and low-income populations.

**Executive Order 13007: Indian Sacred Sites** (61 FR 26771 [1996]) requires Federal agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

**Executive Order 13287: Preserve America** directs Federal agencies to provide leadership in preserving the nation's heritage by actively advancing the protection, enhancement and contemporary use of historic properties owned by the Federal Government, emphasizing partnerships. Under this order, agencies shall cooperate with communities to increase opportunities for public benefit from, and access to, federally owned historic and paleontological properties.

**Executive Order 13084: Consultation and Coordination with Indian Tribal Governments** provides, in part, that each Federal agency shall establish regular and meaningful consultation and collaboration with Indian Tribal governments in the development of regulatory practices on Federal matters that significantly or uniquely affect their communities.

**Executive Order 13112: Invasive Species** provides that no Federal agency shall authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species and that all feasible and prudent measures to minimize risk or harm will be taken in conjunction with the actions.

**Executive Order 11988: Floodplain Management** requires each agency to provide leadership and take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Each agency must evaluate the potential effects of any actions it may take in a floodplain; to ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management; and to prescribe procedures to implement the policies and requirements of this order.

**Executive Order 11990 Protection of Wetlands** required each Federal agency to provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.

**Secretarial Order 3175** (incorporated into the U.S. Department of the Interior's *Departmental Manual* at 512 DM 2) requires that, if the actions of a U.S. Department of the Interior agency might impact American Indian trust resources, the agency explicitly address those potential impacts in planning and decision documents, and the agency consult with the Tribal government whose trust resources would potentially be affected by the Federal action.

**Secretarial Order 3206: American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act** requires U.S. Department of the Interior agencies to consult with American Indian Tribes when agency actions to protect a listed species, as a result of compliance with the ESA, affect or may affect American Indian land, Tribal trust resources, or the exercise of American Indian Tribal rights.

# APPENDIX B

## NEW MEXICO STANDARDS AND GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT

# APPENDIX B
# NEW MEXICO STANDARDS AND GUIDELINES

The 1986 *White Sands Resource Management Plan* (RMP) and the 1993 *Mimbres RMPs* were amended by the *New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Statewide RMP Amendment and Environmental Impact Statement* (*New Mexico Standards and Guidelines*). As a result of the amendment, the *New Mexico Standards and Guidelines* were incorporated into the *White Sands RMP* and *Mimbres RMPs* and would be carried forward in *TriCounty RMPs/Environmental Impact Statement.*

The standards of land health are expressions of physical and biological condition or degree of function required for healthy, sustainable land, and defines the minimum resource conditions that must be achieved. The three standards that apply to the Planning Area are as follows:

**1. Upland Sites Standard**

Upland ecological sites are in a productive and sustainable condition within the capability of the site. Upland soils are stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate, and landform. The kind, amount, and/or pattern of vegetation provide protection on a given site to minimize erosion and assist in meeting State and Tribal water quality standards.

Indicators for this standard may include, but are not limited to, the following:

- Soils are stabilized by appropriate amounts of standing live vegetation, protective litter, and/or rock cover, consistent with the capability of the ecological site.
- Erosion is indicated by flow patterns characteristic of surface litter soil movement, gullies and rills, and plant pedestalling.
- Satisfactory plant protection is indicated by the amount and distribution of desired species necessary to prevent accelerated erosion.

**2. Biotic Communities Standard (including native, threatened, endangered, and special status species)**

Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special status, threatened, and endangered species appropriate to site and species. The goals for desired plant communities maintain and conserve productive and diverse populations of plants and animals, which sustain ecological functions and processes.

Indicators for this standard may include, but are not limited to, the following:

- Plant and animal populations are productive, resilient, diverse, and sustainable, commensurate with the capability of the ecological site.
- Landscapes are composed of communities in a variety of successional stages and patterns.
- Diversity and composition of communities are indicated by the kinds and amount of species.

- Endangered and special status species are secure and recovering, with the goal of delisting and ensuring that additional species need not be listed in New Mexico.

**3. Riparian Sites Standard**

Riparian areas are in a productive, properly functioning, and sustainable condition, within the capability of each site. Adequate vegetation of diverse age and composition is present to withstand high stream flow, capture sediment, provide for groundwater recharge, provide habitat, and assist in meeting State and Tribal water quality standards.

Indicators for this standard may include, but are not limited to, the following:

- Stream channel morphology and stability as determined by gradient, width/depth ratio, cannel roughness, and sinuosity.
- Stream bank stability as determined by degree of shearing and sloughing and by vegetative cover on the bank.
- Appropriate riparian vegetation includes a mix of communities of species with a range of age, density, and growth form.

When an evaluation determines that one or more standards are not being met, then the causal factor or factors are determined. As stated in the *Record of Decision for the Standards for Public Land Health and Guidelines for Livestock Grazing Management*:

> When an evaluation concludes that an area does not meet one or more standard(s), the Bureau of Land Management will determine the causal factor(s) in not meeting the standard(s). When current livestock grazing practices or levels of grazing use are determined to be significant factors, the Bureau of Land Management authorized officer shall take appropriate action as soon as practical, but no later than the next grazing year (43 Code of Federal Regulations Section 4180.2 (c)).

Guidelines for livestock grazing were established to be implemented when an area is not meeting the standard or standards and the causal factor is determined to livestock grazing practices or levels of grazing use. Guidelines are tools such as grazing systems, vegetative treatments, or range improvement projects designed to assist in grazing management. Implementation of guidelines is done in consultation, cooperation, and coordination with the grazing permittee/leasee, involved landowners, and interested public.

Guidelines pertain to livestock grazing only if the causal factor is determined to be another activity; there are no established guidelines to be implemented. When other activities appear to be the reason the standard was not met, management actions to address that activity are implemented in a manner consistent with the policy and regulations governing that activity.

The processes for assessing the standards are evaluated at the watershed level and are on an ongoing basis. Assessments are completed by using existing data and *Indicators of Rangeland Health* (TR 1734-6). The assessment characterizes the status of the ecological processes (water cycle, energy flow, and nutrient cycle) by interpreting attributes such as soil/site stability, hydrologic function, and biotic integrity in relation to the ecological site.

# APPENDIX C

## PROCESS FOR WATERSHED PRIORITIZATION

# APPENDIX C
# PROCESS FOR WATERSHED PRIORITIZATION

## RESOURCE MANAGEMENT PLAN MANAGEMENT FOCUS

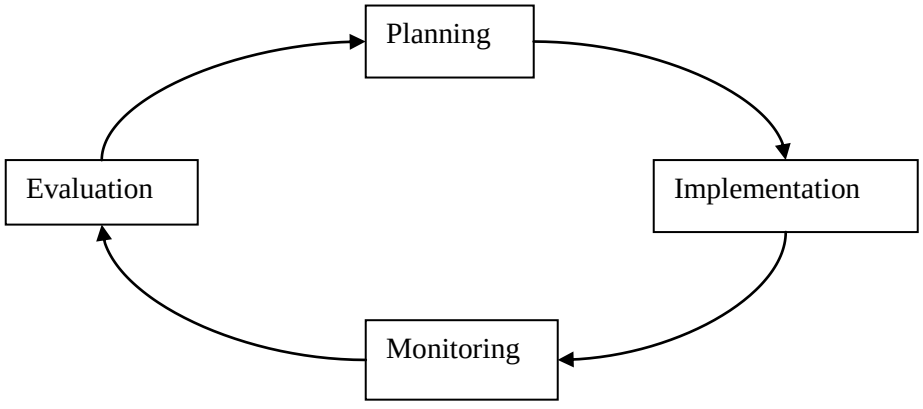
The restoration and maintenance of healthy ecological systems within watersheds is a primary focus for the future management of the Bureau of Land Management (BLM) Las Cruces District. Healthy ecological systems are geographically diverse, change over time, are comparable with soil potential and are resilient to disturbance.

Resources and resource uses will be managed to restore or maintain ecological health. Certain resource management changes and active treatments may need to be implemented in portions of watersheds to accomplish this objective. Adaptive management will be pursued to avoid deteriorating conditions favoring invasive plants. Any projects will be implemented so as to result in a mosaic of vegetation within a watershed.

The long-term goal is to appropriately match resource uses with the capability of the ecological sites so that fewer treatments will be needed to maintain ecological health. The result will be a variety of vegetation phases (states) within a watershed, which will provide diverse, healthy conditions for future generations.

## ADAPTIVE MANAGEMENT

The Las Cruces District Office intends to implement the *TriCounty Resource Management Plan* (RMP) to manage the resources in the Planning Area using the principles of adaptive management. Adaptive management, as defined here, is a formal process for continually improving management policies and practices by learning from the outcomes of operational programs and new scientific information. Under adaptive management, plans and activities are treated as conceptual hypotheses rather than final solutions to complex problems. This approach builds on common-sense experiments, testing of alternative management methods, and lessons learned from experience, which are then used in the implementation of plans. The process generally includes four phases: planning, implementation, monitoring, and evaluation.




The information developed through the monitoring process will be used to assess management strategies, alter decisions (which may require a plan amendment or new National Environmental Policy Act [NEPA]

analysis), change implementation, or maintain current management direction. The evaluation process may generate new information that needs to be incorporated into management actions. Ongoing subunit assessments and integrated activity planning also may uncover new information that can be used to make changes to projects, strategies, objectives, and monitoring elements. New information may result in any of the following:

- Concluding the management action is moving the landscape towards the broad objectives of the RMP. In this case, management actions are affirmed and may not need to be adjusted.
- Concluding that further research needs to be initiated or that actions must be adjusted to more efficiently achieve the broad objectives of the RMP. If new information or research demonstrates better ways to achieve plan objectives, changes in subsequent activity planning and project implementation can be made. NEPA analysis may be required depending upon the nature of the management changes.
- Concluding that broad objectives need to be altered based on new information. If the new information indicates reconsideration of RMP objectives, a plan amendment could be considered to reexamine targeted future conditions and methods to reach those conditions.

## MANAGEMENT BY WATERSHED

BLM policy calls for the use of watershed, rather than administrative, boundaries when conducting local analyses except when compelling issues dictate that administrative or other ecology-based boundary take precedence. The RMP/Environmental Impact Statement (EIS) proposes the use of tools and techniques for watershed analysis that have already been approved for use throughout the BLM. The watershed determinations and watershed restoration plans that would flow from the watershed analyses would provide site-specific restoration recommendations. These site-specific recommended actions would be subject to NEPA. Until the watershed analysis is completed for a particular watershed management unit, land and resources would be managed following existing BLM regulations and policies. Completed watershed analyses will be reviewed periodically to determine if there have been any changes in the resource issues, BLM policies and regulation, or other concerns that would warrant a change in the restoration plan.

Previous vegetation treatment projects within the Las Cruces District were randomly located and were not based on systematically identified needs to restore or maintain watershed health and function. Thus, their effectiveness was limited. The Las Cruces District Office is now focusing restoration efforts on getting more work done through a watershed-based approach. The RMP is intended to facilitate management and restoration on a landscape scale.

Interdisciplinary watershed analysis teams will assess and evaluate watersheds based on the indicators outlined in the *New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management RMP Amendment/EIS* (January 2001). The Las Cruces District Office is using the BLM guidance Title 43 Code of Federal Regulations Part 4180.1 (43 CFR 4180.1), *Rangeland Health Standards Handbook,* and *BLM Manual* Section 4180: Rangeland Health Standards to guide the watershed analysis process, which includes on-the-ground implementation of existing programs that are in compliance with current laws, regulations, and policy. Public involvement also will help to achieve a greater understanding of land health issues.

The watershed analyses will include the following:

- Identifying dominant plant community reference (preferred) conditions.
- Identifying existing plant communities and their general conditions.
- Developing restoration goals (e.g., restoring plant communities that do not meet New Mexico's public land health standards or other criteria for healthy ecological communities).
- Evaluating and determining causal factors for not meeting the public land health standards.
- Providing a plan for restoring and maintaining watershed health and function.
- Documenting water quality management goals and specify appropriate water quality criteria to meet established goals where surface waters are present.

The watershed analyses will characterize features (human, terrestrial vegetation and wildlife, aquatic vegetation and wildlife, and physical) and the associated conditions, processes, and interactions within each watershed. Watershed analysis enhances the BLM's ability to estimate direct, indirect, and cumulative effects of management activities and allows for greater flexibility within the watershed. It guides the general type, location, and sequence of management activities. It establishes baseline watershed conditions that permit measurement of progress toward management. It allows for a shift from species and individual use-driven management to the natural systems that support the watershed function. This approach allows the BLM to focus on flexible management techniques necessary to maintain or improve the functionality of the watershed. Future landscape-scale actions would be applied to affect or influence much more of the watershed and its functionality.

The watershed analysis consists of four phases: (1) assessment phase, (2) evaluation phase, (3) determination phase, and (4) implementation phase. (More detail on the activities that take place during each phase can be found in *BLM Manual* Section 4180: Rangeland Health Standards.) Managing the public land within the Las Cruces District on a watershed basis is consistent with current BLM policy, direction and other land use planning documents. Also, it is a more logical and efficient approach to allocating funds and resources. However, limited funds and resources require a prioritization process be established to select watersheds. The Las Cruces District Office would use tools such as Southwest Regional Gap Analysis Project, REA, remotely sensed state-and-transition models, Fish and Game Comprehensive Plan, etc. to initially identify issues and conflicts within a watershed.

The criteria considered in prioritizing watersheds include, but are not limited to, the following:

- Management required by law/policy/direction
  - Endangered Species Act – threatened and endangered
  - Clean Water Act – 303(d) listed
- Management based on resource conditions
  - Areas currently within the reference states
  - Areas transitioning to nonreference (degraded) states
  - Areas within nonreference states that have potential opportunities for restoration
  - Erosive soils
- Other
  - Areas with no law/policy/direction concerns
  - Areas within nonreference states and limited (economical and/or ecological) restoration potential
  - Availability of monitoring data
  - "Risk criteria" (e.g., special status species, flood, noxious weeds, erosive soils and contamination)

- Management opportunities (e.g., activity management plan areas, special designations, special initiatives, and/or cooperative funding programs)

The watersheds to be analyzed in any given year will be identified through an administrative decision based on priority and on funding and resource availability. It is anticipated that watershed prioritization will change as the Las Cruces District Office responds to on-the-ground resource management objectives such as ecological health, soils and water quality protection, sensitive species requirements, fuel reduction, community needs, and partnership agreements.

Previous land use plans classified each allotment in the Planning Area based on its potential for improvement and opportunities for positive returns on investments in improvement projects into categories. Those categories were maintain (M), improve (I) and custodial (C). (See Appendix G for a detailed description of the criteria for each category.) That process assisted in prioritizing where money and manpower were expended). That categorization may still be useful when managing resources at the watershed scale by establishing priorities within a priority watershed.

# ECOLOGICAL ANALYSIS AT THE WATERSHED SCALE

The RMPs provide the management goals and direction for ecological analyses at the watershed scale in terms of issues to be addressed and desired range of conditions to be achieved, through both the implementation of the RMPs and resource management actions. The evaluation of the conditions achieved would be through appropriate monitoring.

## Monitoring

The BLM planning regulations (43 CFR 1610.4-9) call for the ongoing monitoring of resource management plans with a formal evaluation completed every five years. The *TriCounty RMPs* will be continuously monitored to provide up-to-date evaluations and to respond to changing situations. Restoration actions arising through watershed analyses would be evaluated to ensure consistency with RMP objectives.

Monitoring will be coordinated with other appropriate agencies and organizations to enhance the efficiency and usefulness of the results across a variety of administrative units. The approach will build on past and present monitoring efforts. In addition, specific monitoring protocols, criteria, goals, and reporting formats will be developed to augment and revise the monitoring plan and facilitate the process of aggregating and analyzing information.

Two levels of monitoring would be carried out in analyzing (evaluating) the results of the RMPs. The first would be to evaluate the RMPs themselves, and the second would be to monitor at the project level.

## RMP Monitoring

RMP monitoring results in the detailed monitoring and evaluation plan will be published with the Final RMPs/Record of Decision. It will guide how the RMPs will be formally evaluated at intervals not to exceed 5years. All plan monitoring will assess the following:

- Whether management actions are resulting in satisfactory progress toward objectives.
- Whether actions are consistent with current policy.

- Whether original assumptions and/or conceptual hypotheses were correctly applied and impacts correctly predicted.
- Whether mitigation measures are satisfactory.
- Whether the RMPs are consistent with the plans and policies of State and local government, other Federal agencies, and American Indian tribes.
- Whether new data are available that would require changes to the plan and/or improve it.

Resource management monitoring provides information on the relative success of management strategies. RMP implementation will be monitored to ensure that management actions: (1) follow prescribed management direction (implementation monitoring), (2) meet desired objectives (effectiveness monitoring), and (3) are based on accurate assumptions (validation monitoring).

The monitoring plan will not remain static. It will be periodically evaluated as to the relevance of monitoring questions and standards and will be adjusted as appropriate. Some monitoring items may be discontinued, while others may be added as knowledge and issues change with implementation.

When monitoring and evaluation indicate that modifying the RMPs is necessary, the Las Cruces District Manager will determine what changes are necessary to ensure that management actions are consistent with RMP objectives. If the District Manager finds that a plan amendment is necessary, an EIS or environmental assessment of the proposed change will be developed and a recommendation on the amendment made to the State Director. If approved, it may be implemented 30 days after public notice. A plan amendment "shall be initiated by the need to consider monitoring and evaluation findings, new data, new or revised policy, a change in the terms, conditions, and decisions of the approved plan" (43 CFR 1616.5-5).

## Watershed Level Monitoring

The second level of analysis through monitoring is for projects at the watershed scale. Monitoring is integral to implementation of adaptive management and the ecological system approach for management. A monitoring plan would be developed as part of each watershed restoration plan to measure progress toward achieving the desired range of conditions, meeting the public land health standards, and addressing the issues rose in the watershed analysis. The monitoring plan would track the indicators used in the analysis and the causal factors for change. In some cases, existing monitoring programs may need to be redesigned to capture the data needed to complete future evaluations. New monitoring would be designed and located to detect both deteriorating and improving areas with regard to the public land health standards. Data collection and evaluation would be scheduled to allow changes in management activities.

Managers will use monitoring information from watershed analysis and site-specific projects to determine whether an objective has been met, and whether to continue or modify management direction. Monitoring results are to be reviewed in watershed evaluation reports for the various watersheds. This information will be available at the Las Cruces District Office.

The ecological system approach to analysis at the watershed scale will be used to assure that potential actions are evaluated with an overall understanding of the changing ecological conditions and function of specific watersheds. Monitoring information gained through the analysis at this scale will be used in the adaptive management process to determine the condition of the system and clarify the steps needed to achieve public land health standards through management actions and projects.

Information gathered from watershed analysis also will be used in developing monitoring strategies and objectives. The findings from watershed analyses using the most useful indicators of public land health standards can be used to monitor environmental change, detect magnitude and duration of changes in conditions, formulate and test hypotheses about the causal factors of these changes, understand these causes and predict impacts, and manage the ecological systems for desired outcomes. Monitoring at the watershed scale also will provide information in the most cost-effective manner, and may involve sampling or remote sensing. Unnecessary detail and unacceptable costs will be avoided by focusing on key indicators of New Mexico's public land health standards, specific desired characteristics for plant communities, and proper sampling methods. For site-specific monitoring, the level and intensity of monitoring will vary, depending on the sensitivity of the resource or area, the scope of the proposed management activity, and staffing and budget. The frequency of evaluations will likewise vary due to staffing and budget. At a minimum, evaluations should be coordinated with the renewal schedule of the 10-year permit. Where allotment management plans are in place, the evaluation would coincide with the final grazing cycle.

Public land health standard assessments, evaluations, and determinations will be completed on a priority watershed basis. This will form the basis for the majority of the amounts and types of vegetative monitoring performed within the Planning Area. Monitoring methodologies will depend on data needs for a variety of purposes (determination support, guideline implementation and success, etc.). When special circumstances arise, it may be necessary to collect vegetation monitoring data outside of a priority watershed. The methodologies used and types of information collected in the Las Cruces District Office include, but are not limited to those shown in TABLE C-1 and TABLE C-2:

**TABLE C-1**
**UPLAND SITES STANDARD**

| Method | Indicator | | |
|---|---|---|---|
| | **Soil Stability** | **Erosion** | **Species Composition** |
| IIRH* | X | X | X |
| Double Sampling | | | X |
| Pace Point | X | X | X |

NOTE: * Interpreting Indicators of Rangeland Health (Technical Reference 1734-6)

**TABLE C-2**
**BIOTIC COMMUNITIES, INCLUDING NATIVE, THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES STANDARD**

| Method | Data Type | | | |
|---|---|---|---|---|
| | **Wildlife Species Habitat** | **Successional Stages and Patterns** | **Kinds and Amount of Species** | **Endangered Species** |
| IIRH* | X | X | X | X |
| Double Sampling | | X | X | X |
| Pace Point | X | X | X | X |

NOTE: * Interpreting Indicators of Rangeland Health (Technical Reference 1734-6)

## Riparian Standard

This standard is assessed using the protocol outlined in Technical Reference 1737-9 (1993), *Process for Assessing Proper Functioning Condition,* which adequately assesses the stream channel morphology and

stability, streambank stability, and riparian vegetation mix indicators. Management effectiveness will be assessed and progress towards meeting proper functioning condition will be documented using appropriate methodologies based on management objectives. Methodologies include but are not limited to those outlined in Technical Reference 1737-3 (1979).

Other types of data that should be collected to support the results of the evaluation and determination of the public land health standards are actual use, utilization, and climatic data.

### Invasive and Noxious Weeds

Evaluation of treatments would continue in cooperation with current partners according to existing plans and agreements. Inventories to identify new introductions, distribution, and density of noxious weed populations would be carried out on an annual basis in cooperation with current partners. Known noxious weed sites that are identified for treatment would be visited each year and evaluated for effectiveness of control. All burned areas (natural and prescribed) would be surveyed for noxious weeds for three years following the burn. Construction sites would be monitored for the life of the project to determine if noxious weeds become established. Ecological trends due to changes in vegetation composition over time, in areas dominated by competing undesirable plant species, would be measured through periodic rangeland health assessments following procedures outlined in Technical Reference 1734-6, *Interpreting Indicators of Rangeland Health* (BLM 2005f).

## REPORTING

Numbers of allotments and public acres assessed and evaluated will be reported annually via a rangeland inventory, monitoring and evaluation report.

# APPENDIX D

## BEST MANAGEMENT PRACTICES

# APPENDIX D
# BEST MANAGEMENT PRACTICES

## CONTENTS



## 1 INTRODUCTION

Best management practices (BMPs) are those land and resource management techniques designed to maximize beneficial results and minimize negative impacts of management actions. BMPs are defined as methods, measures, or practices selected on the basis of site-specific conditions to provide the most effective, environmentally sound, and economically feasible means of managing an activity and mitigating its impacts. Interdisciplinary site-specific analysis is necessary to determine which management practices would be necessary to meet specific goals. Selection and implementation of any BMPs will be evaluated against the New Mexico Public Land Health Standards to ensure progress toward public land health attainment. BMPs include, but are not limited to, structural and nonstructural controls, operations, and maintenance procedures. BMPs can be applied before, during, and after pollution-producing or surface-disturbing activities to reduce or eliminate the introduction of pollutants into receiving waters (40 Code of Federal Regulation 130.2(m), Environmental Protection Agency Water Quality Standards Regulation) or to prevent unnecessary or undue degradation of resources.

BMPs are identified as part of the National Environmental Policy Act process, with interdisciplinary involvement. Because the control of nonpoint sources of pollution and prevention of damage to other resources is an ongoing process, continual refinement of BMP design is necessary. This process can be described in five steps, which are: (1) selection of design of a specific BMP; (2) application of BMP; (3) monitoring; (4) evaluation; and (5) feedback. Data gathered through monitoring is evaluated and used to identify changes needed in BMP design, application, or in the monitoring program.

BMPs described in this appendix are a compilation of existing policies and guidelines and commonly employed practices designed to assist in achieving the objectives for maintaining or minimizing water quality degradation from nonpoint sources; preventing the loss of soil productivity; providing guidelines for aesthetic conditions within watersheds; and mitigating impacts to soil, vegetation, or wildlife habitat from surface-disturbing activities. BMPs are selected and implemented as necessary, based on site-specific conditions, to meet a variety of resource objectives for specific management actions. Therefore, this document does not provide an exhaustive list of BMPs, as additional BMPs or modifications may be identified to minimize the potential for negative impacts when evaluating site-specific management actions through an interdisciplinary process.

In addition, implementation and effectiveness of BMPs need to be monitored to determine whether the practices are achieving resource objectives and accomplishing desired goals. Adjustments will be made as necessary.

Each of the following BMPs are a part of the coordinated development of the *TriCounty Resource Management Plans* and may be updated as new information becomes available to ensure objectives are met and to conform to changes in Bureau of Land Management (BLM) regulations, policy, direction, or new scientific information. Applicants also may suggest alternative procedures that could accomplish the same result. These guidelines will apply, where appropriate, to all use authorizations, including BLM-initiated projects. Any BMP listed may be used in any program wherever it may be effective.

# 2 BEST MANAGEMENT PRACTICES

## 2.1 Road Design and Maintenance

A. Design roads to minimize total disturbance, to conform to topography, and to minimize disruption of natural drainage patterns.

B. Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity, overall transportation objectives, and to meet environmental objectives such as minimizing damage to natural surroundings.

C. Locate roads on stable terrain such as ridgetops, natural benches, the flatter transitional slopes near ridges and valley bottoms, and moderate sideslopes. Locate roads away from slumps, slide-prone areas, concave slopes, clay beds, and places where rock layers dip parallel to the slope. Locate roads on well-drained soil types; avoid wet areas.

D. Construct cut-and-fill slopes to be approximately 3(h):1(v) or flatter where feasible. Locate roads to minimize heights of cut banks. Avoid high, steeply sloping cut banks in highly fractured bedrock.

E. Avoid head walls; midslope locations on steep, unstable slopes; fragile soils; seeps; old landslides; sideslopes in excess of 70 percent; and areas where the geologic bedding planes or weathering surfaces are inclined with the slope. Implement extra mitigation measures when these areas cannot be avoided.

F. Construct roads for surface drainage by using outslopes, crowns, grade changes, drain dips, waterbars, and/or insloping to ditches as appropriate.

G. Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads where traffic volume is low and low traffic speeds are

anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation is wanted. Outsloping is not recommended on steep slopes. Sloping the road base to the inside edge is an acceptable practice on roads with steep sideslopes and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.

H. Crowning and ditching are recommended for arterial and collector roads where traffic volume, speed, intensity, and user comfort are considerations. Recommended gradients range from 0 to 15 percent where crowning and ditching may be applied, as long as adequate drainage away from the road surface and ditch lines is maintained.

I. Where possible, reroute or reengineer vehicle routes that divert overland flow and contribute to declines in public land health (watershed and vegetation standards).

J. Minimize excavation when constructing roads through balancing earthwork, narrowing road widths, and end-hauling where sideslopes are between 50 and 70 percent.

K. If possible, construct roads when soils are dry and not frozen. When soils or road surfaces become saturated to a depth of 3 inches, BLM-authorized activities should be limited or cease unless otherwise approved by the Authorized Officer.

L. Consider improving inadequately surfaced roads that are to be left open to public traffic during wet weather by using gravel or pavement to minimize sediment production and maximize safety.

M. Retain vegetation on cut-slopes unless it poses a safety hazard or restricts maintenance activities. Roadside brushing of vegetation should be done in a way that prevents disturbance to root systems and visual intrusions (i.e., avoid using excavators for brushing).

N. Retain adequate vegetation between roads and streams to filter runoff caused by roads.

O. Avoid riparian/wetland areas where feasible; locate in these areas only if the roads do not interfere with the attainment of proper functioning condition and riparian management objectives.

P. Minimize the number of unimproved stream crossings. When a culvert or bridge is not feasible, locate drive-through (low-water crossings) on stable rock in the drainage channel. Harden crossings with rock and gravel if necessary. Use angular rock if available.

Q. Locate roads and limit activities of mechanized equipment within stream channels to minimize their influence on riparian areas. When stream crossing is necessary, design the approach and crossing perpendicular to the channel, where practical. Locate the crossing where the channel is well defined, unobstructed, and straight.

R. Avoid placing fill material in a floodplain unless the material is heavy enough to remain in place during flood events.

S. Use drainage dips instead of culverts on roads where gradients would not present a safety issue. Locate drainage dips in such a way that water will not accumulate or where outside berms will prevent drainage from the roadway. Locate and design drainage dips immediately upgrade of stream crossings and provide buffer areas and catchment basins to prevent sediment from entering the stream.

T. Construct catchment basins, brush windrows, and culverts so as to minimize sediment transport from road surfaces to stream channels. Install culverts in natural drainage channels in a way

that conforms with the natural streambed gradients so the drainage flows to outlets that discharge onto rocky or hardened, protected areas.

U. Design and locate water-crossing structures in natural drainage channels to offer adequate passage for fish, provide for minimum impacts to water quality, and be capable of handling a 100-year event for runoff and floodwaters.

V. Use culverts that will withstand, at a minimum, a 50-year storm event and/or that have a minimum diameter of 24 inches for permanent stream crossings and a minimum diameter of 18 inches for drains that cross roads.

W. Replace undersized culverts and repair or replace damaged culverts and downspouts. Provide energy dissipaters at culvert outlets or drainage dips.

X. Locate culverts or drainage dips to avoid discharging onto unstable terrain such as head walls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Place culverts on solid ground to avoid road failures.

Y. Use properly sized aggregate and riprap during culvert construction. Place riprap at culvert entrance to streamline water flow and reduce erosion.

Z. Establish adapted vegetation on all cut–and-fill slopes immediately following road construction and maintenance.

AA. Remove berms from the downslope side of roads, consistent with safety considerations.

BB. Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close abandoned roads to traffic. Physically obstruct the road with gates, large berms, trenches, logs, stumps, or boulders as necessary to accomplish permanent closure.

CC. Abandon and rehabilitate roads no longer needed. Leave these roads in a condition that provides adequate drainage and remove culverts.

DD. When plowing snow for road use during winter, provide breaks in snow berms to allow for road drainage. Avoid plowing snow into streams. Plow snow only on existing roads.

EE. Perform maintenance to conserve existing surface material; retain the original crowned or outsloped, self-draining cross-section; and prevent or remove rutted berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid casting loose ditch or surface material past the shoulder where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting backslopes.

FF. Do not disturb the toe of cutslopes while pulling ditches or grading roads. Avoid side casting road material into streams.

GG. Grade roads only as necessary. Maintain drain dips, waterbars, road crown, insloping, and outsloping, as appropriate, during road maintenance.

HH. Maintain roads in special management areas according to special management area guidance. Generally, retain roads within existing disturbed areas and side cast material away from the special management area.

II. When landslides occur, save all soil and material usable for reclamation and stockpile it for future reclamation needs. Avoid side casting slide material where it can damage, overload, or saturate embankments or flow into downslope drainage courses. Reestablish vegetation as needed in areas where it has been destroyed due to side casting.

JJ. Strip and stockpile topsoil before construction of new roads, if feasible. Reapply soil to cut-and-fill slopes prior to revegetation.

## 2.2 Surface-Disturbing Activities

A. Require special design and reclamation measures, as appropriate, to protect scenic and natural landscape values. This may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, removing surfacing material, imprinting, irrigating, using low-profile permanent facilities, and painting to minimize visual contrasts. Surface-disturbing activities may be moved to avoid sensitive areas or to reduce the visual effects of the proposal.

B. Design aboveground facilities that requiring painting to blend in with the surrounding environment.

C. Restrict surface disturbances in areas that have special topographic (steep or broken terrain and/or benches) and soil concerns in order to reduce impacts caused by soil erosion and habitat disturbance. Development in these areas will be considered on a case-by-case basis and will contain site-specific mitigation designed to prevent increased sediment from being transported into drainages and to prevent fragmentation of areas determined to provide important wildlife habitat.

D. Minimize the off-road impact of large vehicles in areas that allow for off-road travel. Use wide, flat-tread, balloon tires (especially on seismic thumper trucks) where possible. Use all-terrain vehicles rather than large vehicles where possible.

E. Excavate topsoil and subsoil only where it is absolutely necessary. Consider brush-beating, mowing, and/or parking on vegetation for surface disturbing activities.

F. Contour disturbed areas to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with surface disturbance. Disturbances should be contoured to match the original topography, where matching is defined as reproducing the original topography and eliminating the form, line, and color caused by the disturbance as much as possible.

G. Implement interim reclamation concurrent with construction and site operations to the extent possible. Initiate final reclamation actions within six months of the termination of operations unless otherwise approved in writing by the Authorized Officer.

H. Push the fill material into cut areas and over backslopes. Do not leave depressions that could trap water or form ponds unless the authorized officer has determined that dips or depressions may be used to assist reclamation and seed propagation efforts.

I. Make certain that reclaimed soil is free of contaminants and has adequate depth, texture, and structure for successful reclamation of vegetation. Vegetation reclamation will be considered successful when healthy, mature perennials are established with a composition and density that closely approximates the surrounding vegetation, as prescribed by the BLM, and the reclamation area is free of noxious weeds.

J. Construct a BLM-standard barbed-wire fence if necessary to exclude livestock for a minimum of at least two successful growing seasons after reclamation.

K. Include a restoration plan for habitat of special status species when the BLM determines it is appropriate. Develop the restoration plan, in consultation with BLM, for BLM approval.

L. Require additional reclamation measures, if needed, based on the conditions existing at the time of abandonment.

M. Carefully handle and dispose of oil and fuel from equipment and vehicles to prevent contamination of soil or water.

N. Develop a spill contingency plan that identifies all actions to be taken in the event of a chemical spill, including phone numbers for Federal, State, and local agencies that must be notified.

O. Time activities to avoid wet periods or unpleasant weather condition.

## 2.3 Oil and Gas Activities

A. Consider creating field development plans to minimize unnecessary disturbance. (Such plans are encouraged.) Address sensitive area avoidance or mitigation; potential road, utility, and well locations; road classes; and plans for interim and final reclamation in any field development plans.

B. Consider dual completing, recompleting, or commingling (both downhole and at the surface) the drilling of multiple wells from a single location and centralizing tank batteries to reduce the number of new well pads and consequent surface disturbance. These actions will reduce impacts to soil and vegetation, reduce air impacts caused by dust, reduce habitat fragmentation, and offer less opportunity for the spread of noxious weeds. Such actions are encouraged.

C. Consider unitizing in areas of dense development to increase management efficiency and facilitate operations in sensitive areas. Unitization is the process by which multiple lease holders in a geographic area share facilities so as to reduce surface disturbance caused by duplicate facilities such as pipelines and compressor stations. Unitization by operators is encouraged.

D. Reduce the size of the well pad whenever possible without compromising safety.

E. Perform remote monitoring of wells and related production equipment to reduce wildlife disturbance and road deterioration. This action is encouraged.

F. Design pipelines associated with oil and gas activities to follow existing roads and rights-of-way corridors, where possible, to minimize surface disturbance.

G. Bury pipelines associated with oil and gas exploration, development, production, and transportation when possible. (Pipeline burial is preferred.) Pipelines greater than 4 inches in nominal diameter, all injection lines, and gas lines with a pressure greater than 125 pounds per square inch must be buried and constructed of steel. The use of plastic pipe will be approved by the Authorized Officer on a case-by-case basis. A waiver of the requirement to bury pipelines will be considered in the following situations:

   1) When surface installation of plastic pipelines will be temporary (one year or less), taking into consideration the length of the pipeline, its proposed location, the potential hazards present, the characteristics of the pipe regarding deterioration, the American Society for Testing and Materials or similar specifications for the pipe, the intended use of the pipeline, and other appropriate factors.

   2) Where rock outcrops at the surface make the burial of pipeline impractical, such as when unreasonable and unreclaimable surface disturbance would result. Where the pipeline is

exposed, painting may be required in accordance with the painting policy for visual resource management areas and Notice to Lessees 87-1, New Mexico. Waiver of the requirement for painting will be considered on a case-by-case basis.

3) Where the surface ownership along the pipeline route is mixed, and the majority of surface ownership is not public. In those cases, the installation of pipelines on public land will conform to the practice to be employed on the remainder of the pipeline, unless special resource management concerns dictate strict adherence to this policy.

H. Minimize noise in sensitive wildlife habitats. Consider using noise reduction mufflers, earthen berms, walls, sheds, and/or distance to reduce sound levels.

I. Cover and fence all production-related pits and tanks, regardless of size, to exclude wildlife. Fencing shall be in accordance with BLM specifications. Netting shall be placed over all open production pits to eliminate any hazard to migratory birds or other wildlife. Netting is also required over reserve pits which have been identified as containing oil or hazardous substances (CERCLA Section 101(14)) as determined by visual observation or testing. The mesh diameter shall be no larger than one inch. Cover vent pipes to prevent bats or small birds from being trapped.

### 2.3.1 Preliminary Evaluations

A. Activities occurring during preliminary evaluations may include remote sensing; mapping of rock outcrops and seeps (either of which result in little or no surface disturbance); and seismic, gravity, and magnetic surveys.

B. A lease is not required to conduct such preliminary evaluations. However, the geophysical operator is required to file a completed Form 3150-4, "Notice of Intent to Conduct Oil and Gas Exploration Operations," for all operations on public lands.

C. In general, the BLM requires an examination of resource values and development of appropriate surface protection and reclamation measures before the geophysical contractor begins surface-disturbing activities associated with preliminary evaluations. BLM will solicit involvement from public land users (e.g., grazing allottees) to develop site-specific protection measures and reclamation specifications. Compliance monitoring should occur during and after seismic exploration activities when or if necessary. Compliance inspections during the operation would ensure that requirements and guidelines are being followed. Compliance inspections upon completion of work would ensure that the lines are clean and drill holes are plugged properly.

D. The frequency of authorized seismic exploration will be dependent upon resource conditions and seasonal restrictions (timing limitations) that may be imposed to reduce conflicts with watershed conditions, wildlife, and hunting. Management practices specific to wildlife and vegetation resources include the following:

1) Prior to surveying/flagging routes for geophysical surveys or other preliminary activities, the project area shall be surveyed for raptor nests. Surveys will be conducted by professional biologists approved by the Authorized Officer. The Universal Transmercator grid locations of all raptor nests will be reported to the Authorized Officer. All raptor nests will be avoided by the required distances described under the Wildlife and Riparian Habitat section (See pages A-14 to A-15). A "raptor nest" is defined as any raptor or corvid nest.

2) In areas that constitute occupied or potential aplomado falcon habitat, a protocol survey for this species will be conducted along with the general raptor nest survey described above, prior to surveying/flagging lines.

3) During operations at any time, large trees or shrubs (greater than 6 feet in height) containing or capable of containing a raptor nest will be avoided by vehicular traffic or other activities likely to destroy them.

4) In areas that allow for off-road travel, minimize the off-road impact of large vehicles. Use wide, flat-tread, balloon tires (especially on seismic thumper trucks) where possible. Use all-terrain vehicles rather than large vehicles where possible.

5) Occupied habitat for special status species will be avoided in a manner similar to surface use requirements (avoid occupied habitat up to 0.5 mile) unless impacts are mitigated adequately.

## 2.4 Renewable Energy

All renewable wind energy projects will be subject to the policies and BMPs identified in the *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States* (BLM 2005c). BMPs are identified in Section 2.2.3.2 of that document, which can be viewed online at http://www.windeis.anl.gov/.

## 2.5 Rights-of-Way and Utility Corridors

A. Use areas adjoining or adjacent to previously disturbed areas for rights-of-way and utility corridors whenever possible rather than traverse undisturbed vegetation communities.

B. Construct water bars or dikes on all rights-of-way and utility corridors and across the full width of the disturbed area, as directed by the Authorized Officer.

C. Stabilize disturbed areas within road rights-of-way and utility corridors by implementing vegetation practices designed to hold soil in place and minimize erosion.

D. Construct sediment barriers when needed to slow runoff, allow deposition of sediment, and prevent transport from the site. Employ straining or filtration mechanisms as needed for the removal of sediment from runoff.

## 2.6 Fire Suppression

A. Minimize surface disturbances and avoid the use of heavy earth-moving equipment where possible, on all fire suppression and rehabilitation activities, including mop-up, except where high value resources (including lives and property), are being protected.

B. Install water bars and seed all constructed fire lines with native or adapted nonnative species as appropriate and in accordance with the BLM's *Emergency Fire Rehabilitation Handbook* (BLM 1999).

C. Avoid dropping fire retardant that is detrimental to aquatic communities on streams, lakes, ponds and in riparian/wetland areas.

D. Locate and construct hand lines to result in minimal surface disturbance while effectively controlling the fire. Hand crews should locate lines to take full advantage of existing land

features that represent natural fire barriers. Whenever possible, hand lines should follow the contour of the slope to protect the soil, provide sufficient residual vegetation to capture and retain sediment, and maintain site productivity.

E. Suppress fire in riparian areas by using hand crews whenever possible.

## 2.7 Prescribed Burning

A. Protect soil productivity by using a low-intensity burn, if possible, to accomplish stated objectives. Burn only when the organic surface or duff layer has adequate moisture to minimize effects on the physical and chemical properties of the soil. When possible, maximize the retention of the organic surface or duff layer.

B. Do not pile or burn slash within riparian/wetland areas. If riparian/wetland areas are within or adjacent to the prescribed burn unit, piles should be fire lined or scattered prior to burning.

C. Avoid piling concentrations of large logs and stumps when preparing the unit for burning; pile small material (3 to 8 inches in diameter) instead. Burn slash piles when soil and duff moisture are adequate to reduce potential damage to soil resources.

D. All fire management activities will be subject to the BMPs identified in the *Decision Record and Resource Management Plan Amendment for Fire and Fuels Management on Public Land in New Mexico and Texas* (BLM 2004c) and the *New Mexico Wildland Fire Management Joint Powers Master Agreement*. BMPs are identified in these documents, which can be viewed online at http://www.nm.blm.gov.

## 2.8 Livestock Grazing Management

A. All rangeland projects and vegetation land treatments will meet current BLM policy and objectives of the *TriCounty Resource Management Plans.* This includes the BMPs for Surface Disturbing Activities and Invasive/Noxious Weed Management. Other BMPs may be required depending on the rangeland improvement project.

B. Rangeland improvements projects and vegetation treatments are constructed as a portion of adaptive management to reduce resource conflicts and to achieve multiple-use objectives. They have been standardized over time to mitigate impacts and will be adhered to in the construction and maintenance of rangeland projects within the Planning Area. Rangeland improvements are structures, facilities, and practices intended to improve or facilitate grazing management and improve resources.

C. Grazing management practices are developed through consultation on allotment-specific objectives and progress toward multiple-use objectives and sustainability of resources. Grazing management practices may include herding, grazing, and deferment periods; use of supplements; change of class of livestock; and increase or decrease of livestock numbers.

## 2.9 Mining

A. Reclaim all disturbed surface areas promptly, performing concurrent reclamation as necessary, and minimize the total amount of all surface disturbance.

B. Strip all surface soil prior to conducting operations and stockpile and reapply it during reclamation, regardless of soil quality. Minimize the length of time soil remains in stockpiles

and the depth or thickness of stockpiles. When slopes on topsoil stockpiles exceed 5 percent, a berm or trench should be constructed below the stockpile to prevent sediment transport offsite.

C. Strip and separate soil surface horizons where feasible and reapply in proper sequence during reclamation.

D. Locate soil stockpiles and waste-rock disposal areas away from surface water to minimize off-site drainage effects.

E. Establish vegetation cover on soil stockpiles that are to be in place longer than one year.

F. Construct and rehabilitate temporary roads to minimize total surface disturbance, consistent with intended use.

G. Consider temporary measures such as silt fences, straw bales, or mulching to trap sediment in sensitive areas until reclaimed areas are stabilized with vegetation.

H. Reshape to the approximate original contour all areas to be permanently reclaimed, providing for proper surface drainage.

I. Leave reclaimed surfaces in a roughened condition following soil application.

J. Reclamation should be based on types of seed used and predicted weather patterns. Warm-season species seedings are best completed during June. Cool season species should be planted in the fall.

## 2.10 Invasive/Noxious Weed Management

A. Inspect and clean all surface-disturbing equipment prior to its coming onto public lands. This is especially important on vehicles from out of state or coming from a weed-infested area.

B. Make sure the source of fill dirt or gravel brought onto public land is free of noxious weeds.

C. Monitor construction sites for the life of the project for the presence of invasive/noxious weeds (including maintenance and construction activities). If weeds are found, the BLM Socorro Field Office will be notified and will determine the best method for the control of the particular weed species.

D. Certify all seed as noxious-weed free. Areas will be monitored to determine the success of revegetation and the presence of invasive/noxious weeds and will be reseeded if necessary.

E. Consider livestock quarantine, removal, or timing limitations in areas infested with invasive/noxious weeds.

F. Certify all seed, hay, straw, mulch, or other vegetation material transported and used on public land for site stability, rehabilitation, or project facilitation as free of all reproductive parts of noxious weeds upon the passage of a weed-free law by the State of New Mexico. All baled feed, pelletized feed, and grain used to feed livestock also shall be certified as free of the seeds of noxious weeds.

G. Consider having all vehicles that travel in or out of weed-infested areas clean their equipment before and after use on public land, including off-road and all-terrain vehicles. (This precaution is recommended.)

## 2.11 Developed Recreation

A. Construct recreation sites and provide appropriate sanitation facilities to minimize impacts on resource values and on public health and safety and to minimize user conflicts concerning approved activities and access within an area, as appropriate.

B. Minimize impacts on resource values or enhance the recreational setting and recreation experience. Harden sites and locations subject to prolonged/repetitive, concentrated recreational uses with selective placement of gravel or other porous materials and allow for dust abatement, paving, and engineered road construction.

C. Use public education and/or physical barriers (such as rocks, posts, vegetation) to direct or preclude uses and to minimize impacts on resource values and the quality of recreation experience.

D. Limit specific activities, as appropriate, to avoid or correct adverse impacts on resource values and public safety and/or preclude conflicts between recreational uses.

E. Employ land use ethics programs and techniques such as "Leave No Trace" and "Tread Lightly" programs. Use outreach efforts of such programs to lessen needs to implement more stringent regulatory measures to obtain resource protection and a quality recreation experience.

## 2.12 Wildlife and Riparian Habitat

A. Before a surface-disturbing activity begins, the project area will be surveyed for raptor nests or active prairie dog towns. Surveys will be conducted by professional biologists approved by the Authorized Officer. All raptor nests and active prairie dog towns will be avoided by the following distances and seasonal periods:

1) Eagle – 0.5 mile, February 1-July 15
2) Prairie falcon – 0.5 mile, March 1-August 1
3) Ferruginous hawk – 0.5 mile, February 1-July 15
4) Aplomado falcon – 0.5 mile, January 1-July 31
5) Gunnison prairie dog – 0.25 mile, February 15-June 15
6) Black-tailed prairie dog – 0.25 mile, January 1-June 15
7) All other raptor species – 0.25 mile, during observed nest establishment through fledging

B. Require site specific mitigation to avoid disturbance within a half mile of occupied special status species habitat.

C. Make all livestock waters on public land available to wildlife yearlong, so long as this meets grazing rotation objectives and there is no danger of damage to facilities from freezing.

D. Situations where the rotation of livestock is achieved through turning off of water sources, a fence will be constructed around the watering facility to allow for opening/closing of a gate to facilitate movement of livestock. This will allow wildlife yearlong access to the watering facility. If freezing of the pipeline/trough system is a concern, fill up trough once a month during winter period to allow wildlife continued access to a water source. All watering facilities on public land will be fitted with an escape ramp to keep small mammals and birds from becoming trapped.

E. Avoid constructing new roads within critical wildlife habitats. Permanent or seasonal closures may be instituted where problems exist or are expected. Where major road projects are proposed in wildlife corridors, use fencing and wildlife passes to mitigate wildlife impacts.

F. Manage wildlife habitat on lands identified for disposal as a low priority, unless site specific analysis determines that changes in the existing situation have resulted in higher resource values warranting retention of these lands to protect fish and wildlife habitat values consistent with existing laws, regulations, and policies. Conduct a site specific assessment of environmental impacts before disposal of any public land.

G. Manage upland habitats, including grasslands, shrub steppe, forest, and woodlands, so that the forage, water, cover, structure, and security necessary for wildlife are available on public land. Manage vegetative communities for the desired plant community based on the ecological site potential.

H. Manage livestock to maintain forage that would support wildlife population levels identified by the New Mexico Department of Game and Fish (NMDGF).

I. Construct protective exclosures/fences around riparian areas, wildlife watering facilities, and other areas of resource concern.

J. Long-term land use activities will not be allowed within the species-specific buffer zones surrounding the active raptor nests or occupied prairie dog towns of the identified species. Short-term activities will be avoided within the species-specific buffer zones during the listed dates. Short-term activities will be limited to the buffer zone outside the boundary of an occupied prairie dog town and will not occur within the occupied town. All raptor nests, including those of nonlisted species, will be avoided within the buffer zone during the specified periods only, regardless of the duration of the activity. Before land use activities can commence, a raptor and prairie dog survey must be completed.

K. A short–term activity is defined as an activity that would begin outside a given breeding season and end prior to initiation of a given breeding season. A long-term activity is defined as an activity that would continue into or beyond a given nesting/breeding season. An active nest is defined as any nest that has been occupied in the last seven years. A nest will be determined active or inactive by the Authorized Officer. Surveys will be conducted by professional biologists approved by the Authorized Officer.

L. Ensure that all fences are constructed to BLM fence specifications to mitigate impacts on wildlife.

M. Ensure that wildlife escape ramps are installed and maintained on all applicable water development projects on public lands (see the BLM *Water Developments Handbook* dated November 6, 1990 and IM #2004-156).

N. Construct all new water improvements so they are located a minimum of 30 meters away from fences or other structures likely to pose a collision threat to bats.

O. Do not allow surface disturbance within 0.5 mile of the outer edge of 100-year floodplains, playas, all artificial water developments (tanks, guzzlers, etc.), and riparian habitats (seeps, arroyos, etc.). Exceptions to this requirement will be considered on a case-by case basis.

P. Avoided adverse impacts on the landscape by minimizing or excluding certain surface-disturbing activities that may degrade the objectives or intent of the project in areas where habitat and/or rangeland enhancement projects have been implemented, with the exception of

large landscape projects (prescribed burns, chemical treatments, and mechanical treatments). Exceptions to this requirement will be considered on a case-by-case basis.

Q. Achieve habitat enhancement by limiting and/or mitigating existing and proposed commodity uses and by proactive habitat management practices including, but not limited to, fire management; water development; chemical, mechanical, or biological brush control; and fence modifications.

R. Avoid all surface-disturbing activities, permanent or temporary, during the appropriate time periods in crucial calving, lambing, kidding, and fawning areas and wintering ranges.

S. Survey the area for the presence of raptor nests prior to initiating geophysical or other preliminary surveys during the raptor breeding season.

T. Follow these measures when siting facilities:

1) In areas that constitute occupied or potential aplomado falcon habitat, a protocol survey for this species will be conducted along with the above general raptor nest survey prior to surveying/flagging locations.

2) During operations at any time, all habitat features (pinnacles, cliffs, ledges, caves, and trees and shrubs greater than 6 feet high) containing or capable of containing raptor nests or bat habitat will be avoided by vehicular traffic or other surface-disturbing activities likely to remove or destroy them, unless approved by the BLM Authorized Officer.

3) Tree and vegetation clearing will be limited to the minimum area required.

4) Construction activities will be timed to avoid wet periods.

5) Power lines will be constructed to standards outlined in the most recent version of *Suggested Practices for Raptor Protection on Power Lines* published by the Edison Electric Institute/Raptor Research Foundation, unless otherwise agreed to by the Authorized Officer. The holder is responsible for demonstrating that power pole designs not meeting these standards are raptor safe. Such proof will be provided by a raptor expert approved by the Authorized Officer. BLM reserves the right to require modifications or additions to power line structures constructed under this authorization, should they be necessary to ensure the safety of large perching birds. The modifications and/or additions will be made by the holder without liability or expense to the United States.

6) All equipment installed on Federal lands will be constructed to prevent birds and bats from entering them and, to the extent practical, to discourage perching and nesting.

7) Open-top tanks, reserve pits, disposal pits, or other open pits will be required to be equipped to deter entry by birds, bats, or other wildlife.

U. Give suppression of wildfire in riparian habitats a high priority unless fire is a natural part of the ecosystem. Riparian areas that have burned will be rehabilitated as necessary through protection, reseeding, or planting.

V. Design and establish grazing management practices to meet riparian and other water quality needs in the development of new allotment management plans and in the revision of existing allotment management plans. In instances where the management systems alone cannot meet objectives, provisions for fencing or other means of exclusion will be used. No livestock-related activities such as salting, feeding, construction of holding facilities, or stock driveways will be allowed within riparian zones unless specifically authorized.

W. Avoid construction activities that remove or destroy riparian vegetation.

X. Design minerals management actions and special stipulations or conditions to be compatible with riparian habitat management goals. Riparian buffer zones will be identified and provided for in the exploration and development of mineral resources.

Y. Herbicide treatment in riparian areas and along stream courses should be used as a last resort for vegetative restoration. When treating aquatic vegetation, follow conservation measures and BMPs presented in *Vegetation Treatments Using Herbicides on BLM Lands in in 17 Western States PEIS, ROD* (2007). BMPs in this PEIS include: (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.

Z. Design all new spring developments to protect riparian areas and modify selected existing spring developments for the same reason. Where possible, and if the need exists for wildlife, parts of reservoirs will be fenced or water for livestock will be provided away from the reservoirs in consultation with the permittee. Wildlife habitat needs will be considered when reservoir site determinations are made.

AA. Continue coordinate riparian and arroyo habitat management with other programs and activities throughout the Mimbres Resource Area, as needed. Specific programs include Range, Wildlife, Watershed, Recreation, and Lands. Riparian and arroyo habitat values will be addressed in all surface- and vegetation-disturbing actions. Stream and riparian areas will have a higher priority for funding, management, and protection than arroyo habitats.

## 2.13 VISUAL RESOURCES MANAGEMENT

BMPs to address visual resource concerns have been incorporated into the preceding resource discussions, as appropriate. To the extent practicable, existing facilities or substantial existing visual contrasts would be brought into visual resource management class conformance as the need or opportunity arises. Additional BMPs dealing with visual resource management considerations in oil and gas development can be found on the BLM Web site at www.blm.gov/bmp/. BMPs dealing with visual resource management considerations in general are available at www.blm.gov/nstc/VRM/destech.

# APPENDIX E

## GRAZING ALLOTMENT SUMMARY

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# GRAZING ALLOTMENT SUMMARY

In the 1980s, the Bureau of Land Management developed classification criteria to assist field offices in identifying management priorities by allotment. This prioritization process will continue to be used when management efforts are required outside priority watersheds and when necessary as a secondary method to prioritize management efforts within priority watersheds.

Allotments are placed in one of three categories—Maintain, Improve, or Custodial—based on certain criteria, as follows:

**Maintain (M) Category**

- Present range condition is satisfactory
- Allotments have moderate to high resource production potential and are producing near their potential (or trend is moving in that direction)
- No serious resource-use conflicts and/or controversies exist
- Opportunities may exist for positive economic return from public investment
- Present management appears satisfactory
- Other local criteria

**Improve (I) Category**

- Present range condition is unsatisfactory
- Allotments have a moderate or high resource production potential and are producing at low to moderate levels
- Serious resource-use conflicts and/or controversies exist
- Opportunities exist for positive economic return for public investment
- Present management appears unsatisfactory
- Other local criteria

**Custodial (C) Category**

- Present range condition is not a factor
- Allotments have a low resource production potential and are producing at low to moderate levels
- Limited resource-use conflicts and/or controversies may exist
- Opportunities for positive economic return on public investments do not exist or are constrained by technological or economic factors
- Opportunities exist to achieve the allotments' potential through changes in management
- Other local criteria

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| **SIERRA COUNTY** | | | | | |
| 03059 | BECK LAND & CATTLE C | 2,370 | 420 | M | |
| 03060 | CHINA DRAW | 40 | 12 | M | |
| 03065 | V O BAR RANCH | 29,78 | 3168 | I | |
| 03097 | BECK LEASE | 2,088 | 504 | M | |
| *03098 | CHINA DRAW LEASE | 1,401 | 384 | M | |
| 06000 | BERRENDA CREEK ALLOT | 19,180 | 1822 | I | AMP Implemented |
| 06001 | CROCKETT RANCH | 4,335 | 600 | M | |
| 06002 | ALAMOSA | 9,068 | 885 | I | |
| *06003 | YESO ARROYO | 2,718 | 228 | C | |
| 06020 | BAR CROSS RANCH, INC | 37,581 | 4683 | I | AMP Implemented |
| 06029 | RAMOS HILLS | 310 | 36 | M | |
| 06030 | LOS ALAMITOS | 1,120 | 144 | M | |
| 06031 | LC RANCH LEASE | 550 | 144 | M | |
| 06041 | A SPEAR RANCH | 14,519 | 1713 | I | |
| 06042 | LOST CANYON | 3,580 | 216 | I | |
| 06043 | NUTT MOUNTAIN | 7,100 | 1644 | M | |
| 06061 | WITCH WELL | 2,399 | 408 | M | |
| 06080 | FLYING X RANCH | 28,000 | 3012 | I | AMP Implemented and CRMP Implemented |
| 06083 | W.W. RANCH | 15,876 | 2220 | I | AMP Implemented |
| 06110 | GREEN CANYON | 19,392 | 1524 | I | AMP Implemented |
| 06120 | TWIN PEAKS | 80 | 12 | M | |
| 06122 | NUTT MTN | 80 | 24 | M | |
| 06123 | DECKER DRAW LEASE | 692 | 180 | M | |
| *06124 | COYOTE MOUNTAIN LS | 370 | 72 | M | |
| 06126 | SULLIVAN CANYON LS | 120 | 12 | M | |
| 06127 | MADERA CANYON | 510 | 108 | M | |
| 06128 | SHERMAN MTN | 2,835 | 720 | M | |
| 06129 | CHIZ RANCH | 1,142 | 372 | M | |
| 06130 | SIBLEY GAP LEASE | 1,230 | 204 | M | |
| 06131 | OAK SPRING LEASE | 1,079 | 216 | M | |
| 06132 | BERRENDA CREEK LEASE | 425 | 120 | I | |
| 06133 | SOUTH FORK | 154 | 36 | M | |
| 06134 | LAKE VALLEY | 1,591 | 312 | M | |
| 06135 | DOUBLE ARROW RANCH LS | 923 | 240 | I | |
| 06136 | WHITEROCK MTN LEASE | 5,015 | 1524 | M | |
| 06137 | W SAN MIGUEL RANCH | 80 | 12 | M | |
| *06138 | 74 RANCH LEASE | 440 | 84 | M | AMP Implemented |
| 06140 | LARA RANCH | 2,433 | 297 | C | |
| 06141 | YAPLE CANYON | 7,672 | 444 | M | AMP Implemented |
| 06143 | WARM SPRINGS RANCH | 151 | 36 | M | |
| 06144 | WEST WELL LEASE | 180 | 24 | M | |
| 06145 | CUTTER | 39,970 | 4269 | I | AMP Implemented |
| 06147 | JORNADA LAKES | 3,926 | 552 | I | |
| 06148 | COYOTE RANCH | 2,280 | 288 | M | |
| 06149 | PUTNAM DRAW | 11,620 | 1392 | I | AMP Implemented |
| 16004 | TIERRA BLANCA CREEK | 9,185 | 1260 | I | AMP Written |
| 16005 | TIERRA BLANCA CREEK LSE | 160 | 36 | I | |
| 16006 | APODACA ALLOT | 2,500 | 192 | M | |
| 16011 | LITTLE PLACE | 110 | 36 | M | |
| 16012 | CANADA DE LA CRUZ | 2,231 | 252 | I | |
| 16013 | MACHO CREEK LEASE | 120 | 24 | M | |
| 16015 | YELLOW MOUNTAIN | 75 | 12 | M | |
| 16017 | BUCKHORN RANCH | 33,633 | 4538 | I | AMP Implemented |

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| 16018 | APACHE GAP | 26,212 | 2460 | I | AMP Implemented and CRMP Implemented |
| 16019 | W SPEAR BAR | 26,280 | 1800 | I | AMP Implemented |
| 16020 | MONUMENT CREEK | 1,778 | 264 | M | |
| 16021 | ENGLE RANCH | 36211 | 2862 | I | AMP Implemented |
| 16022 | LEWIS CAIN RANCH | 46,831 | 5532 | I | AMP Implemented |
| 16023 | APACHE CANYON | 12,135 | 1068 | I | AMP Implemented |
| 16024 | SALADO SPRING RANCH | 2,300 | 216 | I | |
| 16025 | CANALEJAS CANYON | 430 | 36 | C | |
| 16026 | ANIMAS CREEK | 2,520 | 312 | I | |
| 16032 | YELLOW MTN. LEASE | 120 | 12 | M | |
| 16033 | TURKEY CREEK | 2,843 | 745 | M | |
| 16034 | CUCHILLO NEGRO | 575 | 120 | M | |
| 16037 | PITCHFORK RANCH | 2,648 | 540 | I | |
| 16038 | NORDSTROM ARROYO | 240 | 12 | C | |
| 16039 | RHODES CANYON RANCH | 2,005 | 348 | M | |
| 16040 | LADDER RANCH | 4,552 | 852 | M | |
| 16044 | L7 RANCH | 1,160 | 216 | M | |
| 16045 | JARALOSA ARROYO | 2,830 | 216 | C | |
| 16046 | CUERVO ARROYO | 5,599 | 405 | C | |
| 16047 | SECO CREEK | 1,920 | 216 | M | |
| 16048 | LOWER CABALLO | 7,596 | 948 | I | AMP Implemented |
| 16049 | LONGBOTTOM CANYON | 14,853 | 2105 | I | |
| 16050 | SOUTH KELLY CANYON | 9,595 | 984 | M | |
| 16051 | RAMOS CANYON | 30 | 12 | M | |
| 16053 | FLAT LAKE | 81,005 | 6372 | I | |
| 16054 | MITCHELL CANYON | 1,600 | 108 | I | |
| 16055 | PRIEST TANK | 2,640 | 228 | M | |
| 16056 | MCCLENAN RANCH | 21,870 | 2520 | I | |
| *16057 | BLUE CANYON | 20,111 | 2328 | M | |
| 16063 | TRUJILLO CANYON | 3,410 | 372 | I | AMP Implemented |
| 16064 | KELLY CANYON | 8,119 | 1260 | I | AMP Implemented |
| 16065 | W SAN MIGUEL RANCH | 4,355 | 420 | M | |
| 16066 | RACETRACK RANCH | 3,117 | 252 | M | |
| 16067 | MESCAL SPRING RANCH | 21,756 | 2664 | I | AMP Implemented |
| 16068 | CALHOUN COMMUNITY | 5,515 | 828 | M | |
| 16070 | INTERSTATE RANCH | 940 | 72 | C | |
| 16071 | ESCONDIDO RANCH | 280 | 19 | C | |
| 16072 | DOUBLE ARROW RANCH | 5,914 | 1284 | I | AMP Implemented |
| 16073 | QUESTA BLANCA | 420 | 60 | M | |
| 16075 | WILLOW SPRING DRAW | 4,465 | 444 | M | |
| 16076 | QUARTZITE RIDGE | 560 | 156 | M | |
| 16077 | PALO SECO | 1,035 | 96 | M | |
| 16078 | CHIZ RANCH | 483 | 144 | M | |
| 16079 | COPPER FLAT RANCH | 7,190 | 923 | I | |
| 16081 | MUD SPRINGS | 6,060 | 590 | M | |
| 16082 | DOUBLE S | 4,310 | 1195 | M | |
| 16085 | PERCHA CREEK | 7,210 | 864 | I | |
| 16086 | WICKS GULCH | 1,040 | 144 | M | |
| 16087 | BERRENDA RANCH | 2,790 | 660 | M | |
| 16088 | PERCHA DAM | 111 | 36 | C | |
| 16089 | PALOMAS GAP RANCH | 7,936 | 912 | I | AMP Implemented |
| 16090 | SHERMAN MTN | 2,825 | 624 | M | |
| 16091 | CANYON DE LA PLATA | 13,428 | 924 | I | AMP Implemented |
| 16093 | MADERA CANYON | 1,580 | 276 | M | |
| 16094 | ROGUE RAMOS CANYON | 2,499 | 335 | I | |

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| 16095 | MONTICELLO CANYON | 660 | 81 | M | |
| 16096 | QUESTA BLANCA CANYON | 1,970 | 216 | M | |
| 16097 | CARRIZO PEAK | 470 | 97 | M | |
| 16098 | 44 BAR RANCH | 2,370 | 360 | M | |
| 16099 | CUCHILLO CREEK | 560 | 53 | C | |
| 16100 | NEGRO CREEK | 198 | 24 | C | |
| 16102 | BERNAL CHAVEZ CANYON | 3,015 | 432 | M | |
| 16103 | SALT SPRINGS | 1,720 | 120 | M | |
| 16106 | WILLOW RANCH | 630 | 102 | M | |
| 16108 | CUCHILLO MESA RANCH | 4,927 | 510 | I | AMP Implemented |
| 16109 | CHIVO RANCH | 1910 | 144 | M | |
| 16111 | SIBLEY CANYON | 970 | 108 | C | |
| 16112 | LIBBY SPRING | 160 | 24 | C | |
| 16113 | CRISPY TANK ALLOTMENT | 6,613 | 912 | I | |
| 16114 | ARMENDARIS RANCH | 4,140 | 499 | I | |
| 16115 | TURKEY CREEK LS | 591 | 120 | M | |
| 16116 | CUCHILLO NEGRO LS | 310 | 60 | M | |
| 16117 | LADDER RANCH LEASE | 6,928 | 1440 | M | |
| 16119 | CHLORIDE CREEK LEASE | 40 | 12 | M | |
| 16121 | MACHO SPRING LEASE | 125 | 36 | M | |
| 16122 | LAS PALOMAS CREEK | 40 | 12 | C | |
| 16123 | MONUMENT SPRING LS | 40 | 12 | M | |
| 16125 | LOWER MONTICELLO CANYON | 2,750 | 156 | I | |
| 22568 | JARALOSA CREEK LS | 792 | 228 | I | |
| 22569 | MONTOYA ARROGO | 8,873 | 722 | I | |
| 22570 | JARALOSA CREEK | 2,229 | 300 | I | |
| 22690 | QUARTZITE RIDGE LS | 188 | 60 | M | |
| **OTERO COUNTY** | | | | | |
| 07001 | HIC RANCH LEASE | 811 | 96 | M | |
| 07003 | COYOTE CANYON | 2,602 | 336 | M | |
| 07005 | UPPER LABORCITA | 965 | 120 | M | |
| 07012 | REAGAN DRAW | 2,446 | 455 | I | |
| 07013 | APACHE | 5,684 | 1139 | I | |
| 07014 | MALONE DRAW | 6,688 | 779 | I | |
| 07016 | LA LUZ CANYON | 480 | 26 | M | |
| 07017 | WHITE SANDS LEASE | 3,531 | 168 | C | |
| 07018 | FLETCHER SPRING | 570 | 48 | M | |
| 07019 | ALLEN DRAW LEASE | 440 | 35 | C | |
| 07020 | TULAROSA CREEK LEASE | 120 | 24 | C | |
| 07022 | SALADO CREEK | 4,926 | 312 | I | AMP Implemented |
| 07028 | SACRAMENTO LEASE | 991 | 108 | C | |
| 07029 | MULE CANYON LEASE | 200 | 24 | C | |
| 07030 | DOMINGO SPRINGS RNCH | 5,568 | 525 | I | AMP Implemented |
| 07031 | LABORCITA ALLOTMENT | 4,356 | 509 | I | |
| 07033 | SUNSHINE RANCH | 1,115 | 217 | M | |
| 07034 | ESCONDIDO WELL | 25,371 | 2359 | I | AMP Implemented |
| 07035 | LONE BUTTE LEASE | 40 | 12 | M | |
| 07037 | OROGRANDE RANCH | 42,457 | 2748 | I | |
| 07039 | LONE BUTTE | 19,048 | 2616 | I | AMP Implemented |
| 07044 | BENT | 50 | 12 | I | |
| 07049 | CRAWFORD DRAW | 480 | 12 | C | |
| 07050 | BLACK LEDGE | 16,002 | 1747 | M | |
| 07051 | WHITE SANDS RANCH | 16,559 | 1927 | M | |
| 07053 | UTTER ESTATE | 4,470 | 324 | C | |
| 07054 | BEEMAN CANYON LEASE | 600 | 64 | M | |
| 07055 | QUATRO AMIGOS | 9,643 | 1005 | C | |

