

# Alamogordo Regional Water Supply Project Environmental Impact Statement

## RECORD OF DECISION

BLM



August 2012



## **BLM Mission Statement**

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

Cover Photos: City of Alamogordo, NM, courtesy of web.

## ACRONYMS AND ABBREVIATIONS

afy	acre-feet per year
BLM	U.S. Bureau of Land Management
BMP's	best management practices
CFR	Code of Federal Regulations
City	City of Alamogordo
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act of 1976
NEPA	National Environmental Policy Act
NMOSE	New Mexico Office of the State Engineer
project	Alamogordo Water Supply Project
Reclamation	U.S. Bureau of Reclamation
RFP	request for proposals
ROW	right-of-way
TDS	total dissolved solids
WSRMP	White Sands Resource Area Resource Management Plan

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## **1 INTRODUCTION**

The U.S. Bureau of Land Management (BLM) has prepared the Alamogordo Water Supply Project (project) Final Environmental Impact Statement (EIS) to assess the City of Alamogordo (City), New Mexico, proposal to develop a municipal potable water supply. The City has determined that the current water supply is not sufficient to meet current and future projected water demands and has submitted a right-of-way (ROW) application to the BLM to construct and operate groundwater wells on BLM-managed land. The City proposes to implement the project to meet both current and future water demands for the City. The project would be located on a combination of Federal, state, and private lands, including land and ROWs managed by the BLM. The BLM is the lead Federal agency for preparation of this EIS, and the U.S. Bureau of Reclamation (Reclamation) and Otero County serve as cooperating agencies. Otero County possesses special expertise with respect to environmental resources and potential impacts in the study area. The groundwater facilities and ancillary infrastructure is designed to pump and convey up to 4,000 acre-feet per year (afy).

The City has identified a projected water demand of 10,842 afy through 2045 (City of Alamogordo 40 years water development plan, 2003). The demand was determined through study of consumption rates and projected population levels. New Mexico municipalities are statutorily given the ability to acquire additional water rights long before the actual demand for the water materializes based on its “reasonably projected additional needs” during a 40-year time period. Following development of a 40-year water plan, the City identified, and the Twelfth Judicial District Court agreed, that the City had 3,513 afy of reliable surface rights and 3,931 afy of reliable groundwater supplies from its existing wells, for a total of 7,444 afy in reliable water supplies. Based on the projected demand, the City therefore has a present and future need to obtain 3,398 afy in additional water supplies by the year 2045.

In order to address this additional need, the City has been issued a permit by the New Mexico Office of the State Engineer (NMOSE) to divert up to 4,000 afy from the Snake Tank well field (Revised Permit No. T-3825). Since the water diverted from this well field is brackish groundwater, approximately 20 percent of the water volume is lost during the desalination process; the project would therefore provide approximately 3,200 afy of the City’s additional need of 3,398 afy in the year 2045. The additional 198 afy would need to be attained from other sources, such as the purchase of bulk water or additional water rights, sources that are undetermined at this point in time and are not a part of this EIS.

## **2 DECISION**

Based on the analysis in the Alamogordo Regional Water Supply Project Final EIS, I have decided to approve the Proposed Action as it is described in Section 2.2.2 of the Final EIS, to the extent that the proposal involves or affects public land, as provided in Section 501 [43 U.S.C. 1761] (a)(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), as amended.

Following is a summary of the Proposed Action (Alternative B):

The Proposed Action (Alternative B) consists of four components: (1) constructing and operating up to 10 brackish groundwater wells at Snake Tank Road, (2) installing a water transmission line to Alamogordo, (3) constructing a desalination facility in Alamogordo to treat 4,000 afy (3,200 afy potable) of water, and (4) constructing a booster pump station near the desalination plant to deliver the water into the City's municipal system. No new distribution system would be constructed, as the City would use the existing distribution system.

### **3 ENVIRONMENTAL PROTECTION MEASURES**

Environmental protection measures include design features of the proposed action as described in the Final EIS, mitigation measures applied to the proposed action in the Final EIS, stipulations applied to the ROW grant, and terms and conditions of the ROW grant. The purpose of these protection measures are to describe the implementation of this decision regarding the monitoring, management, and mitigation of potential impacts as a result of the development of groundwater resources in the Snake Tank well field, pipelines, and ancillary facilities. Permits issued by other jurisdictional Federal and State agencies should coincide with BLM's decision to grant this ROW. Protection measures consist of the components to follow in this section. Development of this groundwater project without unreasonable adverse impacts to natural resources is the outcome desired by the BLM.

