Bureau of Land Management, Roswell Field Office

Environmental Assessment Checklist, DOI-BLM-NM-P010-2013-468-EA

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	/s/ Michael McGee SWA Spec/Hydro	11/13/2013
Soils			X	X		
Watershed Hydrology			X	X		
Floodplains			X	X		
Water Quality - Surface			X	X		
Water Quality - Ground		X			/s/ Michael McGee Geologist/Hydrologist	11/13/2013
Cultural Resources	X				/s/ Jeremy Iliff Archeologist 14-R-003A	11/5/2013
Native American Religious Concerns	X					
Paleontology			X	X	/s/ Al Collar geologist	11/7/2013
Areas of Critical Environmental Concern		X			/s/Glen Garnand Plan & Env. Coord.	11/13/2013
Farmlands, Prime or Unique	X				/s/Tate Salas Realty	11/12/2013
Rights-of-Way	X					
Invasive, Non-native Species			X	X	/s/ Helen Miller Range Mgmt. Spec.	11/6/2013
Vegetation			X	X		
Livestock Grazing		X				
Wastes, Hazardous or Solid		X			/s/ Al Collar geologist	11/7/2013
Threatened or Endangered Species	X				/s/ Randy Howard	9/18/2013
Special Status Species	X					
Wildlife			X	X		
Wetlands/Riparian Zones	X					
Wild and Scenic Rivers	X				*/s/ Michael J. Bilbo* Recreation, VRM & Cave Specialist	9/17/2013
Wilderness	X					
Recreation		X				
Visual Resources			X	X		
Cave/Karst			X	X		
Environmental Justice		X			/s/ Al Collar geologist	11/7/2013
Public Health and Safety		X				
Solid Mineral Resources		X			/s/ Al Collar Geologist	11/7/2013
Fluid Mineral Resources		X			/s/ John S. Simitz Geologist	10/28/2013

Bureau of Land Management
Pecos District, Roswell Field Office
Allot. #63600: Fort Stanton NCA
Range Improvement Project: Salado Pipeline, Storage, and Trough Relocation
DOI-BLM-NM-P020-2013-468-EA

CHAPTER 1. INTRODUCTION

1.1 Background

Salado Pipeline, Storage, and trough relocation in Fort Stanton National Conservation Area (NCA) is proposed in response to increased recreational interaction. Recently, there has been an increase in camping near the Salado well by visitors who are not aware of any prohibition to such camping. The existing tubs serve as a primary water source for wildlife, especially during drought years. The relocation of the troughs will reduce wildlife disturbance due to recreational activity, by eliminating accessibility via the main road in the Salado region. The proposed location is approximately 1.5 miles north of Highway 380 in the Salado pasture on federal lands in Township 9 S. Range 15 E. Section 8, in Lincoln County, New Mexico.

Preparing Office:

Pecos District, Roswell Field Office
2909 W. 2nd Street
Roswell, NM 88201

1.2 Purpose and Need for Action

The purpose of the Action is to relocate primary water source for wildlife. The need for relocation of the troughs and pipeline, will reduce recreational intrusion by reducing accessibility.

1.3 Decision to be Made

The BLM will decide whether or not to approve the request to relocate and construct the proposed project, and if so, under what terms and conditions.

1.4. Conformance with Applicable Land Use Plans

The proposed activity is consistent with the management actions and prescriptions identified in the 1997 Roswell Resource Management Plan (RMP) and Fort Stanton Area of Critical Environmental Concern (ACEC).

Relationships to Statutes, Regulations, or Other Plans

The proposed action and alternatives are consistent with the Federal Land Policy and Management Act of 1976, the Endangered Species Act, as amended, the Rangeland Management Plan (1997) and the Fort Stanton Plan ACEC. There are no known inconsistencies between the proposed action and alternatives described in this document and officially approved and adopted resource related plans of other federal agencies, State and local governments, and Indian tribes.

1.5 Scoping, Public Involvement, and Issues

The Roswell Field Office (RFO) publishes a NEPA log for public inspection. This log contains a list of proposed and approved actions in the field office. The log is online as well as the BLM New Mexico website. (http://www.blm.gov/nm/st/en/prog/planning/nepa_logs.html).

The RFO also uses Geographic Information Systems (GIS) in order to identify resources that may be affected by the proposed action. A map of the project area is prepared to display the resources in the area and to ascertain potential issues. The proposed action was circulated among the RFO specialists in order to identify any issues associated with the project. The issues that were raised include:

- Will proposed action impact soil erosion?
- How will the proposed action impact biological soil crusts?
- Will vegetation in the project area be impacted?
- Will noxious weeds be impacted?
- How would the proposed action impact big game in the project area?
- Will cultural resources be impacted?
- How will proposed action impact the Visual Resource Management (VRM)?
- How will proposed action impact recreation?

CHAPTER 2. PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The proposed action is to eliminate present troughs from corral area and extend pipeline, storages, and two troughs approximately 0.32 north and 0.36 miles east to benefit wildlife and to reduce public intrusion at the Salado Well. This project will be completed upon the availability of Operation and Range personnel as well as equipment needed (dozer). Operations and Range personnel will conduct the project installation and supply the equipment necessary for installation. The Pipe, storages and troughs are on hand for the completion of this project.

Extensions of the existing pipeline will be required in order to set the new troughs and storages. This pipelines will extend 0.32 miles north and 0.36 miles east to the proposed sites and will be buried 18 inches underground using 1 ¼ inch black polyethylene pipe. The pipeline will cross an intermittent drainage deriving from Gyp Spring Canyon and proceed north. The pipeline going east will tie into new line going north so that the drainage is only crossed once. Once the pipeline is in place, maintenance and routine inspection of this project must be maintained in such a way that ground disturbance will be kept to a minimum.