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| 07056 | NOGAL CANYON | 685 | 60 | M | |
| 07057 | MESQUITE SPRING | 240 | 60 | M | |
| 07063 | SAN ANDRES CANYON LS | 2,160 | 108 | C | |
| 07065 | DOMINGO SPRINGS | 7,285 | 588 | I | AMP Implemented and CRMP Implemented |
| 07066 | TECOLOTE CANYON | 5,328 | 524 | I | AMP Implemented |
| 07067 | BAR HW RANCH | 6,060 | 876 | M | |
| 07068 | MAGEE TANK | 4,939 | 588 | M | |
| 07069 | NM07069 | 595 | 85 | M | |
| 07074 | BAR HW RANCH LSE | 80 | 12 | M | |
| 07075 | DILLARD LEASE | 80 | 12 | M | |
| *07080 | THREE RIVERS RANCH | 19,179 | 1728 | I | AMP Implemented |
| 07081 | HAY DRAW | 430 | 36 | M | |
| 09001 | ALAMO MOUNTAIN | 31,866 | 6028 | M | |
| 09002 | WIND MOUNTAIN DRAW | 6,550 | 1283 | M | |
| 09003 | J W | 7,999 | 1224 | I | |
| 09004 | BUTTERFIELD TRAIL | 2,776 | 240 | M | |
| 09005 | NEW TANK DRAW | 2,416 | 432 | I | |
| *09006 | CAUHAPE | 35,560 | 8928 | I | AMP Implemented |
| 09007 | FLEMING DRAW LEASE | 720 | 240 | M | |
| 09008 | CUTOFF RIDGE | 1,982 | 444 | M | |
| 09010 | LITTLE AMERICAS | 41,710 | 6456 | I | |
| 09011 | BOX CANYON | 6,309 | 732 | M | |
| 09012 | BURNT WELL | 4,760 | 837 | M | |
| 09013 | Y BAR | 14,717 | 1642 | M | |
| 09014 | DUGGAR ALLOT | 7,985 | 1056 | M | |
| 09015 | BONITA DRAW LEASE | 80 | 24 | M | |
| *09016 | CORNUCOPIA DRAW | 7,289 | 1944 | I | |
| 09017 | JAMES RANCH LEASE | 240 | 48 | M | |
| 09018 | HAT RANCH NO 1 | 57,427 | 10428 | M | |
| 09019 | RICHARDSON LAKE LS | 80 | 24 | M | |
| *09020 | MARTINE RIDGE | 3,404 | 612 | I | |
| 09021 | PLOWMAN RIDGE | 3,238 | 780 | I | |
| *09022 | LOWER DEVILS DEN CANYON | 400 | 108 | M | |
| 09023 | JAMES RANCH | 1,606 | 288 | I | |
| *09024 | BARELAY DRAW | 640 | 168 | M | |
| 09025 | MCVEIGH HILLS | 2,065 | 363 | M | |
| 09026 | CHESS HOME | 15,461 | 1845 | M | |
| 09027 | EAST | 300 | 36 | M | |
| 09028 | WICKER PLACE | 5,175 | 900 | M | |
| 09029 | MCARRON | 3,490 | 480 | M | |
| 09030 | MULBERRY | 10,233 | 1633 | M | |
| 09031 | B T RANCH | 40,874 | 7701 | M | |
| 09032 | L6 BAR RANCH | 5,529 | 552 | M | |
| 09033 | GUADALUPE RANCH | 19,760 | 2106 | I | AMP Implemented |
| *09034 | AFFENDALE | 860 | 228 | M | |
| 09035 | ELDO LEWIS | 27,528 | 3659 | I | |
| 09036 | BOARDWELL CANYON | 32,942 | 3235 | I | AMP Proposed |
| 09037 | PAYNE RANCH | 10,230 | 1788 | I | |
| 09038 | KITCH RANCH | 6,125 | 852 | I | |
| 09039 | PANTHER CANYON ALLOT | 16,065 | 3045 | I | |
| 09040 | DINNER HILL | 11,824 | 1577 | M | |
| 09041 | SACRAMENTO RIVER LS | 729 | 168 | M | |
| 09042 | OLD CHOSA WELL | 7,226 | 696 | M | |
| 09043 | SURVEYORS CANYON LS | 1,456 | 372 | M | |
| 09044 | ANCHOR BAR RANCH | 3,694 | 960 | I | |

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| 09045 | GEORGE DRAW | 2,130 | 472 | I | |
| 09046 | INDIAN DRAW | 19,914 | 3681 | I | |
| 09047 | DEEP WELL | 9,905 | 1728 | M | |
| 09048 | DOG CANYON | 6,455 | 1109 | M | |
| 09049 | STEWART RANCH | 28,079 | 5271 | I | |
| 09050 | CORNUCOPIA RANCH | 19,882 | 5032 | I | AMP Implemented |
| 09051 | LUCKY DRAW | 24,915 | 4673 | M | |
| 09052 | CONEJO ALLOTMENT | 1,620 | 360 | M | |
| 09053 | VAN WINKLE LAKE | 38,362 | 6078 | M | |
| 09054 | GREGG CANYON LEASE | 80 | 24 | M | |
| 09056 | WILKERSON WELL | 6,223 | 1358 | M | |
| 09057 | EAST FLEMING DRAW | 240 | 240 | M | |
| 09058 | HOOK TANK | 7,391 | 1488 | M | |
| 09059 | MOCCASIN DRAW | 2,478 | 432 | I | |
| 09060 | WAYLAND CANYON LEASE | 1,077 | 192 | M | |
| 09061 | STEVENS DRAW | 349 | 108 | M | |
| 09062 | BROKEOFF RANCH | 16,844 | 3348 | I | |
| 09063 | S SLASH 4 DRAW | 15,107 | 1896 | M | |
| 09064 | CAMALACHE | 38,722 | 8010 | M | |
| *09065 | TRAIL CANYON LEASE | 120 | 12 | M | |
| 09066 | MOCCASIN DRAW LEASE | 160 | 36 | M | |
| 09067 | WILDCAT CANYON | 4,721 | 1118 | I | |
| 09068 | DEADMAN | 5,935 | 1356 | I | |
| 15010 | TEX-LINE | 3,040 | 180 | C | |
| **DOÑA ANA COUNTY** | | | | | |
| *02002 | AKELA SOUTH | 5,566 | 243 | C | |
| 03001 | ADEN HILLS | 18,378 | 1308 | C | |
| 03002 | HOME RANCH | 32,760 | 2148 | C | |
| 03003 | BLACK MESA | 22,445 | 1584 | C | |
| 03004 | RADIUM SPRINGS | 961 | 96 | M | |
| 03006 | FOSTER CANYON | 80 | 12 | M | |
| 03007 | ROCK CANYON | 1,950 | 192 | M | |
| 03008 | PICACHO PEAK | 10,794 | 1008 | I | AMP Implemented |
| *03009 | LAZY E | 30,250 | 3732 | I | CRMP Implemented |
| 03010 | SOUSE SPRING | 3,465 | 252 | M | |
| 03011 | LOCO | 2,930 | 372 | C | |
| 03012 | SIERRA ALTA | 6,695 | 1380 | M | |
| 03013 | CORRALITOS RANCH | 129,949 | 13860 | I | AMP Implemented |
| 03014 | HERSEY ARROYO | 3,720 | 252 | M | |
| 03015 | ALAMO BASIN | 22,964 | 4458 | I | AMP Implemented and CRMP Implemented |
| *03016 | POL EAST | 56,394 | 4173 | I | |
| 03018 | SPRING CANYON | 3,680 | 456 | M | |
| 03019 | CAMBRAY | 3,700 | 384 | M | |
| 03020 | BEACON | 58,002 | 4104 | C | |
| 03022 | LA UNION | 41,670 | 2496 | C | |
| 03023 | KILBOURNE HOLE | 85,488 | 5760 | I | |
| 03025 | BROAD CANYON | 2,870 | 360 | M | |
| 03026 | HORSE CANYON | 3,030 | 276 | I | AMP Implemented |
| 03027 | BIGNELL ARROYO | 3,795 | 564 | I | |
| *03028 | FLYING U RANCH | 54,955 | 10428 | I | |
| *03029 | WEST POTRILLO | 94,682 | 8439 | I | |
| *03031 | LAS UVAS MTNS | 16,618 | 3000 | M | |
| *03032 | SADDLE MOUNTAIN | 14,673 | 2640 | I | AMP Implemented |
| 03033 | MT. RILEY | 74,977 | 5412 | I | |
| 03034 | ANGOSTURA | 1,680 | 121 | M | |

| ALLOT# | ALLOTMENT NAME | PUBLIC ACRES | PERMITTED USE (AUMS) | MGT CD | AMP STATUS |
|---|---|---|---|---|---|
| 03036 | MIMMS WELL | 7,100 | 1080 | I | |
| 03038 | LA MESA | 27,588 | 2844 | C | |
| *03039 | BORDER RANCH | 52,327 | 5445 | I | AMP Implemented |
| 03040 | ALTAMIRA | 8,988 | 636 | I | |
| 03043 | SIERRA KEMADO | 2,330 | 300 | M | |
| 03045 | CHAMBERINO | 4,230 | 185 | C | |
| 03047 | INDIAN SPRINGS | 14,930 | 1700 | M | |
| 03048 | LITTLE BLACK MTN | 8,690 | 336 | C | |
| 03050 | WEST LA MESA | 8,466 | 1068 | C | |
| 03056 | AFTON | 22,000 | 1284 | I | |
| 03058 | PALMA PARK | 28,792 | 1560 | I | AMP Implemented |
| 03061 | GARFIELD | 7,195 | 444 | C | |
| 03063 | THORN WELL ALLOTMENT | 12,540 | 1308 | I | |
| 03064 | PLACITA ARROYO | 7,020 | 492 | I | |
| 03066 | RANCHO PARADISO | 2,852 | 204 | C | |
| 03067 | RINCON | 11,671 | 770 | C | |
| 03068 | UPHAM | 22,967 | 2688 | I | |
| 15001 | CHAPARRAL | 15,630 | 948 | I | |
| 15002 | DRIPPING SPRINGS | 15,180 | 1504 | I | |
| 15003 | SAN AUGUSTINE SPRING | 4,897 | 624 | I | |
| 15004 | ANTHONY GAP | 8,298 | 492 | I | |
| 15006 | ROSE WELL | 1,340 | 275 | I | |
| 15007 | DONA ANA MOUNTAINS | 23,146 | 1920 | M | |
| 15008 | HAWKEYE CANYON | 4,316 | 396 | C | |
| 15009 | BISHOP'S CAP | 33,541 | 1656 | I | |
| 15012 | ORGAN | 520 | 108 | M | |
| 15013 | BAYLOR CANYON | 12,476 | 1716 | I | |
| 15014 | WEST ORGAN | 480 | 60 | M | |

NOTES: Permitted use is the number of AUMS a qualified grazing permittee has acquired by grant, prior use, or purchase, that entitles them to special consideration over applicants who have not acquired preferences.
AMP- Allotment management plans
* Denotes allotments with portions of their boundaries outside the planning area, but administered under this plan.

# APPENDIX F

## RECREATION MANAGEMENT AREAS

# APPENDIX F
# RECREATION MANAGEMENT AREAS

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **CABALLO MOUNTAIN EXTENSIVE RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy for this area would be aimed at an undeveloped recreation-tourism market. Local and regional visitors would participate in various dispersed recreation activities across the large, undeveloped landscape. |
| **Recreation niche** | • Easy access from nearby communities for sustainable day use involving adventure, challenge, and exploration amidst rugged, scenic terrain |
| **Recreation management objectives** | • By 2016, manage to provide opportunities for visitors to engage in sustainable, dispersed recreation activities providing no less than 75 percent of responding visitors with at least a moderate realization of benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3= moderate, and 4= total realization). |
| **Primary activities** | • Vehicular exploring, hiking, hunting, rockhounding, wildlife and scenic viewing |
| **Experiences** | • Enjoyment of the outdoor environment<br>• Wildlife viewing<br>• Exercise<br>• Solitude<br>• Common interests shared with family and friends |
| **Benefits** | *Personal:*<br>• Improved skills for outdoor enjoyment and greater awareness of the natural environment<br>• Greater self-reliance<br>• Stronger ties with family and friends<br>• Enhanced sense of personal freedom<br>*Community/Social:*<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land<br>*Environmental:*<br>• Greater retention of natural landscape features<br>• Reduced disturbance from recreation facility development<br>*Economic:*<br>• Enhanced ability of visitors to find areas that provide wanted recreation experiences and benefits<br>• Positive contribution to the local economy |
| **Setting character conditions** | *Physical*:<br>• The area consists mostly of middle country with backcountry settings among the rugged mountain and canyon topography. The landscape is mostly natural in appearance, with four-wheel-drive roads, mine sites, and grazing facilities scattered in the middle country setting. No recreation facilities exist. Management would move toward a mid-country setting with signs for road and trail access.<br>*Social*:<br>• Currently, the estimated average group size is small, with two to four people per group. Encounters with other groups are likely to be limited in backcountry areas and away from roads. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Administrative*:<br>• Currently, visitor services are not available, there are no signs, and a very rare enforcement presence exists.<br>• Management would move toward a middle country setting for visitor services through the development of basic maps, occasional regulatory signs, motorized and mechanized use restrictions, and a random enforcement presence. |
| **Activity planning** | *Management:*<br>• Prepare an interdisciplinary travel management plan in conjunction with State parks and surrounding communities to determine routes of travel and appropriate uses while maintaining setting characteristics.<br>• Create map of roads and trails.<br>• Provide road and trail signs that blend with surrounding landscape.<br>• Provide maintenance and upkeep of signs and replace as needed.<br><br>*Administration*:<br>• Limit off-highway vehicle use to designated routes. Base motorized and mechanized use designations on travel management plan decisions.<br>• Use native plants or seeds for reclamation activities and landscaping.<br>• Open the recreation management zone to all mineral development. Manage mining, mineral leasing, and mineral material sales to maintain physical setting characteristics and the integrity of any developed facilities and designated trails.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to maintain physical setting characteristics and the integrity of any developed facilities and designated trails.<br>• Maintain Visual Resource Management Class II and III designations.<br>• Maintain current livestock grazing.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information.<br>• Apply "*leave no trace*" and "*tread lightly*" principles.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor implemented actions and evaluate. |
| **ELEPHANT BUTTE EXTENSIVE RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy would be aimed at a regional destination-based recreation and tourism market. In conjunction with the developed and dispersed recreational activities available at Elephant Butte State Park, adjacent public land would provide opportunities for local and regional visitors to participate in various dispersed recreation activities and in potential future developed trail activities. |
| **Recreation niche** | • Easy access from nearby communities and developed recreation area for sustainable day use involving adventure, challenge, and exploration |
| **Recreation management objectives** | • By 2019, manage this area to provide opportunities for visitors to engage in sustainable day use involving motorized, mechanized, and non-mechanized recreation activities that provide no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3= moderate, and 4=total realization). |
| **Primary activities** | • Vehicular exploring, hiking, hunting, camping, wildlife and scenic viewing |
| **Experiences** | • Enjoyment of the outdoor environment<br>• Appreciation of scenery<br>• Exercise<br>• Solitude<br>• Common interests shared with family and friends |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | • Access near home to outdoor amenities<br>• Enthusiasm for the area |
| **Benefits** | *Personal:*<br>• Improved skills for outdoor enjoyment and greater awareness of the natural environment<br>• Greater self-reliance<br>• Stronger ties with family and friends<br>• Enhanced sense of personal freedom<br><br>*Community/Social:*<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land<br>• Greater community involvement in recreation and other land use decisions<br><br>*Environmental:*<br>• Greater community ownership and stewardship of park, recreation, and natural resources<br><br>*Economic:*<br>• Enhanced ability of visitors to find areas that provide wanted recreation experiences and benefits<br>• Positive contribution to the local economy |
| **Setting character conditions** | *Physical*:<br>• The area ranges from backcountry settings around arroyo and canyon areas to rural settings adjacent to Interstate 25 and the town of Elephant Butte. The landscape is partially modified by roads, utility lines, and grazing facilities, but they do not overpower the natural landscape. No recreation facilities currently exist on Bureau of Land Management land. Management would consider development of trails, signs, and basic trailhead facilities that would maintain the physical setting.<br><br>*Social*:<br>• Group size and group encounters would vary depending on areas used. Small groups with fewer group encounters would be expected in backcountry areas and away from roads. Larger group sizes and more frequent group encounters would be likely in the rural and front country settings.<br><br>*Administrative*:<br>• Currently visitor services are not available, there are no signs, and a very rare enforcement presence exists.<br>• Management would move toward a middle country setting for visitor services by developing travel and trail maps, posting occasional regulatory signs, restricting motorized and mechanized use, and providing a random enforcement presence. |
| **Activity planning** | *Management:*<br>• Prepare an interdisciplinary travel management plan in conjunction with State parks and surrounding communities to determine routes of travel and appropriate uses while maintaining setting characteristics.<br>• Create a map of roads and trails.<br>• Provide road and trail signs that blend with surrounding landscape.<br>• Provide maintenance and upkeep of signs and replace as needed.<br><br>*Administration*:<br>• Limit areas used by off-highway vehicles to designated routes. Base motorized and mechanized use designations on travel management plan decisions. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | • Use native plants or seeds for reclamation activities and landscaping.<br>• Apply a controlled surface use stipulation to fluid mineral leases. Open areas to the sale of mineral materials and location of mining claims. Manage mining, mineral leasing, and saleable materials to maintain physical setting characteristics and to protect facilities, designated trails, and user safety. Do not allow construction or maintenance activity when it would interfere with authorized recreation events.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to maintain physical setting characteristics and to protect facilities, designated trails, and user safety. Do not allow construction or maintenance activity when it would interfere with authorized recreation events.<br>• Maintain Visual Resource Management Class III and IV designations.<br>• Maintain current livestock grazing.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information.<br>• Apply "*leave no trace*" and "*tread lightly*" principles.<br>• Explore development of volunteer programs or opportunities with State parks and gateway communities to assist with monitoring.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor implemented actions and evaluate. |
| **LAKE VALLEY SPECIAL RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy for the Lake Valley special recreation management area would be aimed at a destination-based recreation and tourism market. The historical mining town is easily accessed from the Lake Valley national scenic byway offers national, regional, and gives local visitors the opportunity to take a trip back in time and experience what life was like for past generations. |
| **Recreation niche** | • Exploration and appreciation of historical resources in a natural setting |
| **Recreation management objectives** | • By 2014, manage this zone to provide safe day use for national, regional, and local visitors to engage in cultural resource appreciation and educational recreation opportunities providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3= moderate, and 4= total realization). |
| **Primary activities** | • Walking, enjoyment of the scenery and the natural and historic setting, photography, and interpretive and educational use |
| **Experiences** | • Self-paced exploration<br>• Opportunities to learn about the area's history<br>• Enjoyment of the natural environment<br>• Scenic travel<br>• Escape from the urban environment and everyday responsibilities<br>• Photography<br>• Socialization with family and friends |
| **Benefits** | *Personal:*<br>• Reduced stress<br>• Greater sensitivity toward other cultures<br>• More informed citizenry that knows the history and use of area<br>• Stronger ties with family and friends<br><br>*Community/Social:*<br>• Better appreciation of our natural and cultural heritage<br>• Greater interaction with visitors from other geographic areas<br>• Increased appreciation of the availability and use of public land |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Environmental*:<br>• Increased stewardship and protection of public land resources<br>• Greater protection of historical sites<br><br>*Economic:*<br>• Increased tourism and tax revenue<br>• A positive contribution to the local and regional economies |
| **Setting character conditions** | *Physical*:<br>• The zone consists mostly of front country with rural conditions along the paved scenic byway. The landscape is mostly natural with modifications around the townsite that include historical structures, a camp host site, utilities, an improved gravel road, and an interpretive trail. Evidence of old mining activity can be seen on adjacent private land. Facilities include the school house museum, rest room, drinking water, and a short interpretive trail.<br><br>*Social*:<br>• Group size is generally small, with two to four people per group. Larger, organized groups occasionally visit.<br><br>*Administrative*:<br>• The front country at the developed recreation site has access available for two-wheel-drive vehicles. Motorized and mechanized uses are limited to existing roads. Brochures are available for information, and camp hosts are usually on site. |
| **Activity planning** | *Management:*<br>• Provide maintenance and upkeep of facilities, trails, and signs and replace as needed.<br>• Extend the interpretive trail.<br>• Enhance interpretation and signs as additional stabilization occurs.<br>• Provide primitive parking for visitors.<br>• Consider development of opportunities for overnight camping to enhance the visitor's experience by allowing for longer visits to the area.<br>• Consider additional basic facilities as needed (e.g., picnic table, shelter, benches).<br><br>*Administration*:<br>• Limited trails to pedestrian foot traffic and limit motorized and mechanized travel to designated routes.<br>• Limit use to posted hours.<br>• Where posted, prohibit pets or require them to be physically restrained.<br>• Use native plants or seeds for reclamation and landscaping.<br>• Continue grazing use. Monitor for conflicts and potential damage to historic structures. Should damage to structures become a concern, or conflicts between grazing and visitor use arise, consider fencing townsite and closing area to grazing.<br>• Apply a no surface occupancy stipulation to fluid-mineral leases.<br>• Recommend withdrawal from mineral entry.<br>• Close to the sale of mineral materials.<br>• Preclude issuing new rights-of-way unless they are a benefit to the historical resources or to the management of the special recreation management area.<br>• Acquire the Conoco station and railroad depot and surface and subsurface estate. Segregate from the mining and mineral leasing laws. Close the area to sale of mineral materials.<br>• Retain land in Federal ownership. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | • Designate as visual resource management Class III.<br><br>*Marketing/Education*:<br>• Develop a comprehensive interpretive plan that includes all aspects of interpretation, education, and public outreach.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained. Monitor implemented actions and evaluate.<br>• Monitor vandalism and deterioration of historic structures from recreation use. |
| **THREE RIVERS PETROGLYPH SPECIAL RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy would be aimed at a destination-based recreation and tourism market. A landscape of spectacular cultural resources, ease of access, and proximity to communities and other recreation and tourism destinations, make this a place valued by National, regional, and local visitors for hiking, viewing of cultural sites, educational school group outings, and developed camping. |
| **Recreation niche** | • Exploration and appreciation of world-class cultural resources in a natural setting. |
| **Recreation management objectives** | • By 2012, manage this zone to provide safe day use and limited overnight opportunities for national, regional, and local visitors to engage in cultural resource appreciation and educational recreation opportunities providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3= moderate, and 4= total realization). |
| **Primary activities** | • Hiking, enjoying scenery and the natural and cultural environment, picnicking, limited organized camping, photography, and interpretive and educational use |
| **Experiences** | • Self-paced exploration<br>• Artistic expression of the landscape<br>• Experience of the natural environment<br>• Escape from the urban environment and everyday responsibilities<br>• Photography and use of other creative skills<br>• Socialization with family and friends |
| **Benefits** | *Personal:*<br>• Reduced stress<br>• Greater sensitivity toward other cultures<br>• More informed citizenry that knows the history and use of the area<br>• Stronger ties with family and friends<br><br>*Community/Social:*<br>• Better appreciation of our natural and cultural heritage<br>• Greater interaction with visitors from other geographic areas<br>• Increased appreciation of the availability and use of public land<br><br>*Environmental*:<br>• Increased stewardship and protection of public land resources<br>• Greater protection of archaeological sites<br><br>*Economic:*<br>• Increased tourism and tax revenue<br>• A positive contribution to the local and regional economies |
| **Setting character conditions** | *Physical*:<br>• This zone is located near a road and has a partially modified landscape. The setting mostly consists of front country with rural conditions along the paved county road and middle country characteristics away from developed recreation facilities. Facilities |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | include a visitor contact station, rest room, campsites with shelters and grills, and hiking trails.<br><br>*Social*:<br>• Group size is average, typically consisting of four to six people, but groups of 50 or more visit occasionally.<br>• The social setting ranges from a backcountry character in the more remote areas and during seasons of lower use to a rural or urban atmosphere during occasional seasonal visits by large groups.<br><br>*Administrative*:<br>• The area ranges from front country at the developed recreation site to primitive beyond the developed facilities.<br>• Motorized and mechanized use is limited.<br>• Brochures are available for information, and camp hosts are generally on site.<br>• Rules are clearly posted. |
| **Activity planning** | *Management:*<br>• Continue to charge day use and overnight camping fees. Adjust fees as needed to be in line with similar fees charged by other agencies in the region.<br>• Provide maintenance and upkeep of facilities, trails, and signs.<br>• Install tent pads at existing campground.<br>• Install a phone line to the area for the safety of visitors, camp hosts, and employees.<br>• Construct a new contact station with paved accessible parking.<br>• Develop additional trails if needed.<br>• Should the opportunity arise, close roads traversing the southeastern corner of the special recreation management area.<br><br>*Administration*:<br>• Limit trail use to pedestrian foot traffic. Limit motorized, mechanized, and other modes of travel to designated routes.<br>• Post trail hours. Change hours if and when needed and after public notice.<br>• Do not permit camping outside designated camp sites.<br>• Require permits for groups of 20 persons and above.<br>• Prohibit pets on the Petroglyph Trail and Pit House Village Trail. Keep pets under physical restraint at all times within the campsite and picnic area.<br>• Close the area to hunting and firearm use.<br>• Use native plants or seeds for reclamation activities and landscaping.<br>• Maintain grazing closure.<br>• Close the area to the sale of minerals and mineral leasing. Recommend withdrawing from mineral entry.<br>• Exclude new rights-of-way unless they benefit the cultural resources or the management of the special recreation management area.<br>• Acquire the subsurface estate for the SE¼SE¼ of Section 21 and the N½NE¼ of Section 28, T. 11 S., R. 9½ E. Segregate from the mining and mineral leasing laws. Close that area to saleable minerals.<br>• Acquire Section 16, T. 11 S., R. 9½ E. Segregate from the mining and mineral leasing laws. Close that area to saleable minerals.<br>• Retain land in Federal ownership.<br>• Implement Visual Resource Management Class II designation.<br><br>*Marketing/Education*:<br>• Develop a comprehensive interpretive plan that includes all aspects of interpretation, education, and public outreach. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor vandalism and deterioration of petroglyphs. |
| **ADEN HILLS EXTENSIVE RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy would be aimed at a community-based recreation and tourism market. The open landscape with its varying terrain, ease of access, and close proximity to Las Cruces make this an area favored by local visitors engaging in all-terrain vehicle and dirt bike activities. |
| **Recreation niche** | • Easy access from town for day uses such as motorized play and challenges |
| **Recreation management objectives** | • By 2017, manage this area to provide opportunities for visitors to engage in sustainable and diverse motorized activities that provide no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3= moderate, and 4= total realization). |
| **Primary activities** | • Motorcycle and all-terrain vehicle use and competitive and organized events |
| **Experiences** | • Physical challenges and risk taking experiences<br>• Exercise<br>• Skill development<br>• Experiences shared with family and friends<br>• Escape from everyday responsibilities |
| **Benefits** | *Personal:*<br>• Improved physical fitness<br>• Greater self-confidence and self-reliance<br>• Improved mental health<br>*Community/Social:*<br>• More informed citizenry that knows where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land<br>*Economic:*<br>• Positive contribution to the local and regional economies |
| **Setting character conditions** | *Physical*:<br>• Generally this area offers a middle country setting near roads, with a landscape partially modified by utility lines, a motorized trail system, and livestock developments.<br>• No recreation facilities currently exist.<br>• Management would move toward preserving the front country setting and developing a staging area, trailhead, signs, and additional trail segments.<br>*Social*:<br>• Currently, the estimated average group size is four to six people per group with three to six encounters a day at the staging area. Occasional permitted motorized activities may increase visitor numbers to approximately 400 per event.<br>• Management would move toward achieving social conditions characteristic of a front country setting with an average of 15 to 29 anticipated encounters a day at the staging area. Vehicle tracks would be common, soils would be compacted, and the vegetation would be worn along travel routes and areas of popular use. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Administrative*:<br>• No visitor services are currently available, there are no signs, and the enforcement presence is rare.<br>• Management would move toward a middle country setting with the development of maps and signs and an increase in the presence of BLM personnel. |
| **Activity planning** | *Management:*<br>• Prepare a recreation area management plan.<br>• Develop a staging area and trailhead. Allow for installation of rustic facilities such as shade shelters, information kiosks, and signs. To prevent encroachment, delineate a parking area for day use activities and large permitted events.<br>• Post signs to indicate boundary. Install gates and cattle guards as needed.<br>• Provide maintenance and upkeep of facilities, trails, and signs.<br><br>*Administration*:<br>• Open the area to off-highway vehicle use. Limit permitted events and activities to designated routes and routes with appropriate National Environmental Policy Act clearances. Modify routes as needed to mitigate impacts. Require special recreation use permits for competitive or commercial events unless waived by the authorized officer.<br>• Where posted, require pets to be under physical restraint.<br>• Use native plants or seeds for reclamation activities and landscaping.<br>• Continue grazing use and monitor for conflicts. Should conflicts arise between grazing and motorized use, consider closing the area to grazing.<br>• Apply a no surface occupancy constraint to fluid-mineral leases. Recommend withdrawal from mineral entry.<br>• Close the area to the sale of mineral materials.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to protect the integrity of developed facilities and designated trail systems and to ensure user safety.<br>• Do not allow construction or maintenance activity when it would interfere with authorized recreation events.<br>• Retain land in Federal ownership.<br>• Maintain a visual resource management Class III designation.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information that focuses on user education.<br>• Apply "tread lightly" principles and stress respect for other surface owners and land users.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor for grazing conflicts. |
| **LAS CRUCES SPECIAL RECREATION MANAGEMENT AREA** | |
| **Primary market-based strategy** | • The primary strategy for this area would be aimed at a community-based recreation and tourism market. The rugged terrain would provide opportunities close to home for local and regional visitors to participate in various motorized and nonmotorized trail opportunities. |
| PICACHO RECREATION MANAGEMENT ZONE | |
| **Recreation niche** | • Easy access from nearby communities for sustainable day use involving adventure, challenge, and exploration |
| **Recreation management objectives** | • By 2017, manage this area to provide opportunities for visitors to engage in sustainable day use involving motorized, mechanized, and nonmotorized trail activities that provide no less than 75 percent of responding visitors with at least a moderate |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | realization of these benefits (i.e., 3.0 or higher on a scale where 1= not at all, 2= somewhat, 3=moderate, and 4=total realization). |
| **Primary activities** | • Mountain biking, horseback riding, hiking, exploring, and four-wheel-drive motorized trail travel |
| **Experiences** | • Physical challenges and risk taking experiences<br>• Exercise<br>• Tests of endurance<br>• Enjoyment of the outdoor surroundings<br>• Access near home to outdoor amenities<br>• Skill development<br>• Common interests shared with family and friends<br>• Conversations about recreation equipment |
| **Benefits** | *Personal:*<br>• Improved physical fitness<br>• Improved self-reliance<br>• Stronger ties with family and friends<br>• Reduced stress<br>*Community/Social:*<br>• More informed citizenry that knows where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land for recreation opportunities<br>• Enhanced lifestyle<br>*Environmental:*<br>• Increased stewardship of public land<br>• Greater retention of distinctive natural landscape features<br>*Economic:*<br>• Enhanced ability of visitors to find areas providing wanted recreation experiences and benefits<br>• Positive contribution to the local economy |
| **Setting character conditions** | *Physical*:<br>• The setting ranges from middle country with dirt roads and motorized and nonmotorized trails to areas of rural character adjacent to developed private land. The landscape is partially modified by roads and trails, utility lines, gravel pits, dams, and grazing facilities.<br>• Management would consider developing trails, parking areas, signs, and basic trailhead facilities that would maintain the physical setting.<br>*Social*:<br>• Currently, the estimated average group size is two to six people with a low frequency of encounters for trail activities. Management would move toward a moderate frequency of contacts as additional trails and parking areas are completed.<br>*Administrative*:<br>• A map of the motorized four-by-four trails is available, there are some signs, and a rare enforcement presence exists.<br>• Management would move toward preserving the middle country setting for visitor services by developing travel and trail maps, adding developed parking areas, posting occasional regulatory signs, restricting motorized and mechanized use, and providing a random enforcement presence. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **Activity planning** | *Management:*<br>• Prepare a recreation area management plan that incorporates travel management decisions and protects areas of critical environmental concern (ACECs) and cultural resource values. Create a map of designated roads and trails.<br>• Allow development of additional trails.<br>• Provide road and trail signs that blend with surrounding landscape.<br>• Develop parking areas that maintain the characteristics of the physical setting.<br>• Provide maintenance and upkeep of signs and replace as needed.<br><br>*Administration*:<br>• Limit motorized and mechanized vehicle use to designated roads and trails.<br>• Use native plants or seeds for reclamation and landscaping.<br>• Close the area to mining, mineral leasing, and mineral materials sales within the ACEC. Outside the ACEC, apply no surface occupancy constraints to fluid-mineral leases. Allow locatable mineral development and sales of mineral materials on a case-by-case basis if designated trails, facilities, and user safety are not impacted.<br>• New rights-of-way and other land use authorizations may be considered on a case-by-case basis with site-specific stipulations to maintain physical setting characteristics; protect ACEC values, designated trails, and facilities; and provide for user safety.<br>• Outside the ACECs, rights-of-way and other land use authorizations may be considered on a case-by-case basis if they maintain the recreation setting conditions, do not impact the designated trail systems and facilities, and provide for user safety.<br>• Require roadway design or engineering to provide safe crossings for a variety of recreation uses, including pedestrian, mountain biking, and equestrian uses.<br>• Prohibit collection of vertebrate fossils, including trackways, without a permit.<br>• Apply visual resource management (VRM) in accordance with ACEC prescriptions. Use existing VRM designations for land outside ACEC boundaries.<br>• Retain public land.<br>• Acquire necessary easements. Acquire inholdings with land owner concurrence when they do not belong to the BLM.<br>• Maintain current livestock grazing.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information.<br>• Apply "*leave no trace*" and "*tread lightly*" principles.<br>• Explore development of volunteer program or opportunities with various trail user groups to assist with monitoring.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained. Monitor and evaluate implemented actions. |
| **Primary market-based strategy** | • The primary strategy for this area would be aimed at a community-based recreation and tourism market. The varied terrain would provide opportunities close to home for local and regional visitors to participate in nonmotorized and mechanized trail opportunities and confined motorized play. |
| DOÑA ANA MOUNTAIN RECREATION MANAGEMENT ZONE | |
| **Recreation niche** | • Easy access from nearby communities for trail pursuits offering adventure, challenge, and fun |
| **Recreation management objectives** | • By 2013, manage this area to provide opportunities for visitors to engage in sustainable, mechanized, nonmotorized trail activities providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1=not at all, 2=somewhat, 3= moderate, and 4=total realization). |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **Primary activities** | • Mountain biking, horseback riding, hiking, and limited motorized vehicle use. |
| **Experiences** | • Physical challenges and risk taking experiences<br>• Exercise<br>• Tests of endurance<br>• Enjoyment of the outdoor surroundings<br>• Common interests shared with family and friends<br>• Access near home to outdoor amenities<br>• Skill development |
| **Benefits** | *Personal:*<br>• Improved physical fitness<br>• Improved self-reliance<br>• Stronger ties with family and friends<br>• Reduced stress<br>*Community/Social:*<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land for recreation opportunities<br>• Enhanced lifestyle<br>*Environmental:*<br>• Increased stewardship of public land by users of the area<br>• Greater retention of distinctive natural landscape features<br>*Economic:*<br>• Enhanced ability of visitors to find areas providing wanted recreation experiences and benefits<br>• Positive contribution to the local economy |
| **Setting character conditions** | *Physical*:<br>• Generally, this area offers a middle country setting with dirt roads and nonmotorized trails. Front country settings are present adjacent to developed private land, and backcountry characteristics are evident in the rugged terrain of the ACEC. The landscape is partially modified by roads, trails, utility lines, and grazing facilities.<br>• Management would allow the development of additional trails, parking areas, signs, and basic trailhead facilities that would maintain the physical setting conditions and meet ACEC objectives.<br>*Social*:<br>• Currently, the estimated average group size ranges from two to six people, with a low frequency of encounters during trail activities.<br>• Management would move toward a moderate frequency of contact as additional trails and parking areas are completed.<br>*Administrative*:<br>• No trail map exists. Four parking areas are delineated and signed. A rare enforcement presence exists.<br>• Management would move toward a middle country setting for visitor services and management controls by developing travel and trail maps, posting occasional regulatory signs, restricting motorized and mechanized uses, and providing a random enforcement presence. |
| **Activity planning** | *Management:*<br>• Prepare a recreation area management plan incorporating ACEC protection measures and travel management plan decisions.<br>• Allow development of additional trails and facilities that blend with the surrounding |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | landscape and protect ACEC objectives.<br>• Develop a map of designated roads and trails.<br>• Install road and trail signs that blend with surrounding landscape.<br>• Provide maintenance and upkeep of signs and replace as needed.<br><br>*Administration*:<br>• Limit motorized and mechanized use to designated roads and trails.<br>• Require roadway design or engineering to provide safe crossings for a variety of recreation uses, including pedestrian, mountain biking, and equestrian uses.<br>• Use native plants or seeds for reclamation and landscaping activities.<br>• Close the ACEC to mineral leasing, sale of mineral materials, and location of mining claims.<br>• Outside the ACEC, apply a no surface occupancy constraint to fluid-mineral leases. Close the ACEC to sales of mineral materials and recommend withdrawal from mineral entry.<br>• Exclude new rights-of-way in the ACEC unless it benefits management of ACEC values or special recreation management area (SRMA) objectives.<br>• Grant new rights-of-way outside the ACEC on a case-by-case basis with site-specific stipulations to provide for user safety and maintain the integrity of facilities and designated trail systems. Do not allow construction or maintenance activity when it would interfere with authorized recreation events.<br>• Maintain the existing VRM Class I designation in ACEC and maintain the existing VRM Class III and IV designations for land outside the ACEC.<br>• Retain public land. Acquire Sections 36, T. 21 S., R. 1 E., and 32, T. 21 S., R. 2 E. Manage for trail development and protection of ACEC values.<br>• Acquire necessary easements.<br>• Maintain current livestock grazing.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information. Apply the "*leave no trace*" and "*tread lightly*" principles.<br>• Explore development of volunteer programs or opportunities with various trail user groups to assist with trail development, sign posting, and monitoring.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained. Monitor implemented actions and evaluate. |
| **Primary market-based strategy** | • The primary strategy for this area would be aimed at a community-based recreation and tourism market. It provides local and regional visitors with an opportunity to enjoy a wide range of outdoor recreation opportunities in a scenic mountainous environment. |
| ORGAN FRANKLIN MOUNTAINS RECREATION MANAGEMENT ZONE | |
| **Recreation niche** | • Easy access from nearby communities for a multitude of outdoor pursuits in an environment that ranges from partially developed to wild |
| **Recreation management objectives** | • By 2016, manage this area to provide safe day use and limited overnight opportunities for regional and local visitors to engage in sustainable nonmotorized trail activities and appreciation of wilderness, cultural, and historic values providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1=not at all, 2=somewhat, 3=moderate, and 4=total realization). |
| **Primary activities** | • Hiking, horseback riding, mountain biking, camping, picnicking, backpacking, photography, rock climbing, cultural and historical appreciation, and nature and wildlife viewing |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **Experiences** | • Exercise<br>• Access near home to outdoor amenities<br>• Enjoyment of a variety of environments in a single recreation area<br>• Learning about the area's nature and history<br>• Exploration and risk-taking adventure<br>• Solitude<br>• Escape from the demands of everyday life |
| **Benefits** | *Personal:*<br>• Improved physical fitness and health<br>• Reduced stress<br>• Greater freedom from urban living<br>• Increased appreciation of the area's cultural history<br><br>*Community/Social:*<br>• Enlarged sense of community dependence on public land<br>• Enhanced lifestyle<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Greater appreciation of our natural and cultural heritage<br><br>*Environmental:*<br>• Greater community ownership and stewardship of recreation and natural resources<br>• Greater retention of distinctive natural landscape features<br>• Greater protection of historic structures and archaeological sites<br>• Improved care for community aesthetics<br><br>*Economic:*<br>• Reduced health maintenance costs<br>• Increased desirability of the surrounding area as a place to live or retire<br>• Increased property values<br>• Maintenance of the community's character as a place for recreation and tourism |
| **Setting character conditions** | *Physical*:<br>• The area ranges from primitive and backcountry settings in the mountainous topography of WSAs to front country settings with a limited rural interface along paved highways in, or adjacent to, the SRMA.<br>• The landscape is mostly natural in appearance, ranging from undisturbed in WSAs to partially modified outside in WSAs. Modifications include roads, trails, utility lines, livestock developments, mining activity areas, and developed recreation sites. None of these overpower the natural landscape.<br>• Development of additional trails, parking areas, shelters, kiosks, signs, and trailhead facilities would be allowed if they maintain physical setting conditions and meet Interim Management Policy requirements and ACEC objectives.<br><br>*Social*:<br>• Currently, the estimated average group size is two to four people, with larger group sizes occasionally visiting Aguirre Spring and Dripping Spring. Contacts with other groups in WSAs are low (fewer than seven a day on trails). Contacts in developed recreation areas are moderate (seven every 14 days). An increase in use at Dripping Spring Natural Area is anticipated if the road to the area is improved and housing continues to be developed nearby. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Administrative*:<br>• No visitor services are available in the WSAs.<br>• All developed trails in the SRMA are limited to nonmotorized use.<br>• A brochure and trail map exists for the Aguirre and Dripping Springs area, including the Baylor Pass and Pine Tree Trail. A trail map exists for the Sierra Vista Trail. Additional maps would be developed as needed.<br>• Volunteers at the Aguirre Spring Campground and Dripping Spring Natural Area open and close the gate at the Bar (Soledad) Canyon day use area.<br>• Rules are clearly posted at Bar Canyon and at the Aguirre and Dripping Springs.<br>• A random enforcement presence exists in the SRMA. |
| **Activity planning** | *Management:*<br>• Continue to charge day use and overnight camping fees at Aguirre Spring Campground and Dripping Springs Natural Area. Adjust fees as needed to be in line with similar fees charged by other agencies in the region.<br>• Manage WSAs under the Interim Management Policy nonimpairment standard.<br>• Update the *Organ Mountain Coordinated Resource Management Plan* when needed. Incorporate travel management plan decisions and Interim Management Policy and ACEC protection measures.<br>• Limit motorized and mechanized use to designated roads and trails. Develop a map of designated roads and trails.<br>• Install road and trail signs that blend with surrounding landscape.<br>• Provide maintenance and upkeep of signs and replace as needed.<br>• Maintain developed facilities and access roads.<br><br>*Administration*:<br>• Maintain visitor restrictions for Bar (Soledad) Canyon, Aguirre Spring, and Dripping Springs. Hours of operation, quiet hours, and gate closure hours would be posted on site and may be subject to change after public notice.<br>• Maintain shooting restrictions.<br>• Where posted, prohibit pets or require them to be physically restrained.<br>• Maintain closed off-highway vehicle designation on 8,840 scenic acres in the ACEC.<br>• Use native plants or seeds for reclamation and landscaping activities.<br>• Withdraw the ACEC from locatable mineral entry. Close the ACEC to mineral material sales and fluid-mineral leasing. Maintain the classification established by the Classification and Multiple Use Act until protective withdrawal is established.<br>• New rights-of-way may be considered on a case-by-case basis within existing utility corridors and in developed recreation sites if necessary for management of the area, with site-specific stipulations that prohibit additional new surface disturbance, protect ACEC values, provide for public safety, and maintain the recreation setting. The east-west utility corridor near Vado and north-south utility corridors will be managed according to ACEC prescriptions.<br>• Other land use authorizations may be considered only if they meet Interim Management Policy requirements, protect ACEC values, maintain the recreation setting, provide for public safety, and require no new surface disturbance.<br>• Maintain the existing VRM Class I designation for mountainous portions of the ACEC above 5,000 feet, and Class III and IV designations for remainder of the area.<br>• Adjust the ACEC boundary to exclude existing Recreation and Public Purposes Act land located in T. 22 S., R. 3 E., Section 16. Retain all public land inside the adjusted boundary. Acquire all State and private inholdings provided the landowner agrees. Acquire necessary easements.<br>• Maintain current livestock grazing uses and exclusions. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | *Marketing/Education*:<br>• Develop a plan for signs and information. Apply "*leave no trace*" and "*tread lightly*" principles. Continue developing the interpretation of the area. Use volunteers and various user groups to assist in managing fee sites and day use areas, developing trails, posting and maintaining signs, and monitoring.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained. Monitor implemented actions and evaluate. |
| TORTUGAS MOUNTAIN RECREATION MANAGEMENT ZONE | |
| **Recreation niche** | • Easy access from nearby communities for trail pursuits offering daily workouts, challenge and fun |
| **Recreation management objectives** | • By 2016, manage this area to provide opportunities for visitors to engage in sustainable trail activities providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1=not at all, 2=somewhat, 3=moderate, and 4=total realization). |
| **Primary activities** | • Mountain biking, hiking, walking, trail running, spiritual pilgrimage, competitive events, and motorized travel |
| **Experiences** | • Exercise<br>• Time spent with family and friends<br>• Dog walking<br>• Relaxation and reduced stress<br>• Access near home to open space and outdoor activities<br>• Enjoyment of cultural and spiritual values |
| **Benefits** | *Personal:*<br>• Improved physical fitness and health<br>• Reduced stress<br>• More opportunities for people with different skills to interact in the same place<br>• Spiritual growth<br><br>*Community/Social:*<br>• Heightened sense of satisfaction with the community<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land for recreation<br>• Enhanced lifestyle<br>• Better appreciation of the area's natural and cultural heritage.<br><br>*Environmental:*<br>• Greater community ownership and stewardship of a rural recreation area and natural resources<br>• Greater retention of distinctive natural landscape features<br>• Increased sustainability of the community's cultural heritage<br><br>*Economic:*<br>• Reduced health maintenance costs<br>• Increased interest in the surrounding area as a place to live or retire |
| **Setting character conditions** | *Physical*:<br>• Generally, this area has a rural setting around Tortugas Mountain and the adjacent developed land, with middle country characteristics south and east of Tortugas Mountain.<br>• Tortugas Mountain is substantially modified by various structures and manmade alterations, including a rock quarry, areas of old mining activity, roads, trails, a large rock painted with an "A" symbol, parking areas, and utility lines. The landscape to the |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
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| | south and east of Tortugas Mountain is partially modified and contains utility lines and roads.<br>• Management would allow the development of additional trails, parking areas, shelters, kiosks, signs, and trailhead facilities that would maintain the physical setting.<br><br>*Social*:<br>• Currently, the estimated average group size is two to four people with a low frequency of encounters during trail activities. Larger groups may visit during certain permitted events.<br>• An increase to a moderate contact frequency on trails is anticipated if additional trails and parking areas are constructed and as more housing is developed adjacent to area.<br><br>*Administrative*:<br>• The Tortugas Mountain trails are nonmotorized.<br>• No trail map or brochure exists.<br>• A rare enforcement presence exists.<br>• Management would move toward a middle country setting for visitor services and management controls by developing travel and trail maps, posting occasional regulatory signs, restricting motorized and mechanized uses, and providing a periodic enforcement presence. |
| **Activity planning** | *Management:*<br>• Prepare a recreation area management plan that incorporates travel management plan decisions. Explore opportunities with the City of Las Cruces, Doña Ana County, and other partners in development and/or management of the area. Develop a map of designated roads and trails.<br>• Install road and trail signs that blend with surrounding landscape.<br>• Provide maintenance and upkeep of signs and replace as needed.<br><br>*Administration*:<br>• Limit motorized and mechanized use to designated roads and trails.<br>• Require roadway design or engineering to provide safe crossings for a variety of recreation uses, including pedestrian, mountain biking, and equestrian use.<br>• Close the area to mineral leasing and mineral materials sales and recommend withdrawal from mineral entry.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to provide for user safety and to maintain the integrity of facilities and trails.<br>• Maintain existing VRM Class III and IV designations.<br>• Allow land disposal if the entity acquiring land maintains any developed recreation opportunities and manages them for public use.<br>• Maintain current livestock grazing.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information.<br>• Apply "*leave no trace*" and "*tread lightly*" principles.<br>• Use volunteers and various user groups to assist in developing trails, posting and maintaining signs, and monitoring.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor and evaluate implemented actions. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
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| RED SANDS EXTENSIVE RECREATION MANAGEMENT AREA | |
| **Primary market-based strategy** | • The primary strategy would be aimed at a community-based recreation and tourism market. The open terrain contains sand dunes, and the close proximity to Alamogordo, Las Cruces, and El Paso draws local visitors interested in all-terrain vehicle and dirt bike activities. |
| **Recreation niche** | • Easy access from nearby communities for day use involving motorized play and challenges |
| **Recreation management objectives** | • By 2015, manage this area to provide opportunities for visitors to engage in sustainable and diverse motorized activities providing no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1=not at all, 2=somewhat, 3=moderate, and 4=total realization). |
| **Primary activities** | • All-terrain vehicle and motorcycle use and competitive and organized events |
| **Experiences** | • Physical challenges and risk-taking experiences<br>• Tests of endurance<br>• Exercise<br>• Skill development<br>• Experiences shared with family and friends<br>• Meeting with new people who have similar interests |
| **Benefits** | *Personal:*<br>• Improved physical fitness<br>• Greater self-confidence and self-reliance<br>• Improved physical health<br>*Community/Social:*<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land<br>*Economic:*<br>• Positive contribution to the local and regional economies |
| **Setting character conditions** | *Physical*:<br>• The area exhibits a rural setting along U.S. Highway 54 and the Amrad Road boundaries; however, the landscape has been partially modified by four-wheel drive roads, a motorized trail system, livestock developments, and gravel pits. No recreation facilities currently exist.<br>• Management would move toward a front country setting by developing a staging area, a trailhead, signs, and additional trail segments.<br>*Social*:<br>• Currently, the estimated average group size is four to six people per group with three to six encounters a day at the staging area. Occasionally, permitted motorized activities may increase visitor numbers to approximately 400 people per event.<br>• Management would move social conditions toward a front country setting with an average of 15 to 29 anticipated encounters a day at the staging area. Vehicle tracks would be common, soils would be compacted, and vegetation would be worn along travel routes and popular use areas.<br>*Administrative*:<br>• No visitor services are currently available, there are no signs, and enforcement presence is rare.<br>• Management would move toward a middle country setting by developing maps, posting signs, and increasing the presence of Bureau of Land Management personnel. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **Activity planning** | *Management:*<br>• Prepare a recreation area management plan.<br>• Develop a staging area and trailhead.<br>• Allow the installation of rustic facilities such as shade shelters, information kiosks, and signs.<br>• Delineate a parking area for day use activities and large permitted events to prevent encroachment.<br>• Post sign to identify the recreation management zone boundary.<br>• Install gates and cattle guards as needed.<br>• Provide maintenance and upkeep of facilities, trails, and signs and replace as needed.<br><br>*Administration*:<br>• Open the area to off-highway vehicle use. Limit permitted events and activities to designated routes and to routes with appropriate National Environmental Policy Act clearances.<br>• Modify routes as needed to mitigate impacts. Require special recreation permits for competitive or commercial events unless waived by the authorized officer.<br>• Where posted, require pets to be under physical control.<br>• Allow hunting in conformance with New Mexico Department of Game and Fish rules and regulations. Monitor for conflicts and safety concerns. Should conflicts between hunting and motorized use arise, consider closing the area to hunting.<br>• Use native plants or seeds for reclamation and landscaping activities.<br>• Continue grazing use. Monitor for conflicts. Should conflicts between grazing and motorized uses arise, consider closing the area to grazing.<br>• Allow development and production of minerals (fluid minerals, saleable minerals, and locatable minerals) with site-specific conditions of approval or stipulations that ensure the safety of the visitor and protect developed facilities, use areas, and designated trail systems. Apply timing restrictions—do not allow construction, drilling, blasting, completion, workover, plugging, or other seismic activity during permitted events. Apply a controlled surface use constraint to new oil and gas leases.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to protect developed facilities and designated trail systems and to ensure the safety of the visitor. Do not allow construction or maintenance activity when it would interfere with authorized recreation events.<br>• Retain lands in Federal ownership.<br>• Acquire State parcels.<br>• Manage as a Visual Resource Management Class IV area.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information that focuses on user education.<br>• Apply "*tread lightly*" principles and stress respect for other surface owners and land users. Work with user groups.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor for grazing and hunting conflicts. |
| TALAVERA EXTENSIVE RECREATION MANAGEMENT AREA | |
| **Primary Market – Based Strategy** | • The primary strategy for this zone would be one aimed at a community based recreation – tourism market. Local visitors can participate in various dispersed recreation opportunities across the undeveloped landscape. |
| **Recreation Management Objectives** | • By the year 2013, manage this area to provide opportunities for visitors to engage in sustainable, dispersed recreation activities providing no less than 75% of responding visitors at least a moderate realization of these benefits (i.e., 3.0 on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization). |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| **Primary Activities** | • Dispersed non-motorized activities including hiking, hunting, viewing wildlife and scenery. |
| **Experiences** | • Enjoy risk taking.<br>• Enjoying physical exercise.<br>• Enjoy testing endurance.<br>• Enjoy outdoor surroundings.<br>• Enjoy sharing a common interest with family and friends.<br>• Enjoy having close-to-home access for outdoor activities.<br>• Enjoy development of skills and abilities. |
| **Benefits** | *Personal:*<br>• Improved physical fitness.<br>• Improved self-reliance.<br>• Stronger ties with family and friends.<br>• Restored mind from unwanted stress.<br><br>*Community/Social:*<br>• More informed citizenry about where to go for different kinds of recreation experiences.<br>• Increased appreciation of the availability and use of public lands for recreation opportunities.<br>• Enhanced lifestyle.<br><br>*Environmental:*<br>• Increased stewardship of public land by users of the area.<br>• Greater retention of distinctive natural landscape features.<br><br>*Economic:*<br>• Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits.<br>• Positive contribution to the local economy. |
| **Setting Character Conditions** | *Physical*:<br>• Ranges from back to middle country setting along the power line. |
| **Activity Planning** | *Management:*<br>• Allow minimal development of non-motorized trails that maintain setting characteristics and manage conflict; maintain as needed.<br>• Develop map of roads and trails.<br><br>*Administration*:<br>• Limit OHV use to designated roads and trails.<br>• Withdraw all mineral entry and close to fluid mineral leasing.<br>• Exclude new ROWs and other land use authorizations.<br>• Retain public land.<br>• Acquire adjacent state parcels including mineral estate; close to fluid mineral leasing and mineral material sales. Recommend withdrawal from mineral entry.<br>• Manage as VRM Class II.<br>• Use native plants or seeds for reclamation and landscaping activities.<br>• Allow livestock grazing based on standards for rangeland health; monitor and adjust as needed. Prohibit new livestock developments and mechanical methods of range restoration. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | |
| TULAROSA CREEK SPECIAL RECREATION MANAGEMENT AREAS | |
| **Primary market-based strategy** | • The primary strategy would be aimed at a community-based recreation and tourism market. The lure of water and riparian habitat draw local visitors engaging in fishing and birding activities. |
| **Recreation niche** | • Easy access from nearby communities for primitive day use activities such as fishing, birding, and hiking |
| **Recreation management objectives** | • By 2016, manage this area to provide opportunities for visitors to engage in sustainable day use involving primitive recreation activities that provide no less than 75 percent of responding visitors with at least a moderate realization of these benefits (i.e., 3.0 or higher on a scale where 1=not at all, 2= somewhat, 3=moderate, and 4=total realization). |
| **Primary activities** | • Fishing, birding, wildlife viewing, and hiking |
| **Experiences** | • Enjoyment of the outdoor environment<br>• Fishing<br>• Wildlife viewing<br>• Solitude<br>• Common interests shared with family and friends |
| **Benefits** | *Personal:*<br>• Improvement in skills that promote outdoor enjoyment<br>• Greater awareness of the natural environment<br>*Community/Social:*<br>• Informed citizens who know where to find different kinds of recreation experiences<br>• Increased appreciation of the availability and use of public land<br>*Environmental*:<br>• Increased stewardship and protection of the river corridor and important riparian habitat<br>*Economic:*<br>• Positive contribution to the local economy. |
| **Setting character conditions** | *Physical*:<br>• This area has a rural setting with a paved road on the north boundary, a dirt road on the south boundary, and U.S. Highway 70 dissecting the middle of the special recreation management area. The landscape is partially modified by roads, a nearby house, and areas of intensive trash dumping.<br>• No recreation facilities currently exist.<br>• Management would move toward a middle country setting for facilities with limited development of a small parking area, a basic rest room, marked trails, and some posted signs.<br>*Social*:<br>• Currently, the estimated average group size is small, consisting of two to four people per group.<br>• Vehicle tracks and litter are common along the highway right-of-ways and the roadways.<br>• Vegetation would be worn and soils would be compacted along any constructed facilities and trails.<br>*Administrative*:<br>• No visitor services are currently available, there are no signs, and enforcement presence is very rare. |

| RECREATION MANAGEMENT AREA | CHARACTERISTICS |
|---|---|
| | • Management would move toward a middle country setting for visitor services by developing basic maps, posting occasional regulatory signs, restricting motorized and mechanized uses, and a providing a random enforcement presence. |
| **Activity planning** | *Management:*<br>• Work with the fisheries biologist and highway department to protect the values associated with areas of critical environmental concern and to provide day use opportunities for primitive recreation.<br>• As fishing habitat improves, provide a rustic parking area, a rest room, signs, and trails that blend with surrounding landscape.<br>• Provide maintenance and upkeep of facilities, trails, and signs. Replace signs as needed.<br><br>*Administration*:<br>• Limit off-highway vehicle use to a specified area. Limit motorized and mechanized vehicle use to designated roads. Limit trails to pedestrian use.<br>• Prohibit discharge of firearms or other weapons.<br>• Use native plants or seeds for reclamation activities and landscaping.<br>• Close area to livestock grazing.<br>• Segregate from the mining and mineral leasing laws.<br>• Close the area to sale of mineral materials.<br>• Grant new rights-of-way on a case-by-case basis with site-specific stipulations to protect riparian habitat and the integrity of developed facilities and trails and to ensure the safety of the visitor.<br>• Retain land in Federal ownership.<br>• Manage as a Visual Resource Management Class II area.<br><br>*Marketing/Education*:<br>• Develop a plan for signs and information.<br>• Apply "*leave no trace*" principles and stress the importance of river conditions and riparian habitats.<br><br>*Monitoring*:<br>• Assure objectives are met and prescribed setting prescriptions are maintained.<br>• Monitor and evaluate implemented actions.<br>• Monitor impacts on riparian resources from recreation use.<br>• Restrict recreation use should riparian resources degrade to a nonfunctioning condition. |

# APPENDIX G

## NOMINATED ACECS – EVALUATION SUMMARIES

# APPENDIX G
# NOMINATED ACECs – EVALUATION SUMMARIES

## 1 INTRODUCTION

Section 202 of the Federal Land Policy and Management Act requires the Bureau of Land Management (BLM) to give priority to designation and protection of areas of critical environmental concern (ACECs) during the land use planning process. The BLM Las Cruces District Office is amending or revising the land use plan decisions for public land in Doña Ana, Sierra, and Otero counties and will consider areas nominated for ACEC designation as part of that process.

Areas that have been nominated for ACEC consideration must first be evaluated to determine whether they meet the relevance and importance criteria as prescribed in Title 43 Code of Federal Regulations Part 1610 (43 CFR 1610). A nominated area must meet one or more of both the relevance and importance criteria to be considered a potential ACEC. The proposed ACECs addressed in this appendix were nominated prior to or during scoping for the *TriCounty RMP/Environmental Impact Statement* (RMP/EIS). In 2006, BLM used an interdisciplinary team of resource specialists to assess the natural and cultural values of these areas and to determine if these values met the criteria. This appendix is a summary of those evaluations. The complete evaluation reports are available at the Las Cruces District Office. The nominated ACECs or portions thereof which contained one or more resources that met the relevance and importance criteria were considered further in the RMP process.

This appendix contains summaries of evaluations of 27 areas nominated as special management areas (SMAs) or ACECS for the *TriCounty RMP/Environmental Impact Statement* (RMP/EIS). The SMA designation is not used in this RMP because it has no legal recognition, and all nominated areas were evaluated as potential ACECs. The 27 areas totaled approximately 937,000 acres of public land in Doña Ana, Otero, and Sierra counties. The BLM evaluated each of the 29 areas to determine whether it met required criteria for ACEC designation. Three nominations are expansions of current ACECs. Eighteen areas totaling 430,000 acres have been carried forward and analyzed in this RMP.

### 1.1 Definition of an ACEC

BLM regulations (43 CFR 1610) define an ACEC as follows:

> *An area within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.*

ACECs differ from other special management designations such as wilderness study areas (WSAs) in that the designation, by itself, does not automatically prohibit or restrict other uses in the area. The only regulatory requirement is that a plan of operation is necessary for any proposed locatable mineral exploration or development within an ACEC. Private land and lands administered by agencies are not included within the boundaries of ACECs nor are they subject to the ACEC management prescriptions. The ACEC designation is an administrative designation and is accomplished through the land use planning process. As such, designations may be changed in subsequent planning cycles

## 1.2 Requirements for ACEC Designation

To be considered as a potential ACEC and be analyzed in the RMP alternatives, an area had to meet the criteria of relevance and importance prescribed at 43 CFR 1610 and listed in *BLM Manual* Section 1613 (BLM 1988).

### 1.2.1 Relevance

An area meets the relevance criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and to religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened plant species, or habitat essential to maintaining species diversity).
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

### 1.2.2 Importance

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the importance criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

1. Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has a quality or circumstance that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of Federal Land Policy and Management Act.
4. Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.
6.

## 1.3 THE ACEC DESIGNATION PROCESS

There are several steps in the identification and evaluation of ACECs. These steps include the nomination of areas that may meet the relevance and importance criteria, evaluation of the nominated areas to determine if they meet the criteria, and analysis of the potential impacts of ACEC designation in a Draft RMP/EIS. When released for public review, the Draft RMP/EIS contains recommendations for designation and the analysis of impacts from that designation. Public comments are reviewed and considered and adjustments are made as necessary before a Proposed RMP/Final EIS is released. Designation of ACECs then occurs via a Record of Decision (ROD) approving the RMP. Each of these steps is briefly described below.

### 1.3.1 Identification/Nomination

ACECs can be nominated at any time, but they are only designated through the BLM's land use planning process. Nominations from the public are generally solicited as part of the scoping process during development of a land use plan or plan amendment for a particular area.

### 1.3.2 Evaluation of Nominations for Relevance and Importance

Nominations are evaluated by a team of BLM interdisciplinary specialists to determine whether they meet the relevance and importance criteria. A nominated area must meet one or more of both the relevance and importance criteria to be considered a potential ACEC. Potential ACECs are then further considered during the planning process.

### 1.3.3 Consideration of Potential ACECs

Potential ACECs are next considered as RMP alternatives. Each potential ACEC is proposed for designation in at least one management alternative. A potential ACEC is proposed for designation if it is thought to need special management. Special management is defined as management outside of standard or routine practices, and usually includes more detail than other management prescriptions contained within the plan. The need for special management and the resulting effects from applying such management are assessed in the associated environmental analysis.

### 1.3.4 Comment on Proposed ACECs

A notice of any areas proposed for ACEC designation is published in the *Federal Register* along with a Notice of Availability of the Draft RMP/EIS requesting public comment. At this point in the process, the public may comment on any aspect of the ACEC analysis. These comments are then considered in preparation of the Proposed RMP/Final EIS. After a 30-day period when the Proposed RMP may be protested and resolution of any protests, a ROD is prepared and the plan is approved.

### 1.3.5 Designation

Designation of ACECs occurs when the ROD approving the RMP is signed.

## 1.4 EVALUATION AND FINDINGS SUMMARIES OF NOMINATED ACECS

This section contains the summary evaluations of each of the 29 nominated ACECs. Tables G-1 and G-2 show the acreage nominated, the values associated with each nomination, and the acreage carried forward as a proposed ACEC in the RMP. Table G-2 shows the summary evaluation for those areas that were not carried forward. Following the tables is a summary of the evaluation and recommendation for each ACEC. The full evaluation report for each area is available from the Las Cruces District Office. ACECs were nominated prior to starting the RMP, during the public scoping for the RMP, and in one case, during the developing of the Draft RMP. Areas were nominated by external interest groups as well as by BLM.

| TABLE G-1<br>NOMINATED ACECS CARRIED FORWARD IN THE RMP | | | | |
|---|---|---|---|---|
| **Nominated ACEC** | **Nominated Acreage** | **Nominated Values** | **Acreage –Percentage with R&I Criteria** | **Significant Values (Reason Carried Forward)** |
| Broad Canyon | 5,213 | Cultural, scenic, ecological | 4,720 acres – 90% | Cultural |
| Brokeoff Mts. | 62,323 | Ecological, cultural, scenic, naturalness, recreational | 62,323 acres –100% | Ecological, cultural |
| Caballo Mountains | 35,241 | Scenic, ecological | 17,267 acres – 49% | Scenic |
| Cornucopia | 188,032 | Cultural, naturalness, ecological, scenic | 16,213 acres – 9% | Cultural |
| Doña Ana Mts. Expansion | 1,760 | Scenic | 1,760 acres – 100% | Scenic |
| East Potrillo Mountains | 11,473 | Scenic, ecological, cultural | 11,459 acres – 100% | Scenic |
| Jarilla Mountains | 6,200 | Ecological/special status species | 6,200 acres – 100% | Ecological/special status species |
| Mud Mountain | 2,600 | Ecological/special status species | 2,600 acres – 100% | Ecological/special status species |
| Nutt Mountain | 12,650 | Scenic | 756 acres – 6% | Scenic |
| Otero Mesa Grassland | 412,000 | Ecological, wildlife habitat, special status species | 271,262 acres – 73% | Ecological, wildlife habitat, special status species |
| Percha Creek | 870 | Ecological/special status species | 870 acres – 100% | Ecological/special status species |
| Picacho Peak | 957 | Archeological, cultural, scenic | 957 acres – 100% | Scenic, cultural |
| Pup Canyon | 3,600 | Ecological/special status species | 3,600 acres – 100% | Ecological/special status species |
| Robledo Mountains Expansion | 144,078 | Cultural, naturalness, scenic, ecological, recreational | 12,077 – 8% | Cultural |
| Sacramento Mountains | 2,400 | Ecological/special status species | 2,400 acres – 100% | Ecological/special status species |
| Six Shooter Canyon | 1,100 | Ecological/special status species | 1,100 acres – 100% | Ecological/special status species |
| Southern Caballo Mountains | 63,207 | Cultural, recreational, ecological, naturalness | 24,113 acres – 38% | Cultural |
| Tortugas Mt. (“A” Mountain) | 1,280 | Scenic, cultural, geomorphology, soils | 1,280 acres – 100% | Soils/geomorphology |
| Tularosa Creek | 435 | Ecological, aquatic, riparian | 435 acres – 100% | Ecological, aquatic riparian |
| Van Winkle Lake | 1,320 | Ecological | 1,320 acres – 100% | Ecological |

| TABLE G-2<br>NOMINATED ACECS NOT CARRIED FORWARD IN THE RMP | | | | |
|---|---|---|---|---|
| **Nominated ACEC** | **Nominated Acreage** | **Nominated Values** | **Acreage – Total Percentage Meeting R&I Criteria** | **Reason Not Carried Forward as proposed ACEC** |
| Aden Lava Flow RNA | 3,700 | Biological, scenic, geological, research | 3,700 - 100% | Within a WSA boundary |
| Badger | 12,638 | Naturalness, recreational, ecological | None | R & I values not met |
| Organ/Franklin Mountains ACEC Bar Canyon Expansion | 423 | Scenic, biological | 423 acres- 100% | Managed for wilderness characteristics |
| Cornudas Mountains | 59,959 | Scenic, cultural, special status species | 41,710 acres – 70% | Included in Otero Mesa Grassland ACEC |
| Gyp Hills-Chalk Hills | 29,446 | Naturalness, recreational, ecological | None | R & I values not met |
| Greater West Portillo Mountains | 18,317 | Naturalness, recreational, ecological | None | R & I values not met |
| Robledo Mountains– Sierra de las Uvas Expansion | 144,078 | Cultural, naturalness, scenic, ecological, recreational, paleontological, | 11,430 acres – 8%<br>7,000 existing ACEC<br>3,052 proposed expansion | Expansion area included in National Monument |
| Peñasco Canyon | 5,354 | Naturalness, cultural, ecological | None | R & I values not met |
| NOTES: ACEC = area of critical environmental concern, R&I = relevance and importance, RMP = resource management plan. | | | | |

### 1.4.1 Broad Canyon

***Description***

A total of 5,213 acres in the Broad Canyon area were nominated as an ACEC for the purposes of recognizing and protecting cultural, scenic, and ecological resources.