#### **3.1 WATER RESOURCES**

Water rights holders are protected under State of New Mexico water law (Chapter 72, Article 12, New Mexico Statutes Annotated [NMSA] 1978). Existing water rights holders in the Tularosa Basin are very concerned about incremental drawdown effects of the 10 city wells. Incremental drawdown at Snake Tank well field would cause some wells in the immediate vicinity to go dry unless they could be extended deeper into the aquifer to account for the change in the water table levels. These water rights holders identified as being significantly impacted by groundwater pumping under Alternative B, will be protected by a monitoring program required by the NMOSE as conditions of approval to the City's water permitting for the Snake Tank wells. Under these conditions of approval, the City will measure water levels and total dissolved solids (TDS) within the monitoring wells (yet to be designated) and surface flows in July and January of each calendar year. The City will report these measurements to the NMOSE, in writing, on or before January 31 and July 31 of each calendar year.

If the NMOSE, through its monitoring of water level and quality, identifies the need for mitigation, the NMOSE would require the City to initiate the necessary measures, including if necessary a cessation of pumping, to avoid potential loss or adverse impact to water resources or water-dependent natural resources. The NMOSE may order the City to cease pumping from the Snake Tank wells to protect valid existing water rights and to conserve water within the state consistent with the public welfare. If priority water rights owners believe their rights are being impaired by the City's pumping at the Snake Tank water wells, they have recourse to a "priority administration" conducted by the NMOSE. Parties who believe their water rights are impaired by the City's pumping from the Snake Tank well field also have recourse to private litigation in the courts who could enjoin the City or the NMOSE to cease or reduce pumping from the Snake Tank well field.

To mitigate potential loss to groundwater resources, the City could also reach agreements with the individual water rights holders. Depending on the individual agreement, options for mitigation could include deepening wells or delivering water of equal quality to water rights holders when the available water column in a well is reduced by more than 70 percent or there is less than 10 feet of water above or below the pump. To mitigate the potential loss to surface water resources, including springs, the City will be required by the NMOSE to adjust the system's pumping schedule according to the monitoring results.

### **3.2 SOILS**

Mitigation measures for soils will follow the best management practices (BMPs) identified in the storm water pollution prevention plan for construction activities. These BMPs will include dust suppression and soil stabilization measures that would minimize erosion and storm water pollution during construction. Areas disturbed during construction will be reseeded with native vegetation to minimize erosion.

### **3.3 WILDLIFE**

To minimize adverse impacts to wildlife, the following mitigation measures are recommended for the Proposed Action:

- Limiting construction activities to outside the general migratory bird nesting season of March through August or surveying areas proposed for construction during the nesting season and avoiding any occupied areas until nesting is complete.
- Minimizing trapping of wildlife during trenching operations, where possible, by trenching and burying the pipeline concurrently, leaving the least possible amount of trench open overnight, and providing escape ramps for trapped wildlife. If trenches cannot be backfilled immediately, constructing escape ramps will be located at least every 295 feet. Trenches that have been left open overnight, especially where endangered species occur, will be inspected and any animals found removed prior to backfilling.
- Limiting heavy equipment travel to the immediate construction ROW and avoiding areas of heavy growth and native habitat when feasible.
- Reducing the height of the elevated water storage tank to its lowest functional limit to reduce the possibility of collisions by airborne wildlife.

### **3.4 VISUAL RESOURCES**

Impacts to the view shed would be reduced by painting the water tanks, proposed buildings and structures in a flat earth tone to match the surrounding landscape.

### **3.5 VEGETATION**

The following mitigation measures, if implemented, will minimize impacts to vegetation:

- Grading the sites affected following completion of construction activities.
- Replanting or reseeding the disturbed areas with an acceptable mix of native plants typically found in this region of the Chihuahuan Desert.
- Monitoring restoration efforts to assess their overall success and progress.

### **3.6 AIR QUALITY AND CLIMATE CHANGE**

Frequent watering of exposed soil during construction would minimize fugitive dust emissions from construction activities for the Proposed Action.

Operation of the facility and long-term pumping would emit greenhouse gasses.

