

U.S. Department of the Interior Bureau of Land Management

Environmental Assessment
DOI-BLM-NV-S010-2010-0195-EA
December 2010

Background Monitoring Wells Project for the Reid Gardner Station

APPLICANT

Nevada Power Company d/b/a NV Energy

GENERAL LOCATION

The proposed project area is generally located adjacent to
Reid Gardner Station

BLM CASE FILE SERIAL NUMBER

N-88975

U.S. Bureau of Land Management
Southern Nevada District Office
Las Vegas Field Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130



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1.0 INTRODUCTION

1.1 Background

The Reid Gardner Station (Station) is a coal-fired power plant operated by Nevada Power Company, currently doing business as NV Energy (NVE); it produces 650 megawatts (MW) from four generating facilities. The Station is located in Moapa Valley, Nevada, 4 miles west of Glendale and approximately 45 miles northeast of Las Vegas (Figure 1). As a result of Station operations, groundwater and soil contamination may have occurred. Background conditions for groundwater and soils at the Station were first addressed in the Station Revised Hydrogeologic Characterization Report prepared by NVE, on February 20, 2002.

In a subsequent communication from the Nevada Division of Environmental Protection (NDEP) to NVE in 2003, action levels for groundwater at the Station were established. NVE entered into an Administrative Order on Consent (AOC) with NDEP on February 22, 2008, to investigate and remediate site contamination. The AOC requires NVE to establish background conditions for soil and groundwater at the Station.

The U.S. Bureau of Land Management (BLM) Las Vegas Field Office received an application for a right-of-way (ROW) on July 20, 2010, from NVE for the installation and operation of twelve background monitoring wells at the Station. The application was amended on September 10, 2010, to include seven existing background monitoring wells and a dirt access road. The application was further amended on September 28, 2010 to add three additional new wells. NVE also requested authorization for two dirt access roads that will be utilized for two of the new well clusters. This environmental assessment (EA) has been prepared to analyze NVE's proposal to install and monitor background monitoring well clusters at five locations and to monitor existing background wells at seven locations. NVE's proposal is henceforth called the Proposed Action.

1.2 Purpose and Need and Decision to be made

1.2.1 Purpose and Need

The need for the Proposed Action is established by the BLM's responsibility under Section 501 of the Federal Land Policy and Management Act of 1976 (FLPMA) as amended [43 United States Code [USC] 1761] to respond to requests to grant, issue, or renew ROWs over, upon, under, or through such lands for facilities which are in the public interest and which require ROWs. The need for action is further established by the AOC signed by NVE and NDEP on February 22, 2008, regarding the Station.

In order to best evaluate background conditions, there is a need for the additional background monitoring wells to be located in areas that are unlikely to be impacted by past and present activities. By locating new wells up-gradient of known contaminant sources, fluctuations in background water quality over time will be assumed to have resulted from natural causes.

1.2.2 Decision to be made

NVE has submitted a ROW application to the BLM under the authority of the FLPMA. In accordance with the regulations found at 43 Code of Federal Regulations [CFR] 2800, the BLM will make a decision to approve or deny this application, wholly or in part, as analyzed in this assessment.