The proposed storage tanks will be above ground low-profile 1,200-1,500 gallon polyethylene tanks and will be located approximately 30-50 feet away from the troughs. The storages will improve the reliability and availability of water for wildlife. The north trough and storage will be approximately 0.32 miles north of original placement by the existing solar well. The east trough and storage will be approximately .36 miles east that is close to a hill top that will provide coverage and still maintain proximity to existing horse trail (150 yards).

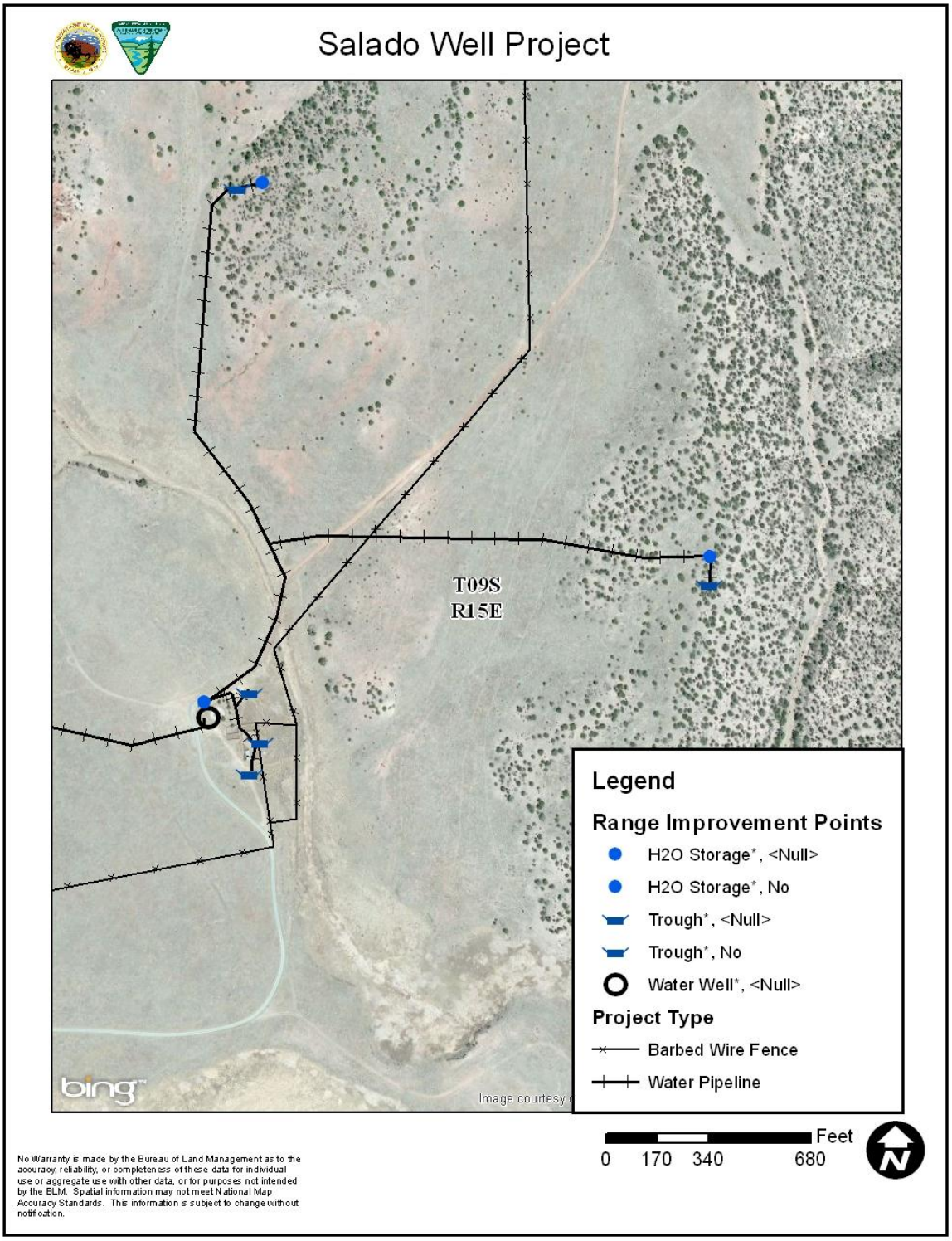
If paleontological resources (large, conspicuous or of significant scientific value) are discovered during surface disturbing activities or construction of the project, the find will be reported to the Authorized Officer immediately. Surface disturbing activities and construction operations will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved

professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

2.2 Alternatives Considered but Eliminated from Detailed Analysis

Installing a pipeline in a southerly direction would enter the flood plain of Salado Creek which floods on a regularly basis during the rainy season. There is an existing pipeline west of the well approximately one mile from existing well. However, the distance and the elevation increase have proven to be very problematic due to the solar panel being damaged, which results in loss of water pressure and prevents water reaching the storage and trough at the top of the hill.

FIGURE 1. MAP OF THE PROPOSED ACTION



2.3 No Action

The No Action Alternative generally means that the proposed activity will not take place. This option is provided in 40 CFR 1502.14(d). This alternative would deny the approval of the proposed action, and the

current land and resource uses would continue to occur in the proposed project area. No mitigation measures would be required.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Allotment #63600 is located in Lincoln County at the Fort Stanton ACEC. It consists of the Salado Arroyo, rolling, grass covered hills, and juniper bushes scattered around the region. Currently, there are no grazing authorizations on Fort Stanton, but various types of recreation are present, such as camping and horseback riding. Also, there are old corrals present that are currently used for trespass or collection of stray animals. The Fort Stanton ACEC has not been surveyed, therefore are no aliquot parts.