Broad Canyon is fairly scenic. The multicolored cliffs and desert vegetation offer beautiful scenery for hikers and four-wheel-drive enthusiasts using the canyon bottom, but the area fails to offer more than locally significant qualities. The area is not fragile and has been use safely by the public for hiking, horseback riding, and off-highway-vehicle (OHV) enthusiasts for many years.

Broad Canyon does not support relevant ecological values such as a fish and wildlife resource or a natural process or system. No threatened or endangered plant or animal species are known to occur in the canyon.

A total of 86 archaeological sites have been recorded on public land within the nominated area. The archaeological sites present within the nominated area represent Paleoindian, Archaic, Jornada Mogollon, Mimbres Mogollon, and Apache cultures. There also are historic habitation sites within the area. One of the historic sites contains portions of the historic Butterfield Overland Trail.

### *Evaluation*

The prehistoric structural sites within the nominated area are unique because very few structural sites in the area have been recorded or subjected to data recovery. The data from these sites would be protected under the proposed ACEC as would more segments of the Butterfield Overland Trail within the Las Cruces District Office. Much of the area meets both relevance and importance criteria for cultural resources.

## 1.4.2 Brokeoff Mountains – Guadalupe Escarpment

### *Description*

A total of 62,323 acres in the Brokeoff Mountains-Guadalupe Escarpment area were nominated as a scenic area for the purposes of recognizing and protecting naturalness; outstanding opportunities for solitude and/or a primitive and unconfined type of recreation; and scenic, ecological, and cultural resources. However, because the BLM has no administrative designation for a scenic area, the area was evaluated as an ACEC nomination.

The area offers opportunities for primitive and unconfined types of recreation, such as hiking and hunting. However, these opportunities are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding. The area fails to offer outstanding opportunities for primitive and unconfined types of recreation.

Grasslands and desert creosote scrub occupy the largest percentage of the acreage within the nominated area. The range sites within this area are similar to thousands of acres in the area. No special status plant species are known to occur in the area. The area provides a diversity of wildlife habitat types, from creosote flats to grassy limestone hills, to large canyon bottoms with arroyo-riparian vegetation, to juniper-covered mountains and steep cliffs. The area contains important habitat for mule deer.

Approximately 60 archaeological sites, including a variety of artifacts and features, have been recorded on public land at least two rock art sites. The archaeological sites present within the nominated area include Paleoindian, Archaic, Jornada Mogollon, Apache, and historic. Several of the sites were homesteads. Although many archaeological inventories appear to have been conducted in the nominated area, the number of inventories is actually small when the area's size is considered.

### *Evaluation*

The proposed area does not include any relevant natural hazards or natural processes or systems.

The area is spectacularly scenic; however, there are no real threats to its scenic value. The steep escarpment and vistas of the northern portion of the area are extremely scenic, particularly on the western side, as are the limestone bluffs of the southeastern portion from Boardwell Canyon on the south to Cornucopia Draw on the north.

The numerous rock art sites in the nominated area are unique and irreplaceable. Few Apache sites have been recorded in the Southwest. It is believed the Mescalero Apache would consider the Apache sites within the nominated area to be an irreplaceable part of their heritage. The prehistoric sites in the nominated area are unique because very few sites in the area have been recorded or subjected to data recovery. Portions of the area meet the relevance and importance criteria for cultural resources. A total of 62,323 acres have been carried forward as a potential ACEC in the *TriCounty RMP/EIS.*

### 1.4.3 Caballo Mountains

***Description***

A total of 35,241 acres in the Caballo Mountains were nominated as a scenic area of ACEC. The area was nominated for the purpose of recognizing and protecting the scenic and ecological resources of the mountains.

Parts of the Caballo Mountains provide significant scenic value. The Caballo Mountains are the dominant geologic feature in the area. The mountains offer spectacular scenery for travelers on Interstate 25 for approximately 30 miles.

The proposed area includes a major portion of the north-south-trending Caballo Mountain range, which reaches elevations of over 7,000 feet. The geology of the area is complex, but its dominant features are the sedimentary limestone that forms ridges, ledges, and mountains at higher elevations and the red and olive sandstone and siltstone formations at slightly lower elevations, especially on the area's eastern side.

Although the nomination for the Caballo Mountains did not address natural hazards, the cliffs of the steep western escarpment contain numerous natural hazards. The Caballo Mountains are in a historic mining district; however, there are no impending mining issues that necessarily threaten the ecological values. Likewise, any ACEC designation and management would be subject to valid existing rights.

***Evaluation***

The scenic values of the Caballo Mountains have more than local significance. The mountain range is visible from a broad geographic area, including four towns and two state parks, making it important for a large number of people. Much of the area meets both the relevance and importance criteria for scenic resources and has been carried forward and analyzed in the *TriCounty RMP/EIS* for designation as an ACEC.

The area has ecological values that set it apart from most public land in southern New Mexico. The area meets the relevance criterion for a fish and wildlife resource by the presence of diverse and relatively scarce habitat. It also meets the relevance criterion for a significant natural process or system. However, since these resources are of no more than local importance, they do not meet the importance criterion. A total of 17,267 acres have been carried forward as a proposed ACEC for scenic values in the *TriCounty RMP/EIS.*

### 1.4.4 Cornucopia (Southern Sacramento Mountains)

***Description***

The New Mexico Wilderness Alliance (NMWA) and the Wilderness Society nominated 188,032 acres in the southern Sacramento Mountains area as an outstanding natural area. Because of the abundance of areas with "*Sacramento*" or "*Sacramento Mountains*" in their names, the name of this area was changed to "*Cornucopia*" based on the names of existing geographic features in the area. Cornucopia was nominated for the purpose of recognizing and protecting naturalness; outstanding opportunities for solitude and/or a primitive and unconfined type of recreation; and scenic, ecological, and cultural resources. The BLM no longer uses the administrative designation of outstanding natural area; therefore, the area was evaluated as a nominated ACEC.

The area is spectacularly scenic; however, there are no real threats to its scenic value. The steep escarpment and vistas of the northern portion are extremely scenic, particularly on the western side, as are the limestone bluffs of the southeastern portion from Boardwell Canyon.

The area provides a diversity of habitat types; creosote flats, grassy limestone hills, large canyon bottoms with arroyo-riparian vegetation, and juniper-covered mountains and steep cliffs. The area offers important habitat for mule deer. No special status plant or animal species have been recorded in the area.

Some 60 archaeological sites have been recorded. Sites within the nominated area include Paleoindian, Archaic, Jornada Mogollon, Apache, and historic. The sites contain combinations of artifact scatters, rock art, and features. Several of the sites are historical homesteads.

***Evaluation***

The area offers opportunities for primitive and unconfined types of recreation, such as hiking and hunting. However, these opportunities are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding. Ecological values in the proposed area are similar to those on millions of acres of land in southern New Mexico.

The number of recorded archaeological sites is high compared to the acreage subjected to inventory. The numerous rock art sites within the nominated area are unique and irreplaceable. Few Apache sites have been recorded in the Southwest. It is believed the Mescalero Apache would consider the Apache sites within the nominated area to be an irreplaceable part of their heritage. The prehistoric sites within the nominated area are unique because very few sites in the area have been recorded or subjected to data recovery; therefore, portions of the area meet the relevance and importance criteria for cultural resources. A total of 16,213 acres in the Cornucopia area have been carried forward as a proposed ACEC.

### 1.4.5 Doña Ana Mountains ACEC – Expansion

***Description***

The existing Doña Ana Mountains ACEC is in central Doña Ana County, 5 miles north of Las Cruces. This ACEC encompasses approximately 1,490 acres. The expansion would add approximately 1,760 acres to the existing ACEC and would create a contiguous ACEC boundary with a portion of BLM land, the New Mexico State University's Chihuahuan Desert Rangeland Research Center, and the Chihuahuan Desert Nature Park. The peaks of Doña Ana Mountains are highly scenic and are within view of most of the northern Mesilla Valley and northeastern Las Cruces.

Although the cultural resource values were not found to meet relevance and importance in the Final RMP, the existing Doña Ana Mountains ACEC does contain unique cultural features. The BLM has concluded that there is a high likelihood that cultural sites exist adjacent to the existing ACEC, which is being managed in part for cultural resource protection.

***Evaluation***

This area meets the importance criterion due to its proximity to Las Cruces and accessibility by much of the recreating public, who may not recognize the area's values or its need for heightened management attention. This lack of attention may result in unintentional damage from the numerous activities that take place in the area. The cultural values in this area are unique and have qualities that make them vulnerable to adverse change. Due to its proximity to both the Chihuahuan Desert Rangeland Research Center and

the Chihuahuan Desert Nature Park and the research values present there, this area would become a valuable "unofficial" extension to these areas. The nominated area also meets both the relevance and importance criteria for its scenic values.

### 1.4.6 East Potrillo Mountains

#### *Description*

A total of 11,473 acres in the East Potrillo Mountains were nominated as a RNA for the purpose of recognizing and protecting the ecological, scenic, and cultural resources. The BLM no longer uses the administrative designation of RNA; therefore, the area was evaluated as a nominated ACEC.

The mountains are predominately limestone hills in fair condition but degrading in range condition as slope decreases. Creosote is the dominant brush species of this community, followed by succulents. Grasses occur in small patches between rocks and in fissures where soil accumulation has occurred. Grass species includes Tobias, bush muhly, side oats, threeawns, and isolated populations of black grama. The Las Cruces District Office has no records of special status plants within the nominated area. However, the ecological values of the East Potrillo Mountains are not well known.

#### *Evaluation*

The East Potrillo Mountains are one of the prominent scenic features along State Road 9 and are visible from El Paso, Texas, and Interstate 10. The scenic resources of the East Potrillo Mountains are vulnerable to adverse change from mining. There are historic mines in the mountain range, but no known mineral deposits.

The Las Cruces District Office has no records of special status plants or animals within the nominated area. From an ecological standpoint, there is nothing significant or outstanding about the nominated area. The nominated area contains two cultural resource sites, but neither is distinctive.

This area does meet both the relevance and importance criteria for scenic resources. Only areas meeting the criteria, 11,459 acres, have been carried forward into the *TriCounty RMP/EIS* as a potential ACEC.

### 1.4.7 Jarilla Mountains

#### *Description*

The Jarilla Mountains are a small, isolated range with complex geology, mostly on public land, north of Orogrande, New Mexico. In the 1986 *White Sands RMP,* 120 acres within the range were closed to OHV use to protect cultural resources. The Jarilla Mountains were recommended for evaluation because of the high diversity of cacti occurring there and the existence of apparently unique forms of hedgehog cactus. The variety of geologic substrates in the mountains supports a large number of plant associations and a resulting high diversity of plan species. At least 14 species of cacti have been recorded, the greatest cactus diversity known to exist in the (former) Caballo Resource Area.

The main threats to biological values under existing management would be new surface disturbances such as roads and mines in the northern half of the mountains, increased OHV use in the lower elevations, plant (cactus) collection activities, and current or greater levels of grazing in the xeroriparian zones. The uniqueness of the several forms of *Echinocereus* cactus species make them very desirable for collectors.

### *Evaluation*

An ACEC should be designated to encompass the critical biological values within the area. The site meets the relevance and importance criteria in that it contains habitat essential for the maintenance of cactus species diversity and cactus community diversity not known elsewhere. No similar resources are known elsewhere in New Mexico; therefore, the area has at least regional, if not national, significance. The Jarilla Mountains have been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

## 1.4.8 Mud Mountain

### *Description*

Mud Mountain and the adjacent Mud Springs Mountains rise over 1,000 feet above the surrounding Rio Grande floodplain, just west of Truth or Consequences, New Mexico. This area is the only known location in New Mexico for the State listed endangered Duncan's pincushion cactus (*Escobar duncanii*).

Duncan's pincushion cactus is known only in several locations in the Big Bend region of Texas, probably in northern Mexico, and this single location in New Mexico. The plant is not listed in Texas. The U.S. Fish and Wildlife Service status report for this species recommended that its habitat on Mud Mountain be protected by the BLM and that the agency monitor populations. Subsequent surveys of the area revealed fewer than 500 plants.

The various limestone and dolomite substrates here support a diverse flora, which, in addition to the Duncan's pincushion, constitutes a valuable flora. The northeastern slope of Mud Mountain contain a grassland of about 3 acres of almost pure New Mexico needlegrass (*Stipa neomexicana*), an occurrence that is considered to be rare, if not unique, in New Mexico.

### *Evaluation*

The Mud Mountain area meets the relevance and Importance Criteria for biological values. It contains New Mexico's only occurrence of the State endangered Duncan's pincushion cactus. It also contains a high diversity of plants as well as specialized limestone plant communities in late seral condition. Mud Mountain has been carried forward as a potential ACEC in the *TriCounty RMP/EIS.*

## 1.4.9 Nutt Mountain

### *Description*

The NMWA and the Wilderness Society nominated 12,650 acres in the Nutt Mountain area as an RNA. The area was nominated for the purpose of recognizing and protecting the ecological and scenic resources. The BLM no longer uses the administrative designation of RNA; therefore, the area was evaluated as a nominated ACEC.

The Nutt Mountain grasslands provide good condition habitat for wildlife, similar to the rest of the Uvas Valley to the north and west and the Uvas Mountains to the south. The grassy hills are vegetated by grama grasses, green sprangletop, threeawns, nine-awn, and other desirable grass species. There are scattered juniper trees and, in a few canyons, fairly good stands of mountain mahogany. Mule deer are relatively common in this habitat type. Other mammals include desert cottontails, banner-tailed and Merriam's kangaroo rats, several species of pocket mice and deer mice, woodrats, gophers, and desert

shrews. Common birds include red-tailed hawks, scaled quail, horned larks, and roadrunners. Herptiles include gopher snakes, prairie and western diamondback rattlesnakes, coachwhips, desert grassland whiptails, lesser earless lizards, and Couch's spadefoots. The grassy uplands, while supporting creosotebush, are in fair to good condition as evidenced by the presence of grassy cover.

***Evaluation***

The area does not have ecological values that set it apart from adjacent public land in the Nutt Valley and Uvas Mountains. There are no known records of special status plant species from the southern Nutt Mountain area, and no potential habitat for special status plant species exists in this area. This area has no known importance for special status plants. Therefore, there is no known need to establish a RNA to support ongoing or needed special status plants in this area.

Nutt Mountain is one of the tallest hills in the range. It is a prominent historic and modern-day landmark for travelers, and is easily visible from New Mexico Highways 26 and 27. Nutt Mountain has a significant scenic value of more than local significance. This area meets relevance and importance criteria for scenic resources. A total of 756 acres have been carried forward as a proposed ACEC.

### 1.4.10 Otero Mesa Grassland

***Description***

In June 2008, the Coalition for Otero Mesa (Wilderness Society, NMWA, and others), submitted a proposal to designate approximately 412,000 acres of public land on Otero Mesa as the Otero Mesa Grassland Wildlife ACEC. Approximately 175,000 acres of the proposed ACEC is on McGregor Range and is managed according to the *RMP Amendment for McGregor Range* completed in May 2006. The remaining 270,000 acres are on Otero Mesa to the east of McGregor Range.

The Otero Mesa Coalition cited the area as containing the last and largest intact Chihuahuan Desert grasslands in the United States. Both the coalition and other organizations have noted that many wildlife species are dependent upon this habitat, including numerous breeding birds, some of which are seriously declining in numbers; high-profile species such as ferruginous hawks and aplomado falcons; colonies of black-tailed prairie dogs; and a possible remnant population of pronghorn.

In its publication *Comprehensive Wildlife Conservation Strategy*, the New Mexico Department of Game and Fish (NMDGF) named the Chihuahuan semidesert grasslands as one of two key habitats in the Chihuahuan Desert ecoregion. It noted that desert grasslands are especially important to grassland birds, which have been declining in North America over the past 50 years. The NMDGF noted that the semidesert grasslands host 55 species of greatest conservation need. New Mexico Partners in Flight identified several species of birds as priority species that are known to occur on McGregor Range and Otero Mesa. The Nature Conservancy's Prairie Wings program has mapped grassland ecosystems that need to be preserved to save 13 species of birds, including the Chihuahuan desert grasslands of southern New Mexico.

Pronghorn occur throughout the proposal area. Proponents noted that these could be descendants of a remnant herd of pronghorn native to the area; however, no conclusive evidence for this exists.
The black-tailed prairie dog is distributed throughout the area, occupying over a dozen colonies or "towns." However, the colonies are small compared to historical numbers and are susceptible to sylvatic plague, which could wipe out a colony. Protecting the colonies is important to maintaining the overall prairie dog populations in Otero Mesa.

Otero Mesa contains a diversity of plants. Three sites on the adjoining McGregor Range have been designated an ACEC to protect black grama grassland and associated species.

The size of the proposed ACEC lends itself to wildlife habitat management on a landscape or ecosystem scale. This mimics management of BLM-identified habitat management areas as prescribed in habitat management plans and other large management projects. The size of the area also tends to reduce the overall impacts of localized activities or projects. However, portions of the proposed ACEC along the northeast boundary are shrub dominated communities that lack important grassland components.

All or parts of 14 grazing allotments, some 270,000 acres of public land, are present within the ACEC proposal area outside the McGregor Range. All but one of these allotments are classified in the "maintain selective management" category, which requires that allotments are managed to maintain current satisfactory resource conditions and are actively managed to ensure that resource values do not decline.

***Evaluation***

The proposed Otero Mesa Grassland ACEC includes high-quality semidesert grassland habitat that is declining in size and distribution in North America. This habitat type provides home to numerous species some of which, especially grassland birds, are declining in numbers. The area contains a number of special status animal species. It also contains a sizable herd of antelope, which is a managed game species. Range condition of the overall area is fair to good. Grassland habitat condition, especially for antelope, is considered to be good to excellent. The size of the proposal area would promote wildlife habitat management on a landscape scale.

Based on the above information, the BLM evaluation team determined that the nominated Otero Mesa Grassland Wildlife ACEC meets the relevance and importance criteria in regard to the grassland habitat and associated wildlife. The area has therefore been carried forward as a proposed ACEC.

### 1.4.11 Percha Creek

***Description***

More than a 1-mile-long stretch of cottonwood-willow dominated riparian communities occur on public land on the lower reaches of Percha Creek just east of Hillsboro, New Mexico. A 280-acre special management area was designated for this area in the 1986 *White Sands RMP*.

The site features a perennial stream that flows through a steep-walled box canyon into a more open canyon. The riparian zone features a Fremont cottonwood-Goodding willow habitat type with a diverse mixture of other trees, including velvet ash, Arizona walnut, netleaf hackberry, little mulberry, box elder, and Arizona alder. The riparian vegetation within the box canyon, although existing within a rather short stretch, is considered to be one of the best remaining examples of the habitat type in New Mexico. Above the canyon on the northern side are gently sloping shrubby grasslands, mostly ocotillo-black grama habitat type in good range condition. An igneous rock monolith at the head of this arroyo supports a vigorous population of the State sensitive mosquito plant (*Agastache cana*), which is globally rare and exists in only a few places in New Mexico.

***Evaluation***

This area meets the relevance and importance criteria for ACEC designation because it represents an exemplary riparian community that rarely occurs in such a relatively pristine condition, is vulnerable to

adverse change, and satisfies national-priority concerns for the maintenance of exemplary riparian sites. The box canyon and geological formations add to the special qualities of this site. Percha Creek has been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

### 1.4.12 Picacho Peak

#### *Description*

Picacho Peak rises approximately 1,000 feet above the western side of the Mesilla Valley. To the north of Picacho Peak is the Robledo Mountains ACEC; to the southwest is the Las Cruces International Airport. Box Canyon is located to the west of Picacho Peak, which offers panoramic views of the Mesilla Valley.

The historic Butterfield Overland Trail follows the northern and western boundaries of Picacho Peak. The Butterfield Overland Trail is a nationally important trail and, along with associated stage stations, is considered to have regional, historical, and archeological significance. The Butterfield Special Management Area, which extends 0.25 mile on each side of the trail, was designated to help protect portions of the trail. Picacho Peak was considered a landmark along the trail route.

Picacho Peak is important due to its scenic value, its importance as a landmark of the Mesilla Valley, and its historic importance. It is an obviously prominent feature that has more than local significance due to its visibility to the many thousands of travelers who pass through the area.

#### *Evaluation*

This area meets the importance criterion of being more than locally significant in terms of the cultural and historic values of the Butterfield Overland Trail and the area's scenic quality, which is enjoyed by hundreds of thousands of resident of the Mesilla and travelers on Interstate 25 and Interstate 10 annually. The small size and susceptibility of Picacho Peak to potential surface-disturbing activities or related uses meets an importance criterion because it contains qualities that make it fragile, irreplaceable, and vulnerable to adverse change.

### 1.4.13 Pup Canyon

#### *Description*

Pup Canyon is on the western side of the Guadalupe Escarpment, north of the Brokeoff Mountains and adjacent to the Lincoln National Forest. This area is an extension of the larger nominated Brokeoff Mountains-Guadalupe Escarpment ACEC. The natural values of the area are similar to those of that larger ACEC nomination (refer to the above discussion of the Brokeoff Mountains-Guadalupe Escarpment). Pup Canyon was nominated to protect ecological values, primarily the special status plant species and habitats along this portion of the escarpment.

#### *Evaluation*

Pup Canyon contains ecological values and special status species and habitats that meet relevance and importance criteria. Therefore it has been carried forward as a proposed ACEC to be analyzed as a separate area under one or more alternatives in the *TriCounty RMP/EIS.*

## 1.4.14 Robledo Mountains Expansion

### *Description*

A total of 144,078 acres covering the Robledo Mountains, the Sierra de Las Uvas, and almost all public land in between were nominated as a scenic area and primitive recreation area (PRA). The area was nominated for the purpose of recognizing and protecting naturalness; outstanding opportunities for solitude and/or a primitive and unconfined type of recreation; and scenic, ecological, and cultural resources. The BLM does not have an administrative designation of scenic area or PRA; therefore, the area was evaluated as a nominated ACEC. Approximately 13,000 acres in the Robledo Mountains and 11,000 acres in the Sierra de Las Uvas are presently designated as WSAs. A portion of the Robledo Mountains (7,077 acres) was designated a scenic ACEC in the *Mimbres RMP* (1993).

### *Evaluation*

The area offers opportunities for primitive and unconfined types of recreation, such as hiking and hunting. However, these opportunities are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding. The area fails to offer outstanding opportunities for primitive and unconfined types of recreation.

Five archaeological sites have been recorded on public land within the nominated area. The archaeological sites include one Archaic site, one Jornada Mogollon site from the Late Pithouse period, one Mimbres Mogollon site from the Late Pithouse period, one historic site, and an Apache site. The two Late Pithouse–period sites may contain the remains of structures and would be significant, as few habitation sites have been recorded in the area surrounding the Sierra de las Uvas. Portions of the area meet the relevance and importance criteria for cultural resources.

### *Errata*

As noted in the Dear Reader letter of this document, the BLM inadvertently omitted this proposed ACEC in *Chapter 2 Alternatives* and *Chapter 4 Analysis*. The proposed management prescriptions for Alternative B are provided here and a map is located in Appendix J.

**TABLE G-1**
**PROPOSED AREAS OF CRITICAL ENVIRONMENTAL CONCERN MANAGEMENT PRESCRIPTIONS BY ALTERNATIVE***

| ACEC & VALUES | ALTERNATIVE B | ALTERNATIVE C |
|---|---|---|
| **Robledo Mountain Expansion**<br><br>(Map J-46)<br><br>*Cultural Resources* | **12,077 Acres**<br><br>• Limit vehicle use to designated routes.<br>• Close to geothermal leasing.<br>• Exclude new rights-of-way<br>• Close to mineral material disposal.<br>• Recommend withdrawal from mineral entry.<br>• Manage as VRM Class II. | Do not designate area as an ACEC. |
| NOTE: * No ACECs are newly proposed for Alternatives A and D. | | |

### 1.4.15 Sacramento Mountains

#### *Description*

In 1981, Todsen's pennyroyal (*Hedeoma todsenii*) was listed as an endangered species under the Endangered Species Act of 1973. At that time, only two small populations were known in the San Andreas Mountains on the White Sands Missile Range. In 1988, additional populations were discovered on the western flank of the Sacramento Mountains. The entire area nominated for ACEC designation supports a piñon-juniper woodland community. Within this area, 12 of the 13 known Sacramento Mountain populations of Todsen's pennyroyal occur, several of them spilling over onto Forest Service land. Other rare or sensitive plants found here include State endangered button cactus (*Epithelantha micromeris*), State sensitive Guadalupe Mountain rabbitbrush (*Chrysothamnus spathulatus*), and two other relatively rare plants, desert rose (*Rosa stellata*) and threadleaf horsebrush (*Tetradymia filifolia*).

The entire area provides excellent habitat for mule deer, and the upper portion along the forest boundary is elk wintering habitat with local heavy use. Neither game species appears to utilize or have adverse effects on the pennyroyal.

#### *Evaluation*

This area meets the relevance and importance criteria because of the presence of a federally listed endangered species, the Todsen's pennyroyal; therefore, the nominated Sacramento Mountains ACEC has been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

### 1.4.16 Six Shooter Canyon

#### *Description*

Six Shooter Canyon is a narrow, steep-walled limestone arroyo on the Guadalupe Rim. Water flow in the canyon is ephemeral, and the canyon exhibits a treeless xeroriparian (rather than a true riparian) vegetative community with Mexican orange, Apache plume, hairy and little-leaf sumac, and bricklebrush are among the common shrubs. Many large, vigorous Guadalupe mescal bean (*Sophora gypsophila* var. *guadalupensis*), a State listed endangered species, occur on pink sandstone substrates in this canyon and in the canyon to the north, with an estimated total population of over 1,000 individuals. The limestone canyons at the site also support populations of two other rare plants, the five-flower rock daisy (*Perityle quinqueflora*) and Guadalupe needlegrass (*Sitpa curvifolia*).

The Six Shooter Canyon area populations of Guadalupe mescal bean were determined to be the most concentrated on public land in the Brokeoff Mountains study area, making this area suitable for ACEC nomination.

#### *Evaluation*

The Six Shooter Canyon site meets the relevance and importance criteria for ACEC designation because of the presence of a State listed endangered species and BLM sensitive species. The area has regional if not national significance because it supports the best known population of the Guadalupe mescal bean. In addition, this ACEC would complement the three other biological protection sites within the Carlsbad Field Area on the eastern escarpment of the Guadalupe Mountains, South Texas Hill Canyon RNA, Dark

Canyon ACEC, and Lonesome Ridge ACEC, providing an important education and research site for comparative purposes. Six Shooter Canyon has been carried forward as a proposed ACEC.

### 1.4.17 Southern Caballo Mountains

#### *Description*

A total of 63,207 acres in the Southern Caballo Mountains were nominated as a PRA. The area was nominated for the purpose of recognizing and protecting naturalness; outstanding opportunities for solitude and/or primitive and unconfined type of recreation; and scenic, ecological, and cultural resources. The BLM does not have an administrative designation of PRA; therefore, the area was evaluated as a nominated ACEC.

Arroyos in this area run from the hills to the river and support a greater diversity and abundance of vegetation and associated wildlife species than the uplands. Species include Apache plume, little-leaf sumac, three-leafed sumac, desert willow, Gambel's quail, mule deer, and thrashers. These arroyos may serve as travel corridors between the Rio Grande Valley and the mountains.

There are no known records of special status plant species from the Southern Caballo Mountains area, and there is no potential habitat for special status plant species in this area.

#### *Evaluation*

Opportunities for primitive and unconfined recreation in this area are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding. The Southern Caballo Mountains do not provide more than a locally significant scenic value. The ecological values are similar to those on millions of acres of public land in southern New Mexico and are in no way outstanding. The area also fails to support a significant natural process or system.

Nine archaeological sites have been recorded on public land. The archaeological sites in the area include rock art sites (both petroglyphs and pictographs); artifact scatters; structural sites that have combinations of hearths, depressions (indicative of pithouses), masonry room blocks, and mounds (indicative of jacal structures); possible burials; and mining locales. The two rock art sites within the nominated area are unique and irreplaceable. The structural sites are significant because few habitation sites have been recorded between the Rio Grande and the Caballo Mountains. Approximately 24,000 acres meet the relevance and importance criteria for cultural resources. A total of 24,000 acres have been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

### 1.4.18 Tortugas Mountain ("A" Mountain)

#### *Description*

The nominated area consists of the approximately 70 percent of the eastern Tortugas (or "A") Mountain and areas east and southeast from the mountain, comprising approximately 1,280 acres in southern Doña Ana County. The scenic values of this mountain are tied to the prominence of the upthrust feature in the lower Mesilla Valley portion of Doña Ana County, however, these scenic values are compromised by the numerous communication towers and observatories and by a very large, white, painted "A" on the western face of the mountain.

A traditional cultural property (TCP) is in the nominated ACEC, and Los Indios de Nuestra Senora de Guadalupe conduct an annual pilgrimage to that location. There is integrity of relationship between the TCP on Tortugas Mountain and the Los Indegenes de Nuestra Senora de Guadalupe group (formerly called Los Indios de Las Cruces). Finally, although several structures have been built on Tortugas Mountain, the TCP has integrity of condition based on the continued use of the area for the pilgrimage and associated ceremonies/social events.

The nominated parcel also includes six soil/geomorphology priority study sites, which are part of a 400-square-mile study area around Las Cruces known as the Desert Soil-Geomorphology Project. The project was initiated in 1957 by the U.S. Department of Agriculture (USDA), which has invested hundreds of person years and many thousands of dollars into the project. In 1976, BLM entered into a Cooperative Agreement with the USDA's Soil Conservation Service (now the Natural Resources Conservation Service) with the purpose to "preserve the study sites and adjoining landscapes so that they could be observed by scientists in various fields, used as a training and study area, and saved for future generations." Over the years, the Desert Soil-Geomorphology Project has produced many scientific publications, making it internationally famous for this type of research.

***Evaluation***

The natural scenic values of the Tortugas Mountain are greatly diminished by the presence of existing manmade structures. The area does not have any special scenic values that are relevant and important.

The TCP issue for Tortugas Mountain meets the relevance criterion, but it does not meet the importance criterion as it does not have more than local consequence or concern.

The special values related to the soil study sites have relevance due to the significant research value attached to them, and their importance for long-term research is national. The soil pits and study sites are especially vulnerable to adverse change.

The soil/geomorphology study sites meet the relevance criterion for both containing research values with long-term significance due to the number of years that these areas have been studied and the continued use of these sites for future study. They also meet the importance criterion due to the national importance of these sites to long-term research. Tortugas Mountain has been carried forward as a proposed ACEC.

## 1.4.19 Tularosa Creek

***Description***

The area being considered covers approximately 435 acres of BLM-administered public land consisting of aquatic, riparian, and surrounding upland habitats along Tularosa Creek downstream from Bent, New Mexico, in Otero County. U.S. Highway 70 crosses the creek in this area.

The stream is bordered on both sides by dirt-bank cliffs ranging from approximately 10 to 30 feet high. The stream flows swiftly and directly across the property, with few meanders and no natural oxbows. The riparian area includes approximately 2 miles of stream. The riparian area supports native plants, but has been invaded by salt cedar. Native ashes, willows, and cottonwoods are abundant. On the benches above the cliffs, desert shrub-scrub of mesquite, rabbitbrush, and thick stands of four-winged saltbush. The riparian area shows evidence of wildlife use by mule deer, elk, raccoons, coyotes, and mountain lions and provides important yearlong habitat for songbirds, such as brown towhees, white-crowned sparrows, and sage sparrows. The riparian area is potential habitat for a high diversity of wildlife, and the stream

has historically supported fish such as rainbow trout, brown trout, and various terrestrial and aquatic invertebrates.

***Evaluation***

This area meets the relevance criterion because it has an existing natural process or system that includes riparian and aquatic habitat for a variety of plant and animal species that are exceedingly rare in southern New Mexico. The small size and fragility of the area makes it vulnerable to impacts from grazing and overuse by the public, which fulfills the importance criterion. The Tularosa Creek has been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

### 1.4.20 Van Winkle Lake

***Description***

The area being considered covers 1,320 acres in south-central Otero County. The BLM-administered public land in and around Van Winkle Lake consists of lake-bottom playa surrounded by relatively flat uplands. Van Winkle Lake is a playa lake, catching seasonal runoff water and occasionally holding water for months.

The playa lakes provide important nesting and migration stopover sites for a large number of shorebirds. In late summer, when Van Winkle Lake holds water, at least 41 species of species of birds have been observed, including waterfowl, shorebirds, raptors, and songbirds.

Other wildlife species observed on site included round-tailed horned lizards, little-striped whiptails, coachwhips, western box turtles, western spadefoots, and pronghorns. This level of species diversity is exceedingly uncommon in southern New Mexico, as is the habitat for shorebirds and waterfowl.

***Evaluation***

Van Winkle Lake meets the relevance criterion because it is an important stopover for migratory shorebirds and waterfowl. Despite the small size of the lake, it provides habitat for numerous species of these birds, including special status species.
The nominated Van Winkle Lake ACEC supports shorebird and waterfowl habitat that is exceedingly rare on BLM-administered public land in southern New Mexico, and it provides habitat for a far greater diversity of plant and animal species than the surrounding upland habitats. Van Winkle Lake meets the importance criterion due to its small size and vulnerability to potential surface-disturbing or water-diversion uses. Van Winkle Lake has been carried forward as a proposed ACEC.

## 1.5 Nominated ACECs Not Brought Forward Into the Alternatives

### 1.5.1 Aden Lava Flow

***Description***

The *Mimbres RMP* (1993) identified the Aden Lava Flow to be maintained as a research natural area (RNA), with specific management goals and planned actions. The area covers 3,930 acres of public land in southern Doña Ana County, approximately 20 miles southwest of Las Cruces. This area is within the

boundaries of the Aden Lava Flow WSA and is currently managed under the BLM's *Interim Management Policy for Lands Under Wilderness Review*.

The lava flow is a nearly flat landform with steep, walled depressions that vary in size and shape. The area also contains crevices, pressure ridges, and lava tubes. The most prominent feature is Aden Crater, which is currently designated as an RNA and is located in the northwestern lava flow area. The area has significant scenic and geologic values as well as interesting wildlife and wildlife habitat features.

***Evaluation***

The Aden Lava Flow meets the BLM's relevance criterion because of its scenery and outstanding natural character, as well as for the potential for research and education about its unique lava habitat type and melanistic wildlife species. However, the area fails to meet the importance criterion because it lacks more than locally significant qualities. It will continue to be managed under BLM's *Interim Management Policy for Lands Under Wilderness Review*.

### 1.5.2 Badger

***Description***

A total of 12,638 acres were nominated in the Badger area as a PRA for the purpose of recognizing and protecting naturalness, outstanding opportunities for solitude and primitive and/or unconfined type of recreation, and ecological resources. The BLM does not have an administrative designation of scenic area or PRA; therefore, the area was evaluated as a nominated ACEC.

The area consist predominantly of low, limestone hills supporting a near monoculture of creosotebush on gravelly sand and gravelly loam soils, although there are some scattered grassy patches and several small canyons containing sumacs and other shrubs.

Although pronghorn antelope and deer both use the area, the habitat quality is not outstanding. The biological diversity of the Badger area is vastly less than that of the greater Otero Mesa area, and its ecological values do not meet the relevance criterion.

***Evaluation***

The proposed area does not include any natural hazards or relevant natural processes or systems.

The ecological values of the area are similar to those on millions of acres of public land in southern New Mexico and are in no way outstanding. The area fails to support a significant natural process or system. According to Las Cruces District Office records, the only special status plant potentially occurring within the nominated Badger area is the grama grass cactus. There are no known locations for special status plant or animal species in the area. This evaluation finds that the nominated Badger ACEC fails to meet both the relevance and importance criteria for naturalness, outstanding opportunities for solitude and/or unconfined type of recreation, and ecological resources. The Badger area has not been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

### 1.5.3 Cornudas Mountain

***Description***

The nominated Cornudas Mountain ACEC offers spectacular scenery, particularly in the Wind, Alamo, and Cornudas mountains. These mountains are included in existing ACEC designations and meet relevance and importance criteria. The rest of the area is not significantly scenic enough to qualify as a scenic ACEC in terms of the relevance and importance criteria.

Both the Cornudas and Alamo mountains were landmarks used by historic travelers and have been mentioned in the journals of individuals traveling from the East and Midwest to California during the mid-1800s. The nominated ACEC has cultural relevance; a portion of the historic Butterfield Overland Trail and two Butterfield stage stations, all nationally significant, are within its boundaries. The Butterfield Overland Trail extends beyond the western boundary of the nominated ACEC.

Petroglyph panels have been recorded on rock faces in the Cornudas, Alamo, and Wind mountains. Prehistoric habitation sites also are near each of the mountains. These petroglyph panels increase the cultural relevance of the nominated ACEC because they are unique and irreplaceable.

The Otero Mesa grasslands certainly have regional and perhaps national value. However, the grasslands comprise only 18 percent of the nominated ACEC. The Otero Mesa grasslands provide habitat for a herd of pronghorn antelope. The hilly and mountainous areas of the nominated ACEC contain a small number of deer. An exotic ungulate, the Barbary sheep, has encroached into the Cornudas Mountains from a population established by escaped game/farm animals near Hondo, New Mexico.

Cornudas Mountain woodland snail was one of the defining values qualifying the Cornudas, Wind, Chatfield, and Alamo mountains for ACEC status. Because this species may potentially be found in the Black, Deer, and Flat Top mountains, those locations would also meet relevance and importance criteria.

***Evaluation***

The scenic, historic and prehistoric resources within the nominated ACEC meet both the relevance and importance criteria for cultural resources. A special status species is known to occur in several mountains in the nominated ACEC and is likely to occur on other hills and mountains of the area. The presence of this species meets relevance and importance criteria as well.
Subsequent to the nomination of Cornudas Mountains, Otero Mesa Grassland ACEC was nominated and it fully encloses the Cornudas Mountains nominated ACEC. The lands associated with Cornudas Mountain are now considered part of the Otero Mesa Grassland ACEC.

### 1.5.4 Greater West Potrillo Mountains

***Description***

A total of 18,317 acres in the Greater West Potrillo Mountains area were nominated as an SMA. The area was nominated for the purpose of recognizing and protecting naturalness, outstanding opportunities for solitude and/or a primitive and unconfined type of recreation, and scenic and ecological resources.

***Evaluation***

The area offers opportunities for primitive and unconfined types of recreation, such as hiking and hunting. However, these opportunities are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding. The area fails to offer outstanding opportunities for primitive and unconfined types of recreation.

The proposed area does not include any natural hazards or relevant natural processes or systems.

Most wildlife species found in the nominated area are common throughout the deserts of southern New Mexico. The claim of a high diversity of bats having been recorded in the area is questionable. There has been little bat inventory conducted in the area, and the BLM has no bat records from this area.

The LCDO has no records of special status species plants within the nominated area; however, little botanical inventory has occurred. This evaluation finds that the nominated area fails to meet both the relevance and importance criteria for naturalness, outstanding opportunities for solitude and/or primitive and unconfined type of recreation, and scenic and ecological resources. The Greater West Potrillo Mountains have not been carried forward as a proposed ACEC.

### 1.5.5 Gyp Hills – Chalk Hills

***Description***

A total of 29,446 acres in the Gyp Hills-Chalk Hills in northern Sierra County were nominated as a PRA. The area was nominated for the purpose of recognizing and protecting naturalness, outstanding opportunities for solitude and/or primitive and unconfined type of recreation, and ecology. The BLM does not have an administrative designation of PRA; therefore, the area was evaluated as a nominated ACEC.

The Gyp Hills-Chalk Hills area does not include any natural hazards or relevant natural processes or systems that would meet the relevance criteria for ACECs.

The area offers opportunities for primitive and unconfined types of recreation, such as hiking and hunting. However, these opportunities are similar to those found on millions of acres of public land throughout central and southern New Mexico, and so are judged to be less than outstanding.

The proposed area includes a portion of the mountain slopes and western foothills of the San Andres Mountains. The area also includes some of the alluvial fans and terraces along the western toe slopes of the mountains. The public land within the Gyp Hills-Chalk Hills area nomination includes grassy hills and creosote-dominated bajadas interspersed by large arroyos supporting arroyo-riparian habitats. The area has low to moderate potential for occurrence of special status plant species.

***Evaluation***

This evaluation finds that the Gyp Hills-Chalk Hills nomination fails to meet the relevance and importance criteria for naturalness, outstanding opportunities for solitude and/or primitive unconfined type of recreation, and ecological resources. None of the Gyp Hills-Chalk Hills area has been carried forward as a potential ACEC.

### 1.5.6 Organ/Franklin Mountains ACEC Bar Canyon Expansion

***Description***

In 2001, the BLM Las Cruces District Office acquired 113 acres through a land exchange with The Nature Conservancy and acquired another 310 adjoining acres in the Organ Mountains through purchase. The 423-acre Bar Canyon parcel (also mistakenly called Soledad Canyon) is immediately adjacent to the Peña Blanca WSA and the Organ/Franklin Mountains ACEC.

The Organ Mountains are a unique and spectacular topographic feature in the region. Characterized by a palisade of massive granite peaks with bare rock caps, they visually dominate the landscape. The Organ Mountains exhibit vegetal influences from the Chihuahua Desert, Rocky Mountains, and Great Plains and are home to some of the highest concentrations of threatened and endangered plant species found in New Mexico. Special status plant species and/or associated suitable habitats occur near the nominated Bar Canyon ACEC. These include Organ Mountains pincushion cactus (*Escobaria organensis*; BLM sensitive and State endangered), Organ Mountains evening primrose (*Oenothera organensis*; BLM sensitive), nodding cliff daisy (*Perityle cernua*; BLM sensitive), smooth figwort (*Scrophularia laevis*; BLM sensitive), night-blooming cereus (*Peniocereus greggii* var. *greggii;* BLM sensitive and State endangered), and crested coral-root (*Hexalectris spicata* var. *arizonica*; BLM sensitive). The parcel offers additional suitable habitat for special status animal species such as the Organ Mountains Colorado chipmunk, the ringtail, and numerous bats.

***Evaluation***

The nominated Bar Canyon expansion of the Organ/Franklin Mountains ACEC meets the relevance criterion due to its proximity to the existing ACEC and the added scenic values within the canyon. This area has relevance due to the biological values of the habitat for numerous special status plant and animal species. This area meets the importance criterion because it is a natural part of the entire Organ Mountains system and is potentially at risk from impacts associated with unmanaged recreational uses.

Subsequent to the nomination of Bar Canyon as an expansion of the Organ/Franklin Mountains ACEC, an inventory of wilderness characteristics determined that the 423 acres, adjacent to the existing Peña Blanca WSA, have wilderness characteristics. Bar Canyon is analyzed in the *TriCounty RMP/EIS* under Lands with Wilderness Characteristics.

### 1.5.7 Penasco Canyon

***Description***

A total of 5,354 acres in the Penasco Canyon area were nominated as a PRA. The area was nominated for the purpose of recognizing and protecting naturalness; outstanding opportunities for solitude and/or primitive and unconfined type of recreation; and scenic, ecological and cultural resources. The BLM does not have an administrative designation of PRA; therefore, it was evaluated as a nominated ACEC.

The nomination listed naturalness, outstanding opportunities for solitude and primitive and unconfined types of recreation, and scenery as values to be protected. Ecological and cultural resources were also noted as values to be protected by ACEC designation.

***Evaluation***

The resource values of the area are similar to those on millions of acres of public land in southern New Mexico and are in no way outstanding. The nominated Penasco Canyon ACEC fails to meet both the relevance and importance criteria for naturalness; outstanding opportunities for solitude and/or primitive unconfined types of recreation; and scenic, ecological, and cultural resources. None of nominated Penasco Canyon has been carried forward as a proposed ACEC in the *TriCounty RMP/EIS.*

# APPENDIX H

RIPARIAN DATA

# APPENDIX H
# RIPARIAN DATA

| Name | Township | Range | Section | Quarter Section | Length (miles) | Survey Date | Rating | Acres | Riparian Type |
|---|---|---|---|---|---|---|---|---|---|
| Sotol Creek | 22S | 4E | 29 | SE/SW/NW | 2.00 | | FAR | 33 | LOTIC |
| Chicken Ranch Spring | 14S | 10E | 35 | SW | 0.06 | 09/14/2004 | FARDN | 0.2 | LOTIC |
| Cottonwood Wash (lower) | 15S | 21E | 19 | | 1.50 | 08/05/2004 | FARDN | 0.5 | LOTIC |
| Cottonwood Wash (upper) | 15S | 21E | 21 | | 1.25 | 08/05/2004 | FARDN | 0.5 | LOTIC |
| Domingo Canyon seg. 2 | 14S | 10E | 35 | SE | 0.40 | 09/10/2004 | FARDN | 0.1 | LOTIC |
| Middle Spring (Placitas) | 19S | 4W | 14 | SW/NE | UNK | 03/26/1998 | FARDN | 2 | LENTIC |
| North Spring (inside exclosure) | 19S | 4W | 10 | NE/SW/SE | UNK | 03/26/1998 | FARDN | 2 | LENTIC |
| Tecolote Canyon seg. 1 | 14S | 10E | 9 | NE | 0.30 | 09/13/2004 | FARDN | 2 | LOTIC |
| Tecolote Canyon seg. 2 | 14S | 10E | 9 | NE | 0.10 | 09/13/2004 | FARDN | 2 | LOTIC |
| Tecolote Canyon seg. 3 | 14S | 10E | 4 | SE | 0.10 | 09/13/2004 | FARDN | 1 | LOTIC |
| Tecolote Canyon seg. 4 | 14S | 10E | 4 | SE | 0.10 | 09/13/2004 | FARDN | 1 | LOTIC |
| Tecolote Canyon seg. 5 | 14S | 10E | 5 | SE | 0.10 | 09/13/2004 | FARDN | 1 | LOTIC |
| Tierra Blanca Creek | 17S | 7W | 13 | NW | 1.00 | 06/06/2003 | FARDN | 17 | LOTIC |
| Domingo Canyon seg. 1 | 14S | 10E | 35 | SW | 0.30 | 04/02/2003 | FARNA | 0.1 | LOTIC |
| Tularosa Creek seg. 2 | 14S | 10E | 16 | SE | 0.50 | 03/25/2003 | FARNA | 2 | LOTIC |
| Tularosa Creek seg. 3 | 14S | 10E | 16 | SE | 0.50 | 03/25/2003 | FARNA | 2 | LOTIC |
| Coyote Canyon seg. 1 | 13S | 10E | 32 | SE | 0.30 | 10/10/2007 | FARUP | 5 | LENTIC |
| Coyote Canyon seg. 2 | 13S | 10E | 33 | SW | 0.20 | 10/10/2007 | FARUP | UNK | LENTIC |
| Coyote Canyon seg. 3 | 13S | 10E | 33 | NE | 0.30 | 10/10/2007 | FARUP | 2 | LENTIC |
| Coyote Canyon seg. 4 | 13S | 10E | 33 | SW | 0.25 | 10/10/2007 | FARUP | UNK | LENTIC |
| Coyote Canyon seg. 5 | 13S | 10E | 34 | SW | 0.20 | 10/10/2007 | FARUP | 0.2 | LENTIC |
| Coyote Canyon seg. 7 | 13S | 11E | 31 | NE | 0.10 | 08/30/1995 | FARUP | 1 | LENTIC |
| Hackler Spring | 19S | 2W | 32 | NE/SW | UNK | 02/24/1998 | FARUP | 2 | LENTIC |
| Little Spring | 19S | 4W | 14 | NE/NW/NE | UNK | 03/26/1998 | FARUP | 2 | LENTIC |
| Percha Creek (upper) | 16S | 7W | 14 | NW | 0.50 | 06/06/2003 | FARUP | UNK | LOTIC |
| San Andres Spring | 17S | 10E | 33 | NE | 0.10 | 09/20/1995 | FARUP | UNK | LENTIC |
| Telles Spring | 22S | 4E | 20 | NW/NW/SW | UNK | 09/24/2008 | FARUP | 1 | LENTIC |
| Three Rivers | 11S | 9E | 21 | SE | 5.00 | 09/13/2004 | FARUP | 20 | LOTIC |

| Name | Township | Range | Section | Quarter Section | Length (miles) | Survey Date | Rating | Acres | Riparian Type |
|---|---|---|---|---|---|---|---|---|---|
| Coyote Canyon seg. 6 | 13S | 10E | 34 | NW | 0.13 | 10/10/2007 | NF | 0.6 | LENTIC |
| Coyote Spring | 21S | 2W | 10 | NE/SW/NW | UNK | 05/17/2000 | NF | UNK | LOTIC |
| Goat Spring | 19S | 4W | 14 | NW/NE/SE | UNK | 03/26/1998 | NF | 3 | LENTIC |
| North Spring (outside exclosure) | 19S | 4W | 10 | NE/SW/NE | 0.00 | 11/18/1997 | NF | 8 | LENTIC |
| Odie Spring 1 | 17S | 5W | 10 | SW | 0.10 | 06/11/2003 | NF | UNK | LENTIC |
| South Spring (railroad) | 19S | 4W | 24 | NW/NW/SE | UNK | 10/14/2004 | NF | 3 | LENTIC |
| Aguirre Spring | 22S | 4E | 29 | NE/NW/NW | UNK | 09/24/2008 | PFC | 0.3 | LENTIC |
| Ash Spring | 15S | 4W | 21 | SW | 0.04 | 04/01/2003 | PFC | 5 | LOTIC |
| Cleophus Spring | 22S | 4E | 8 | SW/NW | UNK | 09/24/2008 | PFC | 0.3 | LENTIC |
| Domingo Spring | 14S | 10E | 36 | SW | 0.30 | 09/27/2000 | PFC | 1.1 | LENTIC |
| Dripping Spring | 15S | 10E | 1 | NW | 0.10 | 09/27/2000 | PFC | 0.25 | LENTIC |
| Dripping Springs (Organs) | 23S | 4E | 7 | NW | UNK | 08/09/2007 | PFC | 0.8 | LENTIC |
| Escarpment Spring | 17S | 10E | 20 | NW | 0.01 | 09/20/1995 | PFC | 0.001 | LENTIC |
| Ice canyon | 23S | 3E | 1 | SW | 1.20 | 08/09/2007 | PFC | 21 | LOTIC |
| Indian Hollow | 22S | 4E | 32 | SE | 0.50 | 07/08/1998 | PFC | UNK | LOTIC |
| Laborcita Canyon seg. 1 | 15S | 11E | 18 | NE | UNK | 08/05/2004 | PFC | UNK | LOTIC |
| Laborcita canyon seg. 2 | 15S | 11E | 8 | SW | UNK | 08/05/2004 | PFC | UNK | LOTIC |
| Laborcita Canyon seg. 3 | 15S | 11E | 8 | SE | UNK | 08/05/2004 | PFC | UNK | LOTIC |
| LaPointe Spring | 22S | 3E | 36 | SE/NE | UNK | 08/13/2007 | PFC | 0.4 | LENTIC |
| Longbottom Canyon | 15S | 4W | 27 |  | 0.52 | 06/02/1998 | PFC | UNK | LOTIC |
| Organ Middle Spring | 22S | 3E | 35 | NE/NE | UNK | 08/13/2007 | PFC | 0.2 | LENTIC |
| Palomas Creek (upper) | 13S | 8W | 19 | NW | 0.63 | 06/05/2003 | PFC | 34 | LOTIC |
| Percha Creek (lower) | 16S | 7W | 14 | NE | 0.50 | 06/06/2003 | PFC | UNK | LOTIC |
| Pinatosa Spring | 13S | 8W | 24 | SE | 0.50 | 09/30/1993 | PFC | UNK | LOTIC |
| Rim Spring | 21S | 18E | 20 | SE/NW | UNK | 10/06/1993 | PFC | 0.1 | LENTIC |
| Tularosa Creek seg. 1 | 13S | 10E | 32 | NW | 0.50 | 03/25/2003 | PFC | 5 | LOTIC |
| Warm Spring (Cuchillo Negro) | 12S | 7W | 9 | SE | 0.50 | 01/23/2003 | PFC | 10 | LOTIC |
| Wildhorse Canyon Seep | 15S | 4W | 27 | SW | 0.10 | 07/07/1998 | PFC | 0.25 | LOTIC |

NOTES:
seg.= segment, UNK = unknown, FAR = Functioning At Risk, FARDN = Functioning At Risk Downward Trend, FARNA = Functioning At Risk Trend Not Apparent, FARUP = Functioning At Risk Upward Trend, NF = Not Functioning, PFC = proper functioning condition.

# APPENDIX I

## SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY

# APPENDIX I
# SPECIAL STATUS SPECIES
# POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY

**TABLE I-1**
**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| ***BIRDS*** | | | | | | | | |
| American peregrine falcon<br>*Falco peregrinus anatum* | X | X | X | ESA SC<br>ESA (delisted 1998)<br>MBTA | NM T | USFS S | | 4, 5, 7 |
| American redstart<br>*Setophaga ruticilla tricolora* | | X | X | | | USFS S | | 5, 7 |
| Arctic peregrine falcon<br>*Falco peregrinus tundrius* | X | X | X | ESA SC<br>ESA (delisted 1998)<br>MBTA | NM T | USFS S | | 4, 5, 7 |
| Arizona Grasshopper sparrow<br>*Ammodramus savannarum* | | X | | | | | S | 1 |
| Bairds sparrow<br>*Ammodramus bairdii* | X | X | X | ESA SC | NM T | USFS S | S | 1, 6 |
| Bald eagle<br>*Haliaeetus leucocephalus* | X | X | X | ESA LT (proposed delisting; recovery plan 1982)<br>EPA | NM T | USFS S | S | 1, 5, 6, 7 |
| Bell's vireo<br>*Vireo bellii arizonae* | X | X | X | ESA SC | NM T | USFS S | | 7 |
| Belted kingfisher<br>*Ceryle alcyon* | X | X | X | | | USFS S | | 7 |
| Bendire's thrasher<br>*Toxostoma bendirei* | | | X | | | | S | 1 |
| Black tern<br>*Chlidonias niger surinamensis* | X | X | X | ESA SC | | | | 7 |
| Black-necked stilt<br>*Himantopus mexicanus* | | X | X | | | USFS S | | 7 |
| Broad-billed hummingbird<br>*Cynanthus latirostris magicus* | | | X | | NM T | USFS S | | 1, 5, 7 |
| Brown pelican<br>*Pelecanus occidentalis carolinensis* | X | X | | | NM E | | | 7 |
| Buff-collared nightjar<br>*Caprimulgus ridgwayi ridgwayi* | | | X | | NM E | | | |

**TABLE I-1**
**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Chestnut-collared longspur *Calcarius ornatus* | X | X | X | | | | S | 1 |
| Common black-hawk *Buteogallus anthracinus anthracinus* | X | X | X | ESA SC | NM T | | | 7 |
| Common ground-dove *Columbina passerina pallescens* | X | X | X | | NM E | USFS S | | 1, 7 |
| Costa's hummingbird *Calypte costae* | | | X | MBTA | NM T | USFS S | | 1, 7 |
| Elegant trogon *Trogon elegans canescens* | X | X | | | NM E | USFS S | | 1, 3, 7 |
| Elf owl *Micrathene whitneyi whitneyi* | X | | | | | USFS S | | 3, 4, 7 |
| Ferruginous hawk *Buteo regalis* | X | X | X | MBTA | | USFS S | | 1, 2, 3, 6, 7 |
| Flammulated owl *Otus flammeolus* | | X | | | | USFS S | | 4, 5, 7 |
| Gray catbird *Dumetella carolinensis ruficrissa* | | X | X | | | USFS S | | 7 |
| Gray vireo *Vireo vicinior* | X | X | X | | NM T | USFS S | | 5 |
| Great egret *Ardea alba egretta* | X | X | | | | USFS S | | 7 |
| Interior least tern *Sterna antilarum athalassos* | X | X | X | ESA LE | NM E | | | 7 |
| Loggerhead shrike *Lanius ludovicianus* | X | X | X | | NM S | | | 1, 2, 4, 6, 7 |
| Long-billed curlew *Numenius americanus americanus* | | X | X | | | USFS S | | 7 |
| Lucifer hummingbird *Calothorax lucifer* | X | | | MBTA | NM T | USFS S | | 2, 7 |
| Mexican spotted owl *Strix occidentalis lucida* | X | X | X | ESA LT CH (recovery plan 1995) | NM S | USFS S | | 4, 5, 7 |
| Mississippi kite *Ictinia mississippiensis* | X | X | X | | | USFS S | | 1, 4, 7 |
| Mountain plover *Charadrius montanus* | X | X | X | ESA SC | NM S | USFS S | | 7 |
| Neotropic cormorant *Phalacrocorax brasilianus* | X | X | X | | NM T | USFS S | | 7 |

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**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Northern aplomado falcon<br>*Falco femoralis septentrionalis* | X | X | X | ESA LE<br>ESA ExNe | NM E | USFS S | | 1, 6 |
| Northern goshawk<br>*Accipiter gentilis* | X | X | X | ESA SC | NM S | | | 4, 5, 7 |
| Painted bunting<br>*Passerina ciris* | X | X | X | | | | S | 4, 5 |
| Piñon Jay<br>*Gymnorhinus cyanocephalus* | X | X | X | | | | S | 4, 5 |
| Snowy egret<br>*Egretta thula brewsteri* | X | | X | | | USFS S | | 7 |
| Sora<br>*Porzana Carolina* | | X | X | | | USFS S | | 7 |
| Southwestern willow flycatcher<br>*Empidonax traillii extimus* | X | X | X | ESA LE w/ CH (recovery plan 2002)<br>MBTA | NM E | | | 7 |
| Sprague's pipit<br>*Anthus spragueii* | X | X | X | MBTA | | USFS S | S | 2, 6 |
| Swainson's hawk<br>*Buteo swainsoni* | X | X | X | | | USFS S | | 1, 5, 6, 7 |
| Varied bunting<br>*Passerina versicolor* | X | X | X | | NM T | USFS S | | 1, 7 |
| Violet-crowned hummingbird<br>*Amazilia violiceps ellioti* | | | X | MBTA | NM T | | | 2, 7 |
| Western burrowing owl<br>*Athene cunicularia hypugaea* | X | X | X | ESA SC | | | S | 1, 2, 6, 7 |
| Western snowy plover<br>*Charadrius alexandrinus nivosus* | X | X | X | | | USFS S | | 7 |
| White-faced ibis<br>*Plegadis chihi* | X | X | X | | | USFS S | | 7 |
| Whooping crane<br>*Grus americana* | X | | | ESA LE (recovery plan 1995)<br>MBTA | NM E | USFS S | | 7 |
| Yellow-billed cuckoo<br>*Coccyzus americanus* | X | | X | ESA C | NM S | USFS S | | 7 |
| ***MAMMALS*** | | | | | | | | |
| Big free-tailed bat<br>*Nyctinomops macrotis* | | X | X | | NM S | | | 2, 3, 4, 5, 7 |
| Black-footed ferret<br>*Mustela nigripes* | X | X | | ESA LE- ExNe (recovery plan 1978, revised 1988) | NM S | USFS S | | 1, 2, 6 |

**TABLE I-1**
**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Black-tailed prairie dog<br>*Cynomys ludovicianus arizonensis* | X[1] (introduced population) | X | | ESA SC | NM S | USFS S | S | 1, 2, 6 |
| Botta's pocket gopher<br>*Thomomys bottae tularosae* | X | ~~X~~ | | | NM S<br>NM End | | | 1, 2, 5, 6, 7 |
| Cave myotis<br>*Myotis velifer* | | X | | | NM S | USFS S | | 1, 2, 3, 5, 7 |
| Chihuahuan pronghorn<br>Antilocapra americana mexicana | X | | X | | NM E (recovery/ management plan) | USFS S | | 1, 2, 6 |
| Common hog-nosed skunk<br>*Conepatus leuconotus* | X | X | X | | NM S | | | 1, 2, 3, 5, 6 |
| Desert bighorn sheep<br>*Ovis Canadensis mexicana* | X | | X | | NM E w/CH (recovery/ management plan) | USFS S | | 1, 3, 7 |
| Desert pocket gopher<br>*Geomys arenarius arenarius* | | | X | ESA SC | | | | 1, 2 |
| Desert pocket gopher<br>*Geomys arenarius brevirostris* | X | X | | ESA SC | NM S<br>NM End | | | 1, 2 |
| Fringed myotis<br>*Myotis thysanodes thysanodes* | X | X | X | | NM S | | | 1, 2, 3, 4, 5, 6, 7 |
| Gray-footed chipmunk<br>*Neotamias canipes sacramentoensis* | | X | | | NM S<br>NM End | | | 5 |
| Gray-footed chipmunk<br>*Neotamias canipes canipes* | | X | | | | | | 5 |
| Gunnison's prairie dog<br>*Cynomys gunnisoni* | X | | | | NM S | | | 1, 2, 5, 7 |
| Long-eared myotis<br>*Myotis evotis evotis* | X | | | | NM S | | | 5, 7 |
| Long-legged myotis<br>*Myotis volans interior* | X | X | X | | NM S | | | 1, 2, 3, 5, 7 |
| New Mexican meadow jumping mouse<br>*Zapus hudsonius luteus* | | X | | ESA SC<br>ESA C | NM E | USFS S | S | 7 |
| Occult little brown myotis<br>*Myotis lucifugus occultus* | X | X | X | | NM S | USFS S | | 3, 4, 5, 7 |
| Organ Mountains Colorado chipmunk<br>*Neotamias quadrivittatus australis* | | | X | ESA SC | NM T | | | 5 |
| Pecos River muskrat<br>*Ondatra zibethicus ripensis* | X | | X | ESA SC | NM S | | | 7 |

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**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Penasco least chipmunk<br>*Neotamias minimus atristriatus* | | X | | ESA SC | NM E<br>NM End | | | 4, 7 |
| Plains pocket mouse<br>*Perognathus flavescens gypsi* | | X | | | NM S<br>NM End | | | 1, 2 |
| Red fox<br>*Vulpes vulpes* | | X | X | | NM S | USFS S | | 5, 6, 7 |
| Ringtail<br>*Bassariscus astutus* | X | X | X | | NM S | | | 1, 2, 3, 4, 5, 7 |
| Rock pocket mouse<br>*Chaetodipus intermedius ater* | X | X | X | | NM S<br>NM End | | | 1, 2 |
| Rock squirrel<br>*Spermophilus variegates tularosae* | | X | | | NM S<br>NM End | | | 1, 2 |
| Spotted bat<br>*Euderma maculatum* | | X | X | | NM T | USFS S | S | 5, 7 |
| Townsend's big-eared bat<br>*Plecotus townsendii* | X | X | X | ESA SC | NM S | USFS S | S | 3, 4, 5 |
| Western red bat<br>*Lasiurus blossevillii* | | | X | ESA SC | | USFS S | S | 1, 2, 3, 5, 7 |
| Western small-footed myotis<br>*Myotis ciliolabrum melanorhinus* | X | X | X | | NM S | | | 1, 2, 3, 5, 7 |
| Western spotted skunk<br>*Spilogale gracilis* | X | X | X | | NM S | | | 1, 2, 3, 7 |
| White-nosed coati<br>*Nasua narica* | | | X | | | | S | 3, 4, 5, 7 |
| White Sands woodrat<br>*Neotoma micropus leucophaea* | X | X | X | ESA SC | | | | 1, 2 |
| Yuma myotis<br>*Myotis yumanensis* | X | | X | | NM S | | | 1, 2, 3, 5, 6, 7 |
| ***REPTILES/AMPHIBIANS*** | | | | | | | | |
| Big Bend slider<br>*Trachemys gaigeae* | X | | | | NM S | | S | 7 |
| Bleached earless lizard<br>*Holbrookia maculata ruthveni* | | X | X | | NM S<br>NM End | | | 1, 2 |
| Chiricahua leopard frog<br>*Rana chiricahuensis* | X | | | ESA LT | NM S | | | 3, 4, 7 |
| Desert kingsnake<br>*Lampropeltis getula splendida* | X | X | X | | | USFS S | | 1, 2, 3, 7 |
| Little white whiptail<br>*Aspidoscelis gypsi* | | X | X | | NM S<br>NM End | | | 1, 2 |

**TABLE I-1**
**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Mottled rock rattlesnake<br>*Crotalus lepidus lepidus* | | X | | | NM T | | | 7 |
| Northern leopard frog<br>*Rana pipiens* | X | X | X | | | USFS S | | 7 |
| Sacramento Mountain salamander<br>*Aneides hardii* | | X | | ESA SC | NM T<br>NM End | | | 5, 7 |
| Southwestern toad<br>*Bufo microscaphus microscaphus* | X | | | | NM S | USFS S | S | 5, 7 |
| Texas horned lizard<br>*Phrynosoma cornutum* | X | X | X | | | USFS S | | 1, 2, 6, 7 |
| ***FISH*** | | | | | | | | |
| Desert sucker<br>*Catostomus clarki* | X | | | ESA SC | NM S | | S | 7 |
| Gila trout<br>*Oncorhynchus gilae* | X | | | ESA LT (recovery plan) | NM T | USFS S | | 7 |
| Longfin dace<br>*Agosia chrysogaster* | X | | | | | | S | 7 |
| Rio Grande chub<br>*Gila Pandora* | X | X | | | NM S | | | 7 |
| Rio Grande cutthroat trout<br>*Oncorhynchus clarki virginalis* | X | X | | ESA | NM S | USFS S | | 7 |
| Rio Grande silvery minnow<br>*Hybognathus amarus* | X-<br>Extirpated | | X-<br>Extirpated | ESA LE | NM E | USFS S | | 7 |
| Rio Grande sucker<br>*Catostomus plebeius* | X | | | | | USFS S | | 7 |
| Sonora sucker<br>*Catostomus insignis* | X | | | ESA SC | NM S | | S | 7 |
| White Sands pupfish<br>*Cyprinodon Tularosa* | X | X | | ESA SC<br>ESA Cooperative Agreement | NM T<br>NM End | | | 7 |
| ***INVERTEBRATES*** | | | | | | | | |
| Anthony blister beetle<br>*Lytta miriflica* | | | X | ESA SC | | | | 2 |
| Cloudcroft checkerspot butterfly<br>*Occidryas anicia cloudcrofti* | | X | | ESA PE (2003) | NM S<br>NM End | | | 5 |
| Desert viceroy butterfly<br>*Limenitis archippus obsoleta* | | | | ESA SC | | | | * |
| Doña Ana talussnail<br>*Sonorella todseni* | | | X | ESA SC | NM T | | S | 1 |