### **3.7 CULTURAL RESOURCES AND HISTORIC PROPERTIES**

If avoidance of cultural resource sites LA 86735 and LA150031 is not feasible, the proponent must submit a request for proposals (RFP) for BLM review. After BLM approval, that RFP can be advertised. The RFP must stipulate that the first deliverable to the City and the BLM must be a Research Design and Plan of Work for the mitigation of the effects to those sites caused by pipeline construction.

After acceptance by the Agency, the Research Design and Plan of Work is to be reviewed by the State Historic Preservation Officer, the Cultural Properties Review Committee (both are in the New Mexico Historic Preservation Division), and the Agency's Data Recovery Review Team.

Upon approval of the above, a Memorandum of Agreement outlining the course of work must be developed and signed by all concerned parties.

Mitigation must be completed prior to implementation of the project work in the vicinity of the cultural resource sites.

### **3.8 OTHER**

The City has committed to maintaining current base waters available and accessible for livestock on BLM land so that no current grazing allotments in the study area will be terminated as a result of implementation of the proposed project.

Mitigation measures for socioeconomic resources under the Proposed Action include:

- Using existing road and utility ROWs as much as is practicable to reduce permitting and land acquisitions costs and to reduce disruption of commercial facilities.
- Adopting a hiring preference for local construction personnel to build the project.

- Hiring and training local professional or service personnel to operate and maintain facilities so that direct and secondary spending remains in the local economy.
- If determined that the Snake Tank wells were incrementally increasing drawdown and affecting other wells (i.e., senior water rights), the City will be required to mitigate their use by either compensating for use of the water and/or reducing use of the wells. Additionally, all water purchased or leased by the City in the future will have to be approved through the NMOSE hearing process.

Measures to mitigate impacts on transportation for the Proposed Action include:

- Directional drilling to minimize traffic disruption.
- Constructing road crossings for underground pipelines at times of low traffic use.
- Improving the entrance to the well field by widening the highway to accommodate a westbound turning lane to northbound U.S. 54.
- Improving the southbound entrance to and exit from the well field by adding entrance and exit lanes to U.S. 54.

#### **4 STIPULATIONS—ALAMOGORDO REGIONAL WATER SUPPLY PROJECT**

Design Features, Environmental Protection (Mitigation) Measures and Best Management Practices have been formulated into the following stipulations:

##### **4.1 CONSTRUCTION ADMINISTRATION**

The Holder shall construct, operate, and maintain the facilities, improvements, and structures within this ROW in strict conformity with the stipulations which were approved and made part of the grant on \_\_\_\_\_. Any relocation, additional construction, or use that is not in accord with the approved stipulations, shall not be initiated without the prior written approval of the Authorized Officer. A copy of the complete ROW, including all stipulations, shall be made available on the ROW area during construction, operation, and termination to the Authorized Officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.

The Holder shall designate a representative(s) who shall have the authority to act upon and to implement instructions from the Authorized Officer. The Holder's representative shall be available for communication with the Authorized Officer within a reasonable time when construction or other surface disturbing activities are underway.

The Holder shall contact the Authorized Officer at least 14 days prior to the anticipated start of construction and/or any surface disturbing activities. The Authorized Officer may require and schedule a preconstruction conference with the Holder prior to the holder's commencing construction and/or surface disturbing activities on the ROW. The Holder and/or his representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the ROW, shall also attend this conference to review the stipulations of the grant including the plans(s) of development.

The Authorized Officer may suspend or terminate in whole, or in part, any notice to proceed which has been issued when, in his judgment, unforeseen conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment.

#### **4.2 WORK LIMITS**

The Holder shall conduct all activities associated with construction, operation, and termination of the ROW within the authorized limits of the ROW.

The Holder shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. The project area must be re-vegetated with a native seed mixture characteristic of the area to facilitate returning conditions to their original state; the Holder must coordinate with BLM to select an appropriate seed mixture.

The Holder will adhere to measures identified in the storm water pollution prevention plan to include dust suppression and soil stabilization to minimize erosion and storm water pollution during construction.

#### **4.3 ACCESS TO AND ALONG THE RIGHT-OF-WAY DURING CONSTRUCTION**

Construction and/or maintenance related traffic shall be restricted to routes approved by the Authorized Officer. New access roads or cross-country vehicle travel will not be permitted unless prior written approval is given by the Authorized Officer. Authorized roads used by the Holder shall be rehabilitated or maintained when construction activities are complete as approved by the Authorized Officer.