Affected Resources

The critical elements of ACEC's, Prime or Unique Farmlands, Native American Religious Concerns, Hazardous or Solid Wastes, Solid Mineral Resources, Wetland and Riparian Zones, Wild and Scenic Rivers, Low Income/Minority Populations and Wilderness will not be affected.

3.1. Soils

The Soil Conservation Service, now the Natural Resource Conservation Service (NRCS), has surveyed the soils in Lincoln County. Complete soil information is available in the Soil Survey of Lincoln County, New Mexico, (USDA Soil Conservation Service 1983) and online at http://websoilsurvey.nrcs.usda.gov/app/. The soil map units represented in the project area are:

Pena-Dioxice complex, moderately sloping, 3 to 15 percent slopes (58) Permeability of the Pena soil is moderate. Runoff is medium, and the hazard of water erosion is moderate. The hazard of soil blowing is moderate.

Reventon loam, 0 to 3 percent slopes (70) Permeability of the Reventon soil is moderately slow. Runoff is medium, and the hazard of water erosion is moderate. The hazard of soil blowing is moderate.

Reventon loam 3 to 8 percent slopes (71) Runoff of the soil is medium. Permeability is moderately slow. The hazard of water erosion is moderate. The hazard of soil blowing is moderate.

Tortugas-Rock outcrop association, moderately sloping, 0 to 15 percent slopes (90) Runoff of the soil is rapid. Permeability is moderate. The hazard of water erosion is high. The hazard of soil blowing is slight.

3.1.1 Proposed Action

Direct and Indirect Effects

The proposed catchments would result in the short-term surface disturbance of up to 1.0 acre at each location resulting from construction and installation of the troughs, storage, pipeline, as well as equipment and materials being spread out on site during the construction. Direct impacts resulting from the construction of the project include removal of vegetation at project construction sites, exposure of the soil, compaction by wildlife, loss of top soil productivity and susceptibility to wind and water erosion. Wind erosion would be expected to be a minor contributor to soil erosion.

Mitigation Measures

No seeding will be required. The disturbed area should naturally re-vegetate within two growing seasons or less with adequate precipitation, resulting in cessation of project related erosion or runoff.

3.2 Range

While Fort Stanton is considered to be a BLM allotment it is not currently authorized for grazing use under the Taylor Grazing Act. Water locations have been established over the years, when New Mexico State University was involved with the ACEC, followed by the short period of use by BLM as a Bid grazing allotment. These water locations have been maintained for use by wildlife and in some instances, for use by horseback riders during recreational events.

3.2.1 Proposed Action

Direct and Indirect Effects

As no authorized grazing by livestock is currently ongoing at Fort Stanton, no increase or decrease in Animal Unit Months will occur. Water will continue to be available for wildlife and horses during recreational events.

Mitigation Measures

None required.

3.3 Vegetation

Drainages/Draws/Canyons Community Type (DDC)

The primary consideration in listing range sites under this community type is topography influenced by drainage of water from adjacent sites. Examples include steep to very steep slope faces of mesas or canyons, gently sloping to moderately steep canyon walls, hillsides, and bottoms of broad major

drainages. The resource area is dissected by many drainages due to the influence of the Sierra Blanca and Capitan Mountains to the west and the LIano Estacado to the east. These drainages are also referred to as arroyos, draws, canyons and xeroriparian areas. These watersheds eventually drain into the Pecos River, which bisects the resource area from north to south.

This community type supports a more varied vegetation composition than the surrounding communities. This community type is directly influenced by runoff from seasonal storms (usually summer and winter) with brief, intermittent flows. This type is found in all of the other community types, but to a lesser extent in the Mixed Shrub Malpais and Shinnery Oak/Dune community types. This type may also support riparian areas but may not be influenced by permanent water.

Drainages, draws and canyons are an important component of wildlife habitat in the resource area due to the variety of vegetation and because they provide natural pathways between upland and lowlands. Approximately 24 percent (116) of wildlife species in the resource area use this community type.

3.3.1 Proposed Action

Direct and Indirect Effects

Short term negative impacts would include: vegetation disturbance will be localized to the immediate area of the project. Vegetation will be destroyed where the trench runs, but the disturbed area will naturally re-vegetate within two growing seasons with adequate precipitation. Approximately 4 acres of vegetation on public land will be subject to disturbance during the construction of the pipeline, (based on the estimate of 0.68 miles * 50 ft. width). Positive long term impacts would include: vegetation will benefit from this project due to the reduced stress caused by foraging animals.

Mitigation Measures

Installation of this project will lower utilization levels around the current available water sources, in addition to providing protected areas for wildlife use.

3.4 Noxious Weeds and Invasive Plants

There are no known noxious or invasive species populations within the boundaries of the proposed project area. A noxious weed is defined as a plant that causes disease or has other adverse effects on the human environment and is, therefore, detrimental to the public health and to the agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or host of harmful insects or disease, and are either native, new to, or not common, in the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds: 1) African rue (*Peganum harmala*), 2) black henbane (*Hyoscyamus niger*), 3) bull thistle (*Cirsium vulgare*), 4) camelthorne (*Alhagi pseudalhagi*) 5) Canada thistle (*Cirsium arvense*), 6) Damatian toadflax (*Linaria genistifolia spp. Dalmatica*), 7) goldenrod (*Solidago canadenis*), 8) leafy spurge (*Euphorbia esula*), 9) Malta starthistle (*Centaurea melitensis*), 10) musk thistle (*Carduus nutans*), 11) poison hemlock (*Conium maculatum*), 12) purple starthistle (*Centaurea calcitrapa*), 13) Russian knapweed (*Centaurea repens*), 14) Scotch thistle (*Onipordum acanthium*), 15) spotted knapweed (*Centaurea maculosa*), 16) teasel (*Dipascus fullonum*),

17) yellow starthistle (*Centaurea solstitialis*), 18) yellow toadflax (*Linaria vulgaris*), 19) Russian olive (*Elaeagnus angustifolia*), 20) saltcedar (*Tamarix spp*.), 21) Siberian elm (*Ulmus pumila*).