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**SPECIAL STATUS ANIMAL SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | Key Habitat |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Mineral Creek mountain snail *Oreohelix pilsbryi* | X | | | ESA SC | NM T<br>NM End | | | 5 |
| Obsolete viceroy butterfly *Basilarchia archippus obsoleta* | X | | X | | | USFS S | | * |
| Sacramento checkerspot butterfly *Euphydryas anicia cloudcrofti* | | X | | ESA PE (2003) | NM S<br>NM End | | | 5 |
| Sacramento Mountains blue butterfly *Icaricia icariodes* | | X | | ESA SC | | | | 4, 5 |
| Sacramento Mountains silverspot butterfly *Speyeria atlantis capitanensis* | | X | | ESA SC | | | | 4, 5 |
| Socorro mountainsnail *Oreohelix neomexicana* | | X | | | NM S<br>NM End | | | 3, 5 |
| Southwest pearly checkerspot butterfly *Charidryas acastus Sabina* | X | | | ESA SC | | | | |
| Cornudas Mountains woodland snail *Ashmunella amblya cornudasensis* | | X | | | NM End | | S | 1 |

SOURCE: U.S. Fish and Wildlife Service 2005a

NOTES: ? = inexact or uncertain numeric rank or unknown occurrence in the county; BLM = Bureau of Land Management; NA = not applicable; USFS = U.S. Forest Service, X = found in county

Status Definitions

*Federal:*

EPA= Bald and Golden Eagle Protection Act of 1940
ESA: Endangered Species Act. LE= listed as endangered; LT= listed as threatened; PE= proposed as endangered; PT= proposed as threatened; SC= species of concern; C=candidate; ExNe= experimental nonessential population; CA= conservation agreement; CH= critical habitat
MBTA= Migratory Bird Treaty Act
USFS: U.S. Forest Service; S= Forest Service sensitive

*State:*

NM = New Mexico; NM E= State listed as endangered; NM T= State listed as threatened; NM S = State sensitive informal; NM End= endemic to New Mexico

*Bureau of Land Management (BLM):*

BLM: Bureau of Land Management; S= sensitive

Key Habitat Definitions

SOURCES: New Mexico Department of Game and Fish: Comprehensive Wildlife Conservation Strategy of New Mexico, Biota Information System of New Mexico
NOTES: 1 = Chihuahuan semidesert grasslands; 2 = Western Great Plains sandhill sagebrush shrubland; 3 = Madrean encinal; 4 = Madrean pine-oak/conifer-oak; 5 = Rocky Mountain mixed-conifer forest and woodland; 6 = Western Great Plains shortgrass prairie; 7 = riparian/ aquatic; * = habitat associations unknown

| TABLE I-2<br>SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Counties | | | Status | | | | New Mexico Natural Heritage Program Ranking |
| Species | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Grayish-white giant hyssop<br>*Agastache cana* | X | | X | | S | | | S3 |
| Organ Mountains giant hyssop<br>*Agastache pringlei* var. *verticillata* | | X | | | S | | | S2 |
| *Allium gooddingii* | | X | | ESA SC | | | | |
| Howard's gyp ringstem<br>*Anulocaulis leiosolenus* var. *howardii* | | X | | | S | | | SNR |
| Chapline's columbine<br>*Aquilegia chaplinei* | | X | | | S | USFS S | | S2 |
| Sacramento prickly poppy<br>*Argemone pleiacantha* ssp. *pinnatisecta* | | X | | ESA LE | E | USFS E | | |
| Tall milkvetch<br>*Astragalus altus* | | X | | | S | USFS S | SS | S2 |
| Castetter's milkvetch<br>*Astragalus castetteri* | X | X? | X | | S | | | S3 |
| *Astragalus gypsodes* | | | | | S | | | S2 |
| New Mexico milkvetch<br>*Astragalus neomexicanus* | | X | | | S | | | S3 |
| *Besseya oblongifolia* | | X | | | S | | | S2 |
| Organ Mountains paintbrush<br>*Castilleja organorum* | X | | X | | S | | SS | S3 |
| *Chaetopappa elegans* | X | X? | X? | ESA SC | | | | |
| *Chenopodium cycloides* | X | | X | ESA SC | | | | |
| Guadalupe rabbitbush<br>*Chrysothamnus= Ericameria nauseosus* var. *texensis* | | X | | ESA SC | | USFS S | SS | S2 |
| Gila thistle<br>*Cirsium gilense* | X | | | | S | USFS S | | S2 |
| Plain thistle<br>*Cirsium inornatum* | | X | | | S | | | S4 |
| Sacramento Mountains thistle<br>*Cirsium vinaceum* | | X | | ESA LT | E | | SS | S2 |
| Wright's marsh thistle<br>*Cirsium wrightii* | X? | X | | ESA SC | E | | | S2 |
| Slender spiderflower<br>*Cleome multicaulis* | | | | | E | | SS | SH |

**TABLE I-2**
**SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | New Mexico Natural Heritage Program Ranking |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Duncan pincushion cactus<br>*Coryphantha = Escobaria duncanii* | X | X? | X? | ESA SC | E | | SS | S1 |
| Sneed's pincushion cactus<br>*Coryphantha = Escobaria sneedii* var. *sneedii* | | | X | ESA LE | E | | SS | S2 |
| Warner's dodder<br>*Cuscuta warneri* | | | | | S | USFS S | | SNR |
| New Mexico larkspur<br>*Delphinium novomexicanum* | | X | | | S | | | S2 |
| Metcalfe's ticktrefoil<br>*Desmodium metcalfei* | X | | | | S | | | S3 |
| Mogollon whitlowgrass<br>*Draba mogollonica* | X | | | | S | | | S3 |
| Standley's whitlowgrass<br>*Draba standleyi* | X? | X | X | ESA SC | S | | SS | S2 |
| Kuenzler's hedgehog cactus<br>*Echinocereus fendleri* var. *kuenzleri* | | X | | ESA LE | E | | SS | S1 |
| Sacramento Mountains fleabane<br>*Erigeron rybius* | | X | | | S | | | S3 |
| Rock fleabane<br>*Erigeron scopulinus* | X | | | | S | | SS | S3 |
| *Eriogonum jamesii* var. *wootonii* | | X | | | S | | | S2 |
| Organ Mountains pincushion cactus<br>*Escobaria organensis* | | | X | | E | | SS | S2 |
| Sandberg pincushion cactus<br>*Escobaria sandbergii* | X | | X | | S | | SS | S2 |
| Villard pincushion cactus<br>*Escobaria villardii* | | X | X | ESA SC | E | | SS | S2 |
| New Mexico gumweed<br>*Grindelia arizonica* var. *neomexicana* | X | | | | S | | | G473 |
| New Mexico stickseed<br>*Hackelia hirsuta* | | | | | S | | | G4 |
| Mescalero pennyroyal<br>*Hedeoma pulcherrimum* | | X | X | | S | | | S2 |
| Todsen's pennyroyal<br>*Hedeoma todsenii* | X | X | | ESA LE (with designated critical habitat, Otero and Sierra counties) | E | | SS | S2 |

**TABLE I-2**
**SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | New Mexico Natural Heritage Program Ranking |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Wooton's alumroot<br>*Heuchera wootonii* | | X | | | S | | | S3 |
| Shining coralroot<br>*Hexalectris nitida* | | X | | | E | | SS | S1 |
| Arizona coralroot<br>*Hexalectris spicata* var. *arizonica* | X | X | X | | E | USFS S | SS | G572T4 |
| Vasey's bitterweed<br>*Hymenoxys vaseyi* | X | | X | | S | | | G2 |
| Gypsum scalebroom<br>*Lepidospartum burgessii* | | X | | ESA SC | E | | SS | S1 |
| *Lesquerella aurea* | | X | | | S | | | S2 |
| *Lesquerella gooddingii* | X | | | | S | | | S3 |
| *Lesquerella lata* | | | | | | | | |
| Sierra Blanca lupine<br>*Lupinus sierrae-blancae* | | X | | | S | | | S3 |
| Guadalupe stickleaf<br>*Mentzelia humilus* var. *guadalupensis* | | X | | | S | | | G4T2 |
| Green medusa orchid<br>*Microthelys rubocallosa* | | | | | S | USFS S | | SNR |
| Hairy muhly<br>*Muhlenbergia villiflora* var. *villosa* | | X | | | S | | SS | G5T2 |
| Cliff nama<br>*Nama xylopodum* | | X | | | S | | | G4 |
| Organ Mountains evening primrose<br>*Oenothera organensis* | | | X | ESA SC | S | | SS | S2 |
| Dune pricklypear<br>*Opuntia arenaria* | | | X | ESA SC | E | | SS | S2 |
| *Packera quaerens* | | | | | | | | |
| Night-blooming cereus<br>*Peniocereus greggii* var. *greggii* | X | | X | ESA SC | E | | SS | S1 |
| Alamo beardtongue<br>*Penstemon alamosensis* | | X | X | ESA SC | S | | SS | S3 |
| *Penstemon breviculus* | | | | | S | | | S3 |
| Scarlet penstemon<br>*Penstemon cardinalis* ssp. *cardinalis* | | X | | | S | USFS S | | S2 |
| Guadalupe penstemon<br>*Penstemon cardinalis* ssp. *regalis* | | X | | | S | USFS S | | S2 |

**TABLE I-2**
**SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | New Mexico Natural Heritage Program Ranking |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Metcalfe's penstemon *Penstemon metcalfei* | X | | | | S | | | SNR |
| New Mexico beardtongue *Penstemon neomexicanus* | | X | | | S | | | S4 |
| *Penstemon ramosus* | X | | | | S | | | S3? |
| Nodding cliff daisy *Perityle cernua* | | | X | ESA SC | S | | SS | S2 |
| Five-flowered rock daisy *Perityle quinqueflora* | | | | | S | | | S3 |
| San Andres rock daisy *Perityle staurophylla* var. *homoflora* | X | | | | S | | | S2 |
| New Mexico rock daisy *Perityle staurophylla* var. *staurophylla* | X | X | X | | S | | SS | SR |
| Silvercup philadelphus *Philadelphus microphyllus* var. *argyrocalyx* | | X | | | S | | | S3 |
| *Philadelphus wootonii* | | X | | | | | | S2? |
| Mescalero milkwort *Polygala rimulicola* var. *mescalerorum* | | | X | ESA SC | E | | SS | S1 |
| *Polygonatum cobrense* | | X | | | | | | SR |
| Sierra Blanca cinquefoil *Potentilla sierrae-blancae* | | X | | | S | | | S2? |
| Mescalero black currant *Ribes mescalerium* | | X | | | S | | | S4? |
| Supreme sage *Salvia summa* | X | X | X | | S | | | S3? |
| Smooth figwort *Scrophularia laevis* | | | X | ESA SC | S | | SS | S2 |
| Mimbres figwort *Scrophularia macrantha* | | | | | S | USFS S | SS | S2 |
| New Mexico stonecrop *Sedum integrifolium* ssp. *neomexicanum* | | X | | | S | USFS S | | S1 |
| Sacramento groundsel *Senecio sacramentanus* | | X | | | S | | | S3 |
| Gray sibara *Sibaria grisea* | | X | X | | S | | SS | S3? |
| Plank's campion *Silene plankii* | X | | X | | S | | SS | S2 |

**TABLE I-2**
**SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PLANNING AREA BY COUNTY**

| Species | Counties | | | Status | | | | New Mexico Natural Heritage Program Ranking |
|---|---|---|---|---|---|---|---|---|
| | Sierra | Otero | Doña Ana | Federal | State | USFS | BLM | |
| Thurber's campion *Silene thurberi* | X | | | | S | | | S3? |
| Wright's campion *Silene wrightii* | X | | | | S | | SS | S2 |
| Guadalupe mescal bean *Sophora gypsophila* var. *guadalupensis* | | X | | | S | USFS S | SS | S1 |
| Porter's globe mallow *Sphaeralcea procera* | | | | | S | | SS | SH |
| *Talinum humile* | X | | | ESA SC | | | | |
| Texas tobacco-root *Valeriana texana* | | X | | | S | | | S3 |

SOURCES: New Mexico Rare Plant Technical Council. 1999; U.S. Fish and Wildlife Service 2005a

NOTES: ? = inexact or uncertain numeric rank or unknown occurrence in the county; BLM = Bureau of Land Management; NA = not applicable; USFS = U.S. Forest Service, X = present in county

Status Definitions

*Federal:*

ESA: LE= listed as endangered; LT=listed as threatened; SC= species of concern; CH= designated critical habitat

*State:*

E= endangered; S= Species of concern

*Bureau of Land Management (BLM):*

SS= special status species

New Mexico Natural Heritage Program Rankings:

S1= critically imperiled; S2= imperiled; S3= vulnerable; S4= apparently secure; SR= reported

# APPENDIX J

MAPS – WSAs, ACECs, AND OTHER SPECIAL DESIGNATIONS

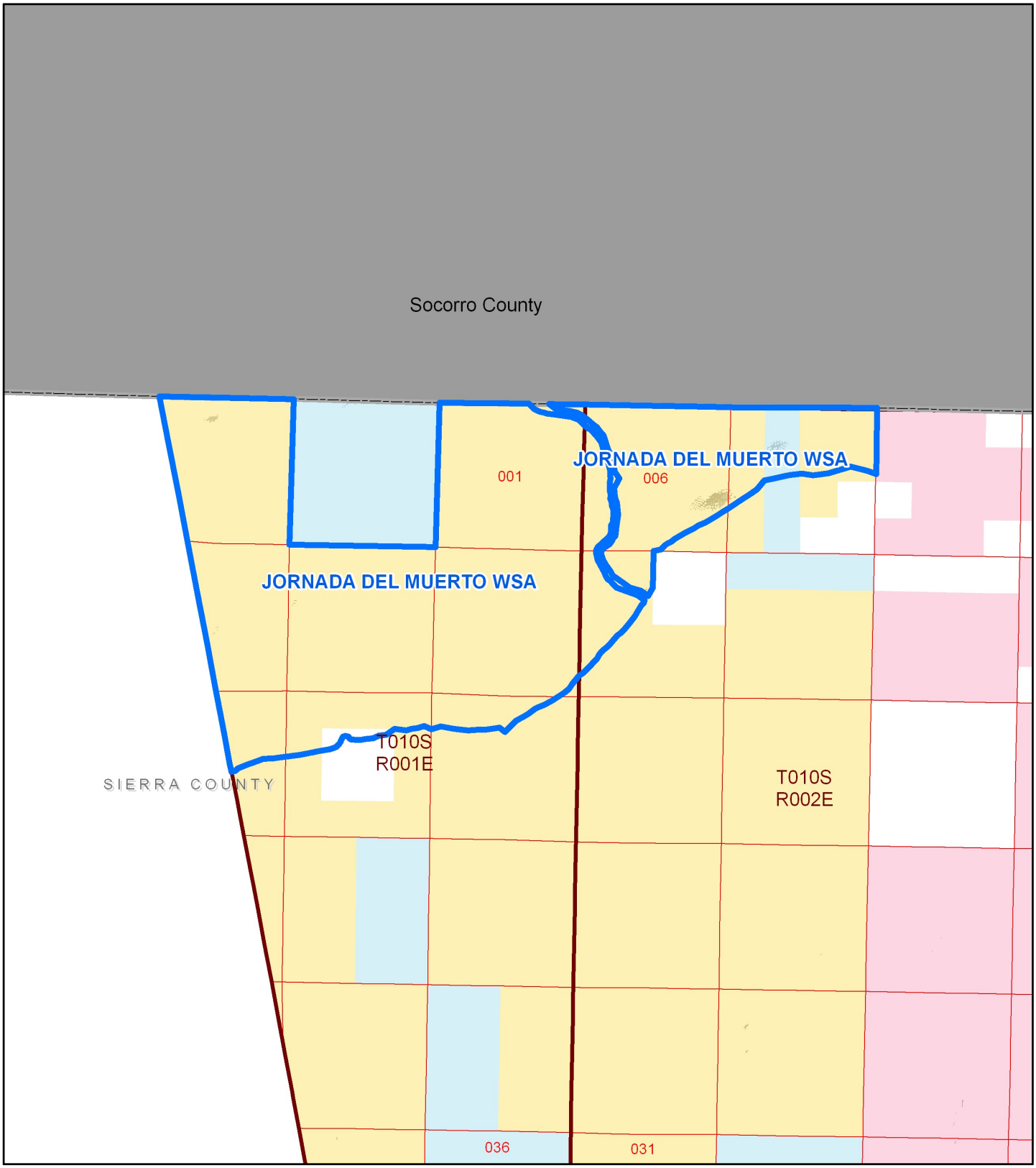
# APPENDIX J - MAPS
# WSAS, ACECS AND OTHER SPECIAL DESIGNATIONS

This appendix contains maps of existing WSAs, existing and proposed ACECs, and other existing and proposed special designations. Shown are routes and trails that currently exist.

| Map Name | Map Number |
|---|---|
| **WSAs** | |
| Existing Routes in Jornada del Muerto WSA | J-0 |
| Existing Routes in Aden Lava Flow, West Potrillo Mountains, Mt. Riley WSAs | J-1 |
| Existing Routes in Organ Mountains & Organ Needles WSAs | J-2 |
| Existing Routes in Peña Blanca WSA | J-3 |
| Existing Routes in Robledo Mountains WSA | J-4 |
| Existing Routes in Sierra deLas Uvas WSA | J-5 |
| Existing Routes in Brokeoff Mountains | J-6 |
| **Existing ACECs** | |
| Aden Lava Flow ACEC (RNA) | J-7 |
| Organ/Franklin Mountains ACEC (north half) | J-8 |
| Organ/Franklin Mountains ACEC (south half) | J-9 |
| Los Tules ACEC | J-10 |
| Robledo Mountains ACEC | J-11 |
| Doña Ana Mountains ACEC | J-12 |
| Rincon ACEC | J-13 |
| San Diego Mountain ACEC | J-14 |
| Three Rivers Petroglyph Site ACEC | J-15 |
| Sacramento Escarpment ACEC | J-16 |
| Cornudas Mountain ACEC | J-17 |
| Alamo Mountain ACEC | J-18 |
| Wind Mountain ACEC | J-19 |
| Alkali Lakes ACEC | J-20 |
| **Proposed ACECs** | |
| Broad Canyon ACEC | J-21 |
| Tortugas Mountain ACEC | J-22 |
| Brokeoff Mountains ACEC (Alternative B) (north half) | J-23 |
| Brokeoff Mountains ACEC (Alternative B(south half) | J-24 |
| Brokeoff Mountains ACEC (Alternative C) | J-25 |
| Caballo Mountains ACEC | J-32 |
| Cornucopia ACEC | J-26 |
| Pup Canyon ACEC | J-27 |
| Sacramento Mountain, North and South ACEC | J-28 |
| Six Shooter Canyon ACEC | J-29 |
| Tularosa Creek ACEC | J-30 |
| Jarilla Mountains | J-31 |
| Caballo Mountains ACEC | J-32 |
| Mud Mountain ACEC | J-33 |

| Map Name | Map Number |
|---|---|
| Nutt Mountain ACEC | J-34 |
| Picacho Peak ACEC | J-36 |
| Southern Caballo Mountains ACEC | J-37 |
| Percha Creek ACEC | J-38 |
| East Potrillo Mountains ACEC | J-39 |
| Otero Mesa Grassland ACEC | J-40 |
| Van Winkle Lake ACEC–Alternative C | J-45 |
| Robledo Mountains ACEC–Alternative B | J-46 |
| | |
| | |
| Kilbourne Hole National Natural Landmark | J-41 |
| | |
| | |
| **Lands with Wilderness Characteristics** | |
| Nut Grasslands LWC | J-35 |
| Bar Canyon, Peña Blanca, and Nutt Grasslands LWC | J-42 |
| Bar Canyon and Peña Blanca LWC | J-43 |
| Bar Canyon | J-44 |

# J-0: Existing Routes in Jornada del Muerto WSA




*Route data not shown outside WSA boundary.

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

BLM GIS
Las Cruces District Office

0 0.5 1 Miles

1:60,000

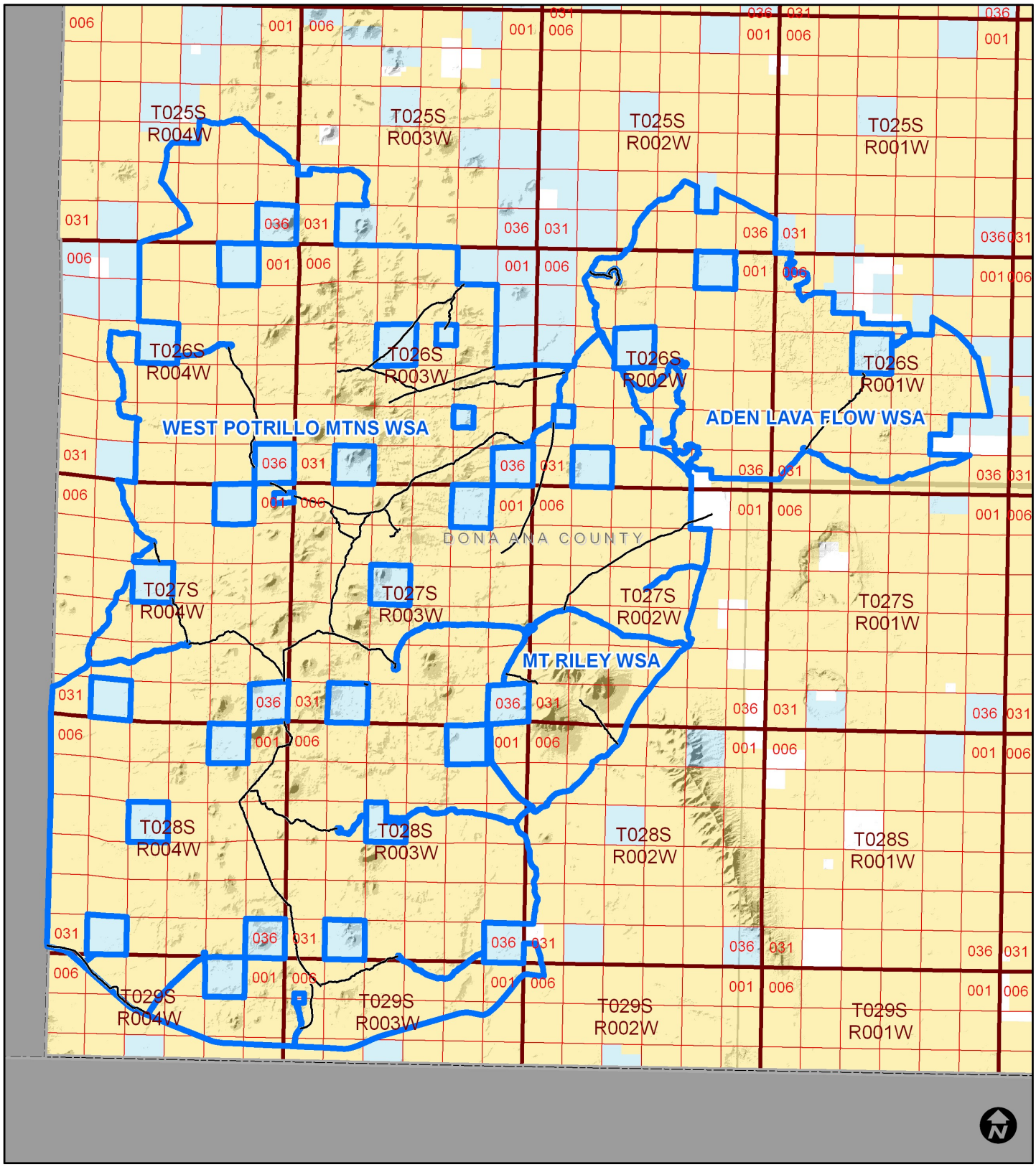
**Existing Routes Open in Alts. A,D; Closed in B, C**

WSA

**Surface Management**

- BLM
- DoD
- Private
- State

# J-1: Existing Routes in Aden Lava Flow, West Potrillo Mtns. and Mt. Riley WSAs




0 1 2 Miles

1:220,000

*Route data not shown outside WSA boundary, portion of WSA in Luna County not shown.

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Las Cruces District Office

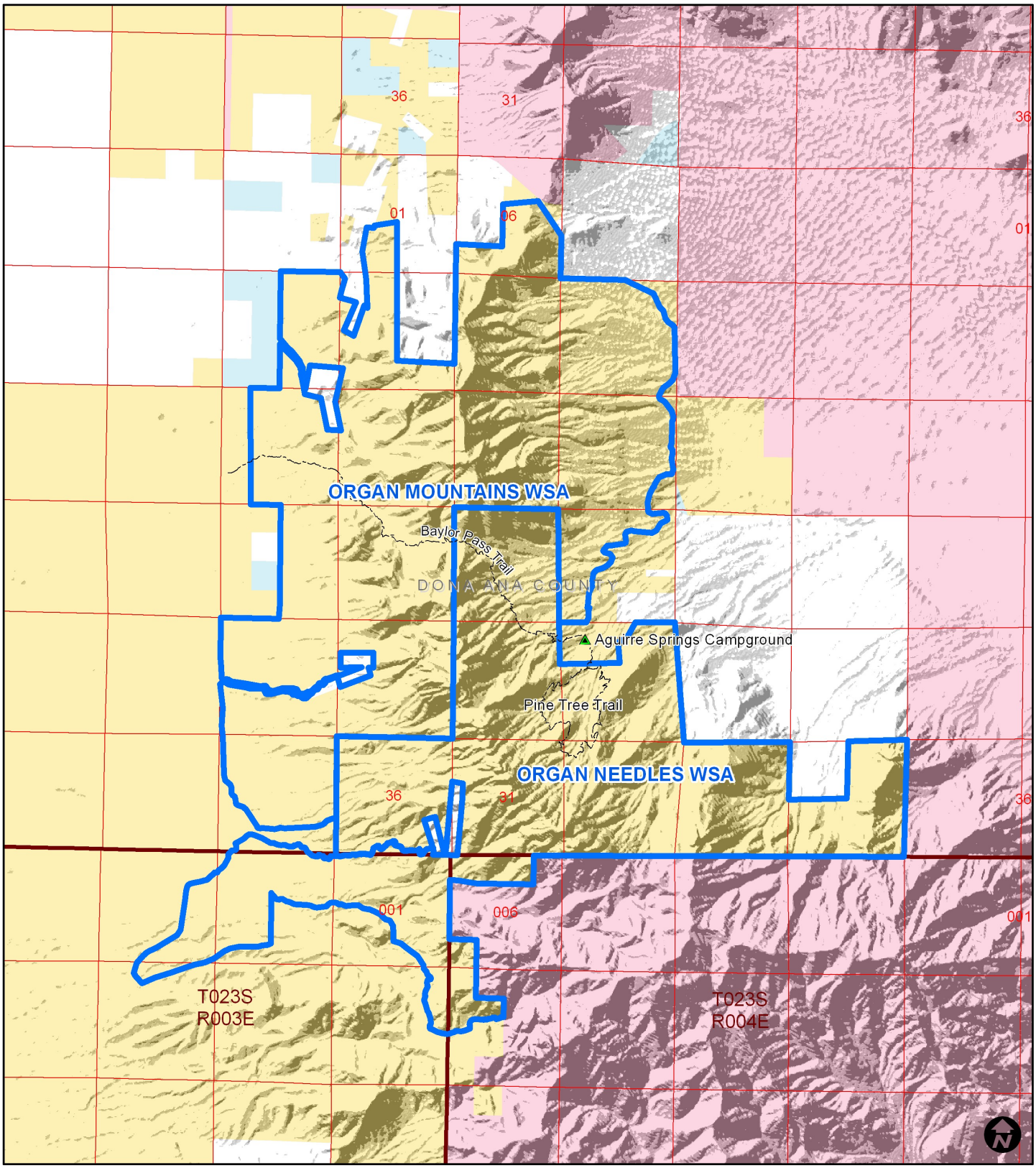
**Existing Routes Open in Alts. A,C,D; Closed in B**

WSA

**Surface Management**

BLM
Private
State

# J-2: Existing Routes in Organ Mountains and Organ Needles WSAs




0 0.5 1 Miles

1:75,000

*Route data not shown outside WSA boundary.

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BLM GIS
Las Cruces District Office

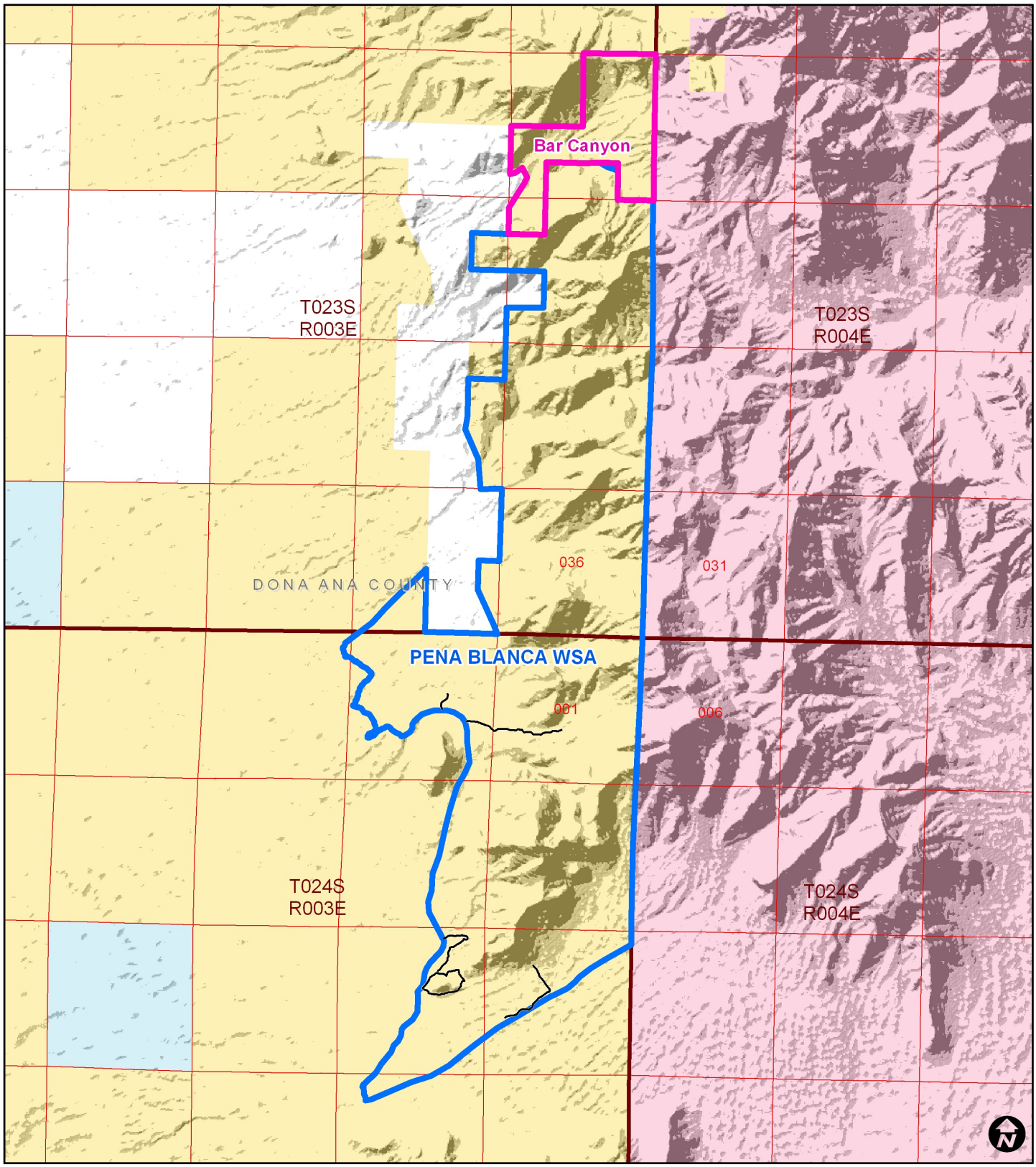
Trail Limited to Designated Use, Alts. A-D

WSA

**Surface Management**

- BLM
- DoD
- Private
- State

# J-3: Existing Routes in Pena Blanca WSA




0 0.5 1 Miles

1:60,000

*Route data not shown outside WSA boundary.

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BLM GIS
Las Cruces District Office

**Existing Routes Open in Alts. A,D; Closed in B, C**

Lands w/Wilderness Characteristics

WSA

**Surface Management**

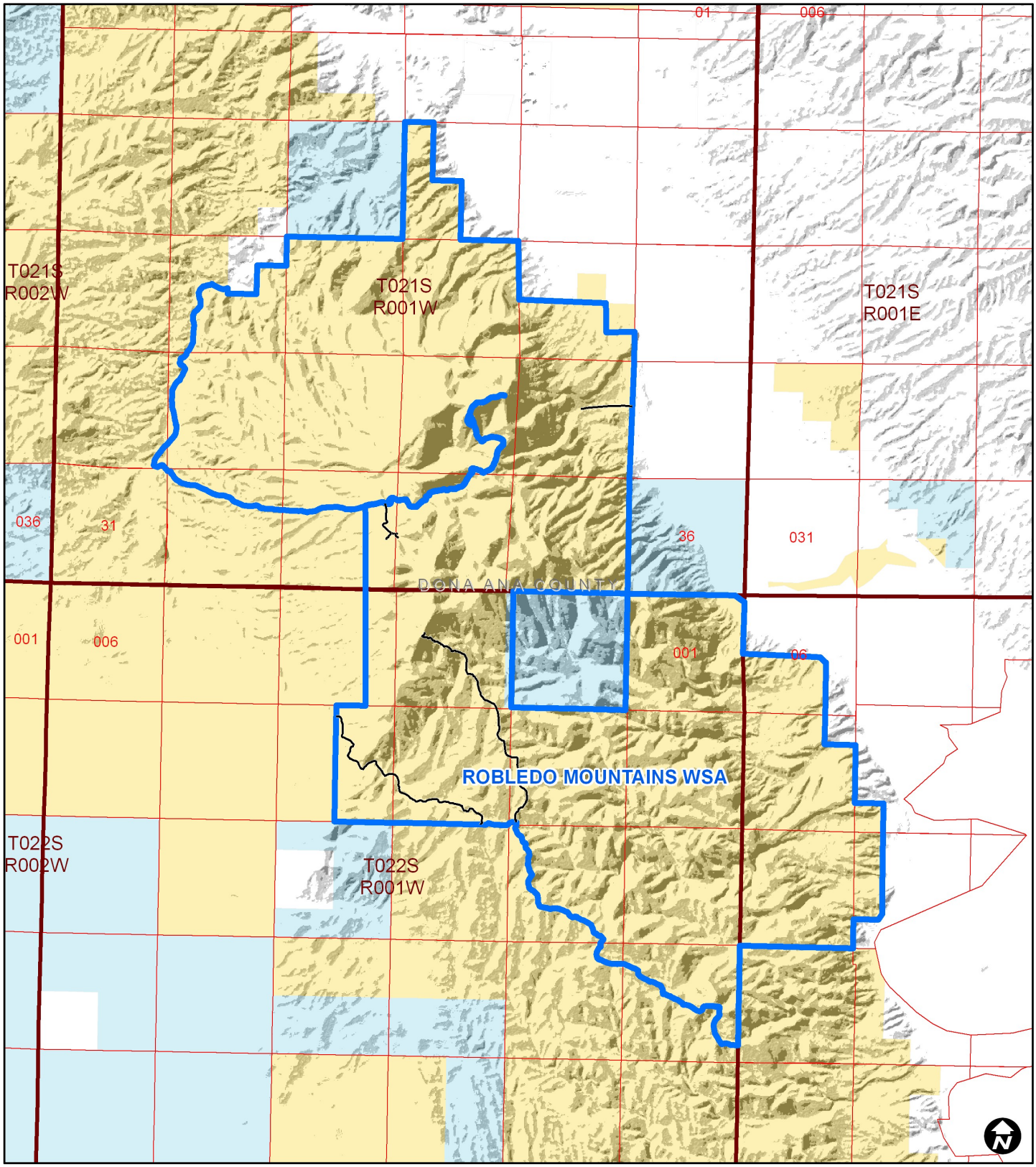
BLM

DoD

Private

State

# J-4: Existing Routes in Robledo Mountains WSA




0 0.5 1 Miles

1:75,000

*Route data not shown outside WSA boundary.

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Las Cruces District Office

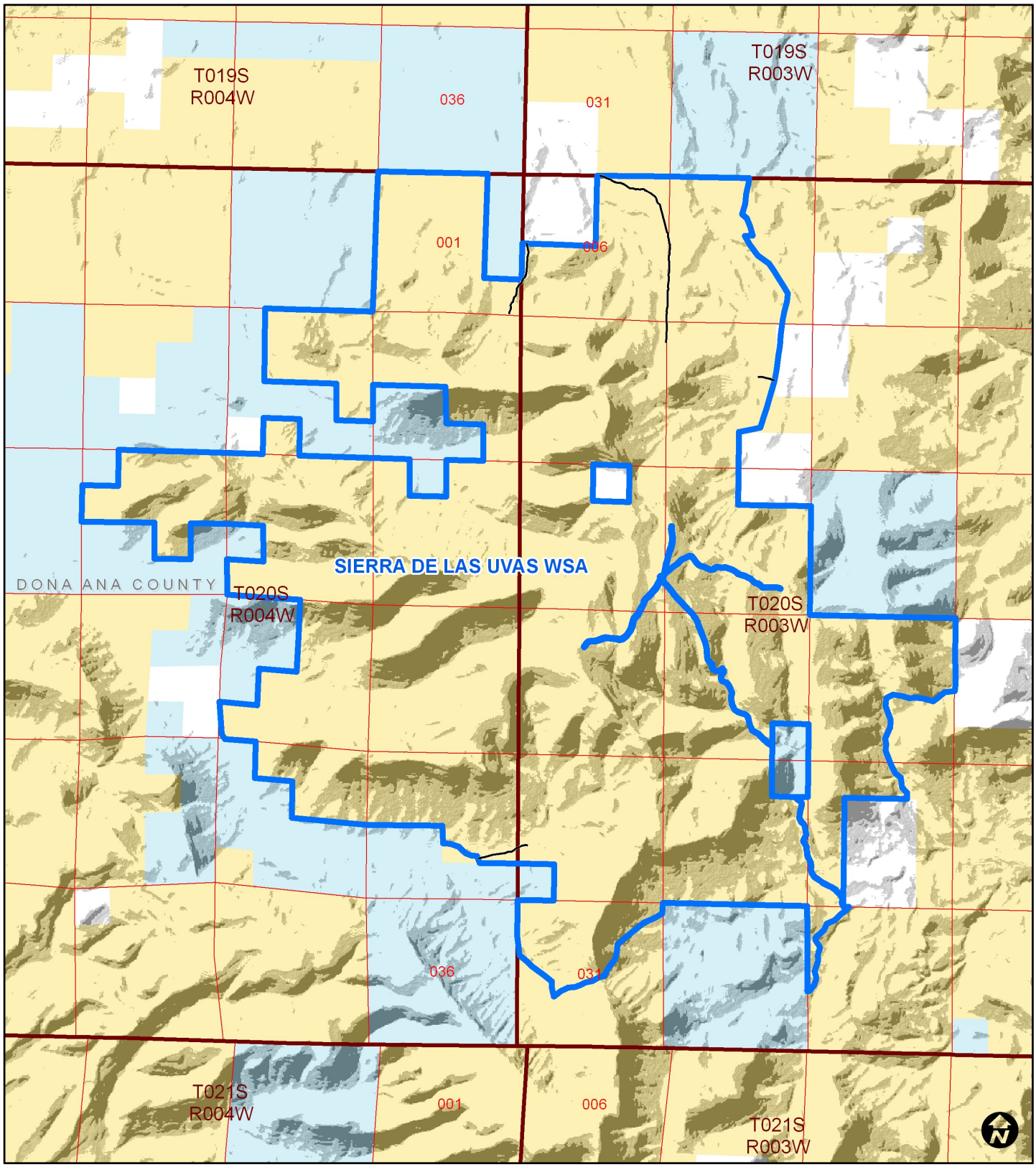
Existing Routes Open in Alts. A,C, D; Closed in B

WSA

**Surface Management**

- BLM
- DoD
- Private
- State

# J-5: Existing Routes in Sierra de las Uvas WSA




0 0.5 1 Miles

1:60,000

*Route data not shown outside WSA boundary.

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BLM GIS
Las Cruces District Office

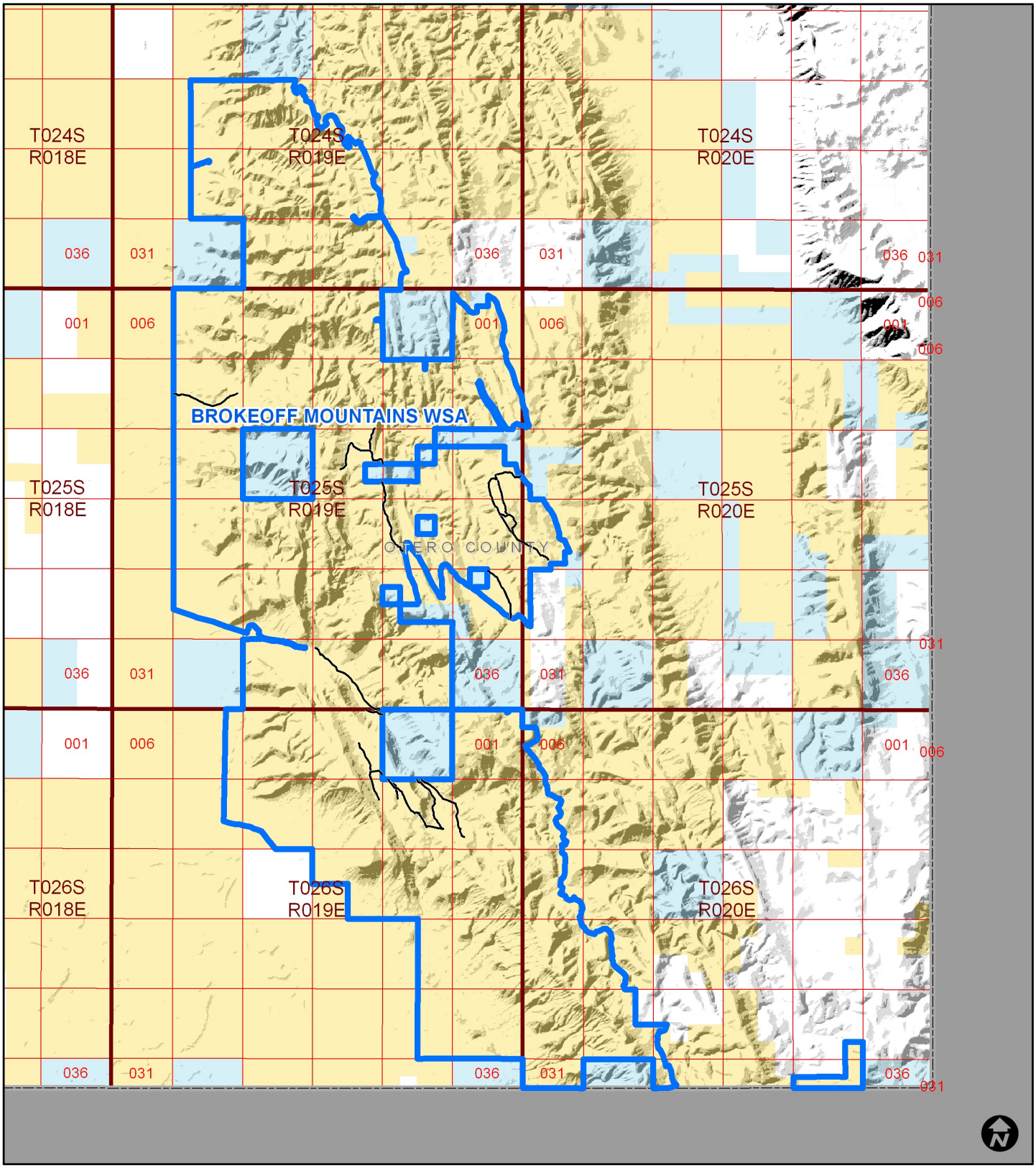
**Existing Routes Open in Alts. A,C, D; Closed in B**

WSA

**Surface Management**

- BLM
- DoD
- Private
- State

# J-6: Existing Routes in Brokeoff Mountains WSA




0 1 2 Miles

1:125,000

*Route data not shown outside WSA boundary.

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BLM GIS
Las Cruces District Office

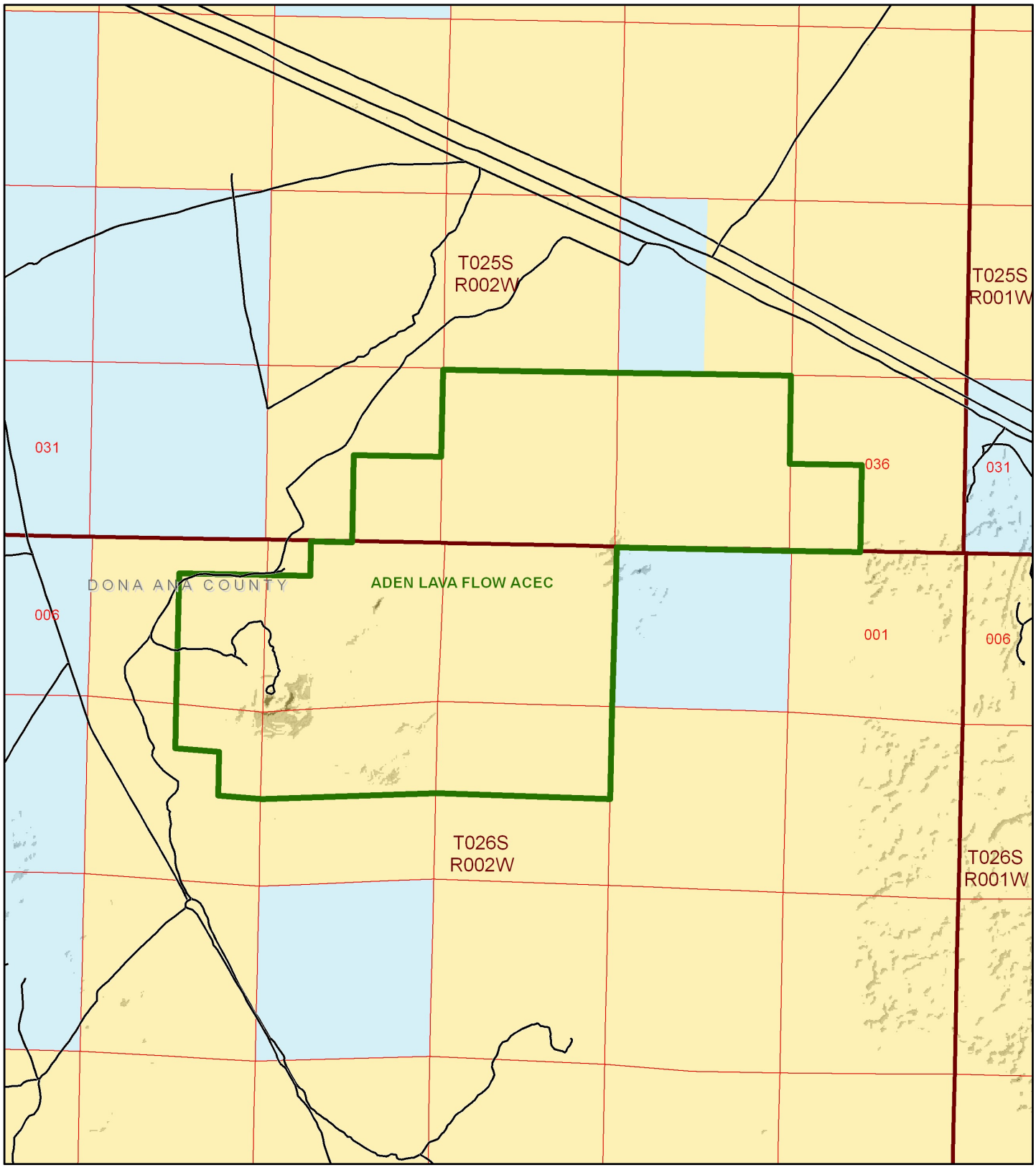
**Existing Routes Open in Alts. A,C, D; Closed in B**

WSA

**Surface Management**

- BLM
- DoD
- Private
- State

# J-7: Aden Lava Flow ACEC

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BLM GIS
Las Cruces District Office

0 0.5 1 Miles

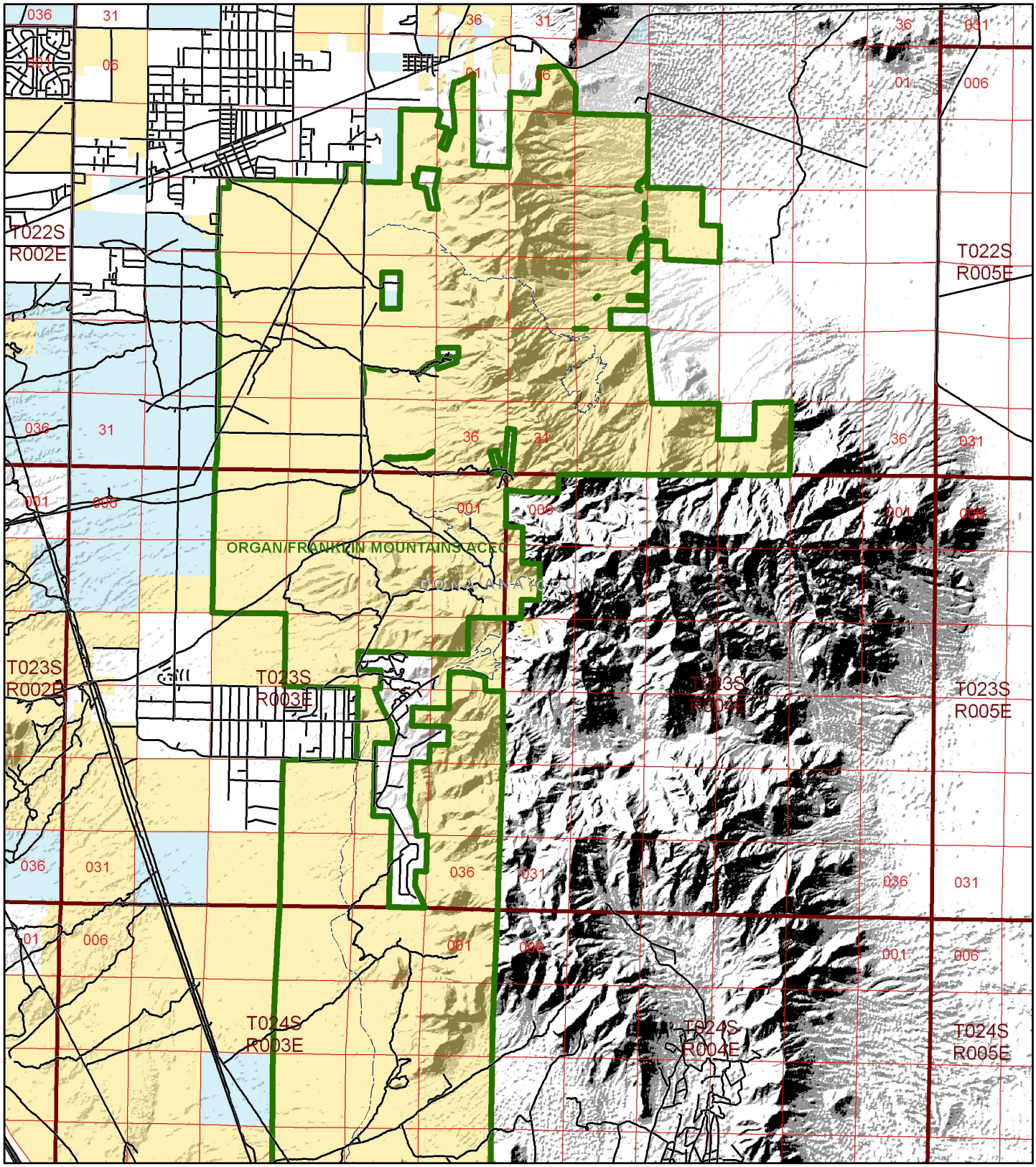
1:50,000

Existing Route
ACEC

**Surface Management**

BLM
Private
State

# J-8: Organ/Franklin Mountains ACEC (N. Half)

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BLM GIS
Las Cruces District Office

0 1 2 Miles

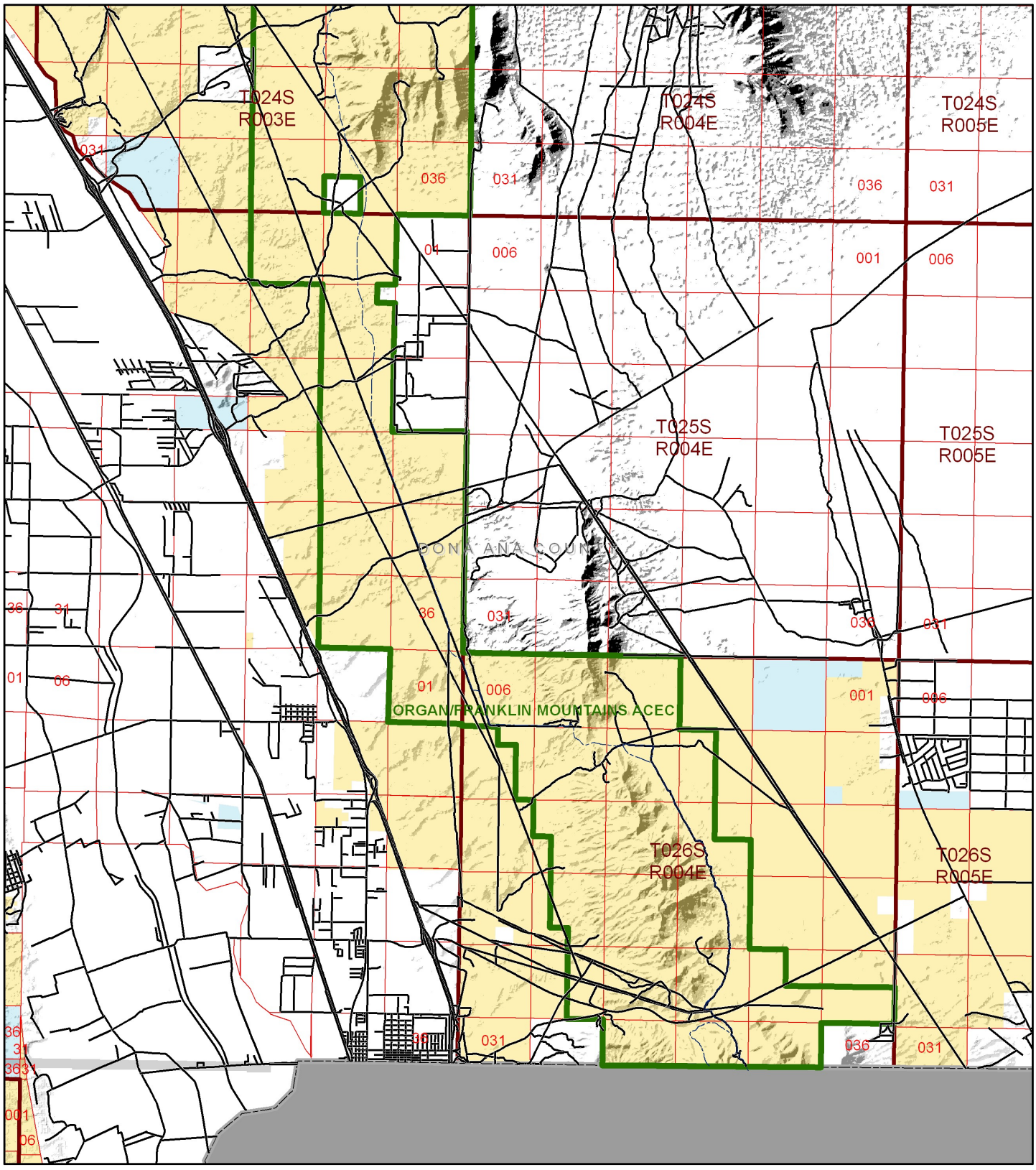
1:120,000

Existing Trail
Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-9: Organ/Franklin Mountains ACEC (S. Half)

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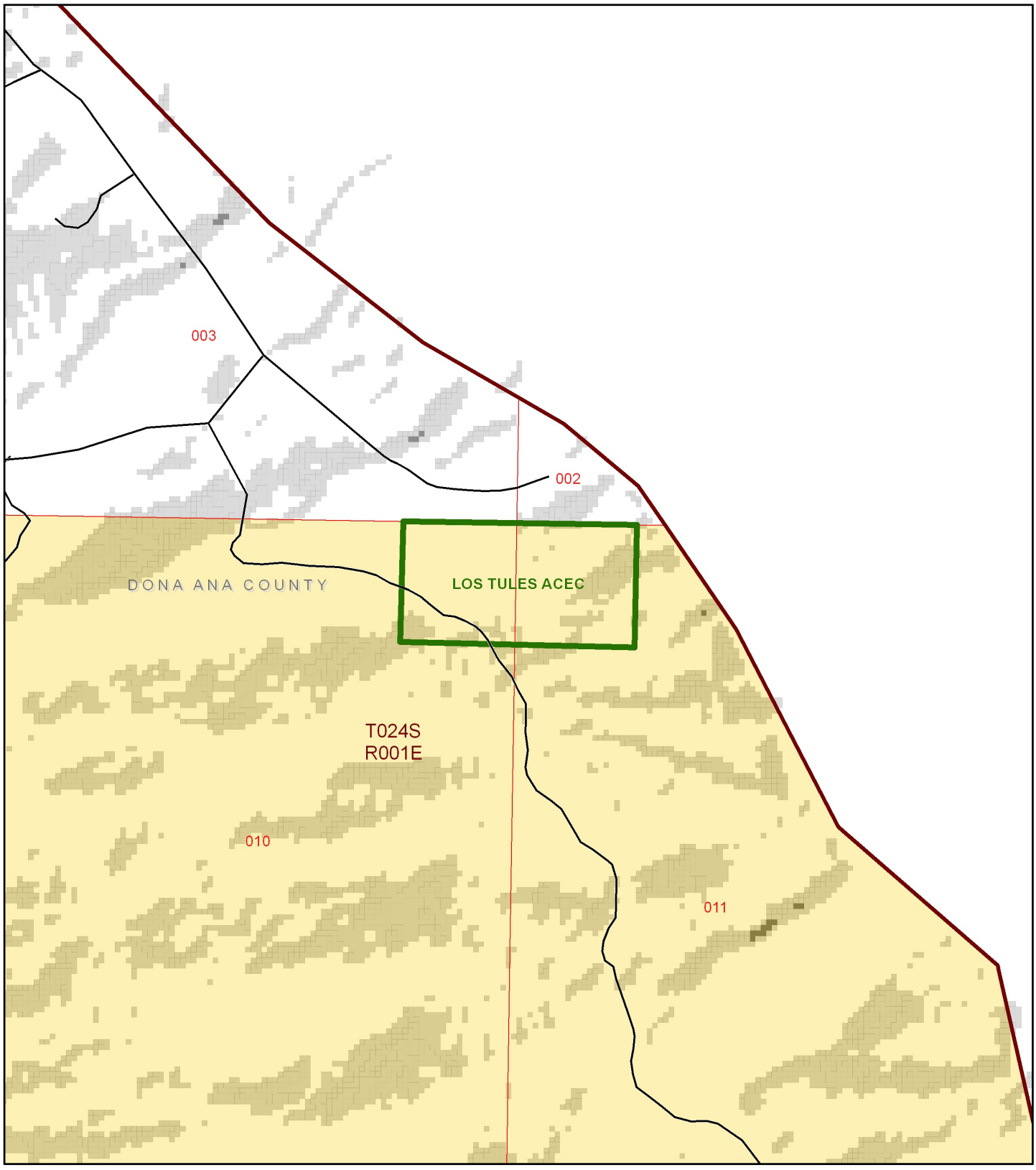
BLM GIS
Las Cruces District Office

0 1 2 Miles
1:120,000

Existing Trail
Existing Route
Existing ACEC

**Surface Management**
BLM
Private
State

# J-10: Los Tules ACEC




No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

BLM GIS
Las Cruces District Office

0 0.1 0.2 Miles

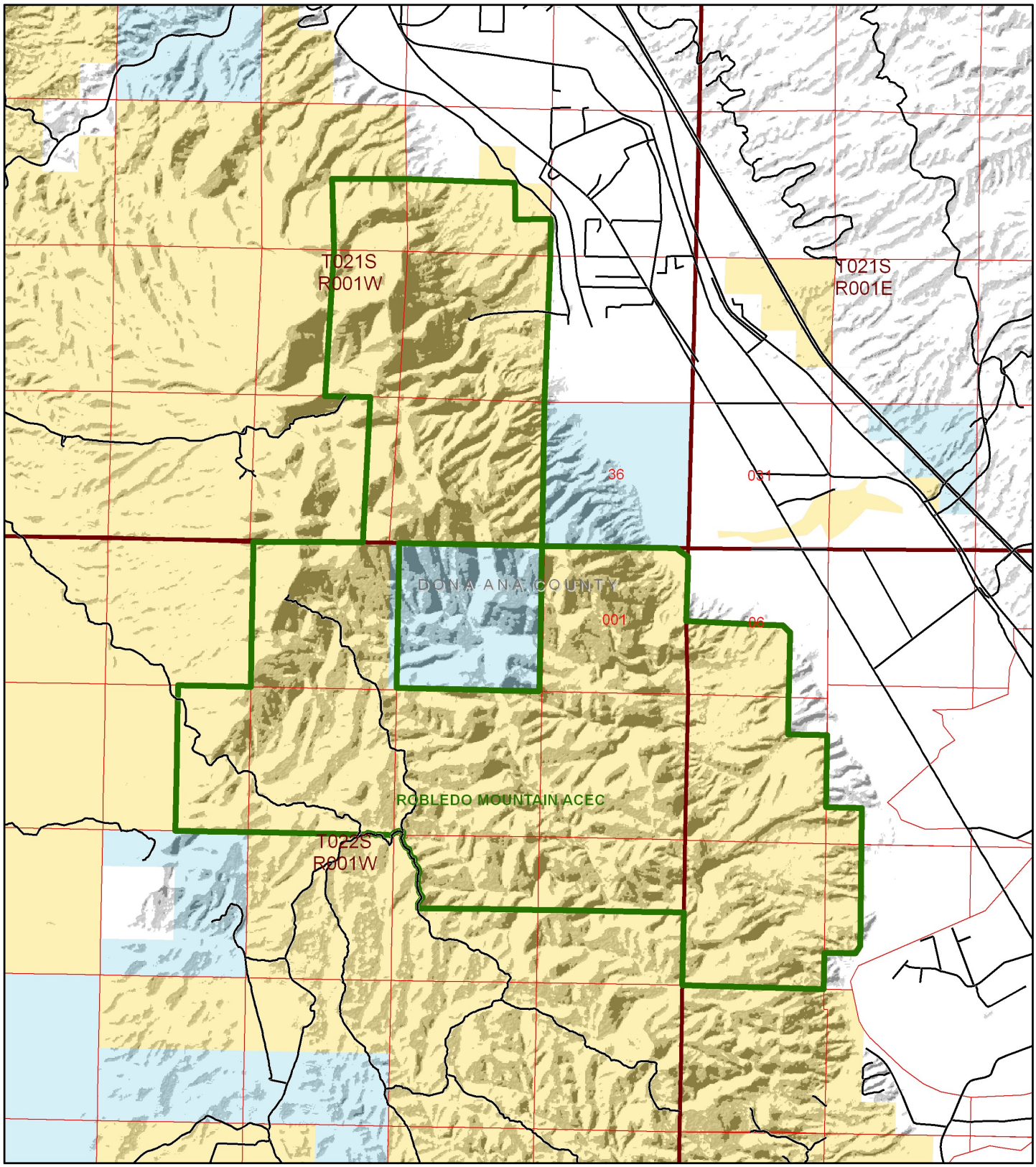
1:10,000

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-11: Robledo Mountains ACEC

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BLM GIS
Las Cruces District Office

0 0.5 1 Miles

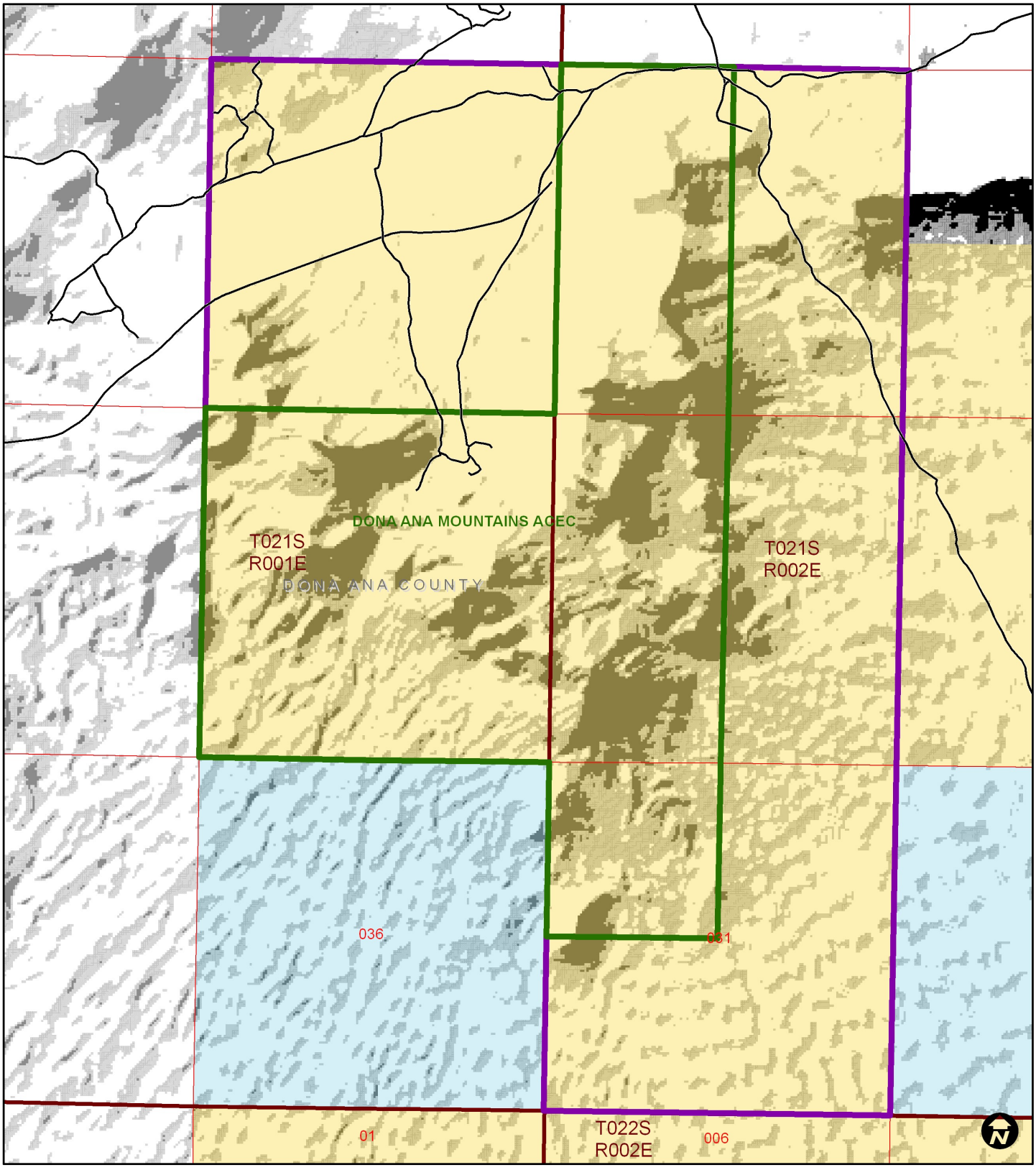
1:60,000

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-12: Dona Ana Mountains ACEC