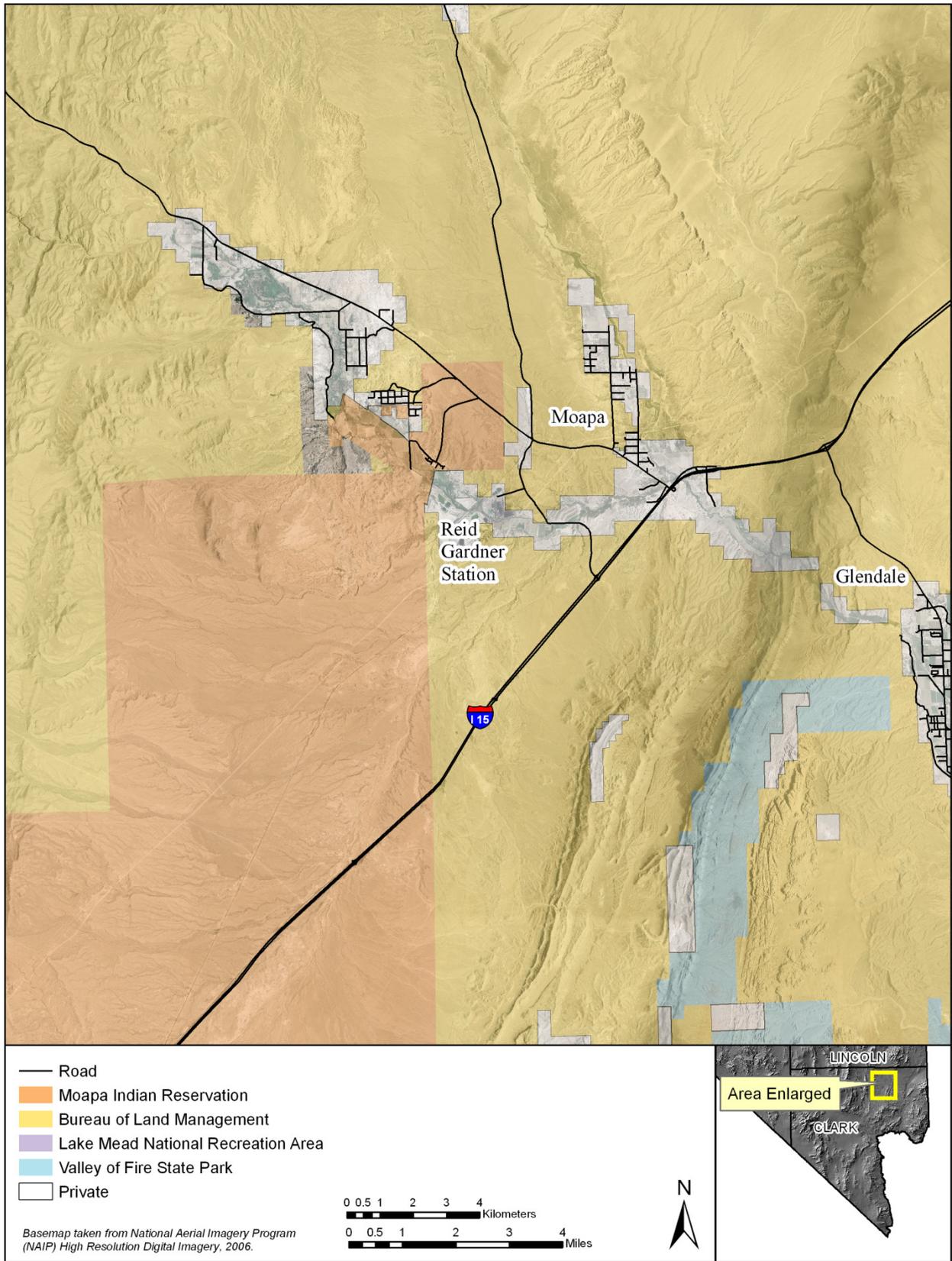


Figure 1. Project location.

1.3 Existing National Environmental Policy Act (NEPA) Documentation

The following documents are tiered to as appropriate for direct, indirect, and cumulative impacts; the Las Vegas Resource Management Plan and Final Environmental Impact Statement (BLM 1998), Record of Decision signed October 5, 1998; and the Reid Gardner Facility Pond and Landfill Expansion Project Environmental Assessment NV-2006-292 (BLM 2008a).

1.4 Conformance with Applicable Regulations and Land Use Plans

The principles of multiple use management for the BLM are established through FLPMA. The current BLM Las Vegas Resource Management Plan (LVRMP) is consistent with FLPMA and guides the decisions for the BLM to issue ROWs. The Proposed Action is in conformance with the LVRMP Management Directions, specifically:

- RW-1: “Meet public demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private inholdings, communications, flood control, major utility transmission lines, and related facilities.”
- RW-1-h: “All public land within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for ROW under the authority of FLPMA.”

1.5 Scoping, Public Involvement, and Issues

Because of the small scale of the Proposed Action, no public scoping meetings were held. On October 13, 2010, a description of the Proposed Action was placed on the BLM ePlanning NEPA register website. No public comments were received. From October through November of 2010, BLM resource specialists reviewed the Proposed Action and the following preliminary issues were identified for detailed analysis.

- The Proposed Action may result in impacts to the threatened desert tortoise (*Gopherus agassizii*).
- Migratory birds—including the western burrowing owl (*Athene cunicularia*), a BLM sensitive species—may be present in the project area.