Of the noxious weeds listed, the ones with known populations in the Roswell Field Office are African rue, Non-native thistle (*Cirsium spp*.) such as bull thistle and Canada thistle, leafy spurge, poison hemlock, teasel, musk thistle, goldenrod, Malta starthistle, Russian knapweed, tamarix apeecies, Siberian elm, Russian olive and Scotch thistle. Also "problem weeds" of local concern are cocklebur (*Xanthium spp*.) buffalobur (*Curcurbita foetidissima*), and spiny cocklebur (*Xantium spinosum*). "Problem weeds are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Furthermore, noxious weeds can negatively affect livestock and dairy producers by increasing their feed and animal health care costs. Increased costs due to operators are eventually borne by consumers. Noxious weed also affect recreational uses, and reduce realty values of both directly influenced and adjacent properties. Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs using funds generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

3.4.1 Proposed Action

Direct and Indirect Effects

There is an opportunity for noxious weeds to become established within the proposed pipeline route. Noxious weeds could be introduced by the equipment used for construction.

Mitigation Measures

Monitoring the area after installation would be conducted to ensure that weeds do not become established. If new weed populations are discovered, they would be aggressively treated.

3.5 Wildlife

Affected Environment

Fort Stanton provides diverse habitats for approximately 151 species of birds, 38 species of mammals and 9 species of fish (BLM 1990). Several bird species associated with pinyon-juniper woodlands are the common flicker, ladder-backed woodpecker, acorn woodpecker, pinyon jay, scrub jay, mountain chickadee, common bushtit, plain titmouse, white-breasted nuthatch, blue-gray gnatcatcher, gray vireo, rock wren, and Montezuma quail.

Bird species associated with the blue grama grassland are scaled quail, roadrunner, western meadowlark, northern harrier, brown-headed cowbird, vesper sparrow, lark bunting, rufous-crowned sparrow, and horned lark. Several species of birds occur in the riparian community or near other sources of water. Representative species are acorn woodpecker, killdeer, mourning dove, mallard, bufflehead, wood duck,

black hawk, belted kingfisher, blue grosbeak, lesser goldfinch, yellow-rumped warbler, northern waterthrush, and yellow-breasted chat. In addition, the bald eagle winters throughout the area.

The diversity of small mammals provide for an excellent prey base for carnivores such as the coyote, gray fox, bobcat, raccoon, badger, striped skunk, long-tailed weasel, and occasionally black bear and mountain lion. Blue grama grassland mammal species include the spotted ground squirrel, pocket gopher, silky pocket mouse, Ord's kangaroo rat, bannertail kangaroo rat, northern grasshopper mouse, southern plains woodrat, and the pronghorn antelope. Other mammals use the pinyon-juniper woodland habitat to some extent. Mule deer occur throughout the Fort Stanton area. During winter, some deer migrate from the higher elevations of the Sierra Blanca Mountains to the Fort Stanton area. Since 1990, a number of Rocky Mountain elk have used the area on a year-long basis (BLM 1990).

At least 13 species of cave and tree bats exist on the NCA. Fort Stanton Cave, excluding Snowy River Passage serves as a hibernaculum, or winter roost, for about 700 Townsend's big-eared bats and lesser amounts of Western small-footed myotis and Cave Myotis. Feather Cave is a significant summer maternity roost, primarily for Townsend's Western Big-eared Bat (Buecher, 2009, 2010). These and other regional hibernacula are closed annually from November 1 to April 15 to insure colony protection (Fed Reg, 1993). Waking hibernating bats causes them to use up energy stored as fat, of which fatty acids are a component. This fat cannot be restored because of a lack of insects, the mainstay of bats' diet, during the winter months and the bats perish (Buecher, 2006, 2009, and 2010).

Beavers use the riparian habitat to the exclusion of upland habitat. Over the past years beavers have built dams and lodges on the Rio Bonito. Annual floods that wash out the dams seem to be the most serious problem for beavers. Beavers may also leave the area when water levels drop (BLM 1990).

The primary aquatic habitat supporting fish species are the Rio Bonito and Salado Creek. Surface water flows on the NCA help maintain the riparian community found along the Rio Bonito which serves as shading for the stream, reducing sedimentation and the effects of flooding, and keeping water temperatures cool. Fish species found in the Rio Bonito River are the Rio Grande sucker, brook trout, rainbow trout, cutthroat trout, fathead minnow, white sucker, Rio Grande chub, longnose dace, and mosquitofish. A list of aquatic insects and herptiles can be found in the Fort Stanton Habitat Management Plan on file at the Roswell Field Office (BLM 1990).

THREATENED AND ENDANGERED SPECIES

Affected Environment

Kuenzler's hedgehog cactus is listed as an endangered species by the federal government and the State of New Mexico. The NCA supports a large known population of the cactus. Prime habitat is on open southeast-facing aspects on the upper third of 20 percent slopes in the pinyon-juniper zone at 6,600 to 6,900 feet elevation. Healthy populations also occur on level ridge tops, on northeast, east, south and west aspects and on mid and lower slopes of 5 to 25 percent slope, and even on the lower slopes below a band of pinyon-juniper or oak.