0 0.25 0.5 Miles 1:25,000

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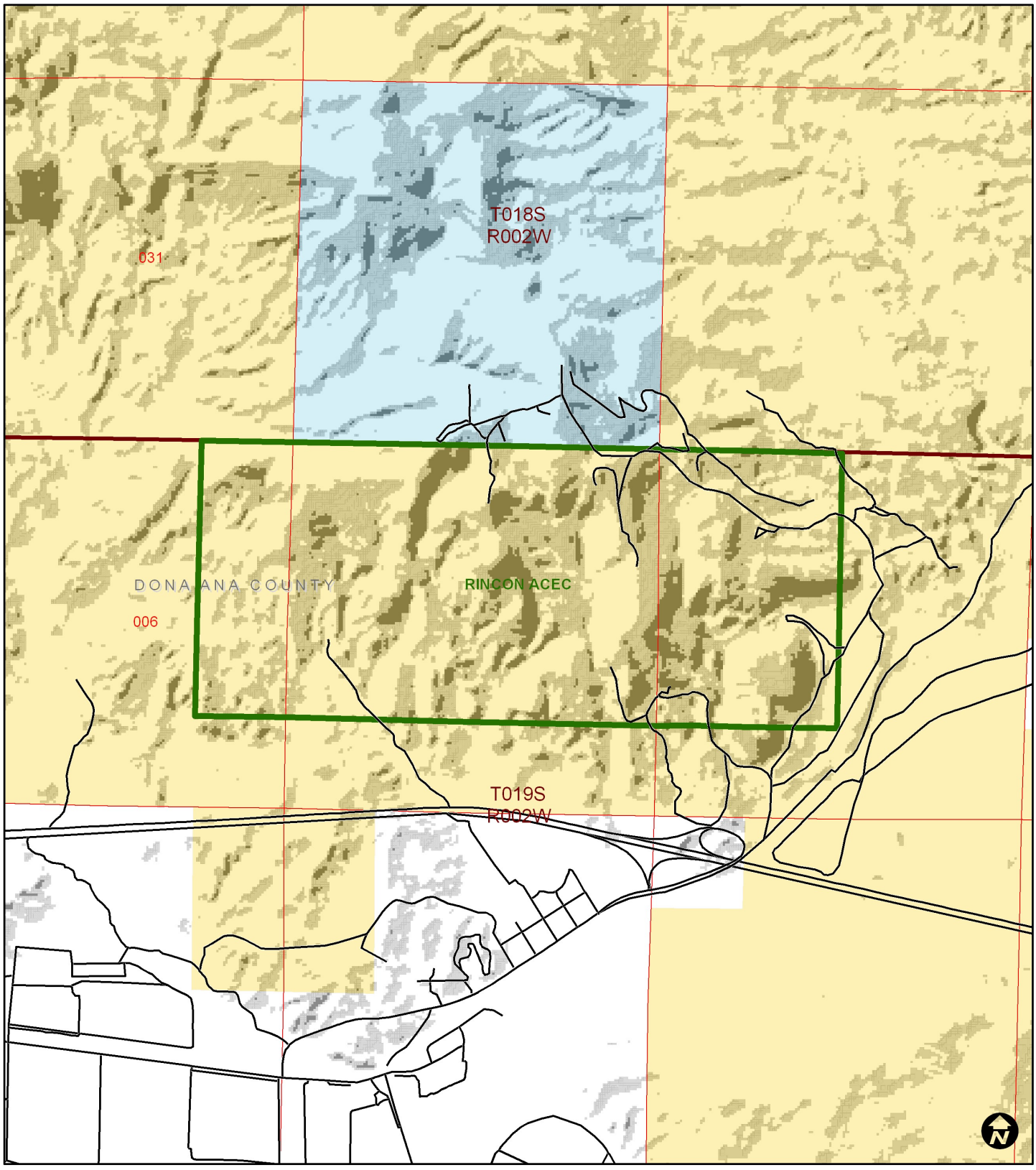
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC
Expanded ACEC

**Surface Management**
BLM
Private
State

# J-13: Rincon ACEC




0 0.25 0.5 Miles

1:24,000

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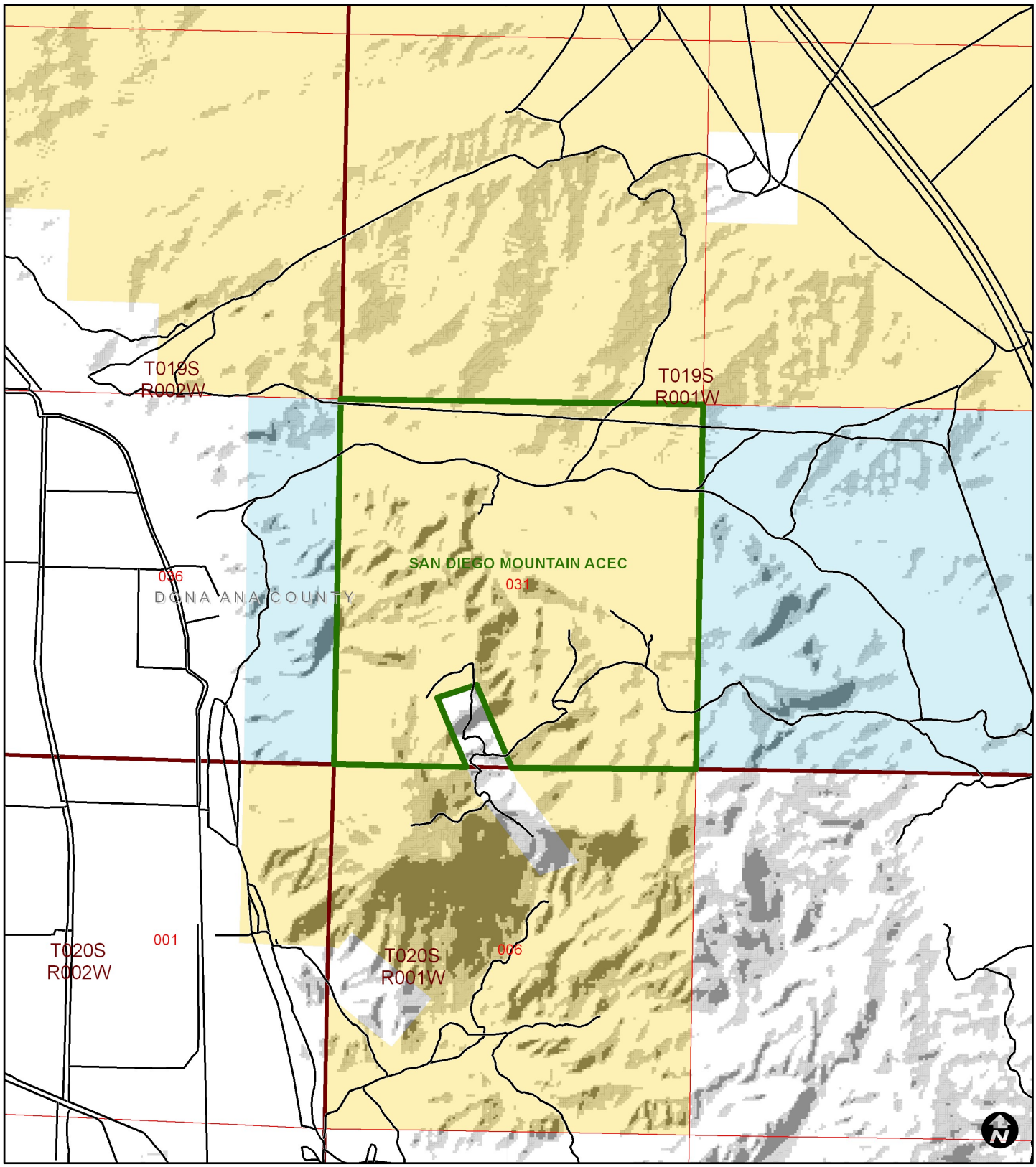
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-14: San Diego Mountain ACEC




0 0.25 0.5 Miles 1:24,000

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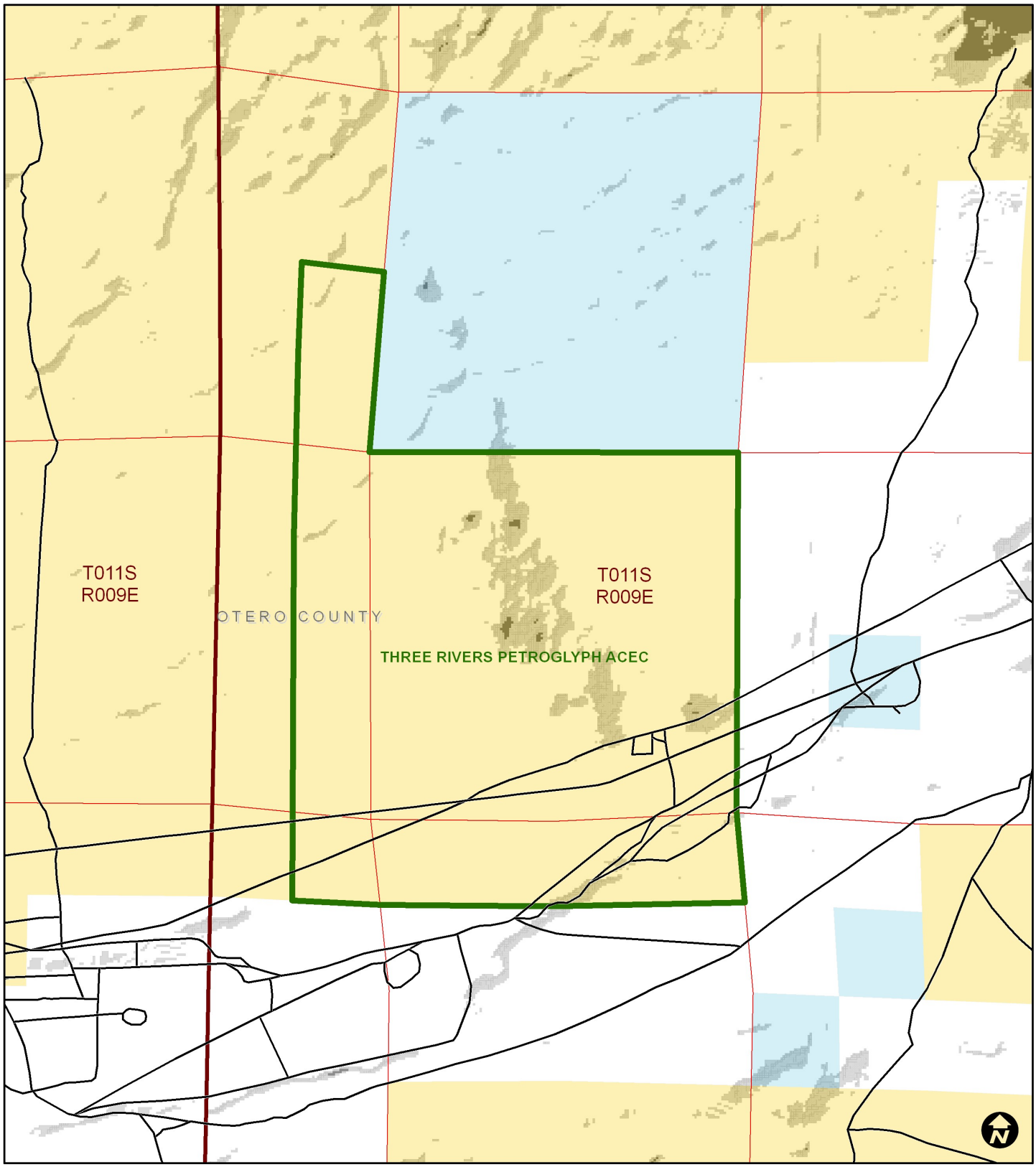
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**
BLM
Private
State

# J-15: Three Rivers Petroglyph ACEC




0 0.25 0.5 Miles

1:24,000

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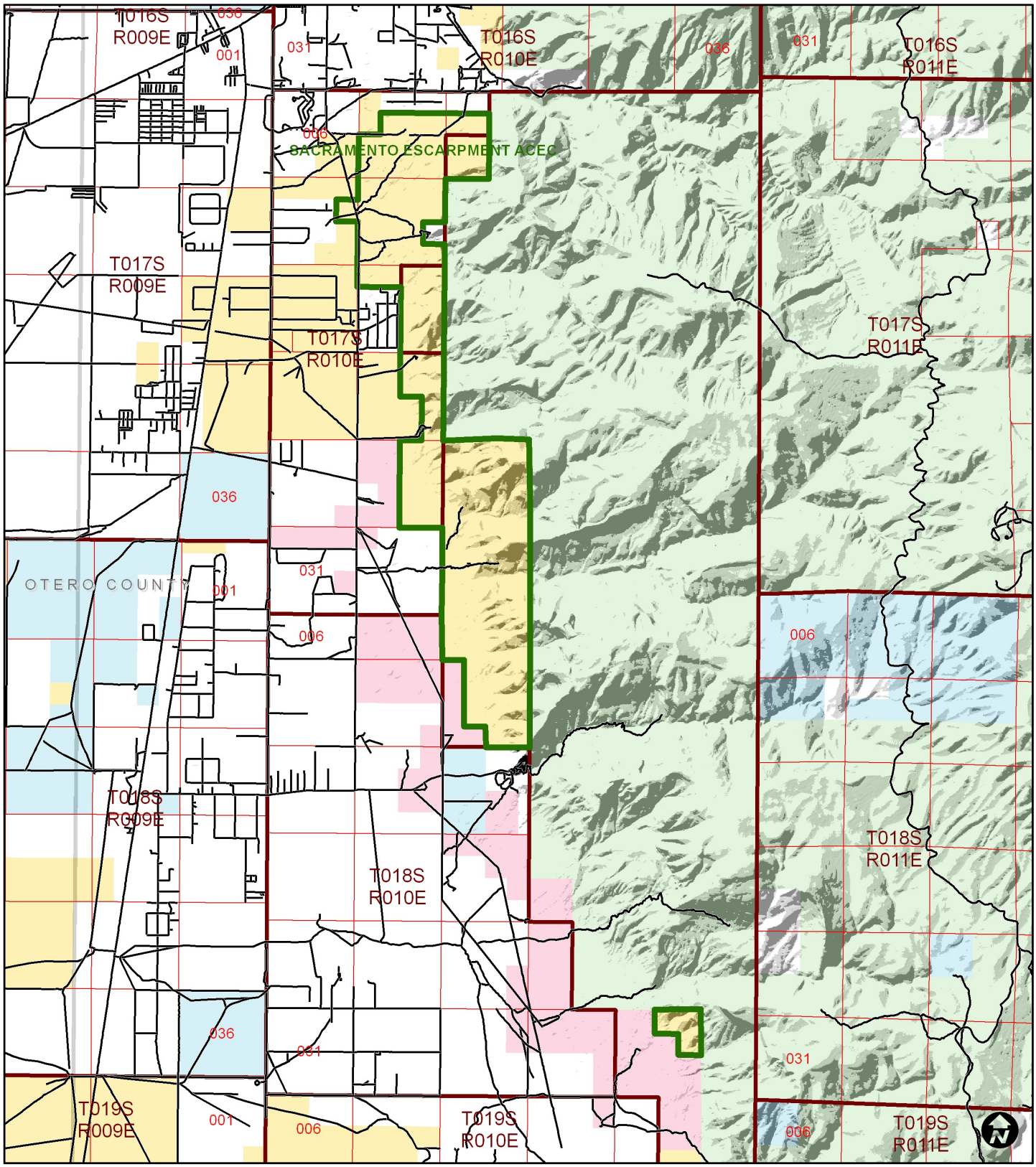
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-16: Sacramendo Escarpment ACEC

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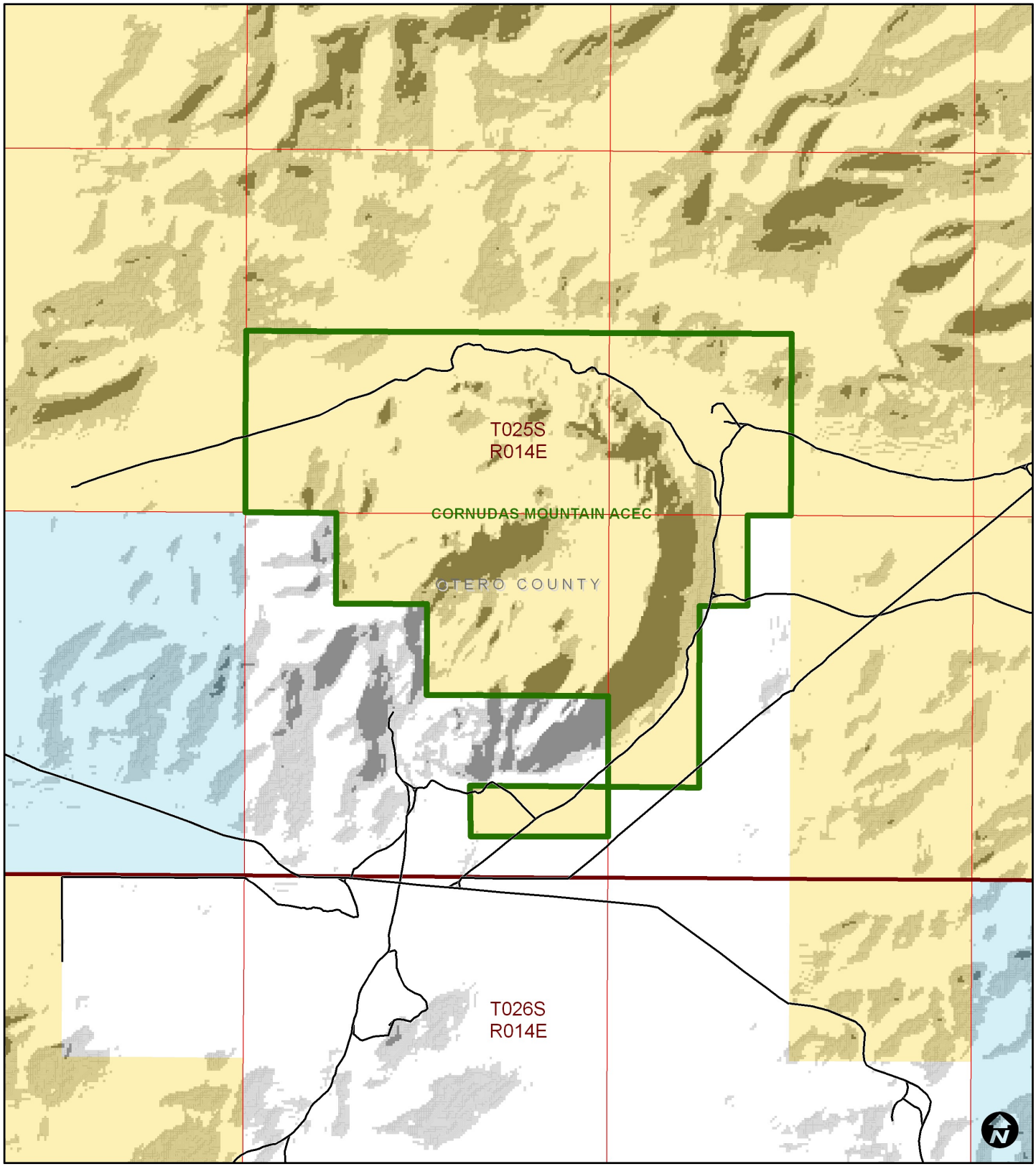
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
DoD
USFS
Private
State

# J-17: Cornudas Mountain ACEC




0 0.25 0.5 Miles

1:24,000

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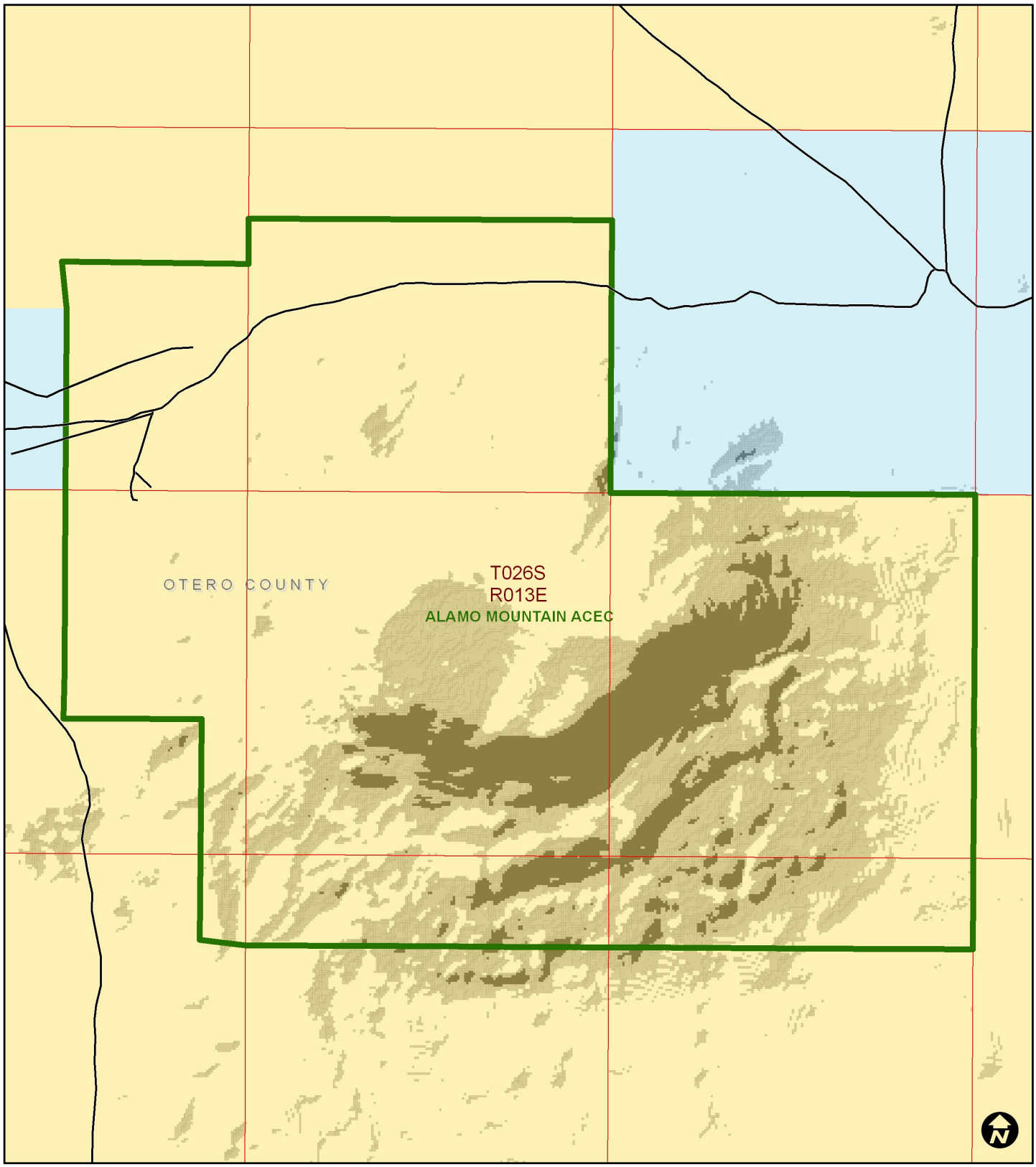
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-18: Alamo Mountain ACEC




0 0.25 0.5 Miles

1:24,000

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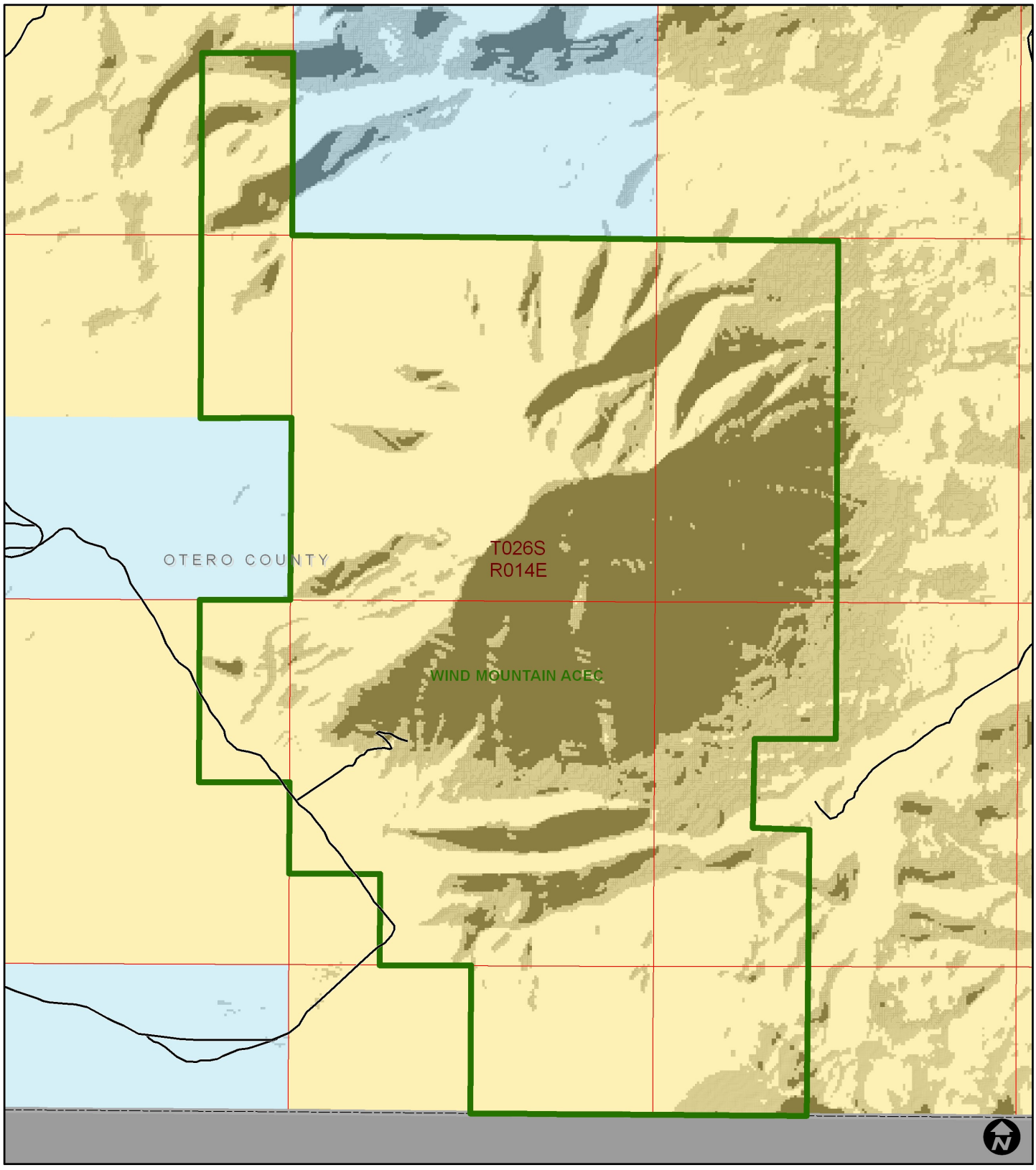
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-19: Wind Mountain ACEC




0 0.25 0.5 Miles 1:24,000

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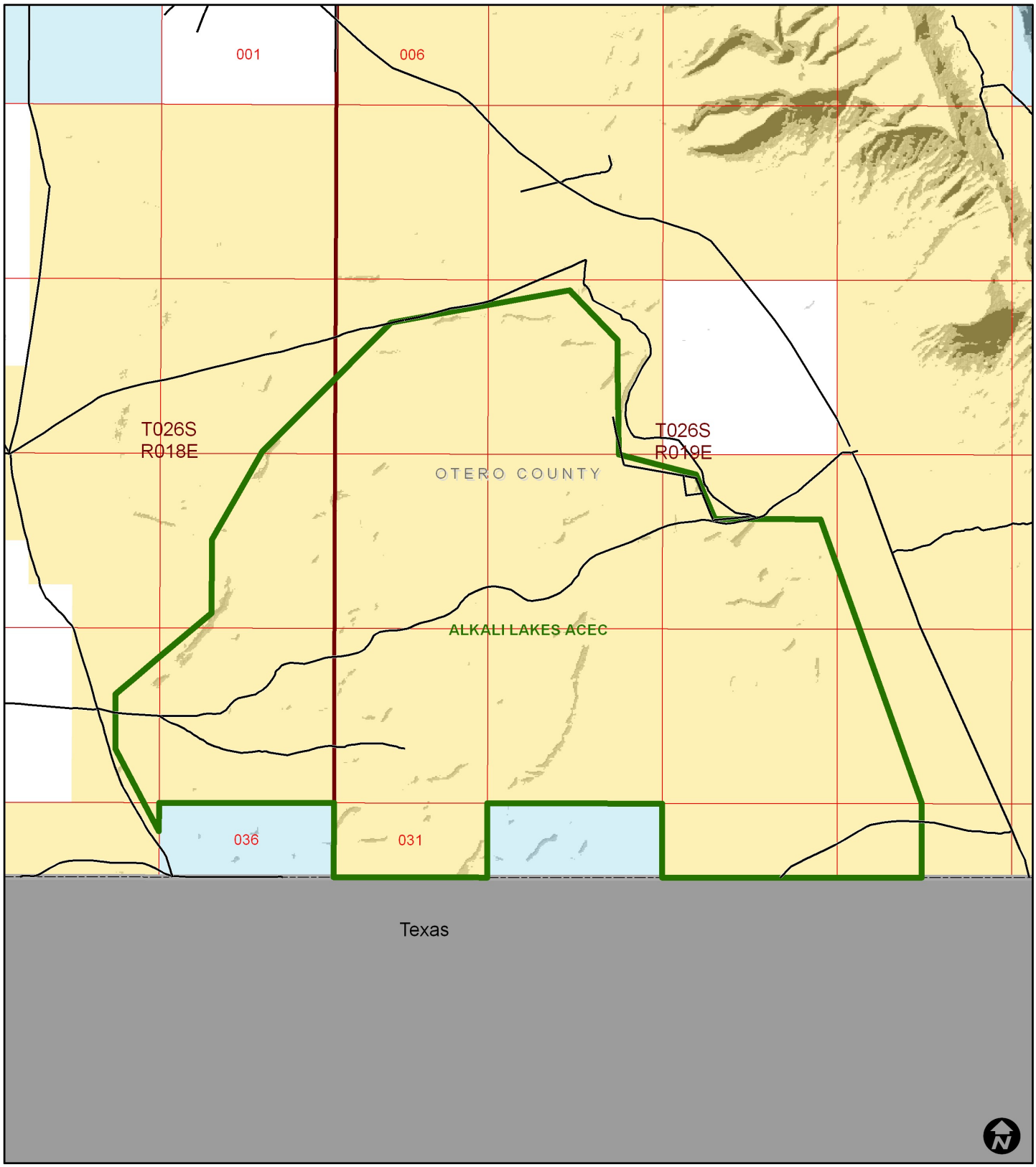
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**
BLM
Private
State

# J-20: Alkali Lakes ACEC




0 0.5 1 Miles

1:50,000

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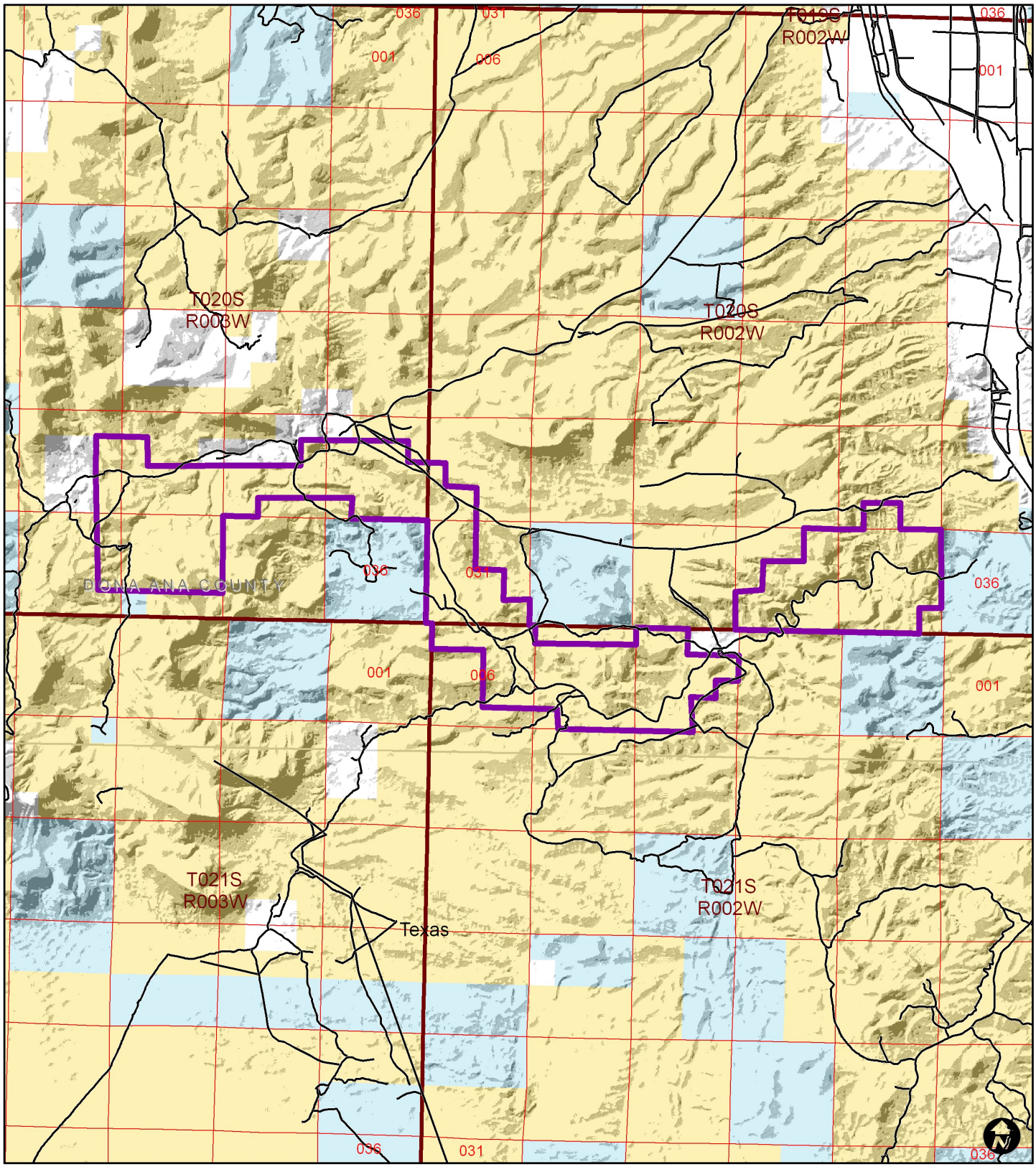
BLM GIS
Las Cruces District Office

Existing Route
Existing ACEC

**Surface Management**

BLM
Private
State

# J-21: Broad Canyon ACEC




0 0.5 1 Miles

1:85,000

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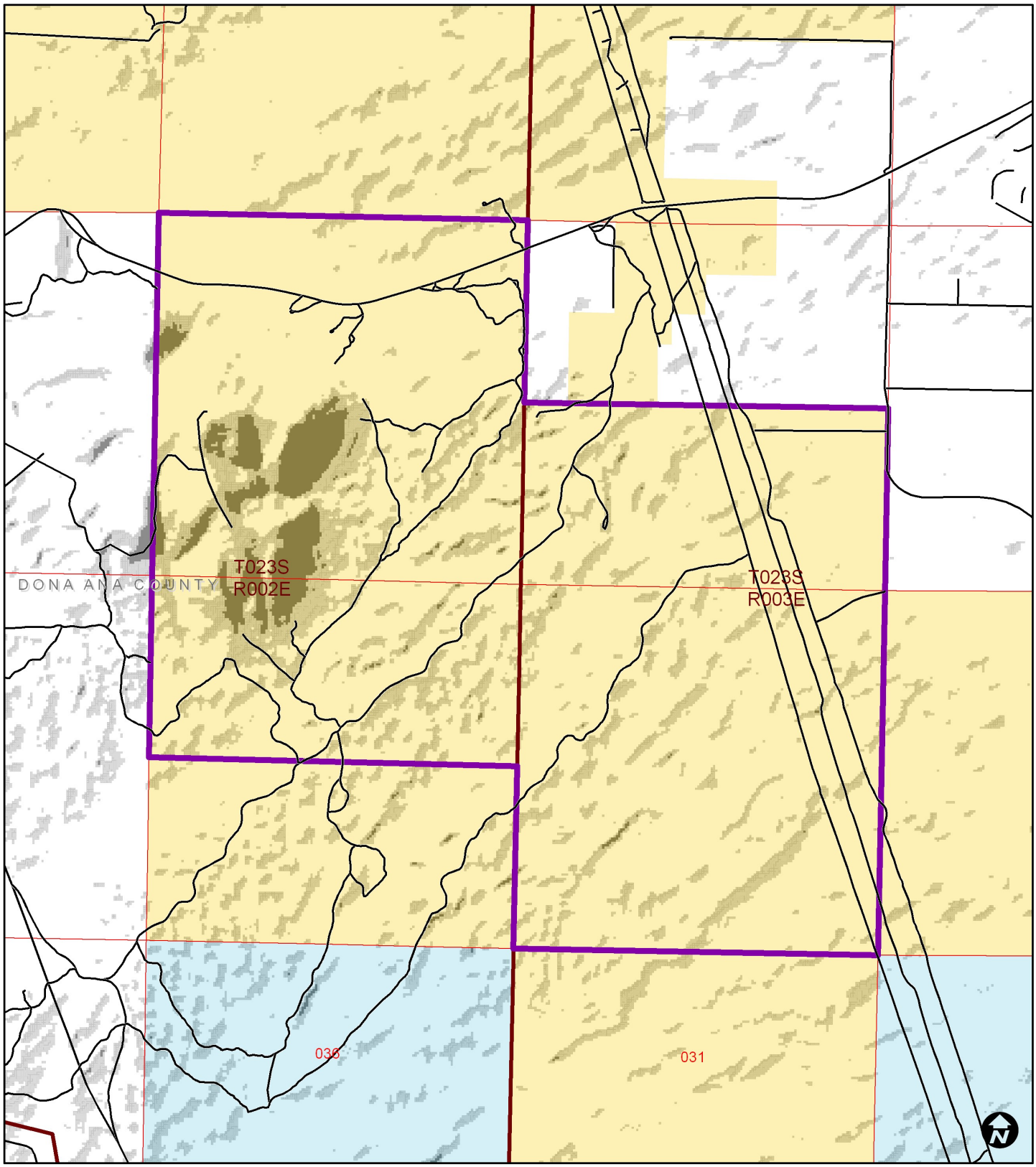
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-22: Tortugas Mountain ACEC




0 0.25 0.5 Miles 1:24,000

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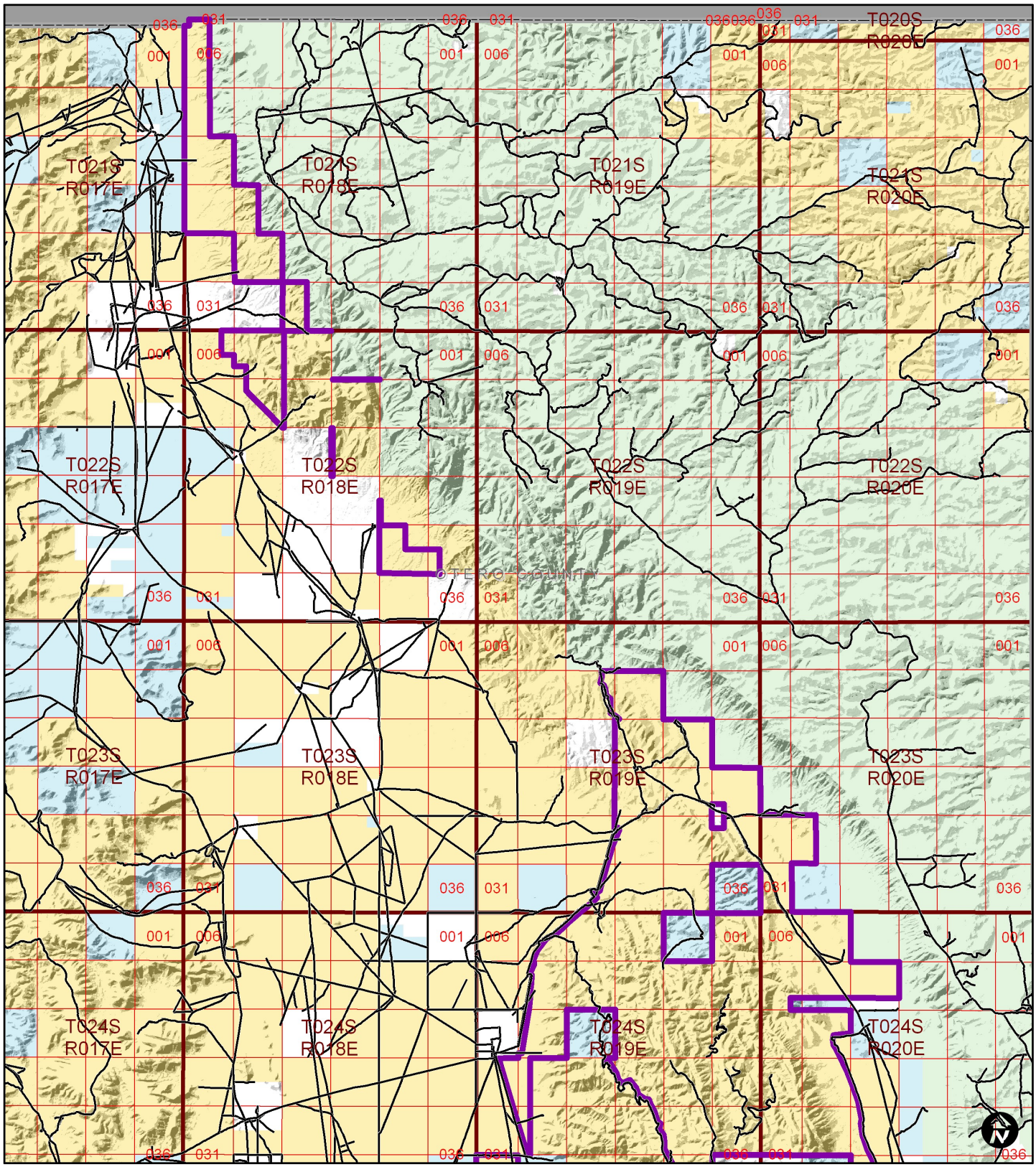
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-23: Brokeoff Mountains ACEC (N. Half)




0 1 2 Miles

1:180,000

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

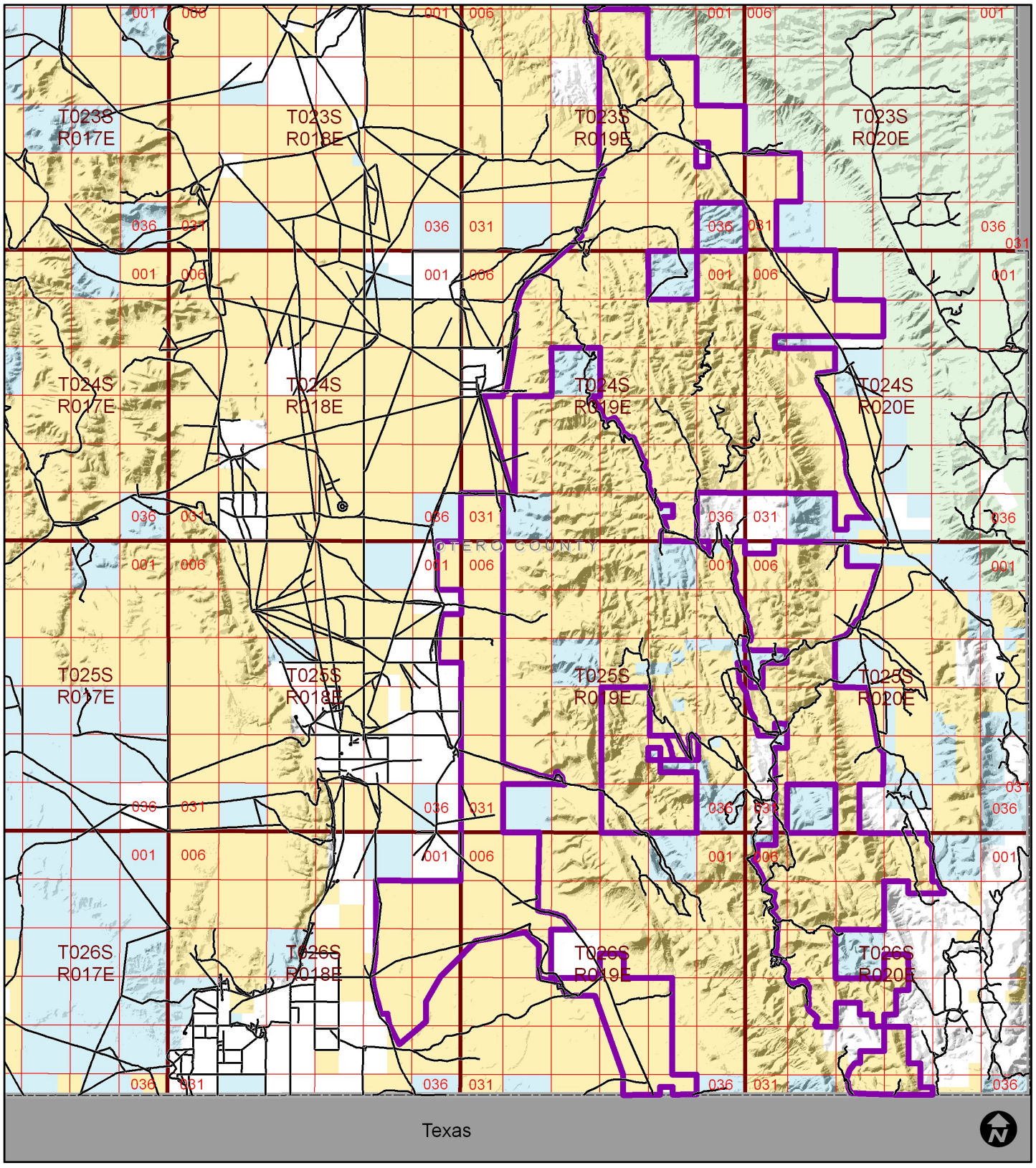
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**

BLM
USFS
Private
State

# J-24: Brokeoff Mountains ACEC (S. Half)




0 1 2 Miles

1:180,000

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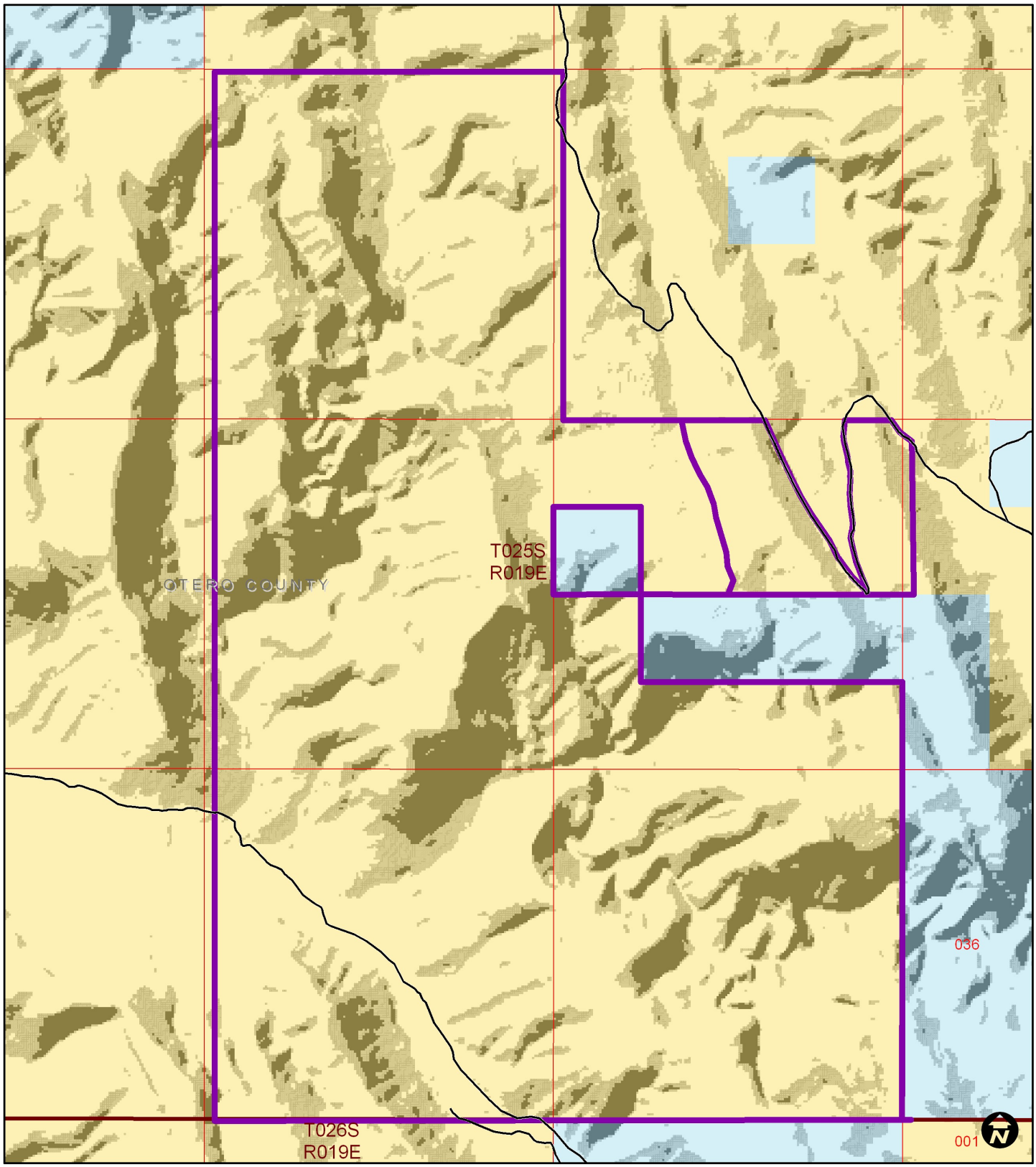
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
USFS
Private
State

# J-25: Brokeoff Mountains ACEC (Alternative C)




0 0.25 0.5 Miles

1:25,000

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BLM GIS
Las Cruces District Office

Existing Route

Proposed ACEC

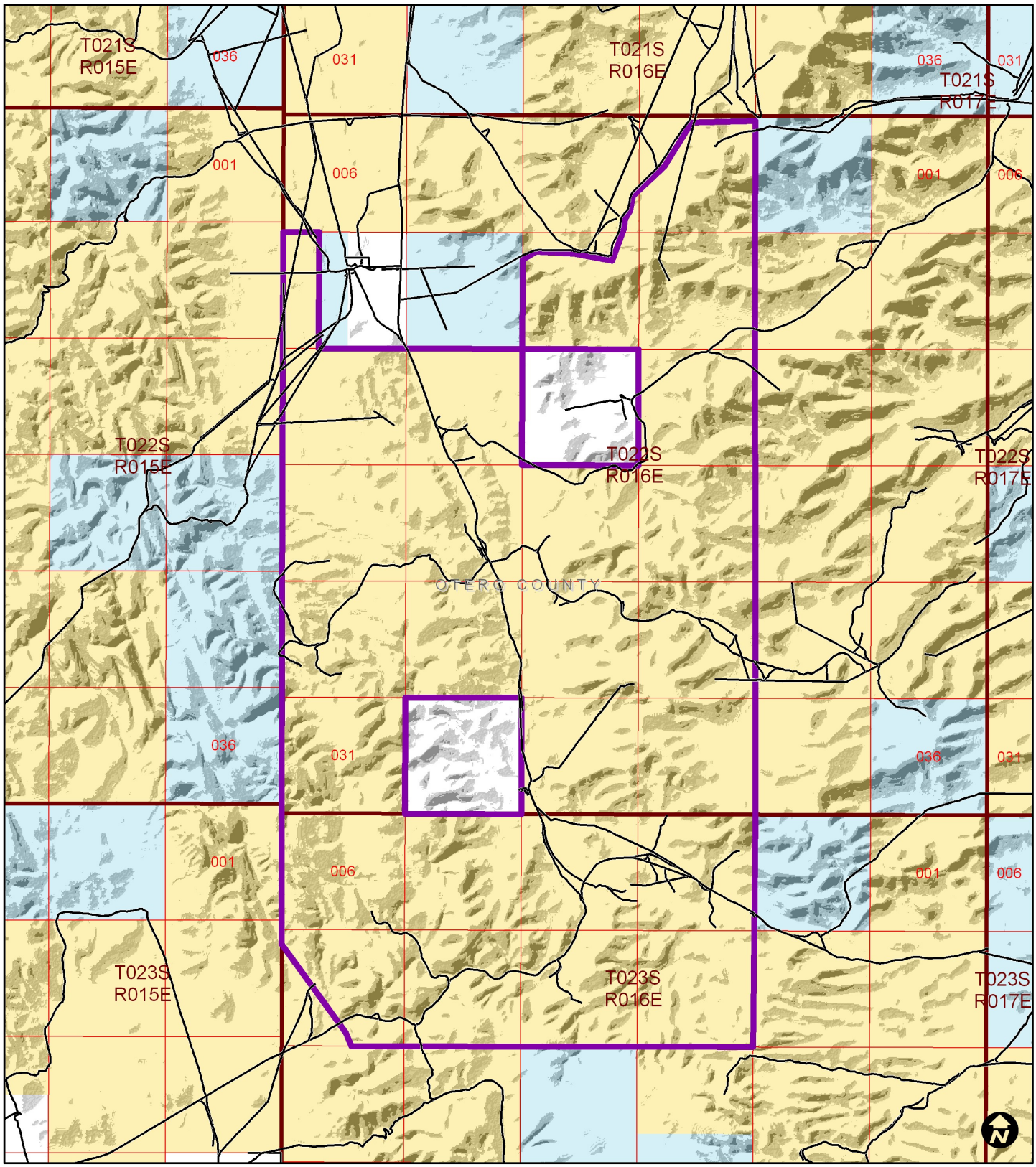
**Surface Management**

BLM

Private

State

# J-26: Cornucopia ACEC




0 0.5 1 Miles

1:75,000

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

BLM GIS
Las Cruces District Office

Existing Route

Proposed ACEC

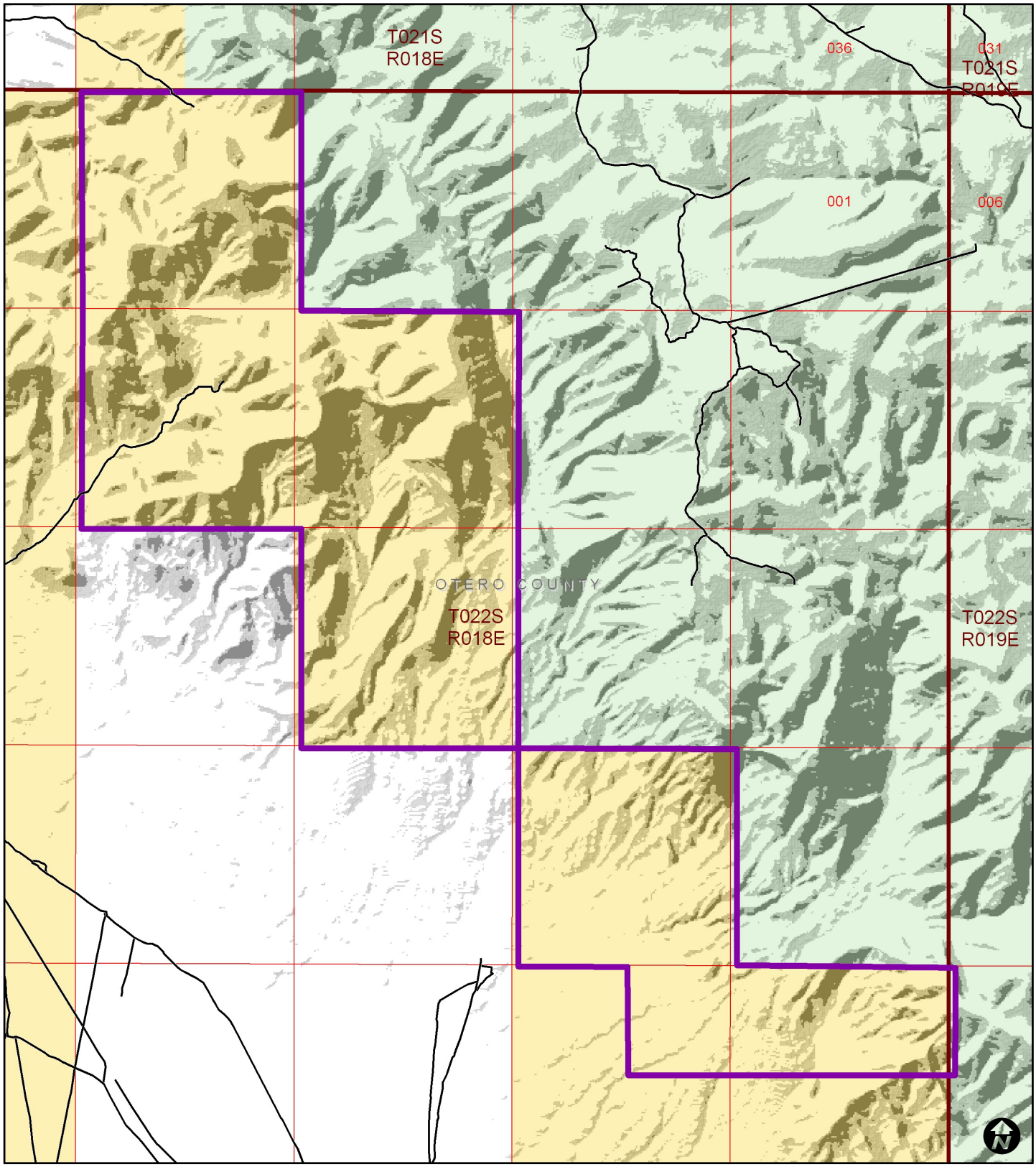
**Surface Management**

BLM

Private

State

# J-27:Pup Canyon ACEC




0 0.3 0.6 Miles

1:40,000

BLM GIS
Las Cruces District Office

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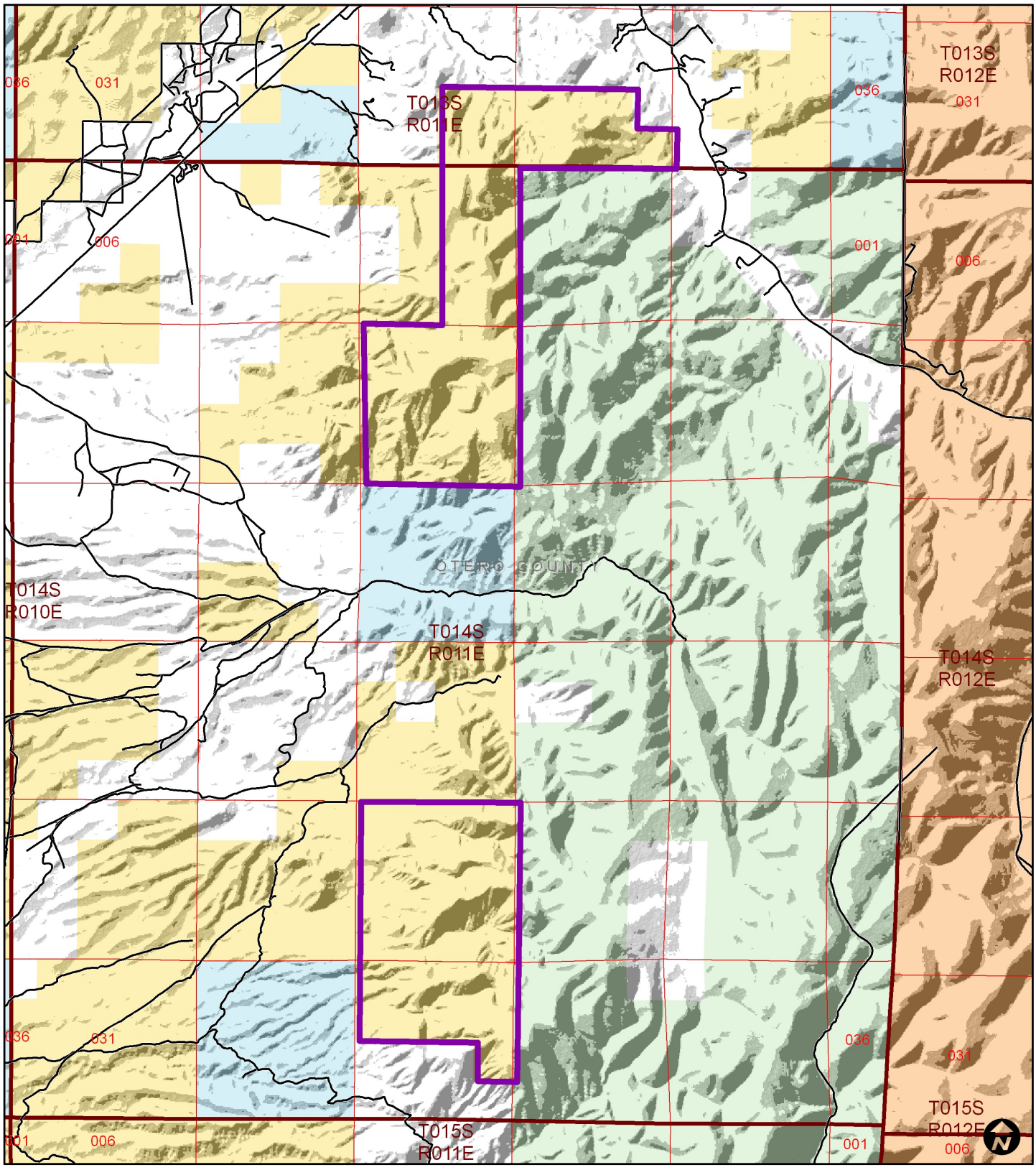
Existing Route
Proposed ACEC

**Surface Management**

- BLM
- USFS
- Private
- State

# J-28:Sacramento Mountain North and South ACEC




0 0.5 1 Miles

1:55,000

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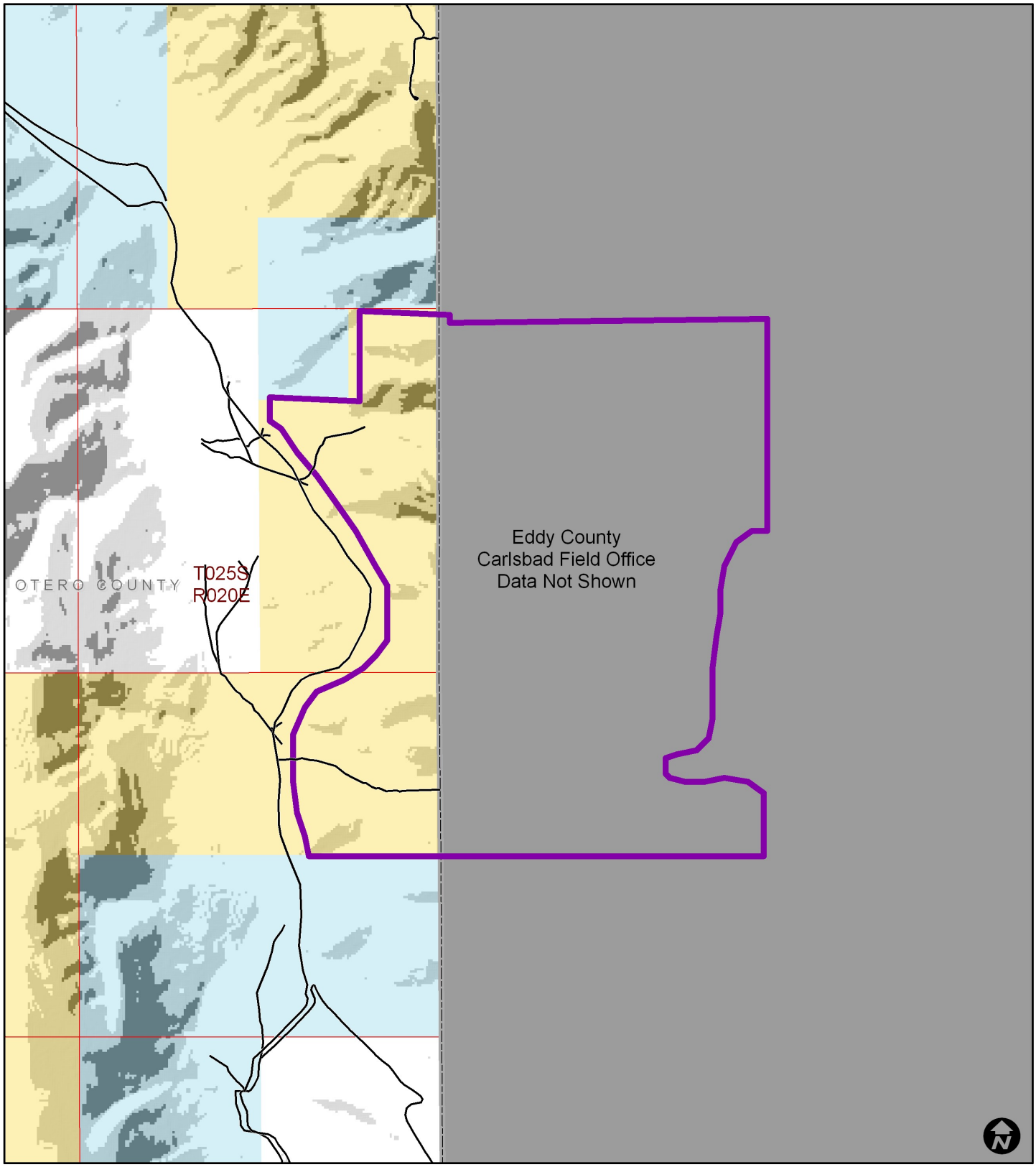
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
**Surface Ownership**
BLM
USFS
Private
State
Tribal