The Holder shall permit free and unrestricted public access to and upon the ROW for all lawful purposes except for those specific areas designated as restricted by the Authorized Officer to protect the public, wildlife, livestock, or facilities constructed within the ROW.

The Holder shall provide for the safety of the public entering the ROW. This includes, but is not limited to, barricades for open trenches, flag men/women with communication systems for single-lane roads without inter-visible turnouts, and attended gates for blasting operations.

#### **4.4 WASTE DISPOSAL**

The ROW site shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, water that does not meet New Mexico drinking water standards, and equipment.

#### **4.5 CULTURAL RESOURCES**

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The Holder 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 Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

#### **4.6 PALEONTOLOGICAL RESOURCES**

The Holder shall immediately notify the BLM Authorized Officer of any paleontological resources discovered as a result of operations under this authorization. The Holder shall suspend all activities in the vicinity of such discovery until notified to proceed by the Authorized Officer and shall protect the discovery from damage or looting. The Holder may not be required to suspend all operations if activities can be adjusted to avoid further impacts to a discovered locality or be continued elsewhere. The Authorized Officer will evaluate, or will have evaluated, such discoveries as soon as possible, but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the operator. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (1) following the Authorized Officer's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (2) following the Authorized Officer's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

#### **4.7 USE OF RIGHT-OF-WAY**

No new construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 3 inches deep, the soil shall be deemed too wet to adequately support maintenance equipment.

#### **4.8 MAINTENANCE OF RIGHT-OF-WAY**

The Holder shall maintain the right-of-way in a safe, usable condition, as directed by the Authorized Officer. (A regular maintenance program shall include, but is not limited to blading and ditching.)

#### **4.9 INDUSTRIAL AND TOXIC WASTE DISPOSAL**

The Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et seq.* or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 *et seq.*) on the ROW (unless the release or threatened release is wholly unrelated to the ROW Holder activity on the ROW. This agreement applies without regard to whether a release is caused by the Holder, its agent, or unrelated third parties.

The Holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the Holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et seq.*) with regard to any toxic substances that are used, generated by or stored on the ROW or on facilities authorized under this ROW grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

The Holder shall properly report the occurrence of any spills associated with project construction and operation, and shall report and respond to spills of potential contaminants, such as gasoline, diesel, motor oils, solvents, chemicals, toxic and corrosive substances, etc., which may be a threat to public health or the environment.

#### **4.10 AIR AND DUST CONTROL**

The Holder shall meet Federal, State, and local emission standards for air quality. The Holder shall furnish and apply water or other means satisfactory to the Authorized Officer dust control. Dust generated during construction shall be controlled by frequent application of water in disturbed areas to minimize airborne particulate potential.

#### **4.11 NOXIOUS WEEDS**

The Holder will be responsible for control of noxious weeds on the project site. The Holder would be responsible for conducting a preconstruction noxious weed survey to identify (1) noxious weed species, (2) locations of infestations, (3) acreage of infested areas, and (4) density of plants. The survey will be filed with the BLM Las Cruces District Office prior to construction. The Holder is responsible for consultation with the Authorized Officer and/or local authorities for acceptable weed control methods, which include following Environmental Protection Agency (EPA) and BLM requirements and policy.

The Holder would be responsible to clean all equipment (power or high pressure cleaning) of all mud, dirt, and plant parts before moving equipment into the project area and from noxious weed infested areas within the project area.

Gravel and fill used will come from noxious weed-free sources. The Holder would inspect gravel pits and fill sources to identify noxious weed-free sources.

#### **4.12 FENCES**

The Holder shall minimize disturbance to existing fences and other improvements on public land. The Holder is required to promptly repair impacted improvements to at least their former state. The Holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officer.

#### **4.13 TERMINATION**

Six months prior to termination of the ROW, the Holder shall contact the Authorized Officer to arrange for a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination (and rehabilitation) plan. This plan shall include, but is not limited to, removal of facilities, drainage structures, or surface material, contouring, top soiling, or seeding. The Authorized Officer must approve the plan in writing prior to the Holder's commencement of any termination activities.

#### **4.14 INDEMNIFICATION**

The United States, its officers and employees shall be held harmless from and indemnified against any damage, injury, or liability resulting from the construction, operation, or maintenance arising from the occupancy or use of public land under this authorization.