The highest priority sites for protection are the ten largest cactus populations identified in an extensive survey conducted in 1991. The BLM conducted another cactus survey in 2009. Population studies include an intensive survey for the cactus, monitoring of recruitment of young individuals of the species, and potential livestock grazing impacts.

3.5.1 Proposed Action

Direct and Indirect Effects

Proposed Action

Mule deer, elk, and pronghorn are dependent on free-standing water during very dry periods. According to habitat guidelines for mule deer, "water sources should not be more than 3 miles apart so all mule deer habitat is within 1.5 miles of a permanent water source" (Heffelfinger et al. 2006). Mule deer do not typically use only one water source within their home ranges. Pronghorn, like mule deer, are dependent on free-standing water during very dry periods. The Proposed Action Alternative would have direct impacts by providing wildlife with reliable water sources.

No Action Alternative

The no Action Alternative would have an impact by not providing wildlife with reliable water sources

Mitigation Measures

3.6 Cultural and Historical Resources

3.6.1 Proposed Action

Affected Environment
The project falls within the Southeastern New Mexico Archaeological Region. This region contains the following cultural/temporal periods: Paleoindian (ca. 12,000-8,000 B.C.), Archaic (ca. 8000 B.C. –A.D. 950), Ceramic (ca. A.D. 600-1540) Protohistoric and Spanish Colonial (ca. A.D. 1400-1821), and Mexican and American Historical (ca. A.D. 1822 to early 20th century). Sites representing any or all of these periods are known to occur within the region. A more complete discussion can be found in *Living on the Land: 11,000 Years of Human Adaptation in Southeastern New Mexico An Overview of Cultural Resources in the Roswell District, Bureau of Land Management* published in 1989 by the U.S. Department of the Interior, Bureau of Land Management. A cultural resource inventory shall be conducted of the area of effect for the proposed project prior to any ground disturbing activities.

Native American Religious Concerns
A review of existing information indicates the proposed action is outside any known Traditional Cultural Property. Native American tribes, nations, and Pueblos listed by the New Mexico Department of Cultural Affairs as having interest in Lincoln County were invited to consult for the Fort Stanton-Snowy River Cave National Conservation Area Proposed Resource Management Plan Amendment and Environmental Assessment. To date, the areas to be affected by the current project have not been identified by interested tribes as being of tribal concern.

Direct and Indirect Effects

A cultural resource inventory was conducted for the area of effect (14-R-003A); no Historic Properties were identified. No impacts to cultural resources are anticipated.

Mitigation Measures

No mitigation is currently necessary unless discovered during project implementation.

Any cultural (historic or prehistoric site or object) discovered by the co-operator/contractor or any person working on the co-operator/contractor's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The co-operator/contractor shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The co-operator/contractor shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the co-operator/contractor.

3.7 Paleontology

3.7.1 Proposed Action

The BLM manages paleontological resources for their scientific, educational, and recreational values in compliance with the Paleontological Resources Preservation Act (PRPA) of 2009. The PRPA affirms the authority for many of the policies the Federal land managing agencies already have in place for the management of paleontological resources such as issuing permits for collecting paleontological resources, curation of paleontological resources, and confidentiality of locality data. The statute provides authority for the protection of paleontological resources on Federal lands including criminal and civil penalties for fossil theft and vandalism.

The BLM classifies geologic formations to indicate the likelihood of significant fossil occurrence (usually vertebrate fossils of scientific interest) according to the Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands (IM 2008-011). These classifications, Classes 1 to 5, determine the procedures to be followed prior to granting a paleontological clearance to proceed with a project.

All paleontological resource stipulations will be followed as indicated in the attached COAs. These stipulations may include, but are not limited to, altering the location or scope of the project, permanent fencing or other physical, temporary barriers, monitoring of earth disturbing construction, project area reduction or specific construction avoidance zones, and fossil recovery. If the assessment of proposed action indicates a reasonable expectation of adverse impacts to significant paleontological resources, a field survey will be necessary to properly document and recover any fossil material and associated data. Upon review, a determination for final project clearance and stipulations shall be issued by the BLM RFO.

Direct and Indirect Effects

The Potential Fossil Yield Classification (PFYC) data indicate the Proposed Action is within an area designated as Class II. The Proposed Action would not affect any known scientifically significant paleontological resources, however, surface disturbing activities and increased human access could produce unexpected discoveries and potential paleontological resource damage. Direct impacts could include damage or destruction during construction, with subsequent loss of information. Indirect impacts would include fossil damage or destruction by erosion due to surface disturbance.

Mitigation Measures

If previously undocumented paleontological sites are encountered during surface disturbing activities, the project proponent will immediately stop all surface disturbing activities in the immediate vicinity of the discovery. The proponent with then immediately notify the paleontological monitor (if required) or the BLM RFO paleontology resource staff. It is necessary to protect fossil material and their geological context upon discovered during surface disturbing activities. The BLM RFO paleontology resource staff would then evaluate the site. Should the discovery be evaluated as significant, it will be protected in place until mitigation measures can be developed and implemented according to guidelines set by the BLM. Mitigation measures such as data and fossil recovery may be required by the BLM to prevent impacts to newly identified paleontological resources.

3.8 Visual Resource Management

Affected Environment

Every landscape has the basic elements of form, line, color, and texture. Repeating these elements reduces contrasts between the landscape and the proposed activity or development and results in less of a visual impact. Another way of looking at this is to use the existing landforms, vegetation patterns, natural lines in the landscape, etc., to reinforce the design of the proposed activity or development. By "playing off" of these naturally occurring elements, the design of the proposed development will be in closer harmony with the natural landscape.