This EA and a draft Finding of No Significant Impact (FONSI) will be made available for public review and comment from December 7, 2010, to December 23, 2010, on the BLM ePlanning NEPA register website. A copy of the EA and draft FONSI will be mailed/mailed to interested parties, including Paul Schlafy and Amy Heuslin of the Bureau of Indian Affairs; Darren Daboda, Chairman, Moapa Band of Paiutes; Megan Anderson and Dan Galpern, Western Environmental Law Center; and the Nevada State Clearinghouse.

2.0 PROPOSED ACTION AND NO-ACTION ALTERNATIVE

The previous section presents the purpose and need for the Proposed Action, as well as the preliminary issues and concerns identified as needing additional review. To meet the purpose and need for action and resolve the issues identified, the BLM has determined that the Proposed Action and No-Action Alternatives are necessary for detailed analysis.

2.1 Proposed Action

The actions necessary to install the background monitoring wells are described below. The Proposed Action would be performed in accordance with all the requirements of all applicable federal, state, and local laws, regulations, and permits as specified in the Plan of Development (NVE 2010). This section contains a general description of the construction activities necessary for the Proposed Action as approved by the NDEP. Mobilization, site preparation, soil samples, and monitoring well installation would occur between January 2011 and March 2011. No additional development or ground-disturbing activities would be necessary to support issuing ROWs for the existing background wells. Table 1, below, describes the approximate schedule of project milestones. It is anticipated that some durations may vary based on the requirements of each process.

Table 1. Anticipated Schedule

Task	Schedule
Submit BLM application package	June 2010
BLM application processing	June 2010–December 2010
Obtain other local, state, and federal permits	November 2010–December 2010
Engineer and procure materials for background wells	July 2010–December 2010
Drilling and well installation	January 2011–March 2011
Operations	Through 2041 (30-year ROW being requested)

NVE is requesting 100 × 100-foot ROWs for seven existing background monitoring wells (Table 2) to accommodate vehicle parking, turn-around, and pump-test equipment during testing, operation, and maintenance. Because of the overlap that would occur as a result of the close proximity of some of the existing wells, and the proximity to private lands associated with the Station, the ROWs for wells HM-21, HM-24 and HM-36 would be less than 100 × 100 feet. The seven ROWs would total 1.42 acres, all on BLM lands.

The existing wells are located in Mount Diablo Meridian (MDM), Township 15 South, Range 66 East, section 5, S½NW¼SE¼ (Figure 2). NVE is also requesting authorization for an existing access road to the seven existing wells. The existing wells would be accessed on an unpaved road, 600 feet long by 20 feet wide (0.28 acre). This road is also located in MDM, Township 15 South, Range 66 East, section 5, S½NW¼SE¼ (see Figure 2).

Additionally, NVE proposes to install and monitor 15 new monitoring wells at five distinct locations, or clusters (BG-1, BG-2, BG-3, BG-4, and BG-6). These wells would be placed in clusters of three and would be designed and installed to obtain representative groundwater quality data, soil samples, and hydrogeologic information from the alluvial and bedrock aquifers. Well clusters would consist of three monitoring wells within 10 feet of each other and a ROW area measuring 100 × 100 feet, to allow for

future operations and maintenance (Table 3). The new proposed background monitoring wells are located in MDM, Township 15 South, Range 66 East, section 5, lot 3, N $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$,NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$; section 6, lot 1; section 7, lot 1. The 100 x 100-foot new well clusters would be located at an appropriate location within an analysis area measuring 500 x 500 feet (Figure 3). Identification of the final well sites would be completed on foot. The total possible disturbance area for each well cluster would be 0.23 acre. The area for new wells (all five clusters) would total 1.15 acres, entirely on BLM land.

Table 2. Existing Background Wells ROW Summary Table

Existing Well/Access	ROW (acres)
HM-18 (Well)	0.23
HM-19 (Well)	0.23
HM-21 (Well)	0.20
HM-24 (Well)	0.10
HM-29 (Well)	0.23
HM-34 (Well)	0.23
HM-36 (Well)	0.20
Access road	0.28
Total	1.70

All vehicle and equipment movement would be restricted to designated access, contractor-required access, and public roads. No improvements to the existing roads are necessary. Each of the