#### **4.15 OTHER**

The Holder shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the Holder shall secure the services of a Professional Land Surveyor or Bureau cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States. The Holder shall record such survey in the appropriate county and send a copy to the Authorized Officer. If the Bureau cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monuments, the Holder shall be responsible for the survey cost.

In the event that the public land underlying the ROW encompassed in this grant, or a portion thereof, is conveyed out of Federal ownership and administration of the ROW or the land underlying the ROW is not being reserved to the United States in the patent/deed and/or the ROW is not within a ROW corridor being reserved to the United States in the patent/deed, the United States waives any right it has to administer the ROW, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part 2800 including any rights to have the Holder apply to the BLM for amendments, modifications, or assignments and for the BLM to approve or recognize such amendments, modifications, or assignments. At the time of conveyance, the patentee/grantee, and their successors and assigns, shall succeed to the interests of the United States in all matters relating to the ROW, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the ROW shall be considered a civil matter between the patentee/grantee and the ROW Holder.

The Holder shall post signs designating the BLM serial number assigned to this authorization at the following locations: the points of origin and completion, or entry to and exit from public land, of the pipeline and at all major road crossings. These signs will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the term of the ROW.

The Holder shall obtain all required Federal, State, and local permits and licenses, and provide copies of them to the Authorized Officer. Permits may be required from, but are not limited to, the following agencies: New Mexico Office of the State Engineer, New Mexico Environmental Division, New Mexico Department of Transportation, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency.

The Holder shall comply with the construction practices and mitigating measures established by 33 CFR 323.4, which sets forth the parameters of the "nationwide permit" required by Section 404 of the Clean Water Act. If the proposed action exceeds the parameters of the nationwide permit, the Holder shall obtain an individual permit from the appropriate office of the Army Corps of Engineers and provide the Authorized Officer with a copy of same. Failure to comply with this requirement shall be cause for suspension or termination of this ROW grant.

The Holder is prohibited from discharging oil or other pollutants into or upon the navigable waters of the United States, adjoining shorelines, or the waters of the contiguous zone in violation of Section 311 of the Clean Water Act as amended, 33 U.S.C. 1321, and the regulations issued thereunder, or applicable laws of the State(s) of NM and regulations issued thereunder. Holder shall give immediate notice of any such discharge to the Authorized Officer and such other Federal and State officials as are required by law to be given such notice.

#### **4.16 SPECIAL STIPULATIONS**

- A. The Holder will reduce the height of the elevated water storage tanks to the lowest functional limit to reduce the possibility of collisions by airborne wildlife.

- B. The Holder will limit heavy equipment travel to the immediate construction ROW and avoiding areas of heavy growth and native habitat when feasible.
- C. The Holder will be responsible to limit construction activities to outside the general migratory bird nesting season of March through August or for surveying areas proposed for construction during the nesting season and avoiding any occupied areas until nesting is complete.
- D. The Holder will minimize the trapping of wildlife during trenching operations by trenching and burying the pipeline concurrently, leaving the least possible amount of trench open overnight, and providing escape ramps for trapped wildlife. If trenches cannot be backfilled immediately, constructing escape ramps will be located at least every 295 feet. Trenches that have been left open overnight, especially where endangered species occur, will be inspected and any animals found removed prior to backfilling.
- E. The Holder will paint all above ground structures in a BLM approved color from the Standard Environmental Color Chart CC-001: June 2008.
- F. If avoidance of cultural resource sites LA 86735 and LA150031 is not feasible, the proponent must submit a request for proposals (RFP) for BLM review. After agency approval, that request can be advertised. The RFP must stipulate that the first deliverable to the City and the BLM must be a Research Design and Plan of Work for the mitigation of the effects to those sites caused by pipeline construction. After acceptance by the Agency, the Research Design and Plan of Work is to be reviewed by the State Historic Preservation Officer, the Cultural Properties Review Committee (both are in the New Mexico Historic Preservation Division), and the Agency's Data Recovery Review Team. Upon approval of the above, a Memorandum of Agreement outlining the course of work must be developed and signed by all concerned parties. Mitigation must be completed prior to implementation of the project work in the vicinity of the cultural resource sites.
- G. The Holder will specifically obtain all permits required by the NMOSE, and provide copies of the permits and annual monitoring reports to BLM. The holder will strictly abide by all terms and conditions of the NMOSE permit, which includes a protective monitoring program administered by NMOSE.
- H. The Holder must work with other Federal, State, and local government agencies to develop any modifications to the pumping and monitoring process for the development and use of a numerical groundwater model, the establishment of action criteria, and details of the implementation process.
- I. When the well field shows evidence of subsidence around a well head, the holder will apply approximately 2 inches of finely crushed gravel to the bottom of the subsidence area, and then finish to original grade by applying top soil. The same

practice will be repeated when the well field shows subsidence at any time during the life of this project.