The clearing of this hillside works well with the existing lines and vegetative patterns found in this landscape.

The vegetative clearing in this photo repeats the natural forms and shapes found in the landscape.

The proposed action is situated in rolling limestone and sandstone foothills and ridges, which extend eastward from Sierra Blanca and the White Mountains. The key visual elements of this scene are:

Form: Flat to rolling terrain	**Line:** Horizontal, weak undulating
Color: Grey-green in the riparian to olive drab in the pinyon-juniper, with patches of light tan which are grasslands interdispersed among the forest.	**Texture:** Smooth to medium

The Visual Resources within the proposed area are Class III. The Class III rating means the contrasts to the basic elements caused by the management activity may be evident and begin to attract attention in the landscape. The changes, however, would remain subordinate to the existing landscape. This can be easily achieved from low-profile tanks such as currently used, and painted a blending color.

3.8.1 Proposed Action

Direct and Indirect Effects

The Proposed Action should result in short term visual impacts to casual observers. There should be very little visual impacts from tank relocation. There will be some short term visual aspects of if the trees are cut. Due to higher rainfall amounts, impacts of cutting should not be noticeable after a two year period. There will be minimal visual impacts to using rubber tired or tracked tractors. The No Action alternative would cause no impacts on visual resources.

The basic landscape elements of form, line color and texture would not change under any management alternative. Potential impacts to visual resources would be analyzed and mitigated as management activities are proposed in the future.

Mitigation Measures

Range facilities such as windmills and fences tend to be a translucent grey in color and blend favorably with grey and grey-green settings, To further blend favorably with the setting tanks would remain low profile, and painted a flat *Grey-Green* color or ***Olive Drab*** color to blend with the setting. Other translucent colors, such as *Covert Green* and *Brown* can be used, as long as they blend with the setting

3.9 Recreation

Affected Environment

The NCA has about 95 miles of trail designed for horseback, mountain biking, and hiking. One of these trails, the Rio Bonito Petroglyph Trail, is a designated National Recreation Trail. 20 miles of designated roads are also located in the NCA. All roads and trails are marked with signs stating open or closed and delineate permissible access, whether by foot, horseback, mountain bike or vehicle. See the Fort Stanton ACEC Route Designation Plan for further information.

Approximately 20,910 visitors enjoyed recreational activities on the NCA in fiscal year 2009. Fiscal year 2010 visitation was 13,494. Visitors come to the NCA for many reasons. The extensive sustainable trail system and stock facilities provide quality riding opportunities for equestrians. The prime big game habitat offers excellent hunting opportunities, including a state designated deer hunting area dedicated to youth. Other recreational opportunities include hiking, mountain biking, wildlife viewing, photography, and camping.

The NCA also lends itself to special recreation events such as equestrian, living history, mountain bike, orienteering, and group camping events. The area has hosted many of these events in the past. The Fort Stanton non-motorized multi-use trail system includes segments in the proposed action area, especially the current tank location. The trail system is very popular and as a result, and due to explorative driving on 2-track roads in the area, visitors have found, as indicated in the proposed action, the current location to be very attractive. The area provides habitat for numerous game species including elk, desert mule deer, pronghorn, mourning dove and scaled quail. Predator and feral pig hunting may occur, as well as trapping for predators or furbearers. General sightseeing, camping and wildlife viewing and photography are non-consumptive recreational activities that may occur.

3.9.1 Proposed Action

Direct and Indirect Effects

1. The visiting public may or may not have access to Game and Fish hunting proclamations, which dictate the proper distance to camp away from water sources. Without posted signs the general visiting public cannot be expected to know rules and regulations concerning camping in relation to wildlife waters.

2. Leave No Trace reference cards and posters also state the non-impacting distances from all water sources.

3. Thus, relocating the tanks would benefit wildlife and take any hunting activities into a more natural and challenging section.

4. Game and non-game wildlife species could realize long-term benefits through the improvement of habitat.

5. It is expected that hunter success and wildlife viewing opportunities would be enhanced.

6. General visitors and trail-users would not notice the relocated tanks and should thus camp and ride trails in such a way that is less-impacting to wildlife. To trail-users at that location, they are either coming downhill or going up and the focus will be forward on the trail tread and not necessarily looking around.

Mitigation Measures

1. Signing should be installed at wildlife waters to inform and warn the visiting public of proper respect for wildlife, which is one of the Leave No Trace Principles, and also defined in state statute.