# J-29:Six Shooter Canyon ACEC




0 0.25 0.5 Miles 1:24,000

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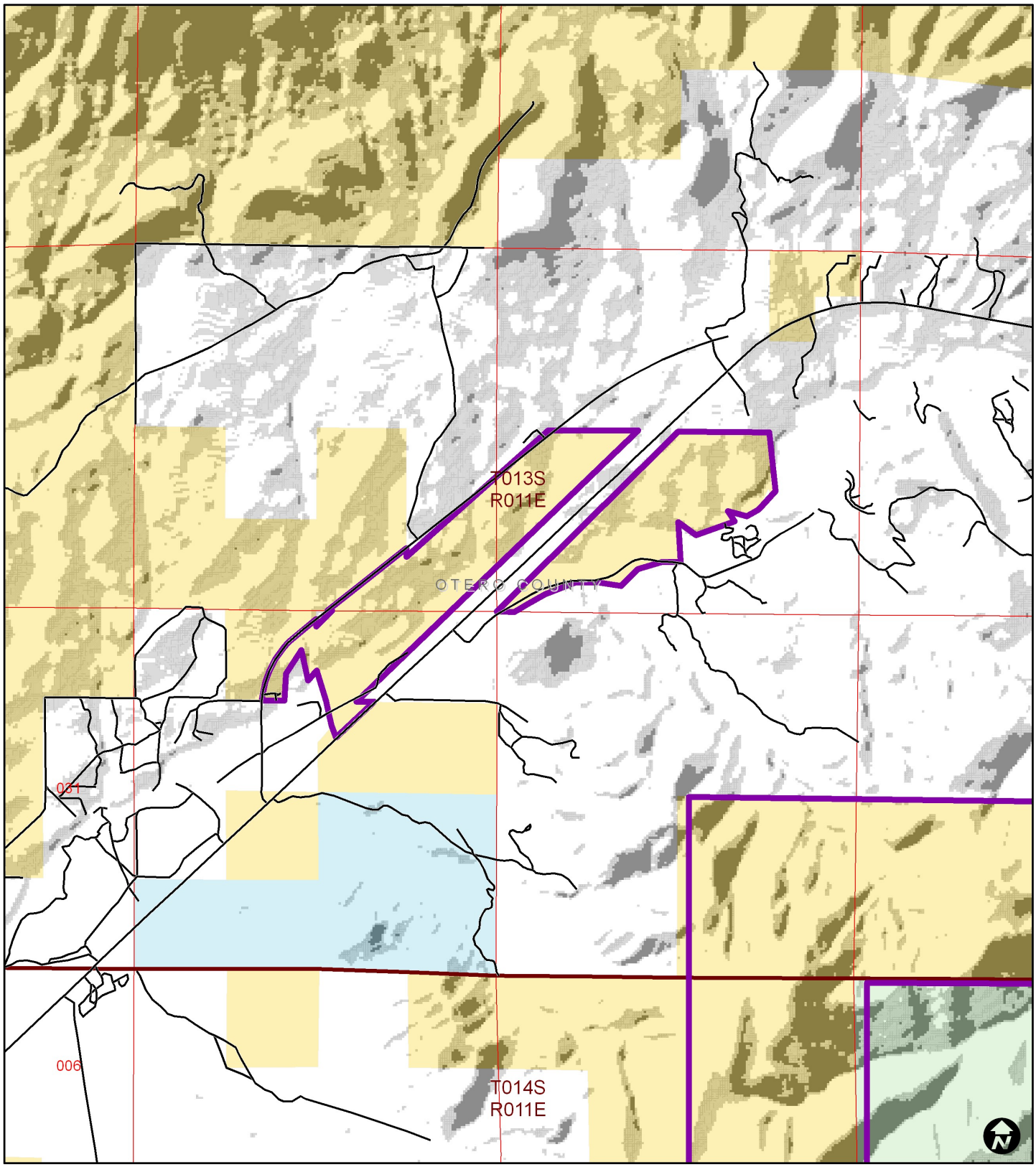
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
**Surface Ownership**
BLM
Private
State

# J-30:Tularosa Creek ACEC




0 0.25 0.5 Miles 1:24,000

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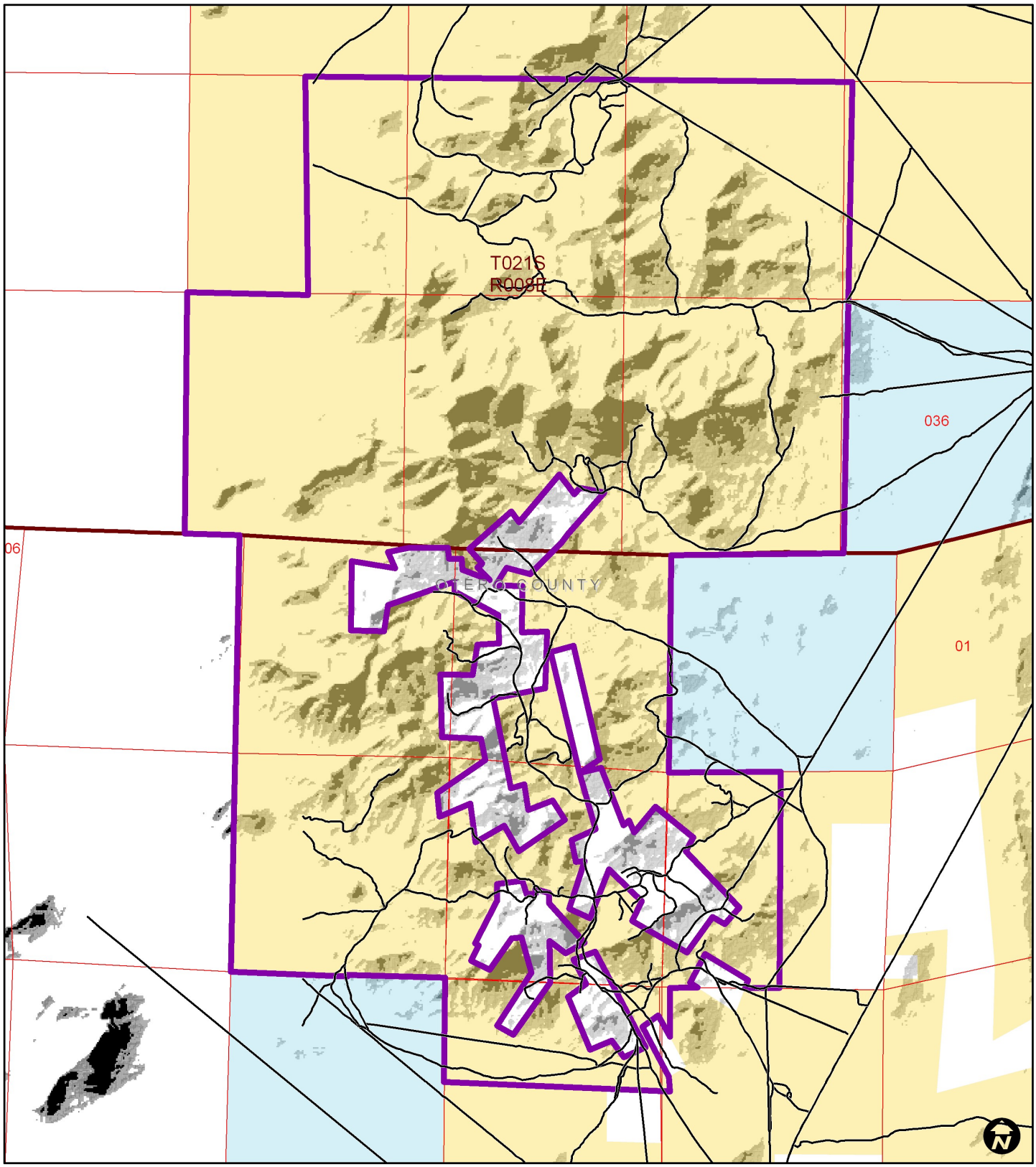
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
USFS
Private
State

# J-31:Jarilla Mountains ACEC




0 0.25 0.5 Miles

1:40,000

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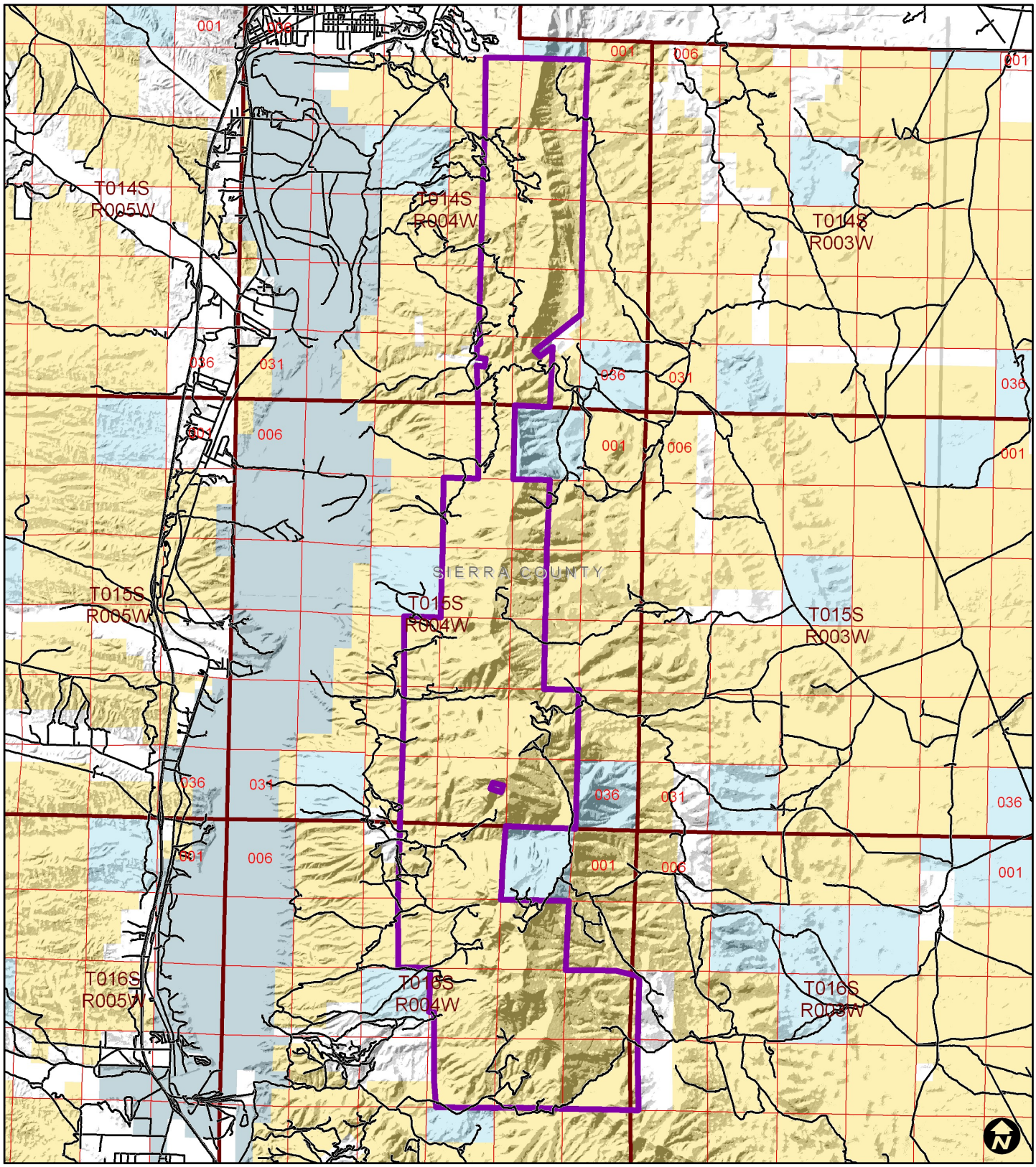
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-32: Caballo Mountains ACEC




BLM GIS
Las Cruces District Office

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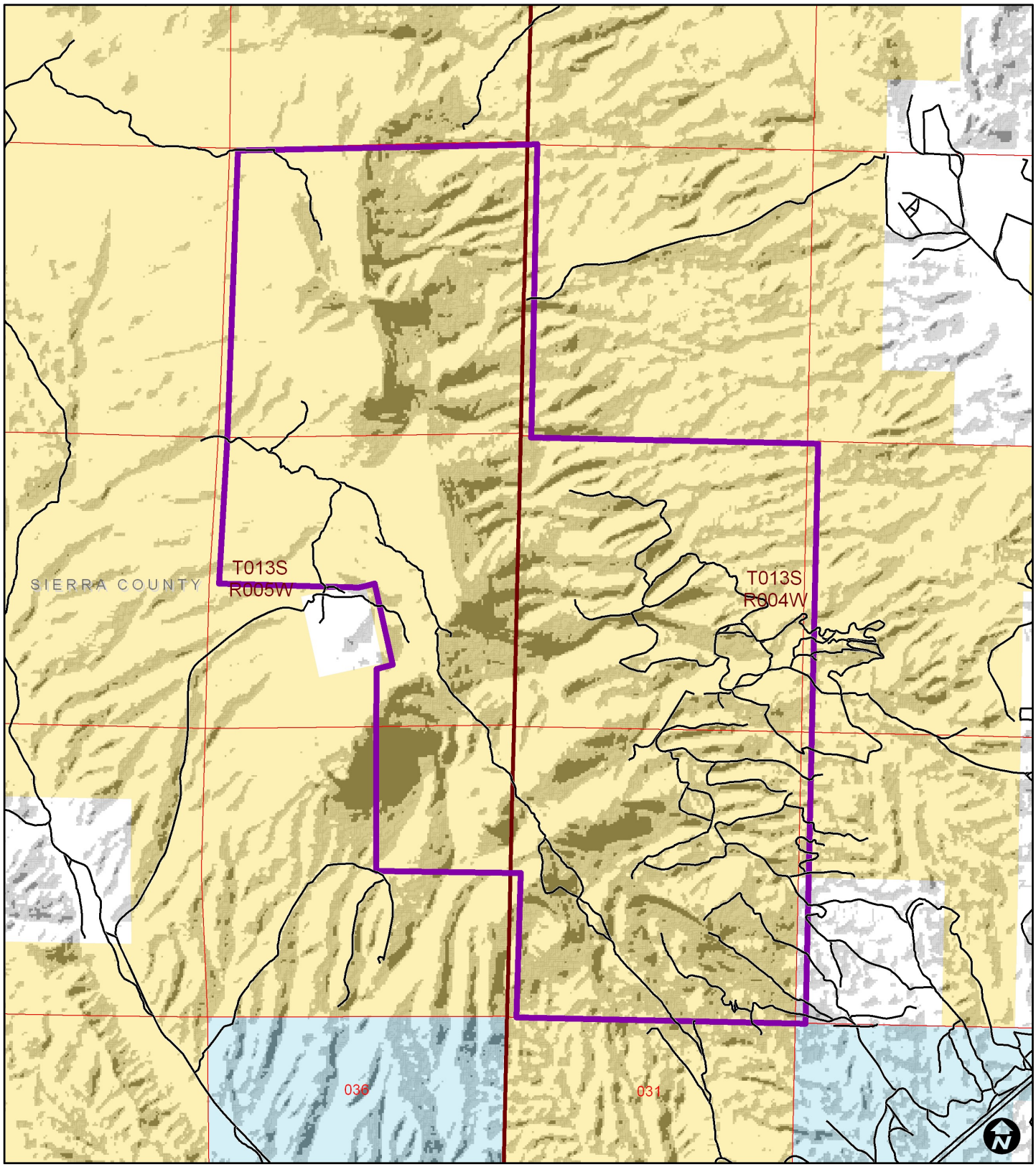
# J-33: Mud Mountain ACEC




0 0.25 0.5 Miles

1:30,000

BLM GIS
Las Cruces District Office

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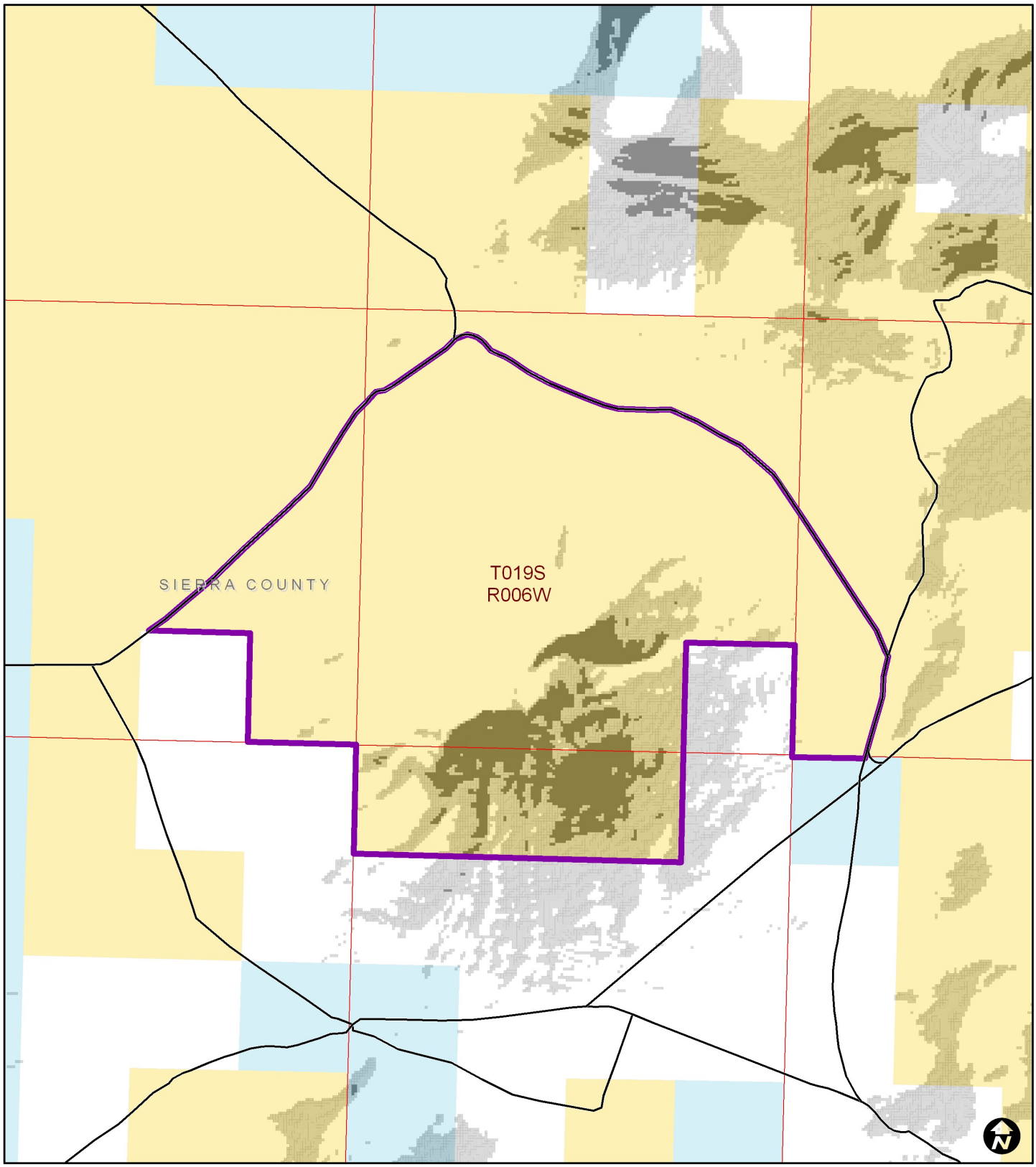
Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-34: Nutt Mountain ACEC




0 0.1 0.2 Miles

1:20,000

BLM GIS
Las Cruces District Office

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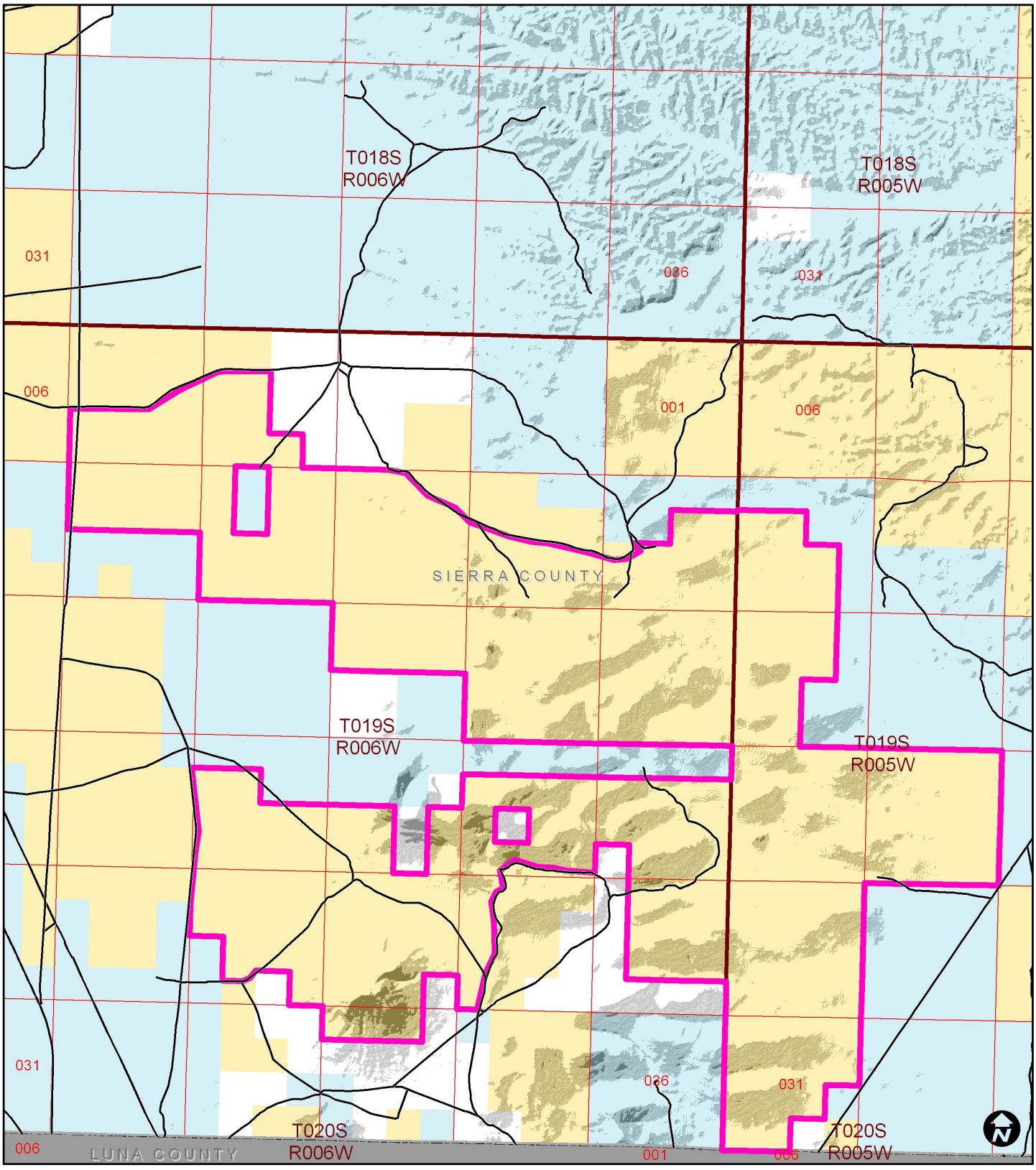
Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-35: Nutt Grasslands LWC




0 0.5 1 Miles

1:65,000

BLM GIS
Las Cruces District Office

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Existing Route

Lands w/Wilderness Characteristics

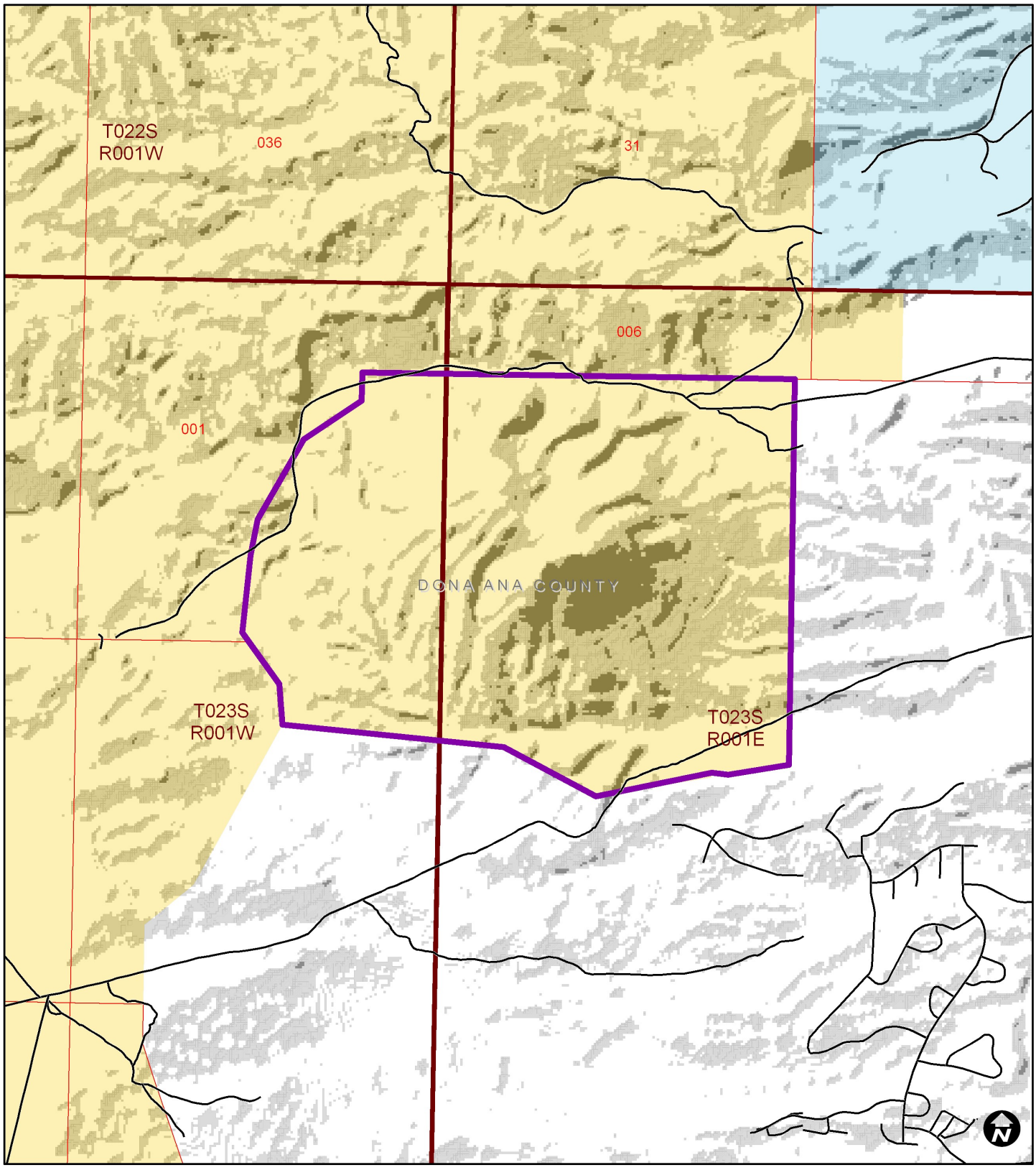
**Surface Management**

BLM

Private

State

# J-36: Picacho Peak ACEC




0 0.25 0.5 Miles 1:24,000

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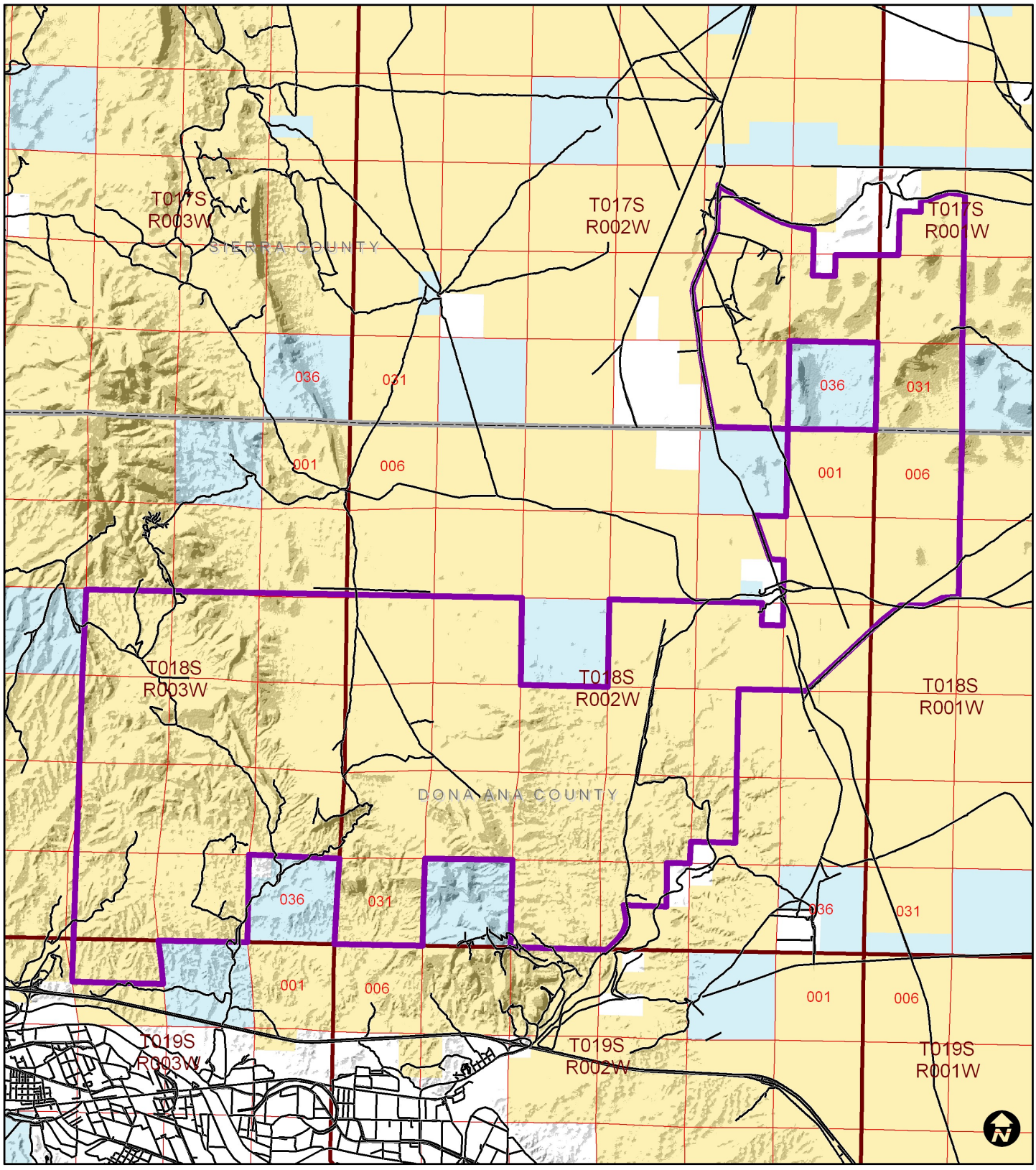
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-37: Southern Caballo Mountains ACEC




0 1 2 Miles

1:100,000

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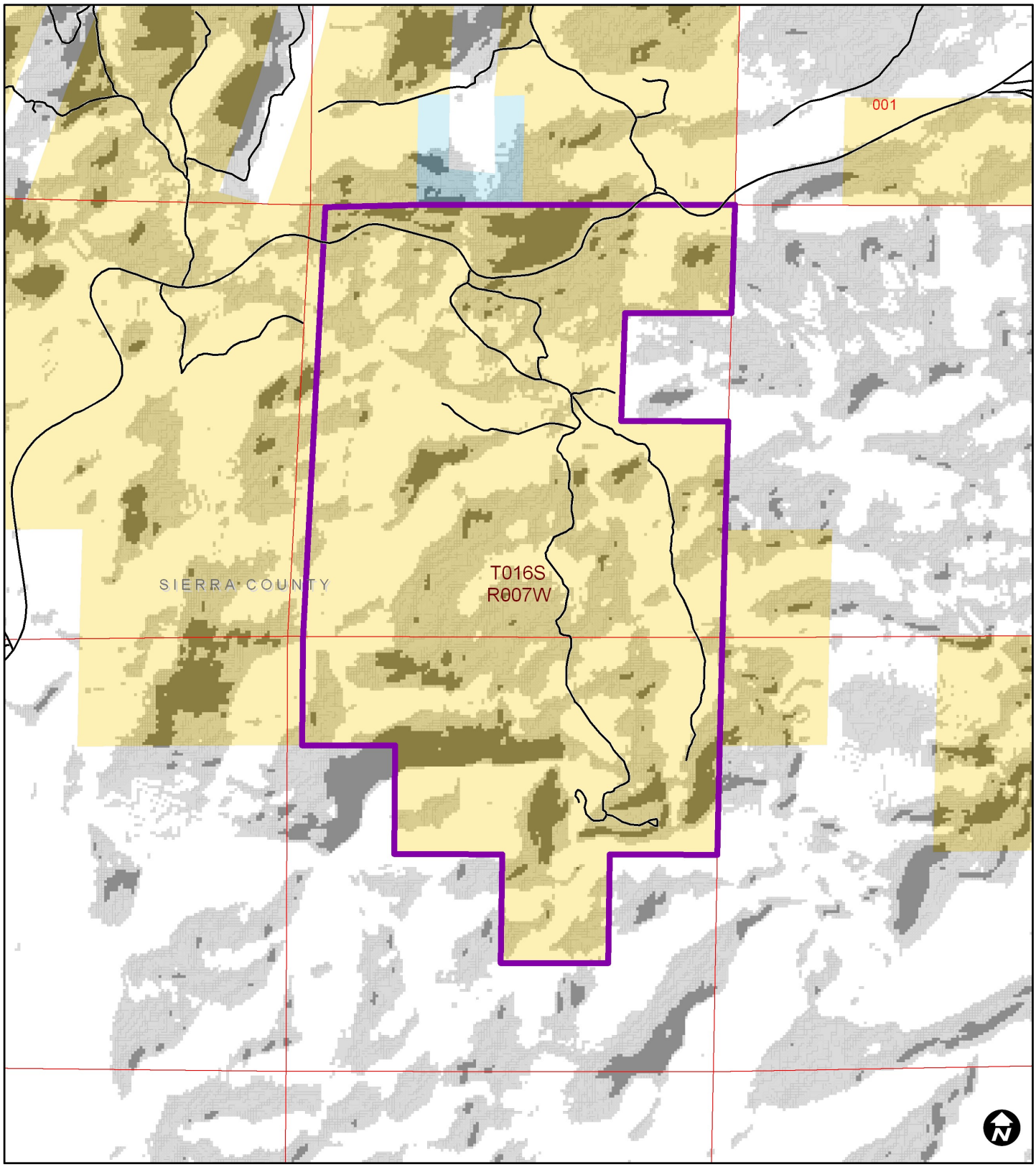
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-38: Percha Creek ACEC




0 0.25 0.5 Miles

1:20,000

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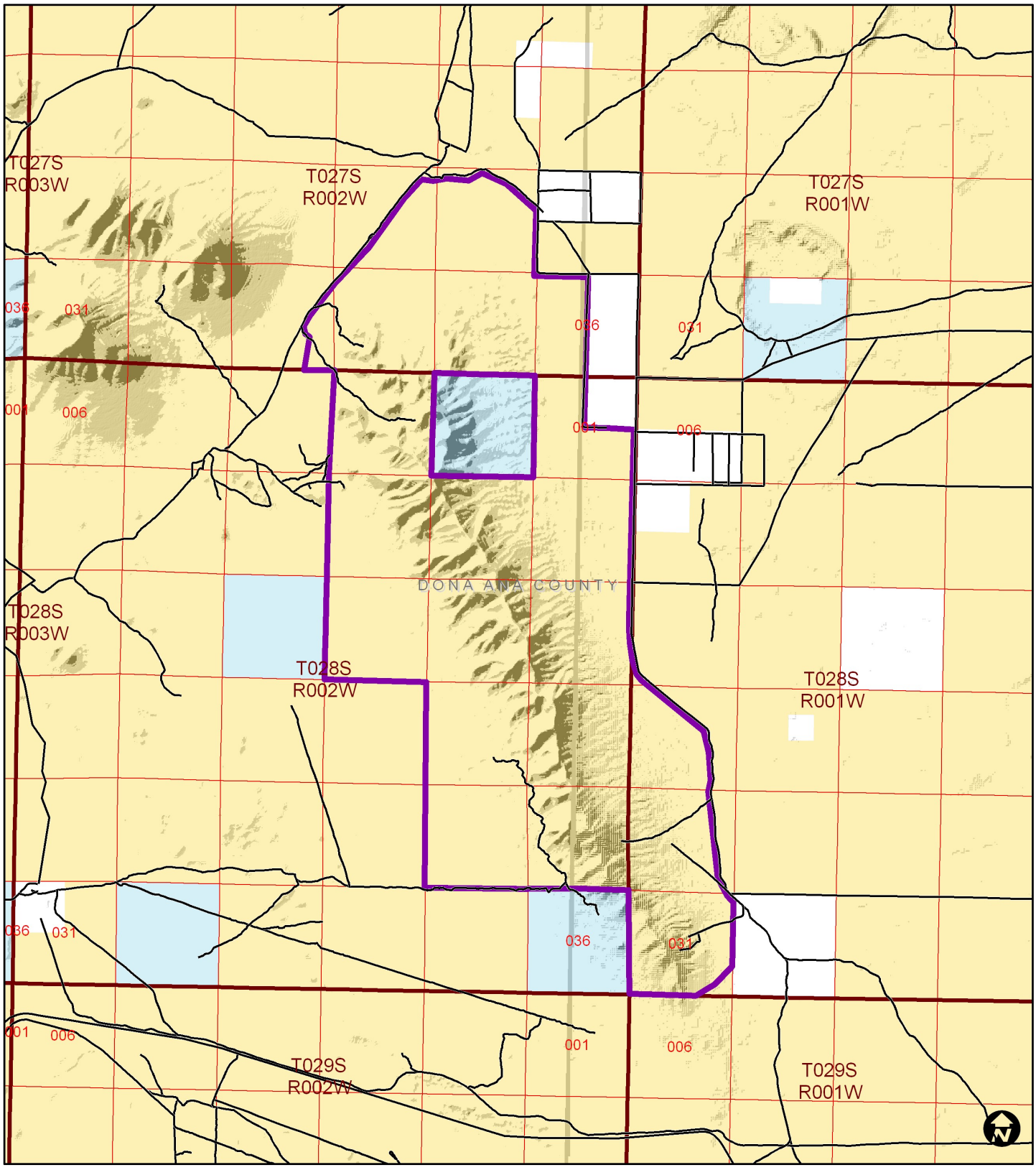
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-39: East Potrillo Mountains ACEC




0 1 2 Miles

1:85,000

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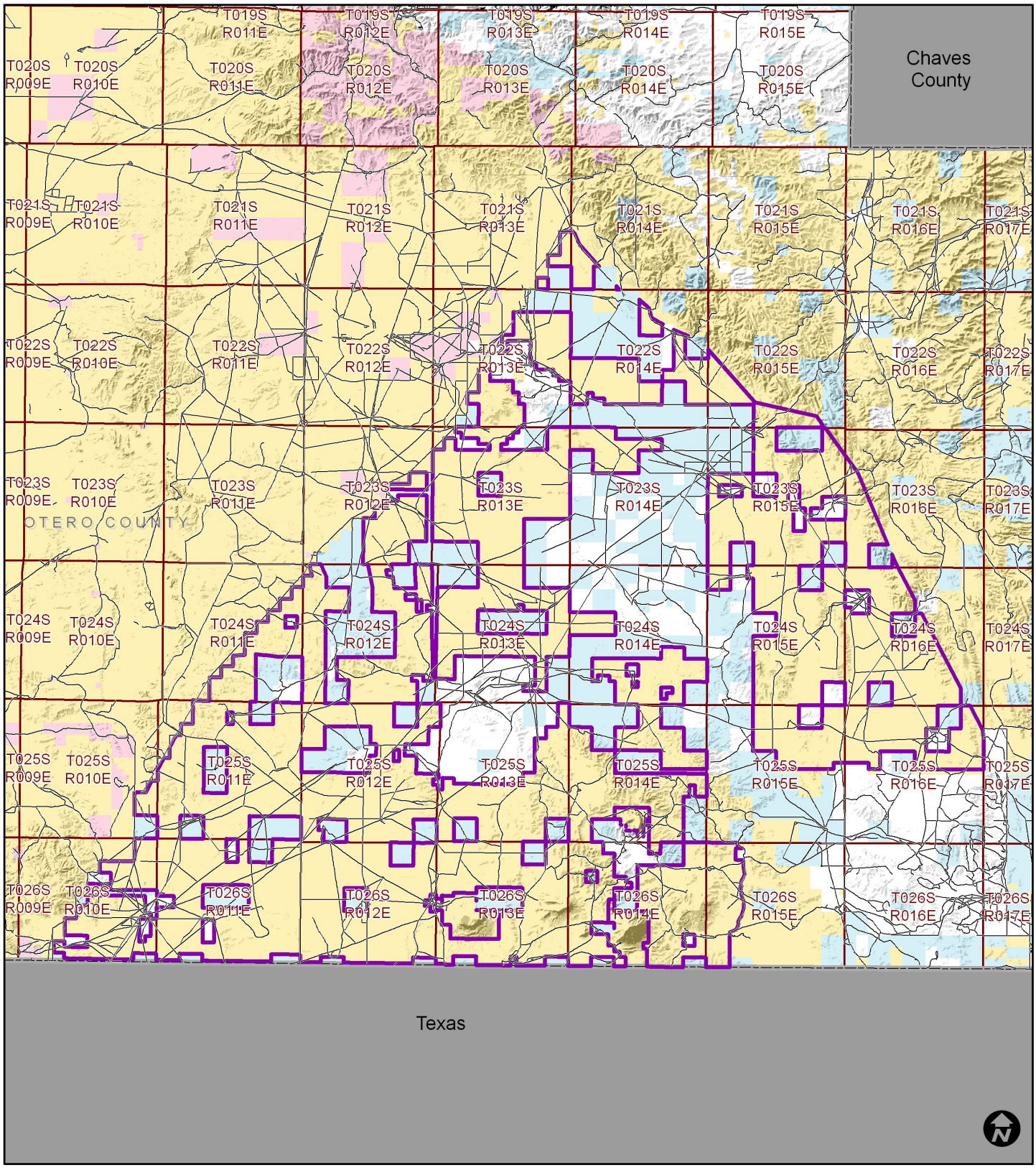
BLM GIS
Las Cruces District Office

Existing Route
Proposed ACEC

**Surface Management**
BLM
Private
State

# J-40: Otero Mesa Grasslands ACEC




0 2.5 5 Miles

1:380,000

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BLM GIS
Las Cruces District Office

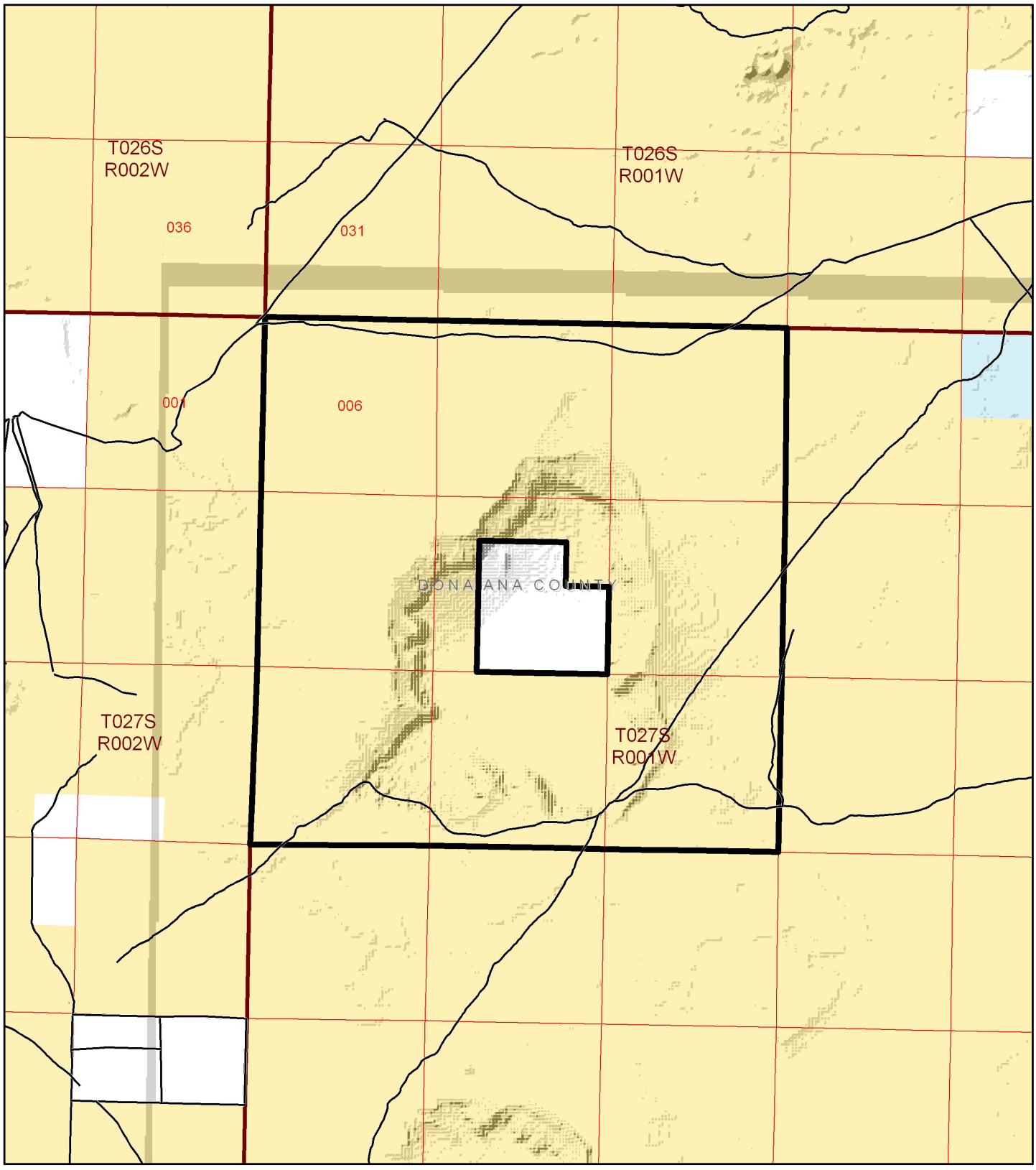
— Existing Route

Proposed ACEC

**Surface Management**

- BLM
- DoD
- Private
- State

# J-41: Kilbourne Hole National Natural Landmark

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BLM GIS
Las Cruces District Office

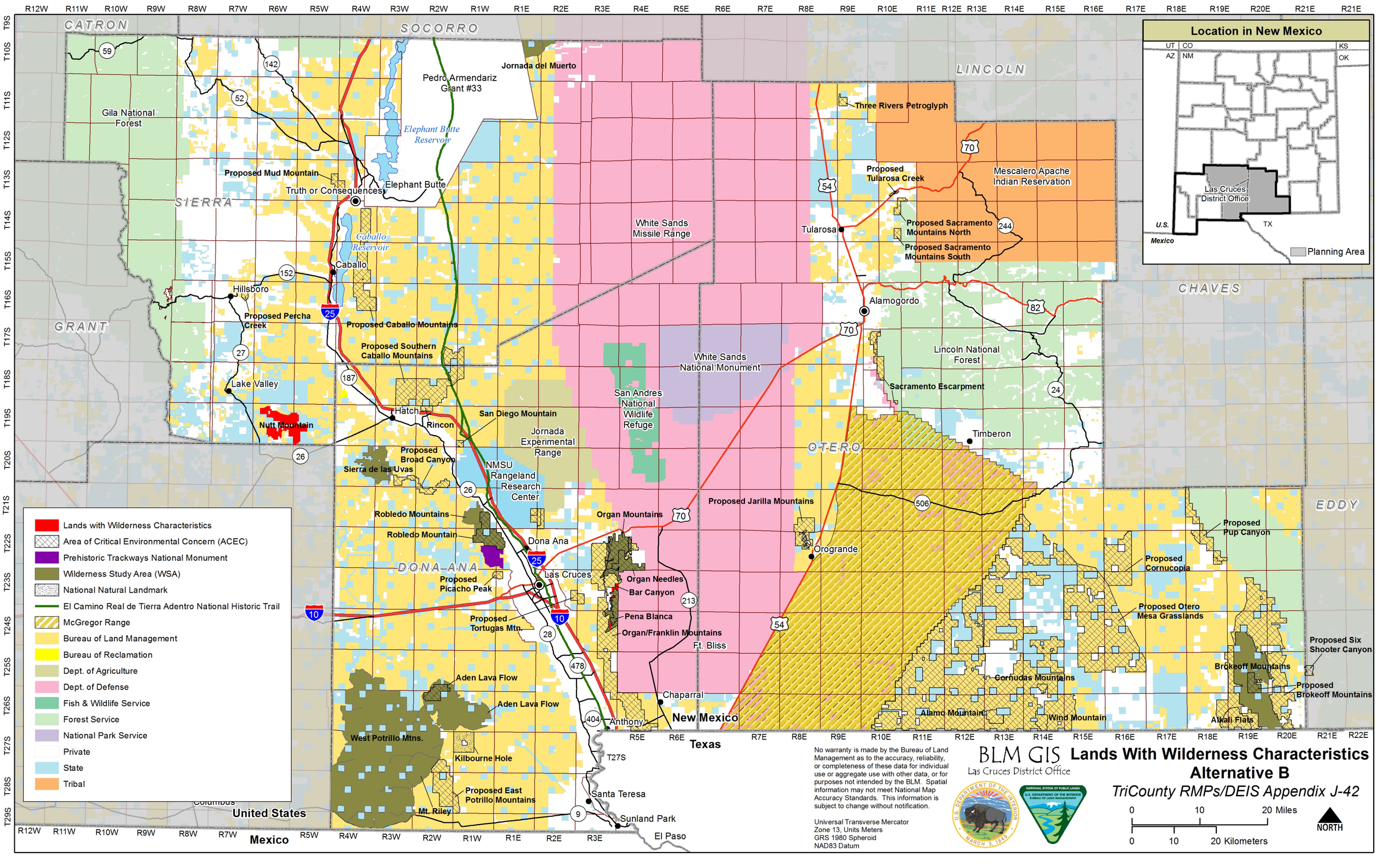
0 0.5 1 Miles

1:50,000

Existing Routes
NNL

**Surface Management**

BLM
DoD
Private
State


R12W R11W R10W R9W R8W R7W R6W R5W R4W R3W R2W R1W R1E R2E R3E R4E R5E R6E R7E R8E R9E R10E R11E R12E R13E R14E R15E R16E R17E R18E R19E R20E R21E R21E
T9S T10S T11S T12S T13S T14S T15S T16S T17S T18S T19S T20S T21S T22S T23S T24S T25S T26S T27S T28S T29S
CATRON
SOCORRO
LINCOLN
SIERRA
GRANT
CHAVES
OTERO
DONA ANA
EDDY
Jornada del Muerto
Pedro Armendariz Grant #33
Gila National Forest
Elephant Butte Reservoir
Proposed Mud Mountain
Truth or Consequences
Elephant Butte
Caballo Reservoir
Caballo
Hillsboro
Proposed Percha Creek
Proposed Caballo Mountains
Proposed Southern Caballo Mountains
Lake Valley
Nutt Mountain
Hatch
Rincon
San Diego Mountain
Jornada Experimental Range
Proposed Broad Canyon
Sierra de las Uvas
NMSU Rangeland Research Center
Robledo Mountains
Robledo Mountain
Dona Ana
Las Cruces
Proposed Picacho Peak
Proposed Tortugas Mtn.
Aden Lava Flow
Aden Lava Flow
West Potrillo Mtns.
Kilbourne Hole
Proposed East Potrillo Mountains
Mt. Riley
Columbus
United States
Mexico
Santa Teresa
Sunland Park
El Paso
Texas
New Mexico
Chaparral
Anthony
Organ Mountains
Organ Needles
Bar Canyon
Pena Blanca
Organ/Franklin Mountains
Ft. Bliss
White Sands Missile Range
White Sands National Monument
San Andres National Wildlife Refuge
Three Rivers Petroglyph
Proposed Tularosa Creek
Mescalero Apache Indian Reservation
Tularosa
Proposed Sacramento Mountains North
Proposed Sacramento Mountains South
Alamogordo
Lincoln National Forest
Sacramento Escarpment
Timberon
Proposed Jarilla Mountains
Orogrande
Proposed Pup Canyon
Proposed Cornucopia
Proposed Otero Mesa Grasslands
Proposed Six Shooter Canyon
Brokeoff Mountains
Proposed Brokeoff Mountains
Cornudas Mountains
Alamo Mountain
Wind Mountain
Alkali Flats
59
142
52
152
25
27
187
26
10
70
54
244
82
24
506
213
28
478
404
9
Location in New Mexico
UT
CO
AZ
NM
KS
OK
Las Cruces District Office
U.S.
Mexico
TX
Planning Area
Lands with Wilderness Characteristics
Area of Critical Environmental Concern (ACEC)
Prehistoric Trackways National Monument
Wilderness Study Area (WSA)
National Natural Landmark
El Camino Real de Tierra Adentro National Historic Trail
McGregor Range
Bureau of Land Management
Bureau of Reclamation
Dept. of Agriculture
Dept. of Defense
Fish & Wildlife Service
Forest Service
National Park Service
Private
State
Tribal
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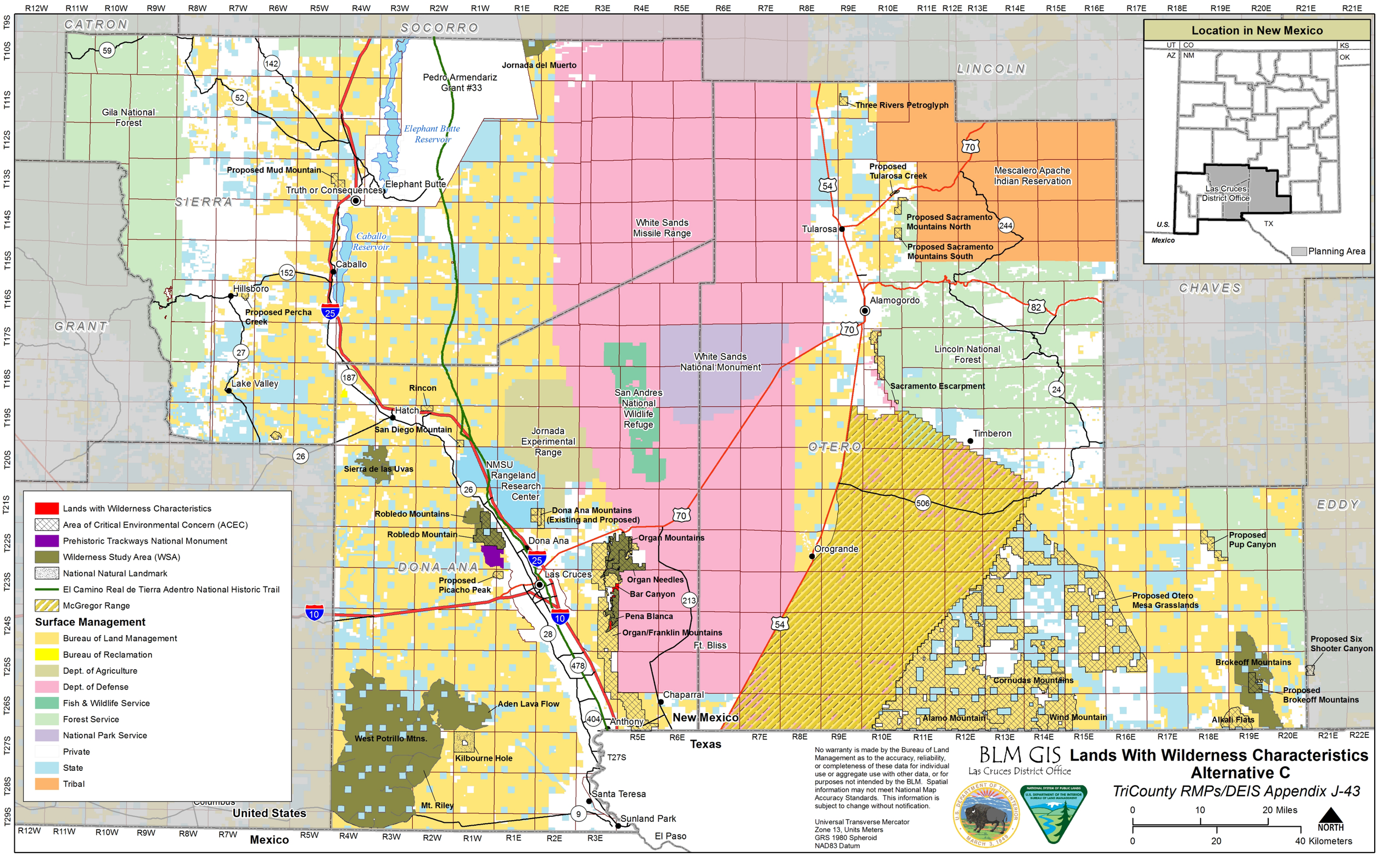
Universal Transverse Mercator
Zone 13, Units Meters
GRS 1980 Spheroid
NAD83 Datum
BLM GIS
Las Cruces District Office
Lands With Wilderness Characteristics
Alternative B
TriCounty RMPs/DEIS Appendix J-42
0 10 20 Miles
0 10 20 Kilometers
NORTH

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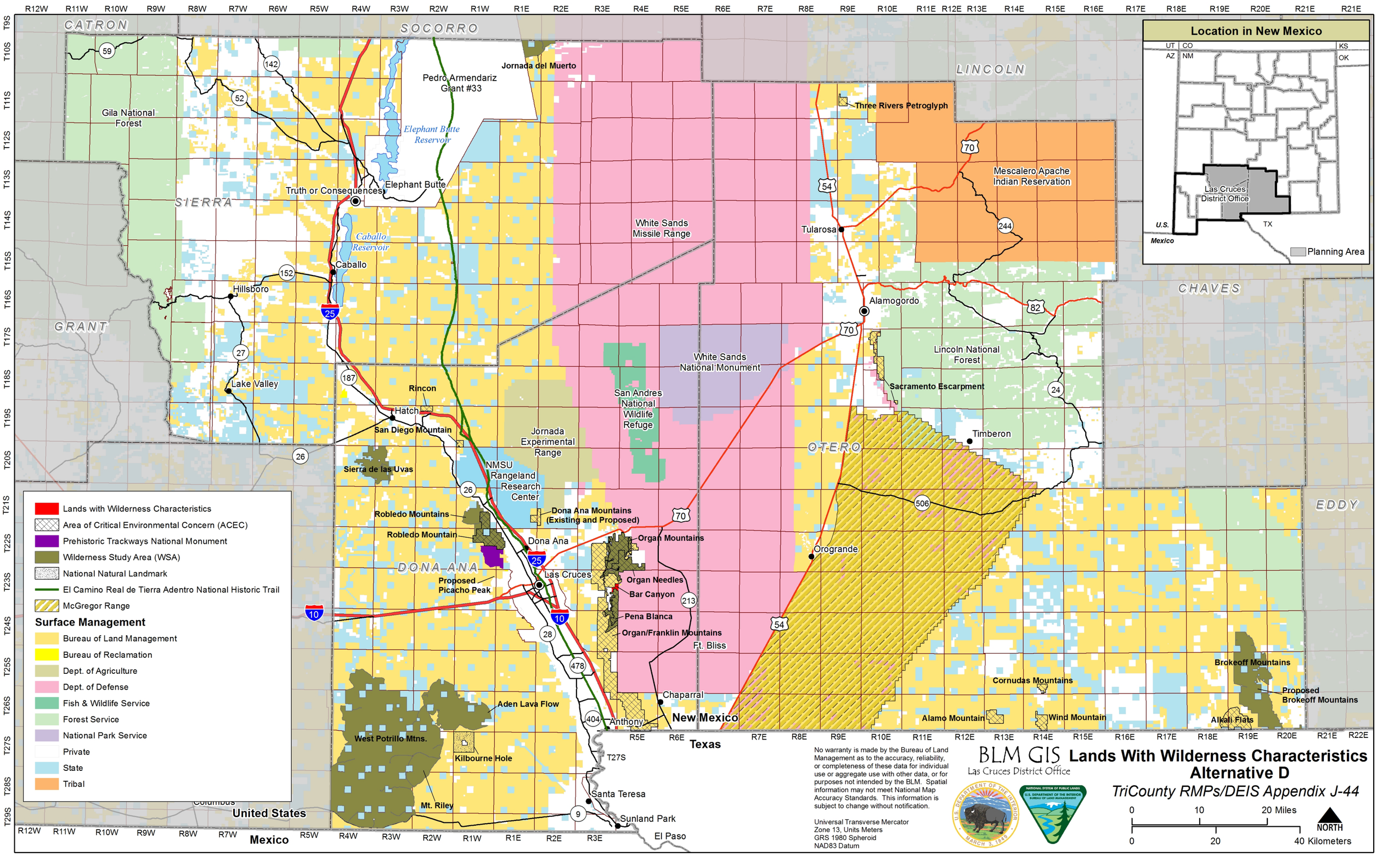
Universal Transverse Mercator
Zone 13, Units Meters
GRS 1980 Spheroid
NAD83 Datum

BLM GIS
Las Cruces District Office

# Lands With Wilderness Characteristics Alternative C

*TriCounty RMPs/DEIS Appendix J-43*

0 10 20 Miles
0 20 40 Kilometers
NORTH

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Universal Transverse Mercator
Zone 13, Units Meters
GRS 1980 Spheroid
NAD83 Datum

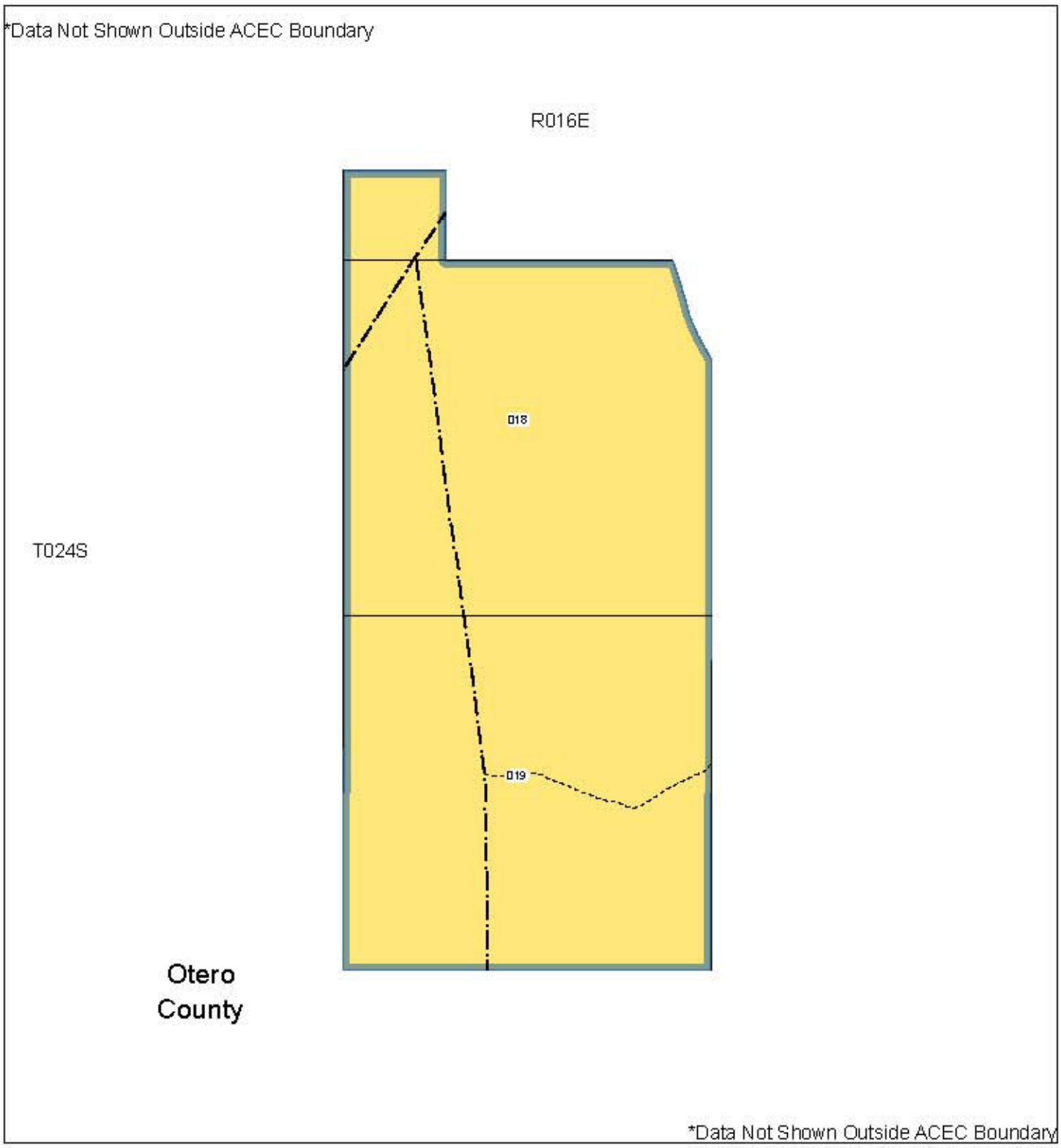
BLM GIS
Las Cruces District Office

# Lands With Wilderness Characteristics Alternative D

*TriCounty RMPs/DEIS Appendix J-44*

0 10 20 Miles
0 20 40 Kilometers
NORTH

# J-45: Van Winkle Lake ACEC - Alternative C




No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

0 0.25 0.5 Miles

1:25,000

N

**Legend**

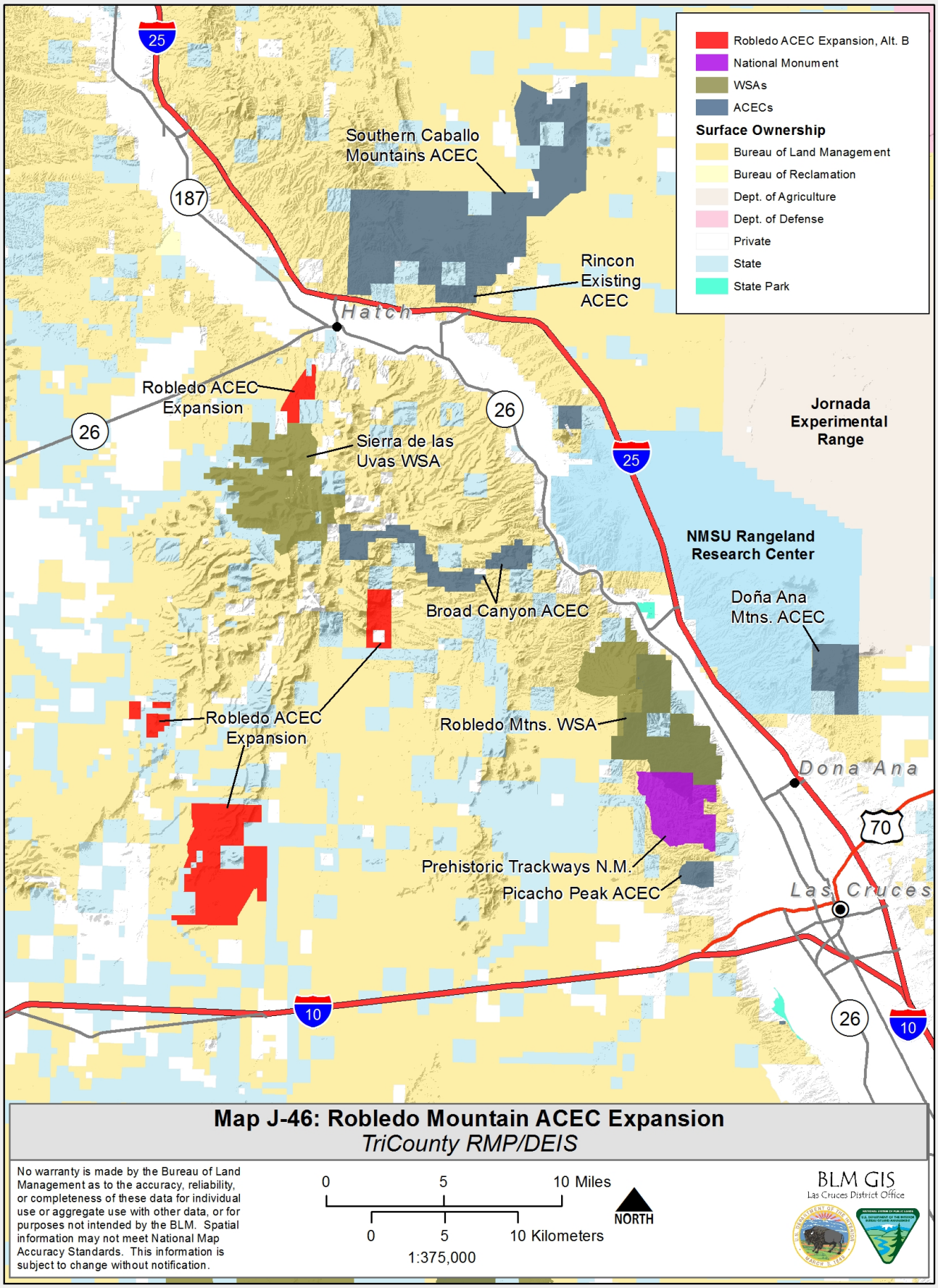
**Alternative C Route Designation**

- Closed
- Open
- Boundary Route
- ACEC Alternative C

- Township_Range
- 001 Sections

**Surface Ownership**

- BLM
- S - State Land
- P - Private Land




## Map J-46: Robledo Mountain ACEC Expansion

*TriCounty RMP/DEIS*

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

0 5 10 Miles

0 5 10 Kilometers

NORTH

1:375,000

BLM GIS
Las Cruces District Office

# APPENDIX K

## FLUID MINERAL LEASING STIPULATIONS

# APPENDIX K
# FLUID MINERAL LEASING STIPULATIONS

The fluid mineral leasing stipulations discussed herein would apply to oil and gas leasing under Alternative A, which is the No Action or the Continuation of Existing Management Alternative; development of existing oil and gas leases; and geothermal leasing and development under all Alternatives. Under Alternatives B, C, and D, no new oil and gas leasing would occur in the short-term.; Under the *TriCounty RMP*, areas within the *Planning Area* would be closed to leasing, either discretionarily or non-discretionarily, based on decisions made in previous resource management plans and resource management plan amendments (White Sands RMP, 1986; *Mimbres RMP*, 1993; Otero County Areas of Critical Environmental Concern RMP Amendment, 1997) and the remainder of the *Planning Area* would be deferred from new oil and gas leasing until the BLM Las Cruces District Office prepares a programmatic fluid leasing RMP Amendment and EIS. That programmatic document would be initiated shortly after the Record of Decision for the *TriCounty RMP* is released. During the preparation of that document, areas would be identified for closure to leasing and areas open to leasing with stipulations and terms and conditions. These stipulations and terms and conditions would be newly developed at that time or modified from existing ones.