## 5 ALTERNATIVES TO THE SELECTED ALTERNATIVE

### 5.1 NO ACTION ALTERNATIVE

The No Action Alternative (Alternative A) describes conditions expected to occur if the City were to continue to rely on existing resources to meet current and future drinking water demands. Under the No Action Alternative, there would be no new well field development or additional water supply beyond the City's existing firm water supply. Alternative A assumes that the City would continue to enforce water conservation measures, use reclaimed water for irrigation of green spaces, and maintain existing groundwater wells and infrastructure.

### 5.2 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Several alternatives were considered but eliminated from further evaluation. Alternatives were evaluated against the purpose and need identified. Those that did not meet the following requirements were eliminated from further analysis and are described below. The alternatives considered but not analyzed were dismissed for one of the reasons listed in the BLM National Environmental Policy Act (NEPA) Handbook:

- It is ineffective (it would not respond to the purpose and need).
- It is technically or economically infeasible (consider whether implementation of the alternative is likely given past and current practice and technology; this does not require cost-benefit analysis or speculation about an applicant's costs and profits).
- It is inconsistent with the basic policy objectives for the management of the area (such as not in conformance with the land use plan).
- Its implementation is remote or speculative.
- It is substantially similar in design to an alternative that is analyzed.
- It would have substantially similar effects to an alternative that is analyzed.

Three alternative well field sites were considered: Alvarado well field, Grapevine Canyon well field, and White Sands Missile Range Headquarters well field. The Alvarado well field site was eliminated from further consideration because *it is technically or economically infeasible*. The Grapevine Canyon and White Sands Missile Range Headquarters well fields were eliminated from further consideration because they are *inconsistent with the basic policy objectives for the management of the area*.

Alternative sources of water were also considered:

- Aquifer storage and recovery would not be a sustainable source of water (*it is ineffective*).
- Additional water conservation would not have met the current or future demand (*its implementation is remote or speculative*).

- Aquifer recharge would not be a reliable source of water (*it is technically or economically infeasible*).
- Importing water could potentially have increased environmental impacts and may not be approved by NMOSE (*it is ineffective*).
- Cloud seeding would not be reliable (*its implementation is remote or speculative*).
- Watershed management would not be reliable (*it is technically or economically infeasible*).
- The Tularosa Creek Reservoir would not have a reliable amount of water to meet needs (*it is technically or economically infeasible*).
- Reclaimed water would not meet potable demand (*it is ineffective*).

The City considered two options for modifying its current water rights program: maintaining the existing points of diversion and changing the points of diversion (*it is ineffective*) because they would increase environmental impacts and not meet demand. The City also considered purchase or lease of existing agricultural water rights from willing sellers (*its implementation is remote or speculative*). An alternative siting location for the desalination facility on State of New Mexico trust land was evaluated and eliminated from further analysis (*it is technically or economically infeasible*). The site would have increased environmental impacts. Alternative technologies for treating brackish and saline water were eliminated from further analysis because the environmental impacts would likely be the same as the evaluated alternatives (*it would have substantially similar effects to an alternative that is analyzed*).

## **6 MANAGEMENT CONSIDERATIONS**

### **6.1 COMPLIANCE WITH LAWS AND REGULATIONS**

The project is in compliance with all Federal laws, regulations, and plans for which the BLM has jurisdiction, including but not limited to FLPMA, and the White Sands Resource Area Resource Management Plan (WSRMP) (BLM 1986), approved September 5, 1986. The action, as proposed, conforms to the terms and conditions of the WSRMP:

*BLM grants utility and transportation ROW leases, and permits to individuals, businesses, and governmental entities for the use of the public land. ROWs are issued to protect natural and cultural resources associated with the public land and adjacent lands. ROWs are also issued to promote the maximum utilization of existing ROWs, including joint use whenever possible. (BLM 1986:11).*

It is a condition of approval that the proponent is in compliance with all Federal, State, and local laws, and has received all applicable permits and permissions.