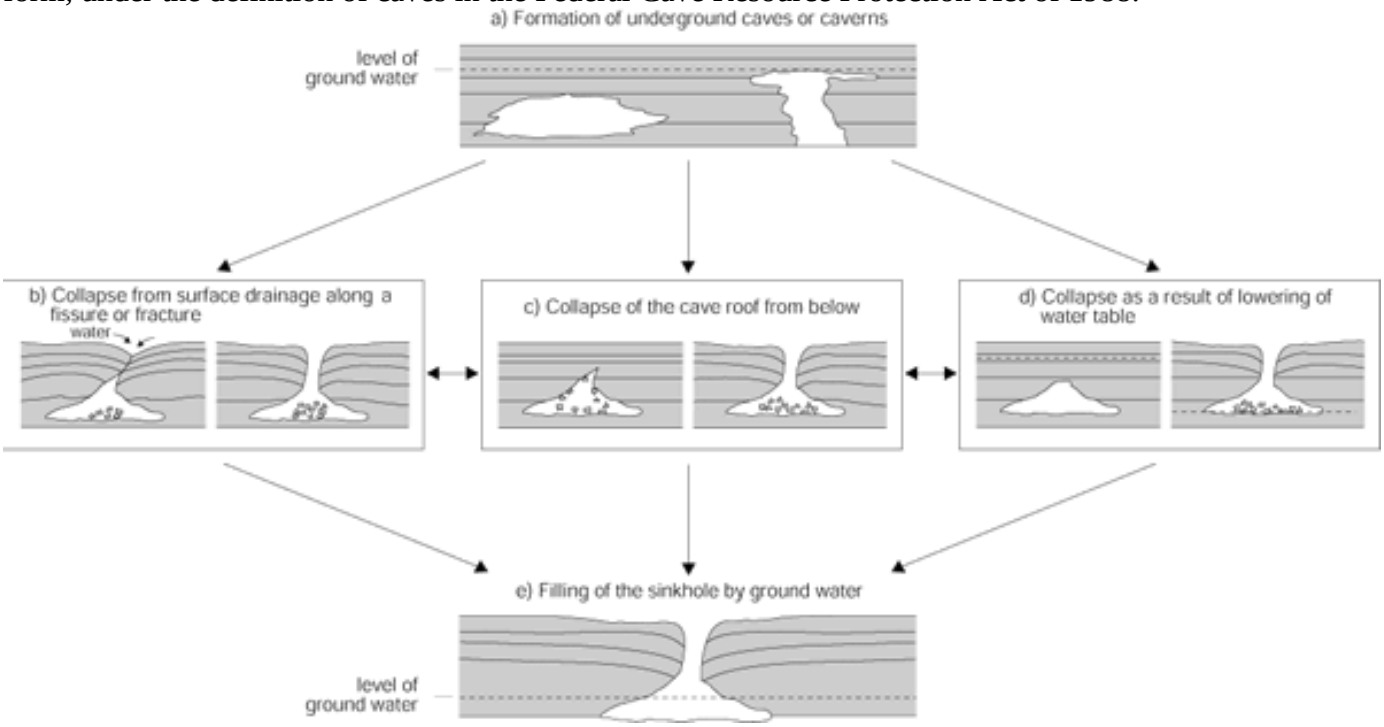
2. Instructive signs can be attached to tanks to reinforce the 300-yard (900-foot) distance requirement and this should be stated perhaps as .18 mile.

3. Insure that proper camping distances (.18 mile suggested) from wildlife waters are clearly states on the NCA webpage and posted on each kiosk in the NCA.

3.10 Caves & Karst

Affected Environment

The Fort Stanton NCA has a number of significant caves or karst features. No surface disturbance will not be allowed within 200 meters of known cave entrances passages or aspects of significant caves. The proposed action is located within a designated area of *High Karst* or Cave *Potential.* A 90% inventory of significant cave or karst features has been completed for public land located in the NCA. The nearest known significant cave is Feather Cave. Karst features are derived from dissolved limestone and gypsum from which caves and sinkholes can form, under the definition of caves in the Federal Cave Resource Protection Act of 1988.



Sinkhole Development *(http://geoinfo.nmt.edu/tour/state/bottomless_lakes/home.html)*

3.10.1 Proposed Action

Direct and Indirect Effects

No impacts to caves or karst features are anticipated as a result of the proposed action.

Mitigation Measures

✱Any cave or karst feature, such as a deep sinkhole, discovered by the co-operator/contractor or any person working on the co-operator's/contractor behalf, on BLM-managed public land shall be immediately reported to the authorized officer. An evaluation of the discovery will be made

by the authorized officer to determine appropriate action(s). Any decision as to the further mitigation measures will be made by the Authorized Officer after consulting with the co-operator/contractor.

✱Pursuant to Federal Register notices, all known Roswell Field Office hibernacula are temporarily closed to public entry from January 25, 2011 to no later than January 25, 2015 to monitor for the presence of White Nose Syndrome and prevent its spread if it arrives. Any proposed entry whatsoever of these caves must be formally proposed to BLM.

3.11. Watershed – Hydrology

The watershed and hydrology in the area is affected by land and water use practices. The degree to which hydrologic processes are affected by land and water use depends on the location, extent, timing and the type of activity. Factors that currently cause short-lived alterations to the hydrologic regime in the area include recreational use activities and groundwater pumping.

Direct and Indirect Effects

Construction and surface disturbance activities from construction of the project can result in long and short-term alterations to hydrologic regime. Peak and low flow of perennial streams, ephemeral, and intermittent rivers and streams would be directly affected by an increase in impervious surfaces resulting from construction of this pipeline. Potential hydrologic effects to peak flow is reduced infiltration where surface flows can move more quickly to perennial or ephemeral rivers and streams, causing peak flow to occur earlier and be larger. Increased magnitude and volume of peak flow can cause bank erosion, channel widening, downward incision, and disconnection from the floodplain. Potential hydrologic effects to low flow is reduced surface storage and groundwater recharge, resulting in reduced baseflow to perennial, ephemeral, and intermittent rivers and streams. Direct impacts would be that hydrologic processes may be altered where perennial, ephemeral, and intermittent river and stream systems respond by changing physical parameters, such as channel configuration. These changes may in turn impact chemical parameters and ultimately the aquatic ecosystem.

Long-term direct and indirect impacts to watershed and hydrology would continue for the life of the project and would decrease once natural re-vegetation of the project has taken place. Short-term direct and indirect impacts to the watershed and hydrology from pipelines that are not buried with material would occur and would likely decrease in time due to natural re-vegetation. The disturbed area should naturally re-vegetate within two growing seasons or less with adequate precipitation.

Mitigation Measures

No seeding will be required. The disturbed area should naturally re-vegetate within two growing seasons or less with adequate precipitation, resulting in cessation of project related erosion or runoff.