Geothermal leasing and development would continue as described under the various alternatives of the *TriCounty RMP*. The following stipulations would apply to geothermal leasing, exploration, drilling, development and utilization as appropriate and necessary.

Federal fluid minerals are made available for leasing through the Minerals Leasing Act of 1920, as amended, and the Geothermal Steam Act of 1970. The Minerals Leasing Act of 1920, as amended, provides the Secretary of the Interior with the authority to issue leases on land where the mineral rights are held by the Federal government. This authority has been delegated to the BLM State Director. The BLM is required to determine (1) which land is suitable and available for leasing and subsequent development and (2) how the leased land will be managed. On land administered or owned by an entity other than the BLM (referred to as "*split estate*"), the BLM's environmental objectives and constraints apply equally to these areas; however, such constraints are developed at the permit stage in consultation with the other surface-managing agency or surface land owner.

Public land that is not suitable may be closed to fluid mineral leasing through decisions that are either nondiscretionary (i.e., beyond the discretion of the BLM) or discretionary (i.e., at the discretion of the BLM). Whether a nondiscretionary or discretionary closure, these areas are determined to be unsuitable for leasing and development because of unique, highly valued, complex, or legally protected resources; conflicting land uses; or because they pose substantial hazards to exploration, development, and production. Nondiscretionary closures include land that is precluded from fluid minerals leasing by law, regulations, Secretarial or Executive Order, or that have been otherwise formally closed by decisions reached beyond the discretion of the BLM. Within BLM's *Decision Area*, other examples of nondiscretionary closures include public water reserves and wilderness study areas. Discretionary closures include land where the BLM has determined that fluid mineral leasing and development, even with the most restrictive stipulations, would not adequately protect other resources, values, or land uses. Examples of discretionary closures in the BLM's *Decision Area* are the areas of critical environmental concern.

Areas that are suitable may be leased. A lease is a contract that conveys to an operator the right to develop and produce fluid minerals for a specific period under certain agreed-upon terms and conditions.

The issuance of a lease grants to the lessee exclusive rights to as much of the leased land as is needed to conduct exploratory drilling and development operations in the leasehold subject to stipulations attached to the lease, restrictions derived from specific nondiscretionary statutes, and reasonable measures may be required by the surface management agency to minimize adverse impacts on other resource values, land uses, or users.

Before consent can be given for leases to be issued by the BLM, regulations require (1) verifying that leasing on specific land is consistent with the land use plan; (2) ensuring that conditions of surface occupancy are properly included (as stipulations) in resulting leases; and (3) determining that operations and development could be allowed somewhere on each proposed lease except where a stipulation would prohibit all surface occupancy.

Land open to leasing is open with standard lease terms and conditions or open with stipulations, as described below. In addition, a lease notice may be applied to a lease to (1) provide more detailed information concerning limitations that already exist in law, lease terms, regulations, and operational orders; or (2) address special items the lessee would consider when planning operation, but does not impose new or additional restrictions. Lease notices for the *Planning Area* follow the discussion of stipulations.

## OPEN WITH STANDARD LEASE TERMS AND CONDITIONS

Areas may be open to leasing with no specific management decisions defined in a resource management plan. However, these areas are subject to the lease terms and conditions as defined on the appropriate lease form (Form 3100-11: Offer to Lease and Lease for Oil and Gas and Form 3200-24: Offer to Lease and Lease for Geothermal Resources). The forms include lease terms and conditions that address subjects such as bonding, rentals, royalties, inspections, and safety. Of particular interest is Section 6, "*Conduct of Operations*" of the lease form, which establishes the general and reasonable requirements for the protection of surface resources and is referred to as "*standard lease terms and conditions*." The authorized officer has the right to relocate proposed facilities, control timing of operations, and impose other mitigation in accordance with Sections 2 and 6 of the standard oil and gas lease terms. Each proposed site would be investigated and, if site-specific conditions warrant more restrictive protection, such protective measures could be imposed through conditions of approval at the time of an application for permit to drill.

In addition, the standard lease terms and conditions specifically require that the lessee contact the lessor prior to disturbing the surface. They also specify that the lessee may be required to complete inventories or special studies in accordance with the Endangered Species Act of 1973, National Historic Preservation Act (NHPA) of 1966, and other applicable laws.

## OPEN WITH STIPULATIONS

Constraints in the form of stipulations are conditions included in a lease when environmental and planning analyses have demonstrated that additional and more stringent environmental protection is needed. Stipulations are provisions that modify the standard lease rights and are made part of the lease.

The operator would be expected to comply with the stipulations that are attached to a lease. Lands currently under lease would not be affected by the stipulations identified in the *TriCounty RMP/EIS*. New leases would be required to adhere to the stipulations as identified in the *RMP/EIS* upon their completion.

Two types of stipulations are applied in this document—no surface occupancy and controlled surface use. A stipulation of no surface occupancy is intended, as implied, for a surface area determined to be unsuitable for use and cannot be occupied. A stipulation of controlled surface use is intended when lease occupancy and use generally are allowed on all portions of the lease, but because of special values or resource concerns, specific lease activities require strict control.

Table K-1 is a list of the areas currently open for leasing and development with stipulations within the *Planning Area*. The table is followed by descriptions of each area open for leasing with stipulations and areas where lease notices would apply. Areas where stipulations apply would change across the alternatives. Stipulations would be applied according the selection of the *Final RMP and RMP Amendment.*

**TABLE K-1**
**AREAS OPEN TO OIL, GAS, AND GEOTHERMAL LEASING WITH STIPULATIONS OR LEASE NOTICES**

**NO SURFACE OCCUPANCY**

- Protected cultural resource areas
- Recreation and public purpose act patents and leases (R&PPs)
- Community Pit 1 (Doña Ana County)
- Community Pit 7 (Otero County)
- Riparian/other wetlands/playas
- Ecological study plots
- Tularosa River Recreation Area (Otero County)
- Lake Valley Historic Townsite (Sierra County)
- Lake Valley Backcountry Byway (Sierra County)
- Rincon ACEC (Dona (Doña Ana County)
- Los Tules ACEC (Doña Ana County)
- Butterfield Trail (Doña Ana County)

**CONTROLLED SURFACE USE**

- Berrendo Administrative Campsite (Otero County)
- Highly erosive and fragile soils
- Historic trails (Mormon Battalion, Butterfield, and Camino Real de Tierra Adentro National Historic Trail)
- Endangered Species Act Section 7 Consultation
- Special status species habitats
- Special cultural lease stipulation
- Jornada Experimental Range
- NMSU Rangeland Research Center
- Lease notices
  - White Sands Missile Range Safety Evacuation Zone (Sierra and Doña Ana counties)
  - Cuchillo Mountains piñon nut collection area (Sierra County)
  - Red Sands off-road vehicle area (Otero County)
  - Special recreation management areas
  - Reasonable foreseeable development limitation (Sierra and Otero counties) (pages 6 and 7 from the *Record of Decision /RMP Amendment for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties*).

## STIPULATION OF NO SURFACE OCCUPANCY

### PROTECTED CULTURAL RESOURCE AREAS

***Stipulation:*** No surface occupancy

- **Rattlesnake Hill**
  **Location:** Parts or all of secs. 21, 22, 26, 27, 28, 33, 34, 35, T. 22 S., R. 8 East, NMPM (3,365 acres).
- **Lone Butte**
  **Location:** sec. 6, T. 19 S., R. 9 E., NMPM (352 acres)
- **Jarilla Mountains**
  **Location:** T. 20 S., R. 8 E., NMPM (803 acres)
- **Los Tules ACEC**
  **Location:** Parts of secs. 10 and 11, T. 24 S., R. 1 E., NMPM (23 acres)
- **Rincon ACEC**
  **Location:** secs. 4, 5, 6, T. 19 S., R. 2 W., NMPM (860 acres)

***Objective:*** To protect cultural resources.
***Waiver:*** None
***Exception*****:** None
***Modification*****:** A modification of this stipulation of no surface occupancy may be granted if the leaseholder opts to conduct a full cultural survey of the parcel and particular locations can be found that lack cultural resources.
***Justification*****:** The areas that are stipulated for no surface occupancy are subject to existing cultural resource regulations due to their listing in the State Register of Cultural Properties and/or eligibility for listing in the National Register of Historic Places.

### RECREATION AND PUBLIC PURPOSE PATENTS OR LEASES

***Stipulation:*** No surface occupancy
***Location:*** Various throughout the *Planning Area*

***Objective*****:** To ensure compatibility with the existing land uses in R&PP lease or patent areas.
***Waiver:*** May be granted if fluid mineral development is considered compatible with the land use in a specific R&PP area.
***Exception*****:** Same as waiver
***Modification:*** None
***Justification:*** The more restrictive stipulation of no surface occupancy was determined to be appropriate in order to address the possibility for land use conflicts (i.e., R&PP). The ability to grant waivers provides flexibility for less significant land use conflicts. Under standard lease terms and conditions, the management of these areas would be the same.

### COMMUNITY PIT 1 (ROBLEDO MOUNTAINS)

***Location***: sec. 20, T. 22 S., R. 1 E., NMPM

### COMMUNITY PIT 7 (ESCONDIDO)

***Location*****:** sec.9, T. 20 S., R. 9 E., NMPM (approximately 30 acres)

***Stipulation*****:** No surface occupancy
***Objective*****:** To complete reclamation of Community Pit 1.
To permit the continued use of Community Pit 7 by the public for mineral material extraction.

***Waiver:*** None
***Exception:*** May be granted if BLM determines that surface lease operations would not cause unnecessary effects on the use of the area.
***Modification*:** None
***Justification*:** Stipulating no surface occupancy is needed to protect the mineral materials that are extracted by the public, and regulate the area in order to minimize unnecessary degradation. At Community Pit 1, no surface occupancy is necessary to preclude interference with reclamation of the site. Under standard lease terms and conditions, the requirements described above would be similar; however, the no surface occupancy stipulation informs the lessee of the resource concern at the time the lease is acquired.

**RIPARIAN/OTHER WETLANDS/PLAYAS**
***Stipulation*:** No surface occupancy within 0.25 mile
***Location:*** Various (approximately 22,066 acres)

- BLM Las Cruces Field Office riparian database: 16 miles of riparian area (5,120 acres) and 12springs (1,920 acres)
- Mapped playas: 3,457 acres

***Objective:*** To minimize impacts on wetlands in compliance with Section 404 of the Clean Water Act and on riparian habitats in accordance with BLM guidelines.
***Waiver:*** May be granted if an onsite inspection reveals that the area does not qualify as a riparian area or a wetland.
***Exception:*** None
***Modification:*** May be granted to allow some activities within 0.25 mile if BLM analysis indicates that there would be no adverse effect and that the area may be reclaimed effectively.
***Justification:*** Stipulating no surface occupancy is deemed necessary for areas that could not be avoided or protected under standard lease terms and conditions in compliance with the Clean Water Act. Closing such areas to leasing is deemed overly restrictive.

**ECOLOGICAL STUDY PLOTS**
***Stipulation*:** No surface occupancy

- ***Engle Ecological Study Plot***--Location: sec. 35, T.13 S., R. 2 W., NMPM (approximately 40 acres)
- ***Cuchillo Ecological Study Plot***--Location: secs.10, 11, 14; T. 12 S., R. 5 W., NMPM (approximately 1,471 acres)
- ***Nordstrom Ecological Study Plot***--Location: secs. 27, 28, 33, 34; T. 16 S., R. 5 W., NMPM (approximately 1,391 acres)
- ***Trujillo Ecological Study Plot***--Location: sec. 3, T. 12 S., R. 6 W., NMPM (approximately 39 acres)
- ***Danley Ecological Study Plot*** --Location: sec. 18, T. 13 S., R. 9 E., NMPM (approximately 179 acres)
- ***Lee Ecological Study Plot*** **--**Location: sec. 21, T. 23 S., R.13 E., NMPM (approximately 40 acres)

**ECOLOGICAL AND SOIL STUDY PLOTS IN DOÑA ANA COUNTY**
***Location*:** Various locations throughout the county, one or two acres in size.

***Objective*:** To protect the existing ecological resources in these areas for research and scientific purposes.

***Waiver*:** May be granted if the withdrawal is dropped and the study plot will no longer require this level of protection.
***Exception*:** May be granted if it is determined that proposed development will not affect the resources that are being studied at the plots.
***Modification*:** None
***Justification*:** Stipulating no surface occupancy is deemed necessary to protect the existing ecological resources. Under standard terms and conditions, the requirements for protecting these areas would be the same.

**TULAROSA RIVER RECREATION AREA**
***Stipulation*:** No surface occupancy (213 acres of acquired land not open to leasing)
***Location:*** sec. 29, 31, and 31; T. 13 S., R. 11 E., NMPM (approximately 119 acres)

***Objective*:** To protect recreational opportunities along the Tularosa River.
***Waiver*:** None
***Exception*:** None
***Modification*:** None
***Justification*:** Stipulating no surface occupancy is deemed necessary to protect recreational opportunities along the river. Closing the area to leasing is deemed overly restrictive in addition to the resource stipulations that would apply to this area.

**LAKE VALLEY HISTORIC TOWNSITE**
***Stipulation*:** No surface occupancy
***Location:*** T. 18 S., R. 7 W., NMPM (approximately 140 acres)

***Objective:*** To preclude surface occupancy and new surface disturbing activities within this recreational and cultural site.
***Waiver*:** None
***Exception*:** None
***Modification:*** None
***Justification*:** Stipulating no surface occupancy is deemed necessary to protect the townsite and schoolhouse, which are subject to existing cultural resource regulations since both are listed on the State Register of Cultural Properties (as Site LA 50088) and are eligible for inclusion on the National Register of Historic Places. Closing the Lake Valley Historic Townsite to leasing is not considered necessary because impacts from operations can be mitigated by requiring no surface occupancy.

**LAKE VALLEY BACKCOUNTRY BYWAY**
***Stipulation*:** No surface occupancy.
***Location:*** Tps. 15 to 19 S., Rgs. 5 to 7 W., NMPM, on public land within 0.5 mile of the byway, which is approximately 44 miles long (9,352 acres). No surface disturbance will be authorized within 0.5 mile of either side of the road. For proposed disturbances between 0.5 mile to 1 mile from either side of the Byway, operators may be required to provide mitigation for proposed development activities such as siting facilities to be less visually intrusive where possible, or otherwise providing visual screening.

***Objective*:** To protect the scenic resources along the byway.
***Waiver*:** None
***Exception*:** None
***Modification*:** None

***Justification*:** Stipulating no surface occupancy is deemed necessary to protect visual resources along the Byway. Closing the area along the Byway to leasing is deemed overly restrictive because the visual intrusion can be mitigated by requiring no surface occupancy adjacent to the Byway and providing visual screening at distances beyond that.

## STIPULATION OF CONTROLLED SURFACE USE

### BERRENDO ADMINISTRATIVE CAMPSITE

***Stipulation*:** Controlled surface use
***Location*:** sec. 9, T. 23 S., R. 15 E., NMPM (approximately 40 acres)

***Objective:*** To protect the BLM administrative campsite; no fluid mineral activities will be allowed within the fenced area and within 350 feet of the center of the helipad.
***Waiver*:** None
***Exception*:** None
***Modification*:** May be granted to allow some activities if it is determined that there would be no adverse effect on administrative site facilities.
***Justification*:** Controlled surface use is deemed necessary to avoid land use conflicts and protect the BLM administrative site facilities (structure and helipad).

### HIGHLY EROSIVE/FRAGILE SOILS

***Stipulation*:** Controlled surface use. Surface-disturbing activities on fragile or highly erosive soils must incorporate applicable mitigation measures described in the best management practices section (Appendix D) of this document. Proposed siting of well locations or access routes on fragile or highly erosive soils may be moved at the discretion of the authorized officer to avoid steep slopes (greater than 10 percent).
***Location*:** Highly erosive and fragile soils (includes areas that have been mapped by the Natural Resources Conservation Service as Alamogordo-Gypsum Land-Aztec, Nickel-Bluepoint, Holloman-Gypsum Land-Yesum, or Prelo-Tome-Largo soil types—approximately 310,367 acres total).

***Objective*:** To manage highly erosive or fragile soils to maintain productivity and minimize erosion and to protect watershed values to improve watershed values by reducing peak runoff rates, reducing sediment yields, improving water quality, and achieving better onsite use of runoff in the long term.
***Modification*:** May be granted if an onsite inspection demonstrates that these soils are not present on the specific site, slopes are low, and reclamation will be effective in mitigating impacts. In addition, a modification may be granted if it can be demonstrated that resource values will not be jeopardized and reclamation will be effective in mitigating impacts.
***Justification*:** Surface disturbing activities in these areas could cause accelerated erosion or increased instability, necessitating the stipulation of controlled surface use. This stipulation will also protect the watershed values and ensure minimal effect on the integrity and long-term appearance of watershed areas, including the scenic quality and opportunities for recreation. Closing the area to leasing or stipulating no surface occupancy is deemed overly restrictive since the BLM allows other surface-disturbing activities within the area.

### HISTORIC TRAILS (MORMON BATTALION, BUTTERFIELD, AND EL CAMINO REAL DE TIERRA ADENTRO NATIONAL HISTORIC TRAIL)

***Stipulation*:** Controlled surface use
***Locations:***

- ***Mormon Battalion Trail*** --Location: Doña Ana and Sierra counties
- ***Butterfield Trail*** --Location: Otero and Doña Ana counties
- ***El Camino Real de Tierra Adentro NHT***--Location: Doña Ana and Sierra counties

New disturbance will be minimized as follows:

- No surface-disturbing activities within 0.25 mile from each side of the trails (entire length).
- Existing disturbance points could be used to cross the trails.

***Objective:*** To provide protection for existing cultural and scenic values associated with these trails.
***Waiver*****:** None
***Exception:*** Granted if it is demonstrated in a surface use plan of operations that no surface-disturbing activities will be visible from the trails and that existing disturbed points/areas would be used to cross the trail.
***Modification:*** None
***Justification*****:** Stipulating controlled surface use is deemed necessary to minimize impacts on cultural resources. Closing the trails and a 0.25-mile buffer on either side of the trails to leasing or stipulating no surface occupancy is not considered necessary since impacts can be mitigated by requiring controlled surface use.

**ENDANGERED SPECIES ACT SECTION 7 CONSULTATION STIPULATION**

***Stipulation:*** The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. The BLM may require modifications or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.
***Location*****:** Sierra, Otero, and Doña Ana counties

***Objective:*** Clarify BLM's requirement to comply with the Endangered Species Act, regardless of timing of the lease being issued, and recognize the possibility that new information may indicate the presence of species which may require initiation of consultation with the U.S. Fish and Wildlife Service prior to approving lease actions.
***Waiver:*** None
***Exception:*** None
***Modification:*** None

**SPECIAL STATUS SPECIES HABITATS (Including those not Protected by the Endangered Species Act; that is, Species Proposed for Federal Listing, Federal Candidates, BLM Sensitive Species, and State-Listed Species)**

***Stipulation*****:** Controlled surface use. Operations will be designed to avoid known populations of special status species. Each exploration and development project will be scrutinized carefully for potential effects on known populations of special status species. In known population areas, surface-disturbing activities may be relocated beyond 0.125 mile, but not more than 0.25 mile from occupied habitat, depending on the species requirements. Seasonal restrictions may apply, depending on the need of the identified species. There will be a 0.25-mile buffer between surface disturbance activities

and black-tailed prairie dog colonies. This stipulation applies solely to the *Planning Area* because, unlike other black-tailed prairie dog habitat in the western states, suitable habitat within the *Planning Area* is limited to small grassy swales where the soil depth is adequate for prairie dogs to establish their burrows. The upland grass areas adjacent to these swales occur over a shallow layer of limestone and do not provide the suitable habitat characteristics for black-tailed prairie dogs.
***Location:*** Species-specific. Stipulation applies to all known and later discovered locations of special status species throughout the entire *Planning Area*. Known affected areas will be identified prior to a lease sale. Currently this would apply to habitats for the following known species:
***Plants*:** Desert night-blooming cereus; Guadalupe rabbitbrush; grama grass cactus; Guadalupe Mountains mescal bean; Sheer's cory cactus
***Animals*:** Arizona black-tailed prairie dog; mountain plover; western burrowing owl; aplomado falcon

***Objective:*** To avoid adverse impacts on individual species and their associated habitats.
***Waiver:*** None
***Exception*:** May be granted if surveys determine that no species occupy the leasehold.
***Modification:*** None
***Justification*:** Stipulating controlled surface use is deemed necessary to minimize adverse impacts on special status species and their habitats, as required by BLM guidance. Closing these areas to leasing or stipulating no surface occupancy is deemed overly restrictive since BLM allows other surface-disturbing activities in the area. Under standard lease terms and conditions, the requirements described above would be the same; however, the stipulation for controlled surface use informs the lessee of the resource concern at the time the lease is acquired.

**SPECIAL CULTURAL RESOURCES LEASE STIPULATION**

***Stipulation:*** Controlled surface use. "*This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders"*. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.
***Location:*** Sierra and Otero counties

***Objective*:** Make the lessee aware of the potential of further mitigations being required, due to the possibility that all traditional cultural properties or sacred sites, or other historic properties may not have been identified in recent consultation efforts.
***Waiver*:** None
***Exception*:** None
***Modification*:** None
***Justification:*** Stipulating controlled surface use is deemed necessary to minimize adverse impacts on special cultural resources, as required by BLM guidance. Closing these areas to leasing or stipulating no surface occupancy is deemed overly restrictive since BLM allows other surface-disturbing activities in the area. Under standard lease terms and conditions, the requirements described above would be the same; however, the stipulation for controlled surface use informs the lessee of the resources concern at the time the lease is acquired.

## LEASE NOTICES

**White Sands Missile Range (WSMR) Safety Evacuation Zone**

***Lease Notice Location*:** Areas along the western side of WSMR in Sierra and Doña Ana counties
***Objective:*** To provide notice to lessees that they may be required to periodically evacuate this area when WSMR conducts its missile firings.

**Cuchillo Mountains Piñon Nut Collection Area**

***Lease Notice Location*:** Tps. 10-12 S., Rgs. 7 and 8 W., NMPM (approximately 14,863 acres)
***Objective:*** To maintain the current use of the stands of piñon pine trees as a public and commercial nut collection area by avoiding destruction of piñon pine trees within this area. Operators will be required to implement necessary mitigations to reduce damage to piñon pine trees, such as rerouting of access roads and modification of pad locations.

**Red Sands Off-Road Vehicle Area**

***Lease Notice Location*:** Tps. 19-21 S., Rgs. 8-9 E., NMPM (approximately 33,800 acres)
***Objective:*** To provide notice to lessees that this is an area that has been identified for use by motorcycle riders. The area contains a number of trails and has been used annually for an enduro race, the Tarantula 100, as well as being frequently used on weekends.

**Reasonable Foreseeable Development Limitation**

***Lease Notice Location*:** Sierra and Otero counties
***Objective*:** The total combined surface disturbance from exploration, drilling, production and other activities associated with lease operations cannot exceed 1,589 acres in Sierra and Otero counties. Surface disturbance is considered to be any surface-altering activity that the operator proposes to conduct, from the time that a lease is issued through the time that the lease expires. Approval of future requests for lease-related activities may be delayed or denied, as BLM conducts required NEPA review. This limitation applies to all maintenance and operation of producing wells on this lease and any subsequent sublease or other assignments of any type.

# APPENDIX L

## VISUAL RESOURCE MANAGEMENT CLASSES AND OBJECTIVES

# APPENDIX L
# VISUAL RESOURCE MANAGEMENT CLASSES AND OBJECTIVES

## VISUAL RESOURCES — A PUBLIC RESOURCE

The public land administered by the Bureau of Land Management (BLM) contains many outstanding scenic landscapes. Activities occurring on that land, such as recreation, mining, timber harvesting, grazing, or road development, for example, have the potential to disturb the surface of the landscape and impact scenic values. Visual resource management (VRM) is a system for minimizing the visual impacts of surface-disturbing activities and maintaining scenic values for the future.

By law, the BLM is responsible for managing public land for multiple uses. But the BLM is also responsible for ensuring that the scenic values of public land is considered before allowing uses that may have negative visual impacts. The Federal Land Policy and Management Act of 1976 (Title 43 United States Code Part 1701 *et seq.*) mandates that scenic values on public land will be inventoried and protected. This mandate is incorporated into BLM policy in *BLM Manual*, Section 8400: Visual Resource Management, which describes the VRM program and how it is to be administered on public land.

This appendix discusses BLM's VRM program and draws upon information found in the *Visual Resource Management for Fluid Minerals, Best Management Practices* (BLM 2007).

## VISUAL MANAGEMENT OBJECTIVES

The VRM process begins by employing specific objectives (classes) and a rating process that applies to all BLM projects:

- Visual management objectives (classes) are developed through the resource management planning process for all BLM land.
- The approved VRM objectives (classes) provide the visual management standards for the design and development of future projects and for rehabilitation of existing projects.
- The contrast rating process (*BLM Manual Handbook*, Section H-8431-1, Visual Resource Contrast Rating) is used as a visual design tool in project design and as a project assessment tool during environmental review.

The VRM process involves (1) inventorying scenic values, (2) establishing management objectives for those values through the resource management planning process, and (3) then evaluating proposed activities to analyze effects and develop mitigations to meet established VRM objectives.

### Inventory

The visual resources inventory involves the following:

- Visual values are identified through the VRM inventory process (*BLM Manual*, Section 8410).
- Visual resource inventory is based on an analysis of three primary criteria influencing visual values: (a) scenic quality, (b) public sensitivity, and (3) distance zones from primary travelways or special areas.
- Visual resource inventory objectives (classes) are assigned based on the following:
    - **Class I**: Class I is assigned to all special areas where the current management situations require maintaining a natural environment essentially unaltered by human actions.
    - **Classes II, III, and IV:** These classes are assigned based on combinations of scenic quality, sensitivity levels, and distance zones.
- All acres of BLM land must be inventoried. A matrix is used to combine relative ratings for each of the criteria to determine an overall visual resource inventory rating (except for areas managed as VRM Class I).

## Visual Resources Management Objectives (Classes)

Management objectives (classes) for scenic values are established through the resource management planning process as follows:

- Visual resource inventory ratings are considered with other resource values and allocations during the resource management planning process.
- These ratings are adjusted up or down in each alternative to balance with other resource concerns and management themes.
- The Record of Decision and Final Resource Management Plan must define the final VRM objectives for the *Planning Area*. VRM objectives must be assigned to all acres of BLM-managed land.
- Expressed as VRM classes, VRM objectives range from VRM Class I to Class IV. Class IV allows for the most visual change to the existing landscape, while Class I allows the least (see Table L-1).
- VRM classes are area-specific objectives that provide standards for planning, designing, and evaluating future management projects.

**TABLE L-1**
**VRM CLASSES AND MANAGEMENT GUIDANCE**

| VRM Class | Visual Resource Objective | Change Allowed (Relative Level) | Relationship to the Casual Observer |
|---|---|---|---|
| Class I | **Preserve** the existing character of the landscape. Manage for natural ecological changes. | Very low | Activities should not be visible and **must not attract attention**. |
| Class II | **Retain** the existing character of the landscape. | Low | Activities may be visible, but **should not attract attention.** |
| Class III | **Partially retain** the existing character of the landscape. | Moderate | Activities may attract attention but should not dominate the view. |
| Class IV | Provide for management activities which require **major modification** of the existing character of the landscape. | High | Activities **may attract attention, may dominate** the view, but are still mitigated. |

## Activity Planning/Evaluation

- After VRM classes are established in the Resource Management Plan, all subsequent activities must be designed, evaluated, and modified to meet these objectives.
- The VRM system is designed to lend objectivity and consistency to the analysis process.
- The basic design elements of form, line, color, and texture are used to evaluate landscapes and to minimize potential contrast with the natural landscape.
- Modifications in a landscape that repeats these elements are thought to **be in harmony** with their surroundings. Modifications which do not harmonize are said to **be in contrast** with their surroundings.
- The Contrast Rating Form is used as a systematic method for describing the landscape, evaluating the visual effects of activities, and for developing mitigations to meet the VRM objectives established for that area.
- The VRM system relies on fundamental design techniques and strategies to mitigate the visual impacts of proposed projects.

# APPENDIX M

## LAND AND MINERALS DISPOSAL POLICY

# APPENDIX M
# LAND AND MINERALS DISPOSAL POLICIES

**CONTENTS**



## 1 SURFACE ESTATE DISPOSAL POLICY

Section 102(a)(1) of FLPMA provides that " *the public lands be retained in Federal ownership, unless as a result of land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest*." In Section 203 (a) FLPMA further prescribes disposal criteria as follows:

> (1) Such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public lands, and is not suitable for management by another Federal department or agency; or
> (2) Such tract was acquired for a specific purpose and the tract is no longer required for that or any other Federal purpose; or
> (3) disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in Federal ownership.

Land disposal by the BLM is a discretionary action. Each proposed disposal would be evaluated and analyzed on its own merits at the time of such proposal. If any agency is interested in acquiring or

managing any land identified for disposal, it is incumbent upon that agency to let the BLM know and initiate the withdrawal or transfer process. As part of the environmental assessment process, the BLM would contact adjacent landowners and administrators, government entities, and interested parties to fully coordinate the proposal, to determine other agency views, and to determine any impacts the proposed action may have on the management of adjacent lands.

All surface estate disposal actions require the preparation of a mineral report to assess the mineral potential of the property prior to disposal.

Any potential interference with mineral development will be considered through the disposal process. The creation of a split surface-mineral estate causing surface interference with Federal mineral development will be avoided to the extent possible. Any surface disposal action will closely analyze potential impacts to Federal mineral material development. All surface estate patents within areas of known coal potential will carry a reservation of surface owner consent rights under the Surface Mining Control and Reclamation Act of 1977.

The following items will be examined when considering the merits of any disposal:

- Consistency and conformance with current planning
- Consistency with mineral resource policy and fluid mineral leasing procedures
- Potential effects on special status species and their habitat
- Potential effects on recreation and wilderness values
- Potential effects on prime and unique farmland
- Floodplain and flood hazard evaluation
- Potential effects on cultural and paleontological resource values
- Potential effects on American Indian religious values
- Potential effects on visual resources
- Potential effects on ACECs
- Potential effects on wetlands
- Potential effects on existing rights and uses
- Public controversy
- Potential effects on health and safety
- Potential effects on adjacent uses and ownership
- Potential effects on air resources

The following procedures will be followed for the various types of surface estate land disposal actions in the Las Cruces District Office Area:

## 1.1 Exchanges

Disposal by exchange must meet the criteria outlined in the Federal Land Policy and Management Act (FLPMA) Sec. 206, whereby it is determined that the public interest will be well served by making the proposed exchange. Exchanges within designated retention areas may be possible if it is clearly determined that it is in the best interest of the public. The following principles will guide the Las Cruces District Office in its land exchange program:

- The Las Cruces District Office will continue to strive to process mutually benefiting, public interest land exchanges in a timely and efficient manner.
- Acquisition through exchange rather than purchase of lands or interests in lands required for resource management programs will always be the preferred method of acquisition, as this will reduce the expansion of Federal real estate holdings and help to assure the integrity of State and local tax basis.
- Comments from State and local governments and the general public shall be sought and considered before completion of each exchange.
- Patent and deed reservations and conditions will be kept to the absolute minimum necessary to complete the transaction. Rights of third-party right-of-way holders and other legal interests in the exchanged lands will be protected.
- The generally preferred rule is for both surface and subsurface (mineral) estates to be traded in an exchange. However, due to third-party encumbrances, or difficulties in the valuation process, it may be preferable to complete certain exchanges with reservations. Such exceptions to the generally preferred rule are to be made on a case-by-case basis.
- Exchanges shall be utilized to consolidate the surface and subsurface estates for both the Federal government and non-Federal owners in split estate situations.
- Exchanges may be utilized to affect ownership and management area boundary changes or adjustments and to form more logical and efficient land and resource management areas for both the Federal government and non-Federal owners.
- As the law permits, expenses incurred by the Bureau of Land Management (BLM) on exchange actions for the benefit of other Federal agencies shall be recovered from the benefiting agency. The BLM shall not attempt to recover nominal costs.
- When an exchange involves the cancellation in hold or in part of a grazing permit or lease, the compensation for rangeland improvements and 2-year notification requirements of Section 402(g) of the FLPMA and 43 Code of Federal Regulations (CFR) 4110 will be met.
- The acquisition of nonpublic lands containing unique or unusual historic, cultural, mineral, recreational, scientific, and scenic or wildlife habitat values will be pursued when formulating any exchange proposal.

## 1.2 Sales

Property selected for sale must be identified as being potentially suitable for disposal in an approved land use plan and must meet one or more of the criteria outlined in the FLPMA Sec. 203. In addition, if the tract is 2,500 acres or more, procedures outlined in Sec. 203(c) must also be followed. The disposal criteria are as follows:

- Such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public land, and is not suitable for management by another Federal department or agency; or
- Such tract was acquired for a specific purpose, and the tract is no longer needed for that or any other Federal purpose; or
- Disposal of such tract will serve important public objectives, including but not limited to expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweighs other public objectives and values, including but not limited to recreation and scenic values, which would be served by maintaining such tract in Federal ownership.

Anticipated environmental impacts to existing resources such as minerals, wildlife, recreation, range, cultural resources, wilderness values, floodplains, paleontological values, visual resources, areas of critical environmental concern, wetlands, threatened or endangered rivers, prime or unique farm lands, and social and economic conditions, will be considered during the preparation of each environmental assessment. The environmental assessment will be used to determine whether the subject parcel is suitable to be offered for sale. Once this determination has been made, a fair market appraisal of the property will be completed to set the minimum acceptable bid.

If a tract is determined suitable for sale, the environmental assessment will analyze the method of sale that will be used to dispose of the tract. Several factors are considered in determining the method of sale which include but are not limited to the needs of State or local governments, adjoining landowners' interests and concerns, public policies, historical uses, and equitable distribution of the land. In accordance with 43 CFR 2711.3, the Las Cruces District Office policy for determining the sale method is as follows:

- Competitive bidding is the preferred method of sale and will be used where clearly there will be a number of interested parties bidding for the land and they could make practicable use of the land regardless of adjoining landownership. Competitive bidding will also be used where the land is clearly within a developing or urbanizing area and land values are increasing due to their location and interest on the competitive market. If there are no overriding bases for modifying competition or direct sale, the land will be offered through competitive bidding. The normal practice for competitive sales is to first offer the land for sale by sealed bids; if unsold, the tract is offered for sale over-the-counter.

- Modified competitive bidding may be used to permit the existing grazing user or adjoining landowner to meet the high bid or to limit the number of persons permitted to bid on the land. These sales will normally be for lands not located near urban expansion areas or in areas with rapidly increasing land values, when there is a need to avoid jeopardizing existing use of adjacent land, to assure compatibility of the possible uses with adjacent lands, and avoid dislocation of existing users. This procedure will allow for limited competitive bidding to protect ongoing use.

- Direct (without competition) sales may be used when, in the opinion of the Authorized Officer, the public interest would best be served. Examples include but are not limited to:

    - A tract identified for transfer to State or local governments or nonprofit organizations; or
    - A tract identified for sale that is an integral part of a project or of public importance and speculative bidding would jeopardize the timely completion and economic viability of the project; or
    - There is a need to recognize authorized use such as an existing business which would be threatened if the tract were purchased by other than the authorized user, or
    - A tract is surrounded by land in non-Federal ownership and does not have public access; or
    - The lands support inadvertent unauthorized use or occupancy.

- When lands have been offered for sale under direct or modified bidding procedures and they remain unsold, then the land will be re-offered by the competitive bidding procedure. In no case will the land be sold for less than fair market value.

Public participation and intergovernmental coordination will be sought and encouraged during the development of each sale. Where a decision is made to dispose of land within a grazing allotment,

permittees and lessees shall be given 2 years prior notification before their grazing preference may be cancelled in whole or part. A permittee or lessee may unconditionally waive the 2-year prior notification.

The lands may be disposed at any time, provided a condition of the exchange or sale allows the existing grazing user to continue grazing livestock on the land for at least 2 years from the date the 2-year notice is received. 43 CFR 2711.1-3 addresses sales requiring grazing permit or lease cancellations.

In such cases, the condition of the disposal will include the same terms and conditions as the permit/lease in regard to numbers, kind of livestock, season-of-use, animal unit months, and maintenance of range improvements. Fees must be the same as the Federal grazing fees.

Grazing permittees/lessees will receive fair market value (less salvage value) for their interest in authorized permanent rangeland improvements located on public lands in accordance with 43 CFR 4120.3-6. Compensation for grazing improvements under the land sale action is addressed in 43 CFR 2711.4-1. If floodplain tracts are designated for disposal, the patent will contain language indemnifying the United States against any claims for loss or injury due to flooding.

Lands designated as retention areas may not be offered for disposal through a competitive sale unless the authorized officer determines the interest of the public would best be served by modified competitive bidding or direct sale (WO IM-2002-143). Land ownership pattern within these areas are moderately consolidated and contain small tracts of land. Land sale may be pursued if the disposal of lands within designated retention areas, not including areas of critical environmental concerns (ACECs), special management areas (SMAs), and special recreational management areas (SRMAs) would help enhance manageability and consolidate land status. Several parcels have no legal public access which makes manageability difficult. The parcels offered for disposal shall contain no known significant resources values.

Wilderness study areas (WSAs) and retention areas within ACECs and SRMAs shall in most cases be excluded and unavailable for disposal through sales and/or exchanges. Exceptions could be made where the disposal of lands within an ACEC or SRMA to another Federal or state agency and would be in the best interest of both parties to accomplish such a disposal. An example would be to dispose of an ACEC or SRMA or portion thereof to expand and complement the management of a state park. This could be done through Recreation and Public Purposes Act, sale or exchange. Consolidation of ownership within these specially managed areas would be through acquisition of state and private lands to improve the ownership and manageability. Any exchange involving lands within retention areas must be exchanged for lands with a higher resource value than lands being disposed.

Direct sales must be clearly determined by the authorized officer to ensure that the sale is in the best interest of the public. When lands have been offered for direct or modified bidding and they remain unsold, the land will be re-offered under competitive bidding procedures. Mineral (subsurface) estate will be retained for all sales that occur within designated retention areas. Permittees will be given 2 years prior notification to disposal of lands within a grazing allotment (permits/leases) before their grazing may be cancelled in whole or part.

## 1.3 FLTFA Lands in Doña Ana County - Mimbres Resource Area, RMP

In July 2000, Congress passed legislation that authorized Federal Land Transaction Facilitation Act (FLTFA) for 10 years. Through its *"land for land"* approach, FLTFA funded sales of scattered BLM tracts authorized for disposal under the FLPMA and the respective RMPs. In the case of the Las District these would be the White Sands RMP (1986) and the Mimbres RMP (1993). The Department of the

Interior and Agriculture allocate FLTFA funds to acquire priority lands from willing sellers within the boundaries of designated BLM areas, National forests, National parks and National wildlife refuges. Under the TriCounty RMP, FLTFA would apply to the following listed lands in the three counties:

T. 20 S., R. 04 W.,
sec. 08, SESW, S2SE = 120 acres
sec. 17, E2, E2W2 = 480 acres

T. 18 S., R. 03 W.,
sec. 31, Lots 7, 13, 15 = 100.56 acres

T. 19 S., R. 03 W.,
sec. 03, S2SE, Lots 5 - 7 = 146.79 acres
sec. 04, NESW = 40 acres

T. 19 S., R. 02 W.,
sec. 07, E2NE = 80 acres
sec. 08, W2NW = 80 acres
sec. 32, SENW, NESW = 80 acres

T. 23 S., R. 01 W.,
sec. 13, S2SE, Lots 7, 8 = 140.15 acres
sec. 24, W2E2, S2NW, N2SE = 320 acres
sec. 25, Lots 1, 4, 5, 17, 18 = 159.91 acres
sec. 27, W2SESE = 20 acres

T. 21 S., R. 01 E.,
sec. 30, NE, NENE, Lot 8 = 240 acres

T. 22 S., R. 01 E.,
sec. 03, N2, Lots 1 - 4 = 372.56 acres
sec. 04, NE, Lots 1, 2 = 187.68 acres

T. 23 S., R. 01 E.,
sec. 18, S2S2, Lots 6 - 9 = 280.16 acres
sec. 29, S2NE, S2, Lots 7 - 11 = 504.01 acres
sec. 31, All = 640 acres
sec. 33, SWNW, NWSW = 80 acres

T. 21 S., R. 02 E.,
sec. 24, E2 = 320 acres
sec. 25, NE, SENW, NESW, N2SE = 320 acres
sec. 27, S2 = 320 acres
sec. 28, S2 = 320 acres
sec. 29, E2, E2W2 = 400 acres

T. 22 S., R. 02 E.,
sec. 10, N2, W2SW, N2SE = 480 acres
sec. 12, All = 640 acres
sec. 17, S2SWSW = 20 acres
sec. 18, E2NE, Lots 5, 6 = 156.6 acres
sec. 20, N2NW = 80 acres
sec. 25, NW = 160 acres
sec. 26, E2NE = 80 acres
sec. 28, W2SE, Lots 20 - 24, 33, 34, 36 - 39 = 253.89 acres
sec. 33, E2SWNE, SENE = 60 acres

T. 23 S., R. 02 E.,
sec. 03, E2SENE, SWNE, N2SENE, SWSENE, E2E2SW, W2SE, W2NESE, SENESE, SESE, Lots 1, 2 = 359.09 acres
sec. 04, Lots 10, 11 = 55.73 acres
sec. 10, Lot 12 = 16.4 acres
sec. 11, E2NE, N2NWNE, S2SWNE, W2, SE = 600 acres
sec. 12, W2 = 320 acres
sec. 23, Lots 17 - 20 = 80.32 acres

T. 24 S., R. 02 E.,
sec. 01, E2E2 = 160 acres
sec. 11, Lots 5 - 8 = 132.79 acres
sec. 12, All = 640 acres
sec. 13, N2, NESW, SE, Lots 3 - 5 = 617.38 acres
sec. 14, Lots 3 - 5 = 57.08 acres
sec. 24, N2NE, Lots 6 - 9 = 197.5 acres

T. 21 S., R. 03 E.,
sec. 21, All = 640 acres
sec. 28, All = 640 acres
sec. 29, All = 640 acres
sec. 30, E2, E2W2, Lots 1 - 4 = 638.62 acres

T. 22 S., R. 03 E.,
sec. 01, SENE, Lots 1, 12 - 19 = 169.14 acres
sec. 02, W2NESE = 20 acres
sec. 06, S2NE, N2SENW, N2S2SENW, SE, Lots 1 - 5 = 476.82 acres
sec. 07, NE, E2NW, NESE, Lots 1, 2 = 366.17 acres

T. 23 S., R. 03 E.,
sec. 08, S2 = 320 acres
sec. 18, NE, E2NW, W2E2SW, S2SWSE, Lots 1 - 4 = 452.55 acres
sec. 19, N2NWNE, NENW, W2SENW, E2SW, SE, Lots 3, 4, 6 = 419.03 acres
sec. 29, All = 640 acres
sec. 30, E2, E2W2, Lots 1 - 4 = 638.69 acres
sec. 31, E2, E2W2, Lots 1 - 4 = 639.47 acres

T. 24 S., R. 03 E.,
sec. 04, S2N2, S2, Lots 1 - 4 = 638.8 acres
sec. 05, S2N2, S2, Lots 1 - 4 = 639.2 acres
sec. 06, E2, E2W2, Lots 1 - 4 = 638 acres
sec. 07, E2, E2W2, Lots 1 - 4 = 633.1 acres
sec. 08, All = 640 acres
sec. 09, All = 640 acres
sec. 17, All = 640 acres
sec. 18, E2, E2W2, Lots 1 - 4 = 630.8 acres
sec. 19, E2, E2W2, Lots 1 - 4 = 629.89 acres
sec. 20, All = 640 acres
sec. 21, N2, N2SW, SWSW, N2SE = 520 acres
sec. 28, E2NW, S2 = 400 acres
sec. 29, All = 640 acres
sec. 30, NE, N2SE, Lots 8 - 11 = 411.96 acres
sec. 33, All = 640 acres

T. 25 S., R. 03 E.,
sec. 04, S2N2, S2, Lots 1 - 4 = 640.48 acres
sec. 05, Lots 1, 7 - 10 = 166.22
sec. 08, Lots 5, 6 = 45.59 acres
sec. 09, NE, N2NW, Lots 2 - 5 = 384.55 acres
sec. 10, All = 640 acres
sec. 15, E2E2, NWNE, NESE, S2S2, Lots 1 - 6 = 550.02 acres
sec. 22, E2, E2SW = 400 acres
sec. 27, E2, E2NW = 400 acres
sec. 34, W2SWSW, Lots 1, 2, 9 - 12, 16 = 160.11 acres

T. 26 S., R. 03 E.,
sec. 11, E2E2, W2NE, E2NW, NESW, NWSE, Lots 9, 30 = 429.75 acres
sec. 12, All = 640 acres
sec. 13, All = 640 acres
sec. 14, NENE, E2SENE, E2W2SENE, W2SWSENE, Lots 32, 53 - 58, 75 - 77, 91 = 142.52 acres

T. 27 S., R. 03 E.,
sec. 06, Lots 1 - 4 = 135.15 acres
sec. 07, W2W2, E2SW, Lots 1 - 4 = 335.07 acres
sec. 18, W2E2, E2W2, SESE, Lots 1 - 7 = 561.14
sec. 30, E2, E2W2, Lots 1 - 4 = 635.54 acres
sec. 31, N2N2NE = 40 acres

T. 26 S., R. 04 E.,
sec. 07, SWNE, E2W2, W2SW, Lots 1 - 4 = 431.4 acres
sec. 10, E2 = 320 acres
sec. 11, All = 640 acres
sec. 12, W2NE, NW, N2S2, SESW, S2SE = 520 acres
sec. 13, All = 640 acres
sec. 14, All = 640 acres
sec. 15, NE = 160 acres
sec. 17, W2SW = 80 acres
sec. 18, E2, E2W2, Lots 1 - 4 = 636.6 acres
sec. 19, NE, E2W2, N2SE, SESE, Lots 1 - 4 = 597.85 acres
sec. 20, W2W2, SESW = 200 acres
sec. 23, All = 640 acres
sec. 24, N2N2, S2, SWNE, S2NW = 600 acres
sec. 25, N2 = 320 acres
sec. 26, NE = 160 acres
sec. 29, W2 = 320 acres
sec. 30, E2, E2W2, Lots 1 - 4 637.92 acres
sec. 31, NE, E2NW, Lots 1 - 6 = 404.54 acres

T. 26 S., R. 05 E.,
sec. 10, All = 640 acres
sec. 11, All = 640 acres
sec. 12, All = 640 acres
sec. 13, N2 = 320 acres
sec. 14, N2, N2S2, S2SW, SWSE = 600 acres
sec. 17, All = 640 acres
sec. 18, E2, E2W2, Lots 1 - 4 = 639.99 acres
sec. 19, W2E2, E2W2, NWNW, E2SE, Lot 1 = 440.09 acres
sec. 20, E2, E2W2, SWNW, W2SW = 600 acres
sec. 29, N2, SW = 480 acres
sec. 30, E2, E2W2, Lots 1 - 3 = 601.35 acres
sec. 31, N2NE, SENE, Lot 6 = 129.09 acres

## 1.4 FLTFA Lands in Otero County - White Sands Resource Area RMP

T. 26 S., R. 06 E.,
sec. 07, S2NE, SENE, E2SW, SE = 300 acres
sec. 08, S2NE, W2, SE = 560 acres
sec. 09, S2N2, S2 = 480 acres
sec. 10, S2N2, NESW, SE = 360 acres
sec. 17, All = 640 acres

T. 18 S., R. 08 E.,
sec. 17, NE, E2SE, SWSE = 280 acres

T. 11 S., R. 09 E.,
sec. 28, S2SW = 80 acres
sec. 33, N2NW = 80 acres

T. 12 S., R. 09 E.,
sec. 01, S2NW, SW, Lots 3, 4 = 320.15 acres
sec. 02, S2NW, Lots 3, 4 = 160.32 acres
sec. 35, W2E2, E2W2 = 320 acres

T. 14 S., R. 09 E.,
sec. 21, NWNE, N2NW = 120 acres
sec. 28, W2NW, S2SW = 160 acres
sec. 33, NWNW, SW = 200 acres

T. 15 S., R. 09 E.,
sec. 03, S2N2, S2, Lots 1 - 3 = 606.51 acres
sec. 04, SENE, SWSW, E2SW, SE = 320 acres
sec. 09, N2N2, SWNE, S2NW, S2S2 = 440 acres
sec. 10, NE, NWNW, N2SW = 280 acres
sec. 11, NW, E2SW, SE = 400 acres
sec. 14, All = 640 acres
sec. 15, All = 640 acres
sec. 21, All = 640 acres
sec. 22, All = 640 acres
sec. 23, NW, S2 = 480 acres
sec. 25, NW, S2 = 480 acres
sec. 26, All = 640 acres
sec. 27, All = 640 acres
sec. 28, All = 640 acres
sec. 33, N2N2, S2S2, SWNE, S2NW, N2SW = 520 acres
sec. 34, E2NE, NWNE, NWNW, S2SW, SWSE = 280 acres
sec. 35, N2, NESW, NWSE = 400 acres

T. 16 S., R. 09 E.,
sec. 03, SWNW, Lot 4 = 65.51 acres
sec. 04, SENE, S2, Lot 1 = 385.49 acres
sec. 05, Lots 3, 4 = 51.26 acres
sec. 06, NESW, Lots 1, 4, 6 = 116.83 acres
sec. 09, N2 = 320 acres
sec. 27, SESW = 40 acres

T. 17 S., R. 09 E.,
sec. 04, W2SW = 80 acres
sec. 13, NE = 160 acres
sec. 17, NENE, E2NWNE, SWNWNE, N2NW, S2N2, N2S2, S2SE = 630 acres
sec. 18, NENE, NENENESE, S2NENESE, SENWNESE, S2NESE, SESWNWSE, E2SENWSE, SWSENWSE, S2SE = 160 acres
sec. 19, NE, E2SW, N2SE, SWSE, Lots 3, 4 = 434.26 acres
sec. 20, N2NE, S2N2, N2S2 = 400 acres
sec. 23, SWSE = 40 acres
sec. 26, N2NWNE = 20 acres

T. 18 S., R. 09 E.,
sec. 01, Lots 3, 4 = 46.1 acres
sec. 10, NWSE = 40 acres
sec. 22, S2 = 320 acres
sec. 23, W2SW = 80 acres

T. 14 S., R. 10 E.,
sec. 12, SENE, NWSE = 80 acres
sec. 15, N2NW, SWNW = 120 acres
sec. 16, SENE, E2SW, SE = 280 acres

T. 15 S., R. 10 E.,
sec. 04, S2NE, SW, N2SE, Lots 1, 2 = 400.1 acres
sec. 05, SESE = 40 acres
sec. 08, NENENE, W2NENE, N2SENENE, W2NE = 110 acres
sec. 17, E2SW = 80 acres
sec. 18, NE, E2SW, W2SE, Lots 3, 4 = 399.24 acres
sec. 20, NW, N2SW, NWSE = 280 acres
sec. 23, W2E2, E2W2, SENE, NWNW, SWSW, E2SE = 520 acres
sec. 24, All = 640 acres
sec. 25, N2NE = 80 acres
sec. 26, N2NE, NENW = 120 acres
sec. 27, NWNW = 40 acres
sec. 30, Lot 1 = 40.21 acres
sec. 31, SENW, E2SW, Lots 2 - 3 = 240.63 acres
sec. 34, Lots 2, 10, 11 = 77.35 acres

T. 16 S., R. 10 E.,
sec. 04, S2, Lots 1 - 20 = 1164.76 acres
sec. 05, Lots 23, 25, 26 = 119.23 acres
sec. 33, N2NE, SENE, NESW, NESE = 200 acres

T. 17 S., R. 10 E.,
sec. 05, Lot 4 = 40.36
sec. 06, S2SE = 80 acres
sec. 07, N2N2, SENE, NESE, S2SE = 320 acres

T. 19 S., R. 10 E.,
sec. 09, NENW = 40 acres

T. 13 S., R. 11 E.,
sec. 01, W2SW, Lots 4, 5 = 156.44 acres
sec. 05, S2NE = 80 acres
sec. 06, S2NE, NWSE, Lots 1 - 11 = 349.23 acres
sec. 12, SWSW, Lot 4 = 77.92 acres
sec. 13, W2W2, Lots 1 - 4 = 309.1 acres
sec. 23, Lots 1, 2 = 75.24 acres
sec. 24, W2NW, Lots 1 - 3 = 190.7 acres
sec. 26, NWNWNE, SESENW, NESW = 60 acres
sec. 32, Lot 7 = 33.17 acres
sec. 35, E2E2, SWNE, N2SENW, NESW, E2SE = 330 acres

T. 14 S., R. 11 E.,
sec. 05, Lot 3 = 43.72 acres
sec. 06, W2SE, Lot 14 = 120 acres
sec. 07, NWNE, Lots 1 - 3 = 146.5 acres
sec. 17, SW, SWSE = 200 acres

T. 20 S., R. 13 E.,
sec. 01, Lots 1, 2 = 41.15 acres
sec. 02, SWNE, SENW, NESE, S2S2, Lot 3 = 304.31 acres
sec. 03, S2N2, SE, Lots 1 - 4 = 424.72 acres

T. 19 S., R. 14 E.,
sec. 33, NENW, W2W2 = 200 acres

T. 20 S., R. 14 E.,
sec. 03, S2SW = 80 acres
sec. 04, SW, Lots 5, 6 = 218.9 acres
sec. 06, E2SE = 80 acres
sec. 07, S2NE, SENW, NESW, N2SE, Lots 2, 3 = 316.78 acres
sec. 08, N2, N2S2 = 480 acres
sec. 10, SWNE = 40 acres
sec. 11, NWSE = 40 acres
sec. 18, NE, E2NW, N2SE = 320 acres
sec. 19, NE, SENW, NESW, Lots 2, 3 = 318.32 acres
sec. 21, N2, N2S2 = 480 acres
sec. 23, NENW, SESW = 80 acres
sec. 29, W2NW, NWSW = 120 acres
sec. 30, SENW, NWSE, NESE, Lot 3 = 159.17 acres

T. 22 S., R. 14 E.,
sec. 05, S2N2, S2, Lots 1 - 4 = 638.1 acres

T. 16 S., R. 15 E.,
sec. 01, SESW, SESE, Lots 1 - 8 = 304.88 acres

T. 17 S., R. 15 E.,
sec. 10, E2E2 = 160 acres
sec. 11, N2N2, W2SWNE, S2NW, N2SW, W2SWSW, W2NWSE = 380 acres
sec. 14, W2W2NW = 40 acres
sec. 21, NWNE, NENW, W2W2, SESW, SWSE = 340 acres
sec. 28, NWNE, N2NW = 120 acres

T. 18 s., R. 15 E., sec. 33, S2SESE = 20 acres

T. 19 S., R. 15 E.,
sec. 01, SWNW, Lot 4 = 79.82 acres
sec. 02, Lot 3 = 40.05 acres
sec. 04, SENW, E2NWSW = 60 acres
sec. 10, NENW = 40 acres
sec. 11, S2SW, SESE = 120 acres
sec. 12, SWNE = 40 acres

T. 20 S., R. 15 E.,
sec. 07, NWNE = 40 acres
sec. 21, N2NW = 80 acres
sec. 26, E2 = 320 acres
sec. 27, E2NE = 80 acres
sec. 31, NE = 160 acres
sec. 33, S2NE, SENW, NESW, N2SE = 240 acres
sec. 34, SWNW, N2S2 = 200 acres
sec. 35, S2NE, NWSW, SE = 280 acres

T. 21 S., R. 15 E.,
sec. 01, Lots 2, 3, 6, 7 = 154.94 acres

T. 26 S., R. 15 E.,
sec. 13, NENE = 40 acres

T. 15 S., R. 16 E.,
sec. 25, W2SW = 80 acres

T. 26 S., R. 16 E.,
sec. 28, SW = 160 acres
sec. 31, N2NE, Lots 4, 5 = 140 acres
sec. 33, N2NW, Lots 3, 4 = 142.3 acres

T. 26 S., R. 17 E.,
sec. 08, S2SW = 80 acres
sec. 16, S2NE, W2, SE = 560 acres
sec. 21, N2N2, SENE, S2NW, NESE, S2SE = 360 acres
sec. 28, E2 = 320 acres
sec. 29, N2 = 320 acres
sec. 30, E2SW, SE, Lots 3, 4 = 327.84 acres
sec. 32, N2N2, Lots 2, 4 = 224.93 acres
sec. 34, NENE, Lot 1 = 71.88 acres
sec. 35, NWNW, Lot 4 = 71.84 acres
sec. 36, N2NE, NENW, Lots 1, 2 = 183.54 acres

T. 26 S., R. 18 E.,
sec. 27, SW = 160 acres

## 1.5 FLTFA Lands in Sierra County - White Sands Resource Area RMP

T. 10 S., R. 08 W.,
sec. 02, Lots 3, 5 = 65.36 acres
sec. 12, E2NE, SWNE, SENE = 160 acres
sec. 19, E2SW, Lots 1 - 4 = 243.23 acres
sec. 21, SWNE, SENE, E2SW, W2SE = 240 acres
sec. 28, NWNE, NENW = 80 acres
sec. 29, NWNE, NWNW, W2SW = 160 acres
sec. 30, NENE, NW, NESW, NWSE = 280 acres
sec. 31, Lots 2 - 4 = 120.36 acres
sec. 35, Lot 16 = 40.48 acres

T. 11 S., R. 08 W.,
sec. 16, Lot 1 = 35.92 acres
sec. 20, SENW = 40 acres
sec. 26, W2NW, SWSE = 120 acres
sec. 35, E2NW = 80 acres

T. 12 S., R. 08 W.,
sec. 03, SWNE, Lots 2 - 4 = 162.85 acres
sec. 09, Lots 9 - 21 = 498.79 acres
sec. 10, NESW, S2SW, S2SE = 200 acres
sec. 11, SWSE = 40 acres
sec. 12, SWSE = 40 acres
sec. 13, E2SE = 80 acres
sec. 14, W2NE, NW, SESW = 280 acres
sec. 15, Lots 1 - 9 = 379.6 acres
sec. 17, Lot 7 = 34.66 acres
sec. 21, SWNW, NWSW, S2SW, N2SE, SESE = 280 acres
sec. 22, W2SW, E2SE = 160 acres
sec. 23, NENW = 40 acres
sec. 24, SESW, SWSE = 80 acres
sec. 25, E2, E2NW, SW = 560 acres
sec. 26, SWNE, S2NW, N2SW, SESW = 240 acres

sec. 27, S2N2 = 160 acres
sec. 28, S2NE, W2, W2SE = 480 acres
sec. 33, N2N2 = 160 acres

T. 17 S., R. 08 W.,
sec. 01, SESE = 40 acres
sec. 12, Lots 1 - 5 = 177.29 acres
sec. 13, Lots 6, 7 = 74.96 acres
sec. 25, W2, SESE = 400 acres

T. 18 S., R. 08 W.,
sec. 01, NWSW = 40 acres
sec. 03, S2N2, S2, Lots 1 - 4 = 636.8 acres
sec. 10, NWNE, N2NW, SENW = 160 acres
sec. 12, N2SE, SESE = 120 acres
sec. 13, SESE = 40 acres
sec. 19, NE, E2NW, NESW, N2SE, Lots 1 - 4 = 515.96 acres
sec. 21, SESW, S2SE = 120 acres
sec. 24, NENE, S2NE, SE = 280 acres
sec. 25, W2W2 = 160 acres
sec. 26, E2E2, E2NW, NESW = 280 acres
sec. 27, NWNE, W2NW = 120 acres
sec. 28, S2NE, SENW = 120 acres
sec. 30, Lot 4 = 39.02 acres
sec. 31, SENW, E2SW, Lots 1 - 4 = 275.58 acres
sec. 34, NENE = 40 acres
sec. 35, NENE, NWNW = 80 acres

T. 19 S., R. 08 W.,
sec. 01, SENE, NWSW, Lot 1 = 119.94 acres
sec. 05, SWNW, NWSW = 80 acres
sec. 06, S2NE, SENE, E2SW, NESE, S2SE, Lots 5 - 7 = 437.26 acres
sec. 07, NWSE = 40 acres
sec. 08, NWSW = 40 acres
sec. 17, NWNE, W2W2, SESW = 240 acres
sec. 18, E2W2, SE, Lots 1 - 4 = 478.05 acres
sec. 19, N2NE, NENW, Lot 1 = 159.4 acres
sec. 20, NW = 160 acres
sec. 21, NE, E2NW, SWNW = 280 acres
sec. 22, SWNE, SWNW = 80 acres
sec. 23, N2SE = 80 acres
sec. 24, W2NE, N2NE, NESE = 200 acres
sec. 25, SESW = 40 acres
sec. 26, E2SW, SE = 240 acres
sec. 35, E2NE = 80 acres

T. 17 S., R. 7.5 W.,
sec. 01, S2, Lots 3, 4 = 130.36 acres
sec. 12, Lots 5 - 9 = 156.36 acres
sec. 25, Lots 2 - 4 = 89.25

T. 18 S., R. 7.5 W.,
sec. 12, Lot 4 = 16.10 acres
sec. 13, Lot 1 = 16.38 acres
sec. 24, Lots 2 - 4 = 55.47 acres
sec. 25, S2S2 = 40 acres

T. 19 S., R. 7.5 W.,
sec. 13, Lot 1 = 13.69 acres
sec. 25, Lots 1 - 4 = 45.34 acres

T. 10 S., R. 07 W.,
sec. 04, SWNW, W2SW = 120 acres
sec. 09, W2 = 320 acres

T. 11 S., R. 07 W.,
sec. 01, Lots 5 - 13, 15 - 17, 20 = 597.97 acres
sec. 03, NWSE, Lots 5, 11 = 150.02 acres
sec. 04, SWNW, E2SW, SWSW = 160 acres
sec. 05, SESE = 40 acres
sec. 08, NENE, S2NW, NESW, W2SE, SESE = 280 acres
sec. 09, Lots 12 - 15 = 130.34 acres
sec. 10, NWNE, NENW, Lot 1 = 104.69 acres
sec. 11, Lots 2, 11 = 69.1 acres
sec. 12, Lots 1, 3 - 11, 13 - 15 = 543.17 acres
sec. 14, S2NE, E2NW, NESW, N2SE, SWSE = 320 acres
sec. 15, W2NW = 80 acres
sec. 22, W2NE, NW = 240 acres
sec. 23, S2SW = 80 acres
sec. 24, All = 640 acres
sec. 25, All = 640 acres
sec. 26, NE, E2NW = 240 acres

T. 12 S., R. 07 W.,
sec. 19, Lot 15 = 41.17 acres
sec. 21, NENW = 40 acres
sec. 23, NW, N2SW = 240 acres
sec. 24, Lots 3, 5 = 82.52 acres
sec. 25, W2NE, E2NW, NESW, NWSE = 240 acres
sec. 26, W2NE, E2E2NW, E2NESW, N2SE = 220 acres
sec. 29, Lots 4, 5 = 90.66 acres
sec. 30, Lots 5 - 19 = 665.85 acres

T. 13 S., R. 07 W.,
sec. 01, S2N2, N2S2, Lots 1 - 4 = 161.6 acres
sec. 12, NENE, W2NE = 120 acres
sec. 13, S2 = 320 acres
sec. 14, Lots 2, 3 = 76.66 acres
sec. 23, W2NE = 80 acres
sec. 24, N2 = 320 acres

T. 14 S., R. 07 W.,
sec. 01, S2SW = 80 acres
sec. 12, Lots 5 - 8, 13, 14 = 232.38 acres
sec. 13, Lots 1, 2 = 67.05 acres

T. 15 S., R. 07 W.,
sec. 13, S2SW, N2SE = 160 acres
sec. 14, S2S2 = 160 acres
sec. 23, N2NW = 80 acres
sec. 24, NWNW = 40 acres

T. 16 S., R. 07 W.,
sec. 01, SESW, NESE, SWSE = 120 acres
sec. 12, SENE, E2SE = 120 acres
sec. 13, NENE, E2NE, SESE = 160 acres
sec. 24, S2SE = 80 acres
sec. 25, N2, SW, S2 = 560 acres
sec. 29, W2 = 320 acres
sec. 30, NE, N2SE = 240 acres

T. 17 S., R. 07 W.,
sec. 01, S2NE, SESW, SE, Lots 1 - 3 = 399.38 acres
sec. 06, Lots 5 - 7 = 113.06 acres
sec. 07, E2, NENW, E2SW, Lots 1 - 4 = 590.04 acres
sec. 08, W2 = 320 acres
sec. 11, N2NE = 80 acres
sec. 12, N2NW, SESW, SWSE = 160 acres
sec. 13, NWNE, NENW = 80 acres
sec. 14, SESW = 40 acres
sec. 17, S2NW = 80 acres
sec. 26, SWNW, SWSW = 80 acres

T. 18 S., R. 07 W.,
sec. 01, SWNW, Lot 4 = 81.5 acres
sec. 06, E2SW, Lots 6, 7 = 154.8 acres
sec. 07, E2NW, Lots 1, 2 = 154.55 acres
sec. 11, NWNE, NENW, NESE = 120 acres
sec. 12, NWNW, S2NW, NWSW = 160 acres
sec. 14, NENW = 40 acres
sec. 18, Lots 1, 2 = 75.15 acres
sec. 31, W2NE, E2NW, NESW, NWSE, Lots 1 - 3 = 354.18 acres

T. 19 S., R. 07 W.,
sec. 05, SWSW = 40 acres
sec. 06, S2SE = 80 acres
sec. 07, SENW = 40 acres
sec. 08, E2NE, NW, W2SW, NESE = 360 acres
sec. 09, NESE, SWSE = 80 acres
sec. 17, N2, N2SW = 400 acres
sec. 18, NENW = 40 acres
sec. 31, NE, NENW, N2SE, SESE, Lot 1 = 359.36 acres

T. 11 S., R. 06 W.,
sec. 02, Lot 5 = 36.89 acres
sec. 03, SWSW = 40 acres
sec. 04, S2SE = 80 acres
sec. 06, Lots 4 - 7 = 162.02 acres
sec. 07, Lot 1 - 4 = 159 acres
sec. 08, E2SE = 80 acres
sec. 18, NE, SESW, Lot 4 = 239.36 acres
sec. 19, NWNE, S2NE, E2W2, SE, Lots 1 - 4 = 597.65 acres
sec. 20, SWNW, W2SW = 120 acres
sec. 29, W2W2 = 160 acres
sec. 30, E2, E2W2, Lots 1 - 4 = 637.96 acres

T. 12 S., R. 06 W.,
sec. 09, NENE, S2NE, NESW, S2SW, SE = 400 acres
sec. 19, W2SW, SE, Lot 4 = 276.2 acres
sec. 20, SW = 160 acres
sec. 21, NWNE = 40 acres
sec. 28, NENW, SWSW = 80 acres
sec. 29, W2, S2SE = 400 acres
sec. 30, E2, E2W2, Lots 1 - 3 = 589 acres
sec. 31, N2NE, N2S2NE, E2NENW = 140 acres
sec. 33, NE, NWNW, W2SW, NWSE = 320 acres

T. 13 S., R. 06 W.,
sec. 04, S2NW = 80 acres
sec. 06, S2NE, E2NW, NESE, Lots 3 - 7 = 382.45 acres
sec. 10, SESW = 40 acres
sec. 15, NENW, SWSW = 80 acres
sec. 28, SENE, SE = 200 acres
sec. 33, W2NW = 80 acres

T. 14 S., R. 06 W.,
sec. 06, Lot 7 = 36.3 acres
sec. 17, N2N2 = 160 acres
sec. 18, N2NE, NENW, Lot 1 = 156.22 acres

T. 16 S., R. 06 W.,
sec. 06, SESW, Lot 14 = 83.86 acres
sec. 07, E2, E2W2, Lots 1 - 4 = 653.5 acres
sec. 15, SWNW = 40 acres
sec. 18, NE, NENW, SESW, Lots 3, 4 = 326.97 acres
sec. 19, NE, E2NW, SESW, SWSE, Lots 1, 2, 4 = 452.51 acres
sec. 30, W2NE, E2NW, NESW, Lots 1 - 4 = 380.06 acres
sec. 31, Lots 1, 4 = 91.15 acres

T. 17 S., R. 06 W.,
sec. 06, SENW, NWSE, Lots 3 - 5 = 185.92 acres

T. 14 S., R. 05 W.,
sec. 24, SWNE, N2SE, W2SESE = 140 acres

T. 12 S., R. 04 W.,
sec. 01, SW = 160 acres
sec. 02, S2NE = 80 acres
sec. 11, E2, E2W2 = 480 acres
sec. 12, W2NE, SENE, W2, SE = 600 acres
sec. 13, N2N2, Lots 1 - 4 = 250.52 acres
sec. 14, Lots 5 - 10 = 199.93 acres

T. 13 S., R. 04 W.,
sec. 10, W2E2, S2NW, SW, Lots 2 - 8 = 520.08 acres
sec. 15, Lots 1, 2 = 59.62 acres
sec. 17, SENE = 40 acres
sec. 22, Lot 3 = 30.12 acres

T. 14 S., R. 04 W.,
sec. 19, SWSW = 40 acres
sec. 30, NWNW = 40 acres

T. 14 S., R. 02 W.,
sec. 33, NW = 160 acres

## 1.6 Recreation and Public Purposes Patents

The Las Cruces District Office will continue to issue patents to qualified governmental and nonprofit entities for public parks, recreation sites, fire stations and other community facilities under the Recreation and Public Purposes (R&PP) Act. These patents may be issued at less than fair market value as outlined in 43 CFR 2740. Applications for patent of public lands under the R&PP Act will be processed as a Las Cruces District Office priority under the requirements of the National Environmental Policy Act and will be subject to public review. Current policy dictates that new sanitary landfill sites will be patented and no new lease will be issued in the *TriCounty Planning Area* pursuant to the R&PP Act. R&PP applications may be entertained in either retention or disposal zones; yet, a determination must always be made that the disposal action is in the public's interest.