### **6.2 DOES THE PROJECT MEET THE PURPOSE AND NEED?**

The BLM's purpose and need are met as described in Section 1.2 of the Final EIS. The BLM is responsible for the balanced management of the public land and resources. Management is based upon the principles of multiple use and sustained yield. The project meets the BLM's

requirement for balanced management of public land, resources, and values by allowing for a ROW to serve pipelines and other facilities and systems for the distribution of water while protecting other resources including air quality, water quality, wildlife, and cultural resources.

### **6.3 RATIONAL FOR SELECTING ALTERNATIVE B**

The Proposed Action, Alternative B, was developed after litigation established the City's responsibilities under their water right permits. While the groundwater table will draw down from a few feet to potentially more than 100 feet, the potential for depletion of groundwater wells near or at the Snake Tank well field over time would be mitigated, through monitoring and compliance administered by the NMOSE. If the NMOSE, through the monitoring program, identifies the need for mitigation, NMOSE would require the City to initiate the necessary measures, including a cessation of pumping, to avoid potential loss or adverse impact to water resources or water-dependent natural resources. NMOSE's jurisdictional authority of water resources will ensure that water conservation measures are consistent with public welfare.

No impacts to special status species or surface water are expected based on the Proposed Action and mitigations. Soil disturbance would amount to 285 acres at the well field, along the pipeline, and at the desalinization facility. This would include up to 70 acres of permanent vegetation loss of wildlife habitat in Chihuahuan Creosotebush, Semi-Desert Grassland, and Desert Playa habitats, and temporary disturbance to 215 acres. These habitats are widespread in the project area. No impacts to Special Status Species are expected.

The Snake Tank wells would tap into a basin fill aquifer, and are thought to be separated from nearby springs by a subsurface barrier. No impacts to riparian dependent species are anticipated, and NMSOE's monitoring program will direct measures to reduce impacts.

Cultural resources would be avoided whenever possible but may be mitigated when avoidance is not feasible.

## **7 PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION**

Two public scoping meetings were conducted by the BLM and Reclamation in October 2004. The purpose of these meetings was to provide information to all interested individuals as well as an opportunity to voice concerns or opinions. At each meeting, a series of 12 displays explained the NEPA process, the project history, the purpose and need for the action, details about the area's hydrology, and potential methods for obtaining a regional water supply. In addition, attendees received a packet of project-related information that provided further details about the information shown in the presentation and on the display boards. The project management team, which includes representatives from both the BLM and Reclamation, was available to answer questions and participate in the public discussion. The public scoping report is available in the Final EIS (see Appendix D).

The BLM held two public meetings during the Draft EIS 60-day public review and comment period in September 2010. The meetings, held in Tularosa and Alamogordo, New Mexico, were conducted to provide information about the project and answer the public's questions. A court

reporter was made available for both meetings to record comments and questions made by the public. Various BLM resource specialists were available to answer the public's questions. Public comments were evaluated and incorporated as appropriate into the Final EIS (see Appendix E).

The BLM assumed consultation with Indian tribes when the project was transferred to the BLM from the Bureau of Reclamation. Tribes consulted were: the Comanche Indian Tribe, Isleta Pueblo, Kiowa Tribe, Mescalero Apache Tribe, and Ysleta del Sur Pueblo. Early in the consultation process, the Mescalero Apache Tribe registered a concern that the drawdown of water from the aquifer selected as a source for the project would have a significant negative effect on the tribe's water source. The NMOSE addressed that concern. The tribe did not return to that issue in any subsequent letters or meetings.

## 8 APPEALS

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and Form 1842-1(*copy attached*). If an appeal is filed, your notice must be filed in the Las Cruces District Office, 1800 Marquess Street, Las Cruces, New Mexico 88005 within 30 days upon receipt or issuance of this decision. The appellant has the burden of showing that the decision appealed is in error.

If you wish to file a petition, pursuant to regulation 43 CFR §4.21, for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for stay must accompany your notice of appeal. A petition for stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

### **Standards for Obtaining a Stay:**

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. the relative harm to the parties if the stay is granted or denied.
2. the likelihood of the appellant's success on the merits.
3. the likelihood of immediate and irreparable harm if the stay is not granted, and
4. whether the public interest favors granting the stay.