3.12. Water Quality Surface/Ground

Surface: Surface water within the area is affected by geology, precipitation, and water erosion. Factors that currently affect surface water resources include recreational use and brush control treatments. No perennial surface water is found on public land in the immediate project area. Ephemeral surface water within the area may be located in tributaries, Salado Dam, and stock tanks.

Ground: Groundwater within the area is affected by surface and subsurface geology, topography, precipitation and geomorphogeny processes. The approximate depth to fresh groundwater ranges from 90 to 100 feet in the Shallow Unconfined San Andres Limestone Aquifer (Selected Hydrologic Data for the Upper Rio Hondo Basin, Lincoln Coiumnty, New Mexico, 1945-2003 Map, Lisa C. Donohoe).

Direct and Indirect Effects

Potential direct impacts that would occur due to construction of the project include increased surface water runoff and off-site sedimentation brought about by soil disturbance and increased salt loading and water quality impairment of surface waters. The magnitude of these impacts to water resources would depend on the proximity of the disturbance to the drainage, channel, slope aspect and gradient, degree and area of soil disturbance, soil character, duration and time within which construction activity would occur, and the timely implementation and success or failure of mitigation measures.

Direct impacts would likely be greatest shortly after the start of construction activities and would likely decrease in time due to natural stabilization, and natural re-vegetation of the disturbed area. Construction activities would occur over a relatively short period; therefore, the majority of the disturbance would be intense but short lived. Direct impacts to surface water quality would be minor, short-term impacts which may occur during storm flow events.

No direct impacts to groundwater are expected to occur.

Mitigation Measures

No seeding will be required. The disturbed area should naturally re-vegetate within two growing seasons or less with adequate precipitation, resulting in cessation of project related erosion or runoff.

3.13. Floodplains

Portions of the project are located in the 100-year floodplain. For administrative purposes, the 100-year floodplain serves as the basis for floodplain management on public lands. It is based on Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (1983) which describes a Zone A as the “Area of the 100-year flood”. Current development on the floodplain consists of two-track roads, water well, Salado Sediment Dam, and boundary fence in the area.

Direct and Indirect Effects

Surface disturbance from the development of surface facilities and buried pipelines can result in impairment of the floodplain values from removal of vegetation, removal of wildlife habitat, impairment of water quality, decreased flood water retention and decreased groundwater recharge.

Mitigation Measures

No seeding will be required. The disturbed area should naturally re-vegetate within two growing seasons or less with adequate precipitation, resulting in cessation of project related erosion or runoff.

3.14 Public health and Safety

3.14.1 Proposed Action

The project will not be detrimental to the public health. The co-operator/contractor will insure that all phases of the project operations are conducted in a workman like manner. Precautionary procedures and/or measures will be strictly adhered to in order provide a safe and sound working environment.

Direct and Indirect Effects

Construction operations and other activities will be conducted in a safe workman like manner. No impacts to public health and safety are anticipated to occur.

Mitigation Measures

None required.

CHAPTER 4. SUPPORTING INFORMATION

4.1 List of Preparers

Prepared by: Randy Vinson, Rangeland Management Technician BLM-RFO, Robynne Whitebear, Range Clerk BLM-RFO

Date: June 19, 2013

The following individuals aided in the preparation and review of this document:

NAME	TITLE	AGENCY REPRESENTED
Helen Miller	Rangeland Management Specialist	BLM
Michael McGee	Hydrologist	BLM
Jeremy Iliff	Archaeologist	BLM
Randy Howard	Wildlife Biologist	BLM
Mike Bilbo	Recreation, Cave & VRM Specialist	BLM

Glen Garnand	Planning & Environmental Coordinator	BLM
Note: Refer to the EA/EIS for a complete list of the team members participating in the preparation of the existing environmental analysis or planning documents.		

LITERATURE CITED

Donohoe, L.C, 2004. Selected Hydrologic Data for the Upper Rio Hondo Basin, Lincoln County, New Mexico, 1945-2003, Scientific Investigations Report 2004-5275, U.S. Department of the Interior U.S. Geological Survey

Heffelfinger, J. R., C. Brewer, C. H. Alcalá-Galván, B. Hale, D. L. Weybright, B. F. Wakeling, L. H. Carpenter, and N. L. Dodd. 2006. Habitat Guidelines for Mule Deer: Southwest Deserts Ecoregion. Mule Deer Working Group, Western Association of Fish and Wildlife

STIPULATIONS

1. If paleontological resources (large, conspicuous or of significant scientific value) are discovered during surface disturbing activities or construction of the project, the find will be reported to the Authorized Officer immediately. Surface disturbing activities and construction operations will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

2. Any cultural (historic or prehistoric site or object) discovered by the co-operator/contractor or any person working on the co-operator/contractor's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The co-operator/contractor shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The co-operator/contractor shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the co-operator/contractor.

3.

SEED MIX FOR
Soils: Gabaldon-Riverwash Association, nearly level
Range Site: Bottomland CP-3
May 12, 2010

Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Side oats grama	*Bouteloua curtipendula*	3.00
Vine Mesquite	*Panicum obtusum*	2.0
Alkali sacaton	*Sporobolus airoides*	1.00
Blue grama	*Bouteloua gracilis*	1.5
Four wing saltbush	*Atriplex canescens*	1.00
Desert or Scarlet Globemallow *or* Annual Sunflower	*Sphaeralcea ambigua* *S. coccinea* *Helianthus annuus*	0.25 <u>0.75</u>
		9.50

TOTAL POUNDS PURE LIVE SEED PER ACRE 9.50

Certified Weed Free Seed
IF ONE SPECIES IS NOT AVAILABLE,
INCREASE ALL OTHERS PROPORTIONATELY