## 1.7 Retention Criteria

These are land tracts which will likely remain as BLM administered land. Although the underlying philosophy is long-term public ownership, adjustments in retention areas involving exchanges or sales may occur when the public interest is served.

1) Areas containing moderate to high resource values and/or characteristics. These include but are not limited to:

    - Land along rivers, streams, lakes, dams, ponds, springs and trails
    - Riparian areas, community watersheds or floodplains
    - Areas that contain T&E species of wildlife or aquatic or vegetation
    - Areas with special status wildlife species, or aquatic species or vegetative species
    - Important general wildlife habitat areas
    - Recreation sites and areas
    - Significant cultural resource sites
    - Geologic areas containing unique or rare features or formations
    - Areas with important or unique forest/woodland values
    - Other areas containing moderate to high resource values and/or characteristics

2) Lands with a combination of moderate to high multiple-use values which dictate retention in public ownership.

3) Areas of National environmental significance: These include but are not limited to:

    - Wilderness, Wilderness Study Areas and former WSAs being studied for protective management
    - Wild & Scenic Rivers
    - National Scenic & Historic Trails and Study Trails
    - Lands containing nationally significant cultural sites nominated to be eligible for the National Register of Historic Places
    - National Conservation areas
    - Wetlands and Riparian Areas under Executive Order 11990
    - Other Congressionally Designated Areas and Study Areas
    - Areas of Critical Environmental Concern

4) Areas of National economic significance. These include but are not limited to:

    - Designated Mineral Resource Areas where disposal of the surface will unnecessarily interfere with the logical development of the mineral estate, e.g., surface minerals, coal, phosphate, known geologic structures, etc.
    - Lands containing strategic minerals needed for National defense.

5) Lands used in support of National defense: These include but are not limited to U.S. Military and National Guard maneuver areas.

6) Areas where future plans will lead to further consolidation and improvement of land patterns and management efficiency.

7) Areas which the general public, state and local government consider suitable for public ownership.

8) Lands withdrawn by the BLM or other Federal agencies for which the purpose of the withdrawal remains valid and the resource uses can be managed concurrently by the BLM.

9) Lands that contribute significantly to the stability of the local economy by virtue of Federal ownership.

10) Lands which provide public access and contain previously mentioned public values which, when considered together, warrant their retention.

11) Guidelines for the retention of the mineral estate are fairly well described and are mandated under FLPMA. These require that mineral estate be reserved by the United States in all land disposals, except in some cases where exchanges are involved. In exchanges, the mineral estate may be reserved by both parties presuming there will be no material interference with the development of the mineral resource due to disposal of the surface estate. If values are equal, mineral estate title may pass with surface estate.

Lands designated for retention outside of WSAs, ACECs, SRMAs, or other special management areas may be exchanged for lands of higher resource value such as non-Federal lands within or adjacent to WSAs or ACECs, high-value wildlife habitat, high-value cultural resource sites, or other lands as appropriate. The BLM retention areas (except Congressional designations) may be available for transfer under the Recreation and Public Purpose Act (R&PP) for leases and patents if the BLM determines that granting the R&PP use is in the public interest.

## 1.8 Acquisition Criteria

The following general criteria will be used to evaluate proposals which will result in the acquisition of non-Federal lands or interest in lands through exchange, fee purchase, donation or other transactions. Priority will be determined on the basis of multiple-use analysis. The greater number of resource programs and public values served, the higher the priority for acquisition. All proposals will be evaluated to determine if the non-Federal lands meet any of the following criteria:

1) Acquired lands would meet program objectives for management of recreation resources, wilderness, cultural or historical resources, paleontological resources, wildlife habitat, riparian or wetland areas, or threatened or endangered species.

2) Contain moderate to high resource values and/or characteristics.

    - Land along rivers, streams, lakes, dams, ponds, springs, and trails
    - Riparian areas, community watersheds and/or floodplains
    - Areas that contain T&E species of wildlife or aquatic or vegetation
    - Areas with special status species, plants, animals and fish habitat
    - Significant recreational opportunities

- Provide high recreation or other significant resource or public values
- Significant cultural or historical resources or paleontological resources
- Geologic areas containing unique and/or scarce features
- Areas with important or unique forest/woodland values
- Other areas containing moderate to high resource values and/or characteristics

3) Facilitate access or linkage to public lands and resources.

4) Maintain or enhance the manageability or investment opportunity of existing public lands and resources values and/or characteristics.

5) Maintain or enhance local social and economic conditions.

6) Enhance congressionally designated areas, rivers, or trails.

7) Primarily focused in the "*retention"* areas. (Acquisition outside of retention areas may be considered if the action leads to and/or facilitate long-term needs or program objectives).

8) Facilitate National, state and local BLM priorities or mission statement needs.

9) Will enhance existing or future activity plans on BLM-administered land.

10) Meet long-term BLM land management goals as opposed to short-term BLM land management goals.

11) Are of sufficient size to improve use of adjoin BLM-administered land or, if isolated, large enough to allow for the identified potential public land use.

12) Allow for more diverse use, more intensive use, or a change in uses to better fulfill the Bureau's mission.

13) Enhance the opportunity for new or emerging BLM administered land uses or values.

14) Contribute to a wide spectrum of uses or large number of public land users.

15) Secure for the public significant water related land interests. These interests include lake shore, dam shore, river front, stream, and pond or spring sites.

16) Consolidate mineral estate with surface estate to improve potential development while improving resource management and economic values of existing BLM-administered lands.

17) Acquisition through Purchase or Donation should meet general acquisition criteria.

Exchange would be used as the preferred method of acquisition. Direct purchase would be limited to cases where no practical alternatives exist and high public values would be acquired.

Acquiring lands or interests in lands that present management problems that outweigh the expected benefits of an acquisition should be avoided, including but not limited to:

- Presence of hazardous materials
- Abundance of noxious weeds
- Access situation is inadequate for managing the property for the purpose(s) for which it would be obtained, etc.
- Acquisition of small, isolated tracts

## 1.9 Access Criteria

The BLM shall endeavor to maintain existing access, provide future access, and manage access to BLM administered land in coordination with Federal agencies, state and local governments, and private landowners.

## 1.10 Specific Access Criteria

1) Obtain access to BLM-administered land in retention areas. (Acquisition of access outside of retention areas may be considered if the action leads to and/or facilitates long-term needs or program objectives.)

2) Protect, maintain, and manage existing access to BLM-administered land.

3) Manage access to BLM-administered land within BLM's multiple-use mandate.

4) Acquire access on the basis of the following considerations:

    - Where there are moderate to high resource values on existing BLM-administered land.
    - Where there is public demand which is closely tied to resource values.
    - Where access to larger blocks or parcels of BLM-administered land have priority. The presence of important resource values may justify acquiring access to smaller tracts.
    - For those projects on BLM-administered land in which substantial public monies have been spent, and in which continuing diverse public use is expected, permanent exclusive access for the general public should be obtained. For lesser investment projects and/or those to which general public use will need to be limited, nonexclusive easements should be obtained.
    - Although the Bureau is not required to provide access to mineral resources, the acquisition of such access could be useful in controlling the construction of multiple and unnecessary access routes within the same general area.

## 1.11 Withdrawal Criteria

New withdrawals would be considered if:

1) Other methods are not available to protect valuable resources; or

2) A withdrawal is necessary to transfer jurisdiction of lands to another Federal agency.

## 1.12 Withdrawal Review

Review existing withdrawals on a case-by-case basis. Determine whether the use is consistent with the intent of the withdrawal and whether the withdrawal should be continued, modified revoked or terminated. If it is determined by a withdrawal review that a withdrawal should be revoked or terminated, or a withdrawal expires, the land does not automatically open to operation of the law(s) to which the land was closed. An opening order will be published to notify the public when and to what extent the land will be opened. An opening order may be incorporated in a public land order or termination order that revokes or terminates a withdrawal or may be published in the Federal Register as a separate document. Any land becoming encumbered by withdrawals will be managed in a manner consistent with adjacent or comparable public land within the *Planning Area*.

## 1.13 Withdrawal Revocation

Following revocation of a withdrawal, the lands would be managed according to other provisions for these lands as specified in this RMP.

# 2 RIGHT-OF-WAY AVOIDANCE AND EXCLUSION AREAS PLAN

The *Draft TriCounty RMP/EIS* identified a number of right-of-way avoidance and exclusion areas within the *TriCounty Decision Area*. This approach would allow a right-of-way applicant to review resource area maps to determine what areas are closed to development and which open areas are subject to thorough examination with the potential for application rejection. All applicants would be notified that their project, if placed in an avoidance area, may be subject but not limited to requirements for recontouring and/or revegetating disturbed areas, painting certain above-ground structures to blend with the surrounding landscape and vegetation, and using special tower design and/or pole color.

All designated right-of-way exclusion areas would be closed to all forms of new right-of-way development. BLM Manual 1623.51 A. 1c states that right-of-way exclusion areas are areas where future right-of-way may be granted only when mandated by law. Mining claimants cannot be denied reasonable access to an exclusion area unless the land is withdrawn from mineral entry (see 43 CFR § 3809.0-6). The majority of the right-of-way exclusion areas are within wilderness study areas, areas of critical environmental concern, and areas assigned visual resource inventory class I (Visual Resource Management Class I). Class I is assigned to areas where management decisions have been made to preserve the scenic values within the natural landscape. The objective of this class is to greatly minimize any level of change to the existing characteristic of the landscape. As a point of clarification, it should be recognized that many of the areas or portions thereof discussed within this plan are presently under wilderness review and designated as wilderness study areas. There are 10 wilderness study areas totaling approximately 261,793 acres within the *TriCounty Decision Area*. These lands are presently being managed under the *Interim Policy and Guidelines for Land Under Wilderness Review* dated July 5, 1995, and will continue to be managed until they are either added to the National Wilderness Preservation System or removed from wilderness review. Any right-of-way authorizations granted in these areas after they are removed from wilderness review would be managed under the prescriptions within this plan.

All right-of-way applicants should be aware that a mining claimant may refuse to allow a right-of-way to cross a claim if such claim was located prior to July 23, 1955. In such cases, BLM would reject a right-of-way application request or would help the applicant in the consideration of an alternative route which would be acceptable.

The right-of-way avoidance areas are defined in the BLM Manual 1623.52 as areas where future rights-of-way may be granted only when no feasible alternative route is available. The purpose of the right-of-way avoidance areas is to reduce the likelihood of rights-of-way being placed in these areas. When possible, alternative routes and sites would be considered. The Authorized Officer would closely review goals and objectives for special designated areas identified as avoidance areas in the resource management plan. This process would guide the Authorized Officer to determine which right-of-way applications would be rejected upon submittal or processed for issue. All issued right-of-way grants would be subject to special resource mitigating measures or stipulations. The terms and conditions of all right-of-way grants depend upon the sensitivity of the affected resource, applicable laws and regulations, and management objectives of special designated areas identified in the TriCounty Resource Management Plans. All right-of-way proposals would require the preparation of a site specific environmental analysis to determine impacts and mitigating measures needed to specifically protect sensitive resource values.

The right-of-way avoidance areas also apply to land use leases and permits in accordance with Section 302 of the FLPMA. The special designated areas identified in the Resource Management Plan, including areas of critical environmental concern, special recreation management areas, and special management areas, include management prescriptions which exclude or avoid leases as well as rights-of-way. Leases and permits related to realty or land actions would be discouraged within avoidance areas. In cases when the location of the proposed activity cannot be avoided, the Authorized Officer will analyze it on a case-by-case basis. All leases and permits would be subject to the same review as stated in the paragraph above. All issued leases and permits would be subject to special resource mitigating measures or stipulations. These mitigation measures and/or stipulations prescribed would depend on the sensitivity of the affected resources, applicable laws and regulations, and the objective identified in the RMP.

All expansions of existing right-of-ways, permits, and leases located within the avoidance areas would be avoided. When avoidance is impossible, the proposed expansion would be subject to mitigation measures. The Authorized Officer would closely review the goals and objectives of the management area in which the proposed expansion would occur. This would help determine whether to reject or authorize the proposed expansion. All expansions which significantly conflict with the goals and objectives for special designated areas identified in the RMP would be rejected upon submittal.

When the number of facilities within an avoidance area reaches the point of saturation, the Authorized Officer may determine that no additional authorization will be granted. This determination would be made on the basis of whether the management objectives for the Visual Resource Management class for the area can no longer support additional facilities without jeopardizing the visual quality of the area.

This plan may be modified by the Authorized Officer at any time and is intended strictly as a guideline for the authorization of new proposed right-of-way project within the *TriCounty Planning Area*.

## 3 MINERAL ESTATE DISPOSAL POLICY

Disposal of the mineral estate is possible under Sections 206 and 209 of the FLPMA. It is the policy of the BLM to avoid disposing of the surface estate while retaining the mineral estate unless there are areas of "*known mineral value*," as defined in 43 CFR 2720.0.5. In areas of "*known mineral value*," the mineral estate (and the surface estate if substantial interference to development will result) should be retained except as described below.

Prior to any land disposal a "*mineral value*" determination must be made following a field reconnaissance by a BLM mineral examiner. A mineral report must be written to evaluate the leaseable, locatable, and

saleable mineral potential of each proposed sale or exchange. Under the FLPMA, the conclusion of the mineral examiner will include an opinion as to whether the lands have "*known mineral values*." If professional judgment concludes that the land does not contain "*known mineral values*," the surface and subsurface estate may be conveyed, subject to any existing mining claim(s) or mineral leases.

A mining claim of record under Section 314 of the FLPMA generally prevents an exchange or sale. If the land is under mining claim, the surface should be retained under Federal ownership or the claim examined for validity. However, a validity examination may be waived and the BLM may proceed with the sale or exchange of both the surface and the mineral estate, subject to the existing mining claim(s) if:

- The land meets the criteria for disposal as determined through land-use planning; and
- The land has no "*known mineral value*" as determined by a BLM geologist or mining engineer; and
- The prospective patentee is willing to accept defensible title, preserving whatever rights the mining claimant may have. Conveyance of the surface and mineral estate would be subject to "*existing mining claim(s*)," allowing the mining claimant to apply for and receive full fee patent if a valid discovery were made prior to the date of transfer under Sections 206 or 209, or alternatively, receive patent to the mineral estate only if discovery were made after the original conveyance.

The BLM will proceed with a sale or exchange only after reasonable efforts have been made to secure relinquishment of the mining claims(s). If the mining claimant opposes the action, the Notice of Realty Action protest procedures will apply.

For a direct sale or an exchange, the proponent must be informed early and fully of the potential title conflicts and rights of the mining claimant under the law. The BLM should then proceed only if these conditions are acceptable to the proponent. For a proposed competitive sale, the field office must carefully consider the effect on sale price, likelihood of success, and interests to be served if the sale is made subject to the rights of the mining claimant. If it is clearly in the public interest to proceed, the BLM must secure purchaser waiver of any liability against the United States in the event of subsequent title litigation.

In cases where lands are patented without a reservation of locatable minerals, a FLPMA patent is believed to have standing to bring private contest (43 CFR 4.450) against the mining claim(s). Should he or she do so, the burden is upon the patentee to prove lack of discovery. If the patentee is successful, or if the claims are abandoned or relinquished, the land will not be open to further location, and the patentee will receive full title to the involved locatable minerals.

Mining claim locations and mineral leases for lands in which the surface title has passed under the FLPMA disposal authority may be made only after regulations providing for such locations or leasing have been promulgated. Because these regulations have not as yet been issued, lands disposed of under the FLPMA are subject to de facto withdrawal. Lands disposed of under the FLMPA are not withdrawn from mineral material sales or free-use permits.

All minerals must be reserved if the Federal lands are conveyed out of Federal ownership pursuant to the FLPMA disposal authority, except in the limited instances that follow:

1) Sales
   a) If the public lands proposed for sale are determined to have "*known mineral values*" for locatable, leaseable, or saleable minerals, one of the following courses of action may be taken:
      (1) Reject the offer to purchase or cancel the offer of sale.
      (2) Dispose of the surface estate and reserve all of the mineral interests to the United States.
      (3) Dispose of the surface and convey all or part of the mineral interests under terms set forth in Section 209(b) of the FLPMA.
   b) If the lands have no "*known mineral value*," the mineral interests may be simultaneously disposed of with the surface estate under authority of Section 209(b) of the FLPMA.
2) Exchanges
   a) Public lands which do not have "*known mineral values*" may be offered to exchange without any mineral reservation. This will apply whether or not the non-Federal party in an exchange controls the minerals under his or her land.
   b) If the public lands have some potential for mineral development, reserving the mineral interests is not mandatory as long as the values can be equalized by the payment of money and so long as the payment does not exceed 25 percent of the total value of the land. In any case, normally it is desirable to keep surface and mineral ownership together in an exchange, whenever possible, to eliminate future problems associated with split estate ownership.
   c) If the public land in an exchange are determined to have "*known mineral values*" for locatable, leasable, or saleable minerals, it may be in the public interest to cancel the offer, depending upon the significance of the deposits. The leasable minerals alone can be reserved if significant.

## 4 MINERAL MATERIAL DISPOSAL

The follow mineral material authorizations were active as of 2001:

| SERIAL NUMBER | NAME | EXPIRATION DATE |
|---|---|---|
| **COMMERCIAL CONTRACT EXPIRATIONS** | | |
| 117232 | Sam Mendoza | 11/17/2011 |
| 123894 | JE Wells Santo Tomas | 12/16/2011 |
| 124344 | CMC Construction Spaceport Pit | 3/18/2012 |
| 124248 | Camino Contracting INC. | 7/12/2012 |
| **FREE USE PERMIT EXPIRATIONS** | | |
| 119247 | Doña Ana County Mesilla Dam | 11/5/2012 |
| 117357 | Doña Ana County Chaparral Pit | 4/1/2012 |
| 118100 | City of Las Cruces Tortugas Pond | 4/18/2012 |
| 119201 | LCDO Fossilized Wood | 10/9/2012 |

# APPENDIX N

## SAFETY ZONES FOR RECREATIONAL TARGET SHOOTING

# APPENDIX N
# SAFETY ZONES FOR RECREATIONAL TARGET SHOOTING

## IDENTIFICATION OF SITES WITH SHOOTING RESTRICTIONS

Las Cruces District Office Supplemental Rules (Federal Register, Volume 60, No. 218, page 57014, FR document 95–27596) prohibits the discharge of firearms within ½- mile of developed recreation sites and areas. If recreational target shooting is allowed at or near developed recreation sites and areas, unintentional bullet ricochets or misfires would present an unnecessary risk to public safety (see analysis section below).

The BLM identified the following developed recreation sites in a mapping exercise, then overlaid a ½-mile buffer. The recreation sites and areas are designated trails, associated parking lots, campgrounds, and special recreation areas. The sites and buffer were then described in aliquot part (Table N-1).

The differences between game hunting and dispersed recreational target shooting create different safety issues for either activity. Hunting is a regulated sport in which the following is controlled: season, number of permits, target (animal), number of harvested animals, specific weapon, safety training, and location. Dispersed recreational target shooting is not a regulated sport. For dispersed recreational target shooting there are no controls on location (such as hunting units), time of year, target, choice of weapon, and safety training.

Hunting normally only uses a very small amount of ammunition per person, but often recreational target shooters will use a large amount of ammunition in a very short period of time. Hunting occurs away from people, residences, and in the backcountry while dispersed recreational target shooting regularly occurs in the most readily accessible places (near neighborhoods, roads, etc.). While both sports use weapons; safety, location, intensity, and regulations are the key factors differentiating the two activities. Any closure of public lands to hunting or dispersed recreational target shooting would be for public safety.

## WEAPONS DISCHARGE ANALYSIS

Recreational target shooting contains many hazards based on predictable projectile physics and unpredictable human behavior. The following information depicts industry standards for predictable projectile physics, given a single point of weapon discharge. These standards are used during construction of safe shooting ranges. Surface Danger Zone (SDZ) is a depiction of the mathematically predicted area a bullet will return to earth by direct fire (Gun Target Line or GTL) or ricochet.

| TABLE N-1 | | | | |
|---|---|---|---|---|
| **AREA** | **ACRES CLOSED TO DISCHARGE OF FIREARMS[1]** | | | |
| | **ALTERNATIVE** | | | |
| | **A** | **B** | **C** | **D** |
| **Dripping Springs Natural Area**<br>T. 23 S., R. 3 E., Sections 1 and 2;<br>T. 23 S., R. 4 E., Section 7. | 5,160 | 5,160 | 5,160 | 5,160 |
| **Aguirre Spring Campground**<br>T. 22 S., R. 4 E., Section 29 | 2,325 | 2,325 | 2,325 | 2,325 |
| **Three Rivers Petroglyph Site** | 1,850 | 1,850 | 1,850 | 1,850 |
| **Kilbourne Hole below rim** | 815 | 815 | 815 | 815 |
| **Lake Valley Historic Site** | 190 | 190 | 190 | 190 |
| **Dog Canyon Road**, Otero County, New Mexico<br>(public land in section 17, T. 18 S., R. 10 E.,) | No Decision | 200 | 200 | 200[1]<br>Hunting allowed |
| **Doña Ana Mountains SRMA** | Open to hunting and target shooting | 7,600 | 3,145<br>Closed in:<br>Section 31, T. 21 S., R. 2 E.<br>Sections 5, 6, 7, and 8, T. 22 S., R. 2 E.<br>Sections 1 and 12, T. 22 S., R. 1 E. | 7,600[1]<br>Hunting allowed |
| **Permian Tracks Road**<br>NW¼NW¼, Sec. 29 and N½NE¼, Sec. 30, T. 22 S., R.1 E. and portions of Sec. 19, S½SW¼ Sec. 20, T. 22 S., R. 1 E.<br><br>South of Community Pit #1 and the primary entry way to east side of the Prehistoric Trackways National Monument.<br><br>Encompasses all of the International Boundary & Water Commission mineral withdrawn area (NW¼NW¼, Sec. 29 and N½NE¼, Sec. 30, T. 22 S., R.1 E. - 120 acres); and S½SE¼ and Sec. 19, S½SW¼ Sec. 20, T. 22 S., R. 1 E. | ~100<br>Public land outside of PTNM in T. 22S., R. 1E., Section 19 | ~290 | ~290 | ~290 |
| **Picacho Peak RMZ** | No Decision | 5,350 | 5,350 | 5,350 |
| **Sierra Vista Trail** | No Decision | 15,940 | 15,940 | 15,940 |
| **Soledad Canyon Trail and Area** | No Decision | 935 | 935 | 935 |
| **Baylor Pass Trail** | No Decision | 2,290 | 2,290 | 2,290 |
| **Pine Tree Trail** | No Decision | 850 | 850 | 850 |
| **Tortugas Mtn. SRMA** | No Decision | 970 | 970 | 970 |
| **Tularosa Creek SRMA** | No Decision | N/A | N/A | 585 |
| **TOTAL** | **10,440** | **44,765** | **40,310** | **45,350[2]** |

NOTES: [1]Includes hunting and dispersed recreational target shooting with two exceptions: Alternative D: Dog Canyon, and Doña Ana Mountains SRMA, would be closed to target shooting but open to hunting.

[2] Total acreage closed to target shooting but open to hunting is 7,800 acres.

## PROJECTED AMMUNITION CAPABILITIES

Standardized industry tables exist identifying a host of variations in Distance X, Distance Y, and Distance W for different calibers, types of bullets, and powder charges resulting in a wide range of variability in SDZs. Distance X provides for the maximum distance along GTL that a projectile will travel. Distance Y provides the depth of ricochet area along the GTL and likewise is not a significant concern because most likely the target location is against a hillside. Distance W defines the ricochet area width where uncontrolled projectiles can place the public in harm. However, Distance W is the dominant factor when considering target shooting on public land near developed recreations sites or areas where the public congregate for extended periods of time. Distance W varies from 1/16-mile for the .45 caliber to ½-mile for the 7.62 or .30 caliber, which is North America's most common rifle caliber. Table N-2 identifies distances, in meters, used to construct a typical SDZ for commonly used calibers and factory ammunition.

**TABLE N-2**
**SDZ ELEMENT DISTANCES, IN METERS**

| Caliber | Distance X | Distance Y | Distance W | Distance W + Area A |
|---|---|---|---|---|
| .22 long rifle | 1400 | 1125 | 386 | 404 |
| 9 mm | 1800 | 1211 | 399 | 579 |
| .38 | 1806 | 1258 | 389 | 569 |
| .45 | 1690 | 1111 | 290 | 470 |
| 5.56 (or .223) | 3437 | 2029 | 462 | 642 |
| 7.62 (or .30) | 4100 | 4053 | 861 | 1041 |

## RICOCHET AREA

The types of ammunition, targets, and firing activities dictate SDZ dimensions. A basic SDZ consists of three parts: impact area (dispersion area), ricochet area (Area W), and secondary danger area (Area A and Area B) (see Figure 1). The primary dispersion area established for the impact of all rounds extends five degrees to the left and right limits of weapon discharge and downrange to the maximum range of the ammunition (Gun Target Line or GTL) used. The ricochet area lies to both sides of the dispersion area and extends downrange to the maximum distance of the ammunition used. The ricochet area contains two angles determined specifically by the type and caliber of ammunition being fired. This analysis assumes the following: a single firing point, compliance with shooting safety protocol, using a hillside for a target backdrop, predictable human behavior, and no steel targets. Any of these assumptions, when violated, could greatly increase distance and negate the previously described SDZ. Distance W plus Area A identifies a secondary danger area with decreasing probability of receiving a projectile or debris. This secondary danger area is that area paralleling and 90 meters outside of the outermost limits of the ricochet area and extending downrange to the maximum distance of any ammunition used.

## CONCLUSION

The development of SDZs is used primarily for the construction and management of outdoor shooting ranges, but the BLM used this data to determine a safety zone around areas where the public congregates. In regards to the most common North American rifle caliber, the maximum Distance X for a .30 caliber is approximately 2¼-mile although typical target shooting occurs at distances of 25 to 100 yards. Typically, shooters use hills for backstops and identify their targets so the Distance X is not the main concern regarding target shooting on public land around developed recreation sites or areas where the public congregate. However, this technical data is used to synthesize a practical definition of a rectangle entailing a 2¼-mile by ½-mile SDZ for the most commonly owned rifle caliber. Again, the greatest concern for an area used for target shooting would be the ½-mile lateral deflection or ricochet area.

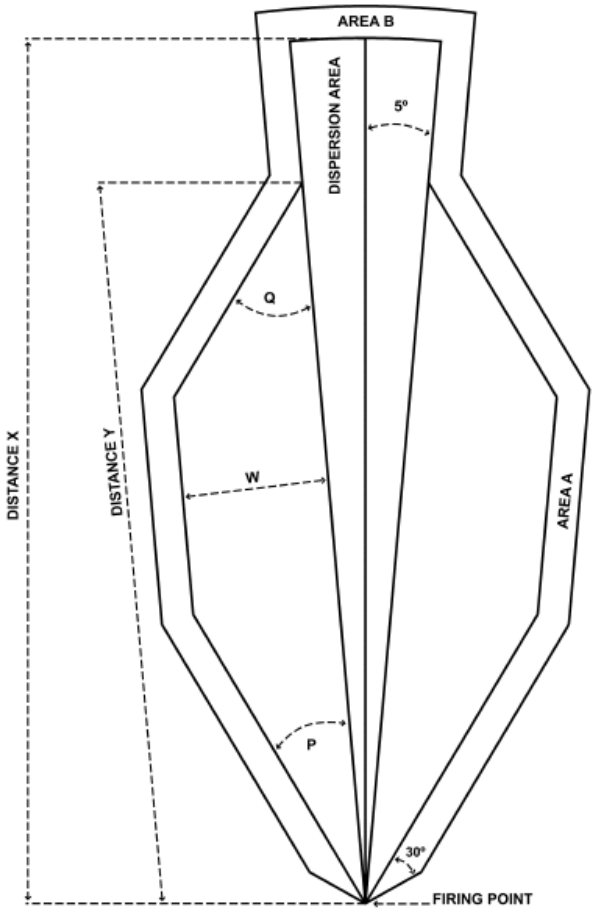



**Figure 1 Batwing surface danger zone (SDZ) for firing small arms direct-fire weapons.**

**Distance X:** maximum distance along GTL that a projectile will travel.
**Distance Y**: maximum distance downrange of which a lateral ricochet is expected to occur when a projectile is fired given elevation.
**Angle P:** beginning angle for the ricochet area measured from the firing point downrange along the edge of the dispersion area.
**Angle Q:** angle measurement downrange, beginning at distance Y along the edge of the dispersion area.
**Distance W:** distance between the outside edge or border of the ricochet area and the outside edge or border of the dispersion area on the SDZ.
**Area A**: identifies a secondary danger area with decreasing probability of receiving a projectile or debris

REFERENCES:

1. Department of Army Pamphlet 385-63. Range Safety. 30 January 2012.

2. Range Design Criteria. US Department of Energy-Office of Health, Safety and Security. 18 November 2008.

3. USMC Range Safety Pocket Guide-Version 1.0. Full version of MCO 3570.1B and DA PAM 385-63.

# APPENDIX O

## OFF-HIGHWAY VEHICLE AREAS AND ROUTE DESIGNATIONS

# APPENDIX O
# OFF-HIGHWAY VEHICLE AREAS AND ROUTE DESIGNATIONS

In 1972, Executive Order 11644 required each Federal agency to designate "*areas and trails*" for off-highway vehicle (OHV) use or restriction and to develop regulations implementing this executive order. The BLM's regulations (43 Code of Federal Regulations [CFR] 8340) established management areas as "*open*," "*limited*," "*limited to existing*," or *"closed"* to off-road vehicle use.

OHV area designations are determined through a comprehensive land use planning process that serves as an adaptive and flexible approach to the management of all activities on public land. As circumstances and conditions have changed over the past several decades, the BLM has made a concerted effort to focus the agency's resources in the development of land use plans by seeking additional funding and staff to address issues associated with the increased population growth near public lands.

Alternatives proposed in this Resource Management Plan (RMP) Revision and Amendment include revised OHV area designation, existing routes within the nine wilderness study areas (WSAs), and existing routes within all areas of critical environmental concern (ACECs) (see Chapter 2 and Tables O-1 and O-2 in this Appendix ).

The TriCounty planning area has identified OHV area designations as follows: "*open*," "*limited*," "*limited to existing*," or *"closed"* to motorized vehicles. Due to incomplete data, the route designation for motorized wheeled travel for the *Planning Area* will occur in a future activity-level route designation plan. Criterion will be developed to determine designated routes. Public participation will be encouraged as part of the route designation planning process. When the route designation plan is complete, designations will change from-**"*limited to existing routes*" to-"*limited to designated routes*"** upon the completion of the respective route designation plan. The route designation plan will be developed within 5 years of the signing of the Record of Decision. Motorized wheeled travel designations will not apply to State, county, or to private or State inholdings. The following information provides definitions of OHV designations and associated terms, a summary of the route inventory and designation process within WSAs, and the alternative route designations.

## 1 DEFINITIONS

Definitions of the BLM's OHV designations and associated terms are listed below. OHV area designations are administrative, allowing management flexibility in response to changes in the environment. All public land areas must be designated as "*open*," "*limited*," or *"closed"* to motorized travel activities. The following terms are defined as stated in 43 CFR 8340.0-5.

- **Off-highway vehicle:** An OHV is any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies. OHV use is subject to operating regulations and vehicle standards set forth in 43 CFR 8341 and 8342.

- **Open area designation:** This designation refers to any area where all types of vehicle use are permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in 43 CFR 8341 and 8342. Open designations generally include areas where there are no compelling resource protection needs, use conflicts, or public safety issues that would warrant limiting OHV use.

- **Closed area designation:** This is an area where OHV use is prohibited. Closures may be necessary to protect resources, ensure visitor safety, or reduce use conflicts. Use of OHVs in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer.

- **Limited area designation:** This is an area restricted at certain times in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following categories: number of vehicles, types of vehicles, time or season of vehicle use, permitted or licensed use only, use on existing roads and trails, use on designated roads and trails, and other restrictions. Limitations may be used to meet specific resource management objectives, protect resources, or public safety.

- **Cross-country travel:** Cross-country travel refers to wheeled, motorized travel by any vehicle (recreational or other), off roads and trails.

  Motorized travel is considered cross-country when:
  - The passage of motorized vehicles depresses undisturbed ground and crushes vegetation.
  - The motorized vehicle maximum width (the distance from the outside of the left tire to the outside of the right tire or maximum tire width for motorcycles) does not easily fit the road or trail profile. However, an all-terrain vehicle traveling within a two-track route established by a pickup truck is not considered cross-country travel.
  - Use of motor vehicles off designated routes is limited to no more than 100 feet and only for the purpose of dispersed camping, parking, or allowing another vehicle to pass. In WSAs, use of vehicles off existing routes is only allowed for the minimum distance necessary to allow another vehicle to pass.
  - Motorized vehicles use livestock and game trails, unless the trails are clearly evident, or continuous single-track routes used by motorcycles over a period of years.

  Motorized travel is not considered cross-country when:
  - Motorized vehicles use constructed roads that are maintained by the oil and gas industry and/or the BLM, unless specifically closed to use through signing and/or gates. Constructed roads are often characterized by a road prism with cut and fill slopes.
  - Motorized vehicles use trails specifically designated for the vehicle being used.
  - Motorized vehicles use clearly evident two-track and single-track routes with regular use and continuous passage of motorized vehicles over a period of years. A route is a track where perennial vegetation is devoid or scarce, or where wheel tracks are continuous depressions in the ground, evident to the casual observer, but are vegetated. While unauthorized routes are not part of the inventory, they are described as post-WSA routes on Maps J-1 through J-41.

- **Limited to existing routes:** Areas where OHV use is limited to routes that already exist.

  The entire route must meet the above specifications. Newly created routes should be easily identified as not meeting the specifications because many portions would not show signs of regular and continuous passage of motorized vehicles and many areas would still be fully

vegetated with no wheel depressions. This definition does have some ambiguity that will continue to exist until formal designation of routes, trails, and areas within the entire *Planning Area* is completed. This definition only applies to cross-country travel in the dispersed area and not to cross-country travel within special management areas. A special management area may have its own management plan that defines regulations for cross-country travel within its boundaries.

## 1.1 Existing Routes and Closure Criterion in Wilderness Study Areas

OHV area designations for WSAs were managed under the *Interim Management Policy and Guidelines for Lands Under Wilderness Review* H-8550-1. This guidance has been updated and superceded by *BLM Manual 6330: Management of Wilderness Study Areas*. The following information provides definitions and information regarding area designations within WSAs, (Travel and Transportation, 1626, BLM Manual).

### 1.1.1 Route Designation Limitations Relating to WSA

In WSAs, motorized and mechanized use may be permitted to continue along existing routes identified in the wilderness inventory conducted in support of Sections 603 and 202 of FLPMA. In these cases, final route classification is delayed until Congressional action is taken or a land use plan decision is made to close those routes to motorized and mechanized use. Primitive roads and motorized/mechanized trails shall not be designated and classified as an asset within a WSA. Any motorized/mechanized linear transportation feature located within these areas will be identified in a transportation inventory as a motorized/mechanized ―primitive route. Primitive routes will not be made a part of the transportation system, classified as a transportation asset, or entered into the Facility Asset Management System (FAMS) unless one of the following conditions is met:

a. The routes are designated as non-motorized and non-mechanized trails, or
b. Congress releases the WSA from Wilderness consideration and the routes are designated (BLM Manual 1626, 06B4)

### 1.1.2 Existing Routes and Area Designation Criterion

The following criteria apply to existing routes within ACECs in the *Decision Area*. Designation criteria are listed in 43 CFR 8342.1, a, b, c, and d as follows:

AREAS AND TRAILS SHALL

a. Be located to minimize damage to soil, watershed, vegetation, air or other resources of the public lands, and to prevent impairment of wilderness suitability.
b. Be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
c. Be located in areas that minimize conflicts between OHV use and other existing or proposed recreational uses in the same or neighboring public land, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
d. Not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that OHV use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which they are established.

Other designation considerations include:

- Routes that provide access to existing rights such as private land.
- Routes that cross or parallel stream courses.
- Routes that provide known access needs for the maintenance of authorized range improvements (pre-Federal Land Policy and Management Act [FLPMA] or other authorized administrative activities).
- Routes that provide access for unique recreational experiences and/or commercial activities (primarily outfitting).
- Routes previously "*closed"* in the White Sands RMP or Mimbres RMP as amended.

## 2 WILDERNESS STUDY AREAS EXISTING ROUTE INVENTORY

Completing OHV area designations within the WSAs (Table O-1) is an important goal in this RMP/EIS. Appendix C of BLM's *Land Use Planning Handbook* directs Field Offices that *"[at] a minimum, the travel management area designation for WSAs must be limited to ways and trails existing at the time the area became a WSA . . . . Existing roads, ways and trails must be fully documented and mapped … ."*

**TABLE O-1**
**WILDERNESS STUDY AREAS WITHIN THE TRICOUNTY RMP DECISION AREA**

| WSA NAME | COUNTY | ACRES | MILES |
|---|---|---|---|
| Aden Lava Flow | Doña Ana | 25,287 | 12.49 |
| Organ Mountains | Doña Ana | 7,283 | 0.95 |
| Organ Needles | Doña Ana | 7,630 | 3.00 |
| Peña Blanca | Doña Ana | 4,470 | 6.12 |
| Robledo Mountains | Doña Ana | 12,946 | 17.00 |
| Las Uvas Mountains | Doña Ana | 11,067 | 5.15 |
| West Potrillo Mountains/Mount Riley | Doña Ana | 157,185 | 93.82 |
| Brokeoff Mountains | Otero | 31,606 | 25.88 |
| Jornada Lava Flow[1] | Sierra[1] | 4,319 | 0 |
| NOTE: [1]Approximately 23,000 acres of the Jornada Lava Flow WSA is Socorro County. | | | |

Under Alternative A, C, and D, vehicle use is limited to ways that existed at the time the areas were designated WSAs in 1980. Any post-1980 ways are "*closed*". Under Alternative B, all ways within WSAs are "*closed*". "*Cherry stem*" routes are not affected as they are, by definition, outside the WSA.

The Las Cruces District Office completed "*vehicular routes [ways]*" inventories for the nine WSAs in the TriCounty area in 1980. In 1993, the *Mimbres RMP* covering Doña Ana, Luna, Grant, and Hidalgo counties limited vehicle use in WSAs to designated ways. However, these designations were never implemented on-the-ground, and the *de facto* designation was one of limiting vehicle use to existing ways. Therefore, to complete a formal designation of vehicle routes in the TriCounty WSAs for the RMP Revision and Amendment required a baseline inventory of those routes that existed at the time of inventory (1980) or prior to the enactment of FLPMA (October 21, 1976). While the 1980 inventory is generally a good representation of what existed on-the-ground at the time, the maps predate current mapping technology and standards. In some cases, the 1980 "*vehicular route*" maps are inaccurate. For example, some of the legal descriptions of "*vehicle access routes*" do not correspond to mapped "*vehicular routes*." In other instances, routes mapped in the 1980 inventory appear to be misplaced or drawn incorrectly.

To facilitate the goal of route-by-route OHV designations in the WSAs, and to improve the integrity of the baseline data used in the planning process, this review was undertaken to integrate the old WSA route

inventory into the BLM's geographic information system. The following discussion outlines the interpretive process and methodology used to make changes or corrections in the 1980 inventory.

## 2.1 Data Used

The following sources of information were reviewed during the route inventory. Much of these data have been verified on-the-ground with global positioning system (GPS) technology. All available data were reviewed to verify the extent of the existing routes at the time of the wilderness inventory. Many of the access routes within WSAs have been accurately recorded using the GPS over the past 5 to 10 years:

**"*Vehicular Routes*" Maps, *Intensive Wilderness Inventory Report* (IWIR), March 1980:** These maps were intended as a complete inventory of existing WSA routes, or ways (pre-FLPMA). Each map was hand drawn at a scale where 0.5 inch equaled 1 mile. The maps are crude and in black and white, and they show no features other than township and range, the WSA boundary, and approximate locations of routes. Upon careful inspection, it is clear that the path and length of some of the routes are incorrectly drawn and located on the map. In other instances, mapped routes do not correspond to any verifiable intrusion or disturbance when compared to research against the historical record.

**"*Vehicle Access Routes*" Descriptions, IWIR, March 1980:** Each of the mapped routes identified above correspond to written descriptions in the IWIR. These written descriptions include the approximate length of the route along with a legal description. Routes are sometimes described as "*two-track*," "*substantially unnoticeable*," and "*jeep trail*." In some cases, these descriptions do not correspond to the location of the mapped route(s).

**Assorted Working Maps and Descriptive Text Found in the IWIR, March 1980:** Several maps and written inventory included in the 1980 IWIR--maps that describe photographic points, maps that identify intrusions (other than vehicle routes), county highway maps, maps labeled as IWIR maps, photocopied U.S. Geological Survey 7.5-minute series maps, and maps found in the BLM Las Cruces District's *Final Wilderness Inventory Report: Volume II.*

**1980 Aerial Photographs:** The flight covered the WSAs but not the entire *Decision Area*.

**BLM Las Cruces District Office Digitized Transportation, Road, and Trail Inventory:** These data are an ongoing Las Cruces District Office inventory of both improved and unimproved roads and trails throughout the Las Cruces District Office area. Transportation system information has been digitized for each 1:24,000 topographic map (7.5 minute).

## 2.2 Data Interpretation and Review

Using the vehicular routes maps included in the 1980 IWIR as baseline data, all routes were reviewed to match them against and confirm their existence with at least one other data set, historical or current. Most of the routes in the 1980 inventory were easily authenticated. The data include both GPS information and routes digitized from orthographically projected photographic quads and aerial photography.

In some instances, mapped vehicle access routes did not clearly correspond to any route(s) that have been mapped or photographed either on or before the 1980 IWIR. Under these circumstances, available spatial data were interpreted to discover nearby routes bearing a meaningful resemblance in shape and length to the IWIR-mapped route(s). These routes were also relocated and digitized.

In review of the entire record, current conditions on-the-ground can and do vary from the 1980 inventory. Some routes have disappeared or have been revegetated through lack of use, and new routes have appeared as a result of unauthorized use. Unauthorized routes are closed under all alternatives. Photocopies of all maps and the inventory, text, and aerial photographs used can be found at the Las Cruces District Office.

Under Alternative A, C and D, vehicle use is limited to ways that existed at the time the areas were designated as WSAs. For all but two of the WSAs, this designation occurred in 1980. The Organ Needles and Peña Blanca WSAs occurred in 1993. Ways that have been developed since the areas were designated as WSAs are "*closed"*. Under Alternative B, all ways are "*closed*".

## 3 ACEC EXISTING ROUTE INVENTORY AND AREA DESIGNATION

Existing vehicle routes in Areas of Critical Environmental Concern (ACEC) were determined from the BLM Las Cruces District geographic database. This database is upgraded as new or better information is accumulated. Area designations and closures in ACECs were based on the same criteria identified above. In most cases, area designations varied for each of the ACECs across the alternatives. Table O-2 lists the ACECs and management actions proposed under each alternative.

| TABLE O-2<br>ROUTE DESIGNATIONS IN ACECS BY ALTERNATIVE | | | | |
|---|---|---|---|---|
| **ACEC NAME** | **ALTERNATIVE A** | **ALTERNATIVE B** | **ALTERNATIVE C** | **ALTERNATIVE D** |
| Aden Lava Flow Research Natural Area | Existing (Map J-7) | Existing (Map J-7) | No ACEC | No ACEC |
| Organ/Franklin Mountains | Existing (Maps J-8,9) | | | |
| Los Tules | Existing (Map J-10) | | | |
| Robledo Mountains | Existing (Map J-11) | | | |
| Doña Ana Mountains | Existing (Map J-12) | | | |
| Rincon | Existing (Map J-13) | | | |
| San Diego Mountain | Existing (Map J-14) | | | |
| Three Rivers Petroglyphs | Existing (Map J-15) | | | |
| Sacramento Escarpment | Existing (Map J-16) | | | |
| Cornudas Mountain | Existing (Map J-17) | | | |
| Alamo Mountain | Existing (Map J-18) | | | |
| Wind Mountain | Existing (Map J-19) | | | |
| Alkali Lakes | Existing (Map J-20) | | | |
| Broad Canyon | No ACEC | Existing (Map J-21) | No ACEC | No ACEC |
| Tortugas Mountain | No ACEC | Existing (Map J-22) | No ACEC | No ACEC |
| Brokeoff Mountain | No ACEC | Existing (Map J-23, 24) | Existing (Map J-25) | No ACEC |
| Cornucopia | No ACEC | Existing (Map J-26) | No ACEC | No ACEC |
| Pup Canyon | No ACEC | Existing (Map J-27) | | No ACEC |
| Sacramento Mountains, North and South | No ACEC | Existing (Map J-28) | | No ACEC |
| Six Shooter Canyon | No ACEC | Existing (Map J-29) | | No ACEC |
| Tularosa Creek | No ACEC | Existing (Map J-30) | No ACEC | No ACEC |
| Van Winkle Lake | No ACEC | Existing (No Map) | | No ACEC |
| Jarilla Mountains | No ACEC | Existing (Map J-31) | No ACEC | No ACEC |
| Caballo Mountains | No ACEC | Existing (Map J-32) | No ACEC | No ACEC |
| Mud Mountain | No ACEC | Existing (Map J-33) | | No ACEC |
| Nutt Mountain | No ACEC | Existing (Map J-34) | No ACEC | No ACEC |
| Picacho Peak | No ACEC | Existing (Map J-36) | | No ACEC |
| Southern Caballo Mountains | No ACEC | Existing (Map J-37) | No ACEC | No ACEC |
| Percha Creek | No ACEC | Existing (Map J-38) | No ACEC | No ACEC |
| East Potrillo Mountains | No ACEC | Existing (Map J-39) | No ACEC | No ACEC |
| Otero Mesa Grassland | No ACEC | Existing (Map J-40) | | No ACEC |

# APPENDIX P

# WILD AND SCENIC RIVERS ELIGIBILITY EVALUATION

# APPENDIX P
# WILD AND SCENIC RIVERS ELIGIBILITY EVALUATION

**TABLE OF CONTENTS**



## 1 Introduction to the Wild and Scenic River Act and BLM Planning

Congress enacted the Wild and Scenic Rivers Act (WSRA; 16 USC 1271-1287) on October 2, 1968, to protect certain selected rivers with their immediate environments in a free flowing state for the benefit of present and future generations. Section 5 (d) (1) of the WSRA directs Federal land management agencies to consider potential Wild and Scenic Rivers (WSRs) in their land and water planning processes, stating, "*In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas*."

## 1.1 The Study Process

The Bureau of land Management (BLM) evaluates identified river segments for their eligibility and suitability for Wild and Scenic River (WSR) designation through its Resource Management Plan (RMP). WSR studies consist of the following steps:

- **Eligibility Determination:** An inventory of river features is conducted to determine which rivers are eligible to be added to the National Wild and Scenic River System (NWSRS).
- **Classification:** All eligible river segments are tentatively classified as wild, scenic, or recreation.
- **Suitability Determination:** The BLM evaluates eligible river segments during the development of the Resource Management Plan and then recommends whether or not rivers should be protected by Congress through inclusion in the NWSRS.

River segments are only added to the NWSRS through an act of Congress or by an act of the legislature of the State upon submission by the Governor and approval by the Secretary of the Interior. This report documents the identification of river segments in the Las Cruces District Office *TriCounty RMP Decision Area* (BLM-administered land in Sierra, Otero, and Doña Ana Counties) to be evaluated for inclusion in the NWSRS, and the eligibility determination and tentative classification for those river segments.

The steps used for WSR eligibility evaluation are:

- Identification of which rivers and river segments to include in the evaluation;
- Evaluation of rivers and river segments for free-flowing status;
- Evaluation of rivers and river segments for the presence of outstandingly remarkable values; and
- Determination of the tentative classification of rivers as wild, scenic, or recreational.

## 1.2 Identification of Rivers, Streams and River Segments

The Las Cruces District Office reviewed maps, documents, and expert opinion to establish an initial list of waterways to evaluate for eligibility. The WSRA defines a river as "*a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes*."

Ephemeral waterways, which contain water only in response to local precipitation events, were not inventoried for eligibility; however, intermittent streams, which contain a predictable seasonal flow of water, were included in the inventory. River segments identified for inventory were (Table P-1).

**TABLE P-1**
**TRICOUNTY RMP RIVER SEGMENTS IDENTIFIED FOR WSR INVENTORY**

| River Segment Name | Location Legal Description | County | Length on BLM in Miles | Free Flowing? |
|---|---|---|---|---|
| Rio Grande | T., 21 S., R., 1 W., Sec. 23 | Doña Ana | 0.55 | N |
| Sacramento River | T., 20 S., R., 13 E., Sec. 3 | Otero | 0.25 | N |
| Tierra Blanca | T., 17 S., R., 7 W., Sec. 13 | Sierra | 0.9 | N |
| Cuchillo Negro Warm Springs and Creek | T., 12 S., R., 7 W., Sec. 9 | Sierra | 0.52 | Y |
| Percha Creek | T., 16 S., R., 7 W., Sec. 14 | Sierra | 1.0 | Y |
| Three Rivers | T., 11 S., R., 9 E., Sec. 21 | Otero | 0.57 | Y |
| Tularosa Creek | T., 13 S., R., 10 E., Sec. 32 | Otero | 1.4 | Y |
| Palomas Creek | T., 13 S., R., 8 W., Sec. 19 | Sierra | 0.15 | Y |

## 1.3 Evaluation of Eligibility

The eligibility inventory criteria are: the river must be free flowing and, with its adjacent land area, possess one or more outstandingly remarkable value. The determination of eligibility is part of the inventory process and does not require a decision or approval document. Three rivers in the initial inventory, the Sacramento River, the Rio Grande, and Tierra Blanca were determined to not be free flowing and were dropped from further evaluation.

### 1.3.1 Cuchillo Negro Creek

**Free Flowing:** The segment of Cuchillo Creek on BLM land that is free-flowing is 0.5 mile in length.

**Outstandingly Remarkable Value:** Cuchillo Negro Creek has been designated as Critical Habitat for the Federally-threatened Chiricahua leopard frog. Two springs on BLM land are the source of stream that runs for about 6.0 miles down Cuchillo Negro Creek; however, Chiricahua leopard frogs are rarely found more than 1.2 miles downstream of the warm springs. Critical habitat begins at the upper of the two springs and follows Cuchillo Negro Creek downstream to the confluence with an unnamed drainage that comes in from the north, excluding the portion of Cuchillo Negro Creek on privately-owned land, for an

approximate stream distance of 2,518 feet. Special management is required in this unit because chytridiomycosis, a fundal disease, is present in this population, and it is likely that Chiricahua leopard frogs persist where the water is warm, but succumb to the disease in the cooler waters downstream. Chiricahua leopard frogs currently persist in very low numbers in this recovery unit (Federal Register Vol. 77. 54 March 21, 2012).

### 1.3.2 Percha Creek

**Free Flowing:** The segment of Percha Creek on BLM land that is free-flowing is 1.0 mile in length.

**Outstandingly Remarkable Value:** Wildlife habitat along the riparian corridor is exceptional. Dominated by Fremont cottonwood and Goodding willow, it also supports a diversity of riparian species such as velvet ash, Arizona walnut and box elder. The stream flows through a steep-walled box canyon into a more open canyon. The site supports a population of beaver, which is highly significant for the region. The nearest population of beaver would be along the Rio Grande, over 12 miles to the east. The riparian vegetation within the box canyon, although existing within a rather short stretch, is considered to be one of the best remaining examples of the habitat type in New Mexico. The segment provides exceptionally high-quality habitat for at least Rio Grande sucker and possibly other indigenous fish.

### 1.3.3 Three Rivers

**Free Flowing:** The segment of Three Rivers on BLM land that is free-flowing is 0.56 miles in length.

**Outstandingly Remarkable Values:** The Three Rivers area was home to prehistoric farmers from approximately A. D. 200 to A. D. 1450. As yet unknown events took place around A. D. 1450 that caused the virtual abandonment of this part of southern New Mexico. The first bench along the river was the site of numerous early pithouses and later pueblos. The river provided water for agriculture that was the focus of people's lives in this area. These hundreds of homes were not occupied at the same time. Rather people moved around on the bench to slightly different locations as the types of homes they were building changed. Later, during the historic period and until today, farming along the river persists. The crops grown today are alfalfa and grass hay for cattle rather than foods to sustain people. The cultural resources along Three Rivers meet the standards for important riverine-based human adaptation through time.

### 1.3.4 Tularosa Creek

**Free Flowing:** The segment of Tularosa Creek on BLM land that is free-flowing is 1.4 miles in length.

**Outstandingly Remarkable Values:** Along the finger mesas above the Tularosa River are a number of pueblos that relied on the water from that river to grow the same kinds of corn, beans, and squash crops that were grown along the Three Rivers drainage. The best dates BLM has for this occupation currently indicate that the peak of occupation here fell between A. D. 1000 and A. D. 1450.

During the latter part of the 1800s, during the New Mexico Territorial period, the areas adjacent to the Tularosa River were again occupied by farmers who grew crops for their own subsistence as well as some for sale. These people either created their own river-based irrigation system, or reused the existing prehistoric irrigation system, or, more likely, used a combination of the two systems to provide water for themselves and for their crops and animals. This historic use of the area was taking water that was also needed for the growing community of Tularosa that is located downstream. This conflicting use of the water led ultimately to the Lincoln County War that involved such notable people as Albert Fall and William (Billy the Kid) Bonney.

The Tularosa River has a prehistoric and historic relationship to the settlement and development of the east side of the Tularosa Bolson. Its associations with the causes of the Lincoln County War are sufficient alone to meet the standards for important, riverine-based human adaptation through time. This river was a focal point for people's survival in this part of the southern New Mexico for a very long period.

### 1.3.5 Palomas Creek

**Free Flowing:** The segment of Palomas Creek on BLM land that is free-flowing is 0.14 mile in length.

**Outstandingly Remarkable Value:** The segment provides exceptionally high-quality habitat for at least Rio Grande sucker and possibly other indigenous fish.

**TABLE P-2**
**LAS CRUCES DISTRICT OFFICE RIVER AND STREAM SEGMENTS ANALYZED FOR WSR ELIGIBILITY**

| Name | Portion of Segment Only On BLM Land (miles) | Free-Flowing Determination ? | Outstandingly Remarkable Values | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Scenic | Recreation | Geologic | Fish | Wildlife | Historic | Cultural | Other | Eligible? |
| Tierra Blanca | 0.9 | N | | | | | | | | | N |
| Sacramento | 0.25 | N | | | | | | | | | N |
| Rio Grande | 0.55 | N | | | | | | | | | N |
| Cuchillo | 0.52 | Y | | | | | Y | | | | Y |
| Three Rivers | 0.56 | Y | | | | | | | Y | | Y |
| Tularosa | 1.4 | Y | | | | | | Y | Y | | Y |
| Percha | 1.0 | Y | | | N | Y | Y | | Y | | Y |
| Palomas | 0.15 | Y | N | | N | Y | | | | | Y |

## 2 Tentative Classification of Eligible Rivers

All eligible river segments are given a tentative classification (BLM Manual 6400). Classifications are:

**Wild River Areas:** Rivers or sections of rivers that are free from impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America. Wild means undeveloped; roads, dams, or diversion works are generally absent from a quarter mile corridor on both sides of the river.

**Scenic River Areas:** Rivers or sections of rivers that are generally free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. Scenic does not necessarily mean the river corridor has to have scenery as an outstandingly remarkable value; however, it means the river segment may contain more development than a wild segment and less development than a recreational segment.

**Recreational River Areas:** Rivers or sections of rivers are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past. Parallel roads or railroads, existence of small dams or diversions can be allowed in this classification. A recreational river area classification does not imply that the river will be managed or prioritized for recreational use or development.

| TABLE 3<br>TENTATIVE CLASSIFICATION OF ELIGIBLE STREAM SEGMENTS:<br>WILD, SCENIC OR RECRETATIONAL | | | |
|---|---|---|---|
| **River** | **Length in miles** | **Tentative Classification** | **Comments** |
| Cuchillo Negro | 0.52 | *Scenic* | Accessible by road. Small earthen diversion for acequia present. |
| Percha | 1.0 | *Scenic* | Accessible by road. Roads and development occur within the ¼-mile corridor but are not obvious. |
| Three Rivers | 0.56 | *Recreational* | Nearby agricultural practices, a highway, and BLM visitor recreation developments can be observed from the river. |
| Tularosa | 1.4 | *Recreational* | US Highway 70 parallels the Creek. |
| Palomas | 0.15 | *Scenic* | Nearby mining activity and private development (houses). Accessible by road. |

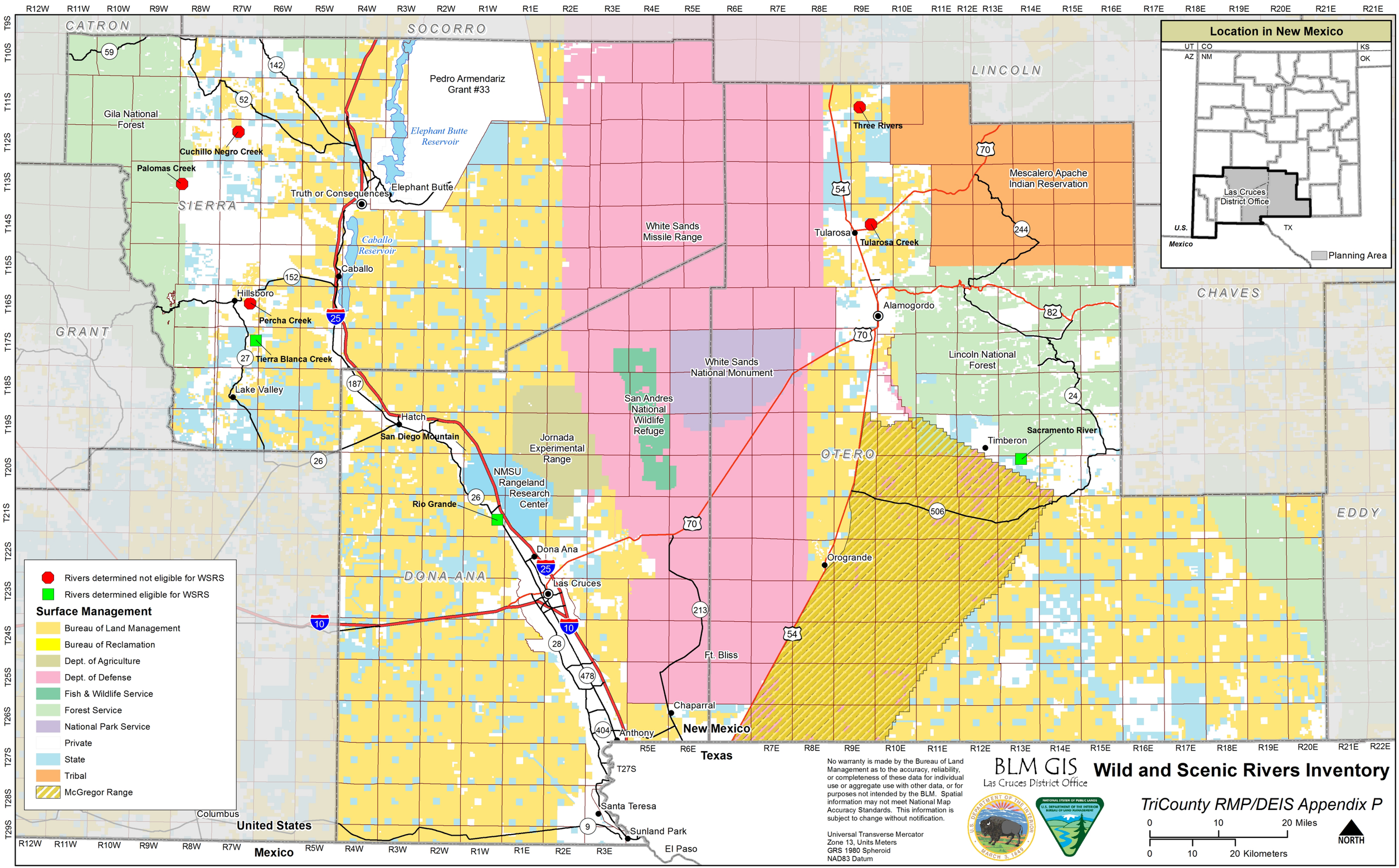
# 3 Suitability Analysis

The Las Cruces District Office WSR ID Team considered factors that would determine if a river segment was suitable for inclusion in the NWSR based on the Suitability Factors described in the BLM 6400 Manual. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any outstandingly remarkable values to assure a decision on suitability can be made for eligible rivers. The BLM has broad discretionary authority, on a case-by-case basis through project-level decision making and the NEPA processes, not to impact river values or make decisions that might lead to a determination of ineligibility or nonsuitability.

| TABLE 4<br>SUMMARY OF THE SUITABILITY ANALYSIS FOR INCLUSION OF ELIGIBLE SEGMENTS INTO THE NATIONAL WILD & SCENIC RIVER SYSTEM. | | | | | |
|---|---|---|---|---|---|
| **Suitability Analysis** | **Eligible River Segment** | | | | |
| | **Cuchillo Negro** | **Percha** | **Three Rivers** | **Tularosa** | **Palomas** |
| **Should the river's ORVs and free-flowing condition be protected or are there other high priority uses?** | Protection | Protection | Protection | Protection | Protection |
| **Will the river's ORVs and free-flowing condition be protected through designation?** | No-BLM controls spring site. | No-Many private upstream users. | No-Many private upstream users. | No-Many private upstream users. | Yes-USFS upstream land owner. |
| **Is designation the best method for protecting the river?** | No. All segments are very small percentages of each river system. In each instance, the BLM controls just 0.15 to 1.4 miles of stream directly (0.4 to 5% of stream length). | | | | |
| **Appropriate Suitability Factors** | | | | | |
| **What are the characteristics worthy of addition to NWSRS?** | Presence of Chiricahua leopard frog. | High quality riparian habitat. Important genetic fish stocks. | Desert stream supported prehistoric and historic cultures. | Desert stream supported prehistoric and historic cultures. | Isolated stream segment with important indigenous fish stocks. |
| **What are zoning and other controls to protect ORVs?** | Endangered Species Act Critical Habitat for the frog. | ACEC | Archeological Resources Protection Act (ARPA)<br><br>ACEC | ARPA Antiquities Act<br><br>ACEC | Land Use Plan Decisions: Right-of-way exclusion. |
| **What is the segment's contribution to river basin integrity?** | River basin highly altered. Segment a refugium for aquatic/ riparian species. | River basin highly altered. Segment a refugium for aquatic/ riparian species. | River system highly altered. | Provides an important contribution to river basin integrity. | River basin highly altered. Segment a refugium for aquatic/ riparian species. |

# 4 WSR Interdisciplinary Team

| | |
|---|---|
| Corey Durr | Hydrologist/Geology |
| Tim Frey | Fisheries Biologist |
| David Legare | Cultural Resources Specialist |
| Margie Guzman | Wildlife Biologist |
| Jennifer Montoya | Team Leader, Planning & Environmental Coordinator |
| Tom Phillips | Recreation and Cultural Resources Manager |
| Joe Sanchez | Recreation and Visual Specialist |

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Universal Transverse Mercator
Zone 13, Units Meters
GRS 1980 Spheroid
NAD83 Datum

BLM GIS
Las Cruces District Office

# Wild and Scenic Rivers Inventory

*TriCounty RMP/DEIS Appendix P*

0 10 20 Miles
0 10 20 Kilometers

NORTH