## 9 APPROVAL

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Bill Childress  
District Manager

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Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS**

**DO NOT APPEAL UNLESS**

1. This decision is adverse to you,  
AND
2. You believe it is incorrect

**IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED**

<b>1. NOTICE OF APPEAL</b> .....	A person who wishes to appeal to the Interior Board of Land Appeals must file in the office of the officer who made the decision (not the Interior Board of Land Appeals) a notice that he wishes to appeal. A person served with the decision being appealed must transmit the <i>Notice of Appeal</i> in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. If a decision is published in the FEDERAL REGISTER, a person not served with the decision must transmit a <i>Notice of Appeal</i> in time for it to be filed within 30 days after the date of publication (43 CFR 4.411 and 4.413).
<b>2. WHERE TO FILE</b>	Bureau of Land Management, 1800 Marquess Street, Las Cruces, New Mexico 88005
NOTICE OF APPEAL.....	
WITH COPY TO SOLICITOR...	Office of the Solicitor, P. O. Box 1042, Santa Fe, New Mexico 87504
<b>3. STATEMENT OF REASONS</b>	Within 30 days after filing the <i>Notice of Appeal</i> , file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the <i>Notice of Appeal</i> , no additional statement is necessary (43 CFR 4.412 and 4.413).
WITH COPY TO SOLICITOR.....	Office of the Solicitor P.O. Box 1042, Santa Fe, New Mexico 87504
<b>4. ADVERSE PARTIES</b> .....	Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the <i>Notice of Appeal</i> , (b) the Statement of Reasons, and (c) any other documents filed (43 CFR 4.413).
<b>5. PROOF OF SERVICE</b> .....	Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (43 CFR 4.401(e)).
<b>6. REQUEST FOR STAY</b> .....	Except where program-specific regulations place this decision in full force and effect or provide for an automatic stay, the decision becomes effective upon the expiration of the time allowed for filing an appeal unless a petition for a stay is timely filed together with a <i>Notice of Appeal</i> (43 CFR 4.21). If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Interior Board of Land Appeals, the petition for a stay must accompany your <i>Notice of Appeal</i> (43 CFR 4.21 or 43 CFR 2801.10 or 43 CFR 2881.10). A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the <i>Notice of Appeal</i> and Petition for a Stay <b>must</b> also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. <b>Standards for Obtaining a Stay.</b> Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) the relative harm to the parties if the stay is granted or denied, (2) the likelihood of the appellant's success on the merits, (3) the likelihood of immediate and irreparable harm if the stay is not granted, and (4) whether the public interest favors granting the stay.

Unless these procedures are followed, your appeal will be subject to dismissal (43 CFR 4.402). Be certain that **all** communications are identified by serial number of the case being appealed.

**NOTE:** A document is not filed until it is actually received in the proper office (43 CFR 4.401(a)). See 43 CFR Part 4, Subpart B for general rules relating to procedures and practice involving appeals.

(Continued on page 2)

**43 CFR SUBPART 1821--GENERAL INFORMATION**

Sec. 1821.10 Where are BLM offices located? (a) In addition to the Headquarters Office in Washington, D.C. and seven national level support and service centers, BLM operates 12 State Offices each having several subsidiary offices called Field Offices. The addresses of the State Offices can be found in the most recent edition of 43 CFR 1821.10. The State Office geographical areas of jurisdiction are as follows:

STATE OFFICES AND AREAS OF JURISDICTION:

Alaska State Office ----- Alaska  
Arizona State Office ----- Arizona  
California State Office ----- California  
Colorado State Office ----- Colorado  
Eastern States Office ----- Arkansas, Iowa, Louisiana, Minnesota, Missouri  
and, all States east of the Mississippi River  
Idaho State Office ----- Idaho  
Montana State Office ----- Montana, North Dakota and South Dakota  
Nevada State Office ----- Nevada  
New Mexico State Office ---- New Mexico, Kansas, Oklahoma and Texas  
Oregon State Office ----- Oregon and Washington  
Utah State Office ----- Utah  
Wyoming State Office ----- Wyoming and Nebraska

(b) A list of the names, addresses, and geographical areas of jurisdiction of all Field Offices of the Bureau of Land Management can be obtained at the above addresses or any office of the Bureau of Land Management, including the Washington Office, Bureau of Land Management, 1849 C Street, NW, Washington, DC 20240.

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(Form 1842-1, September 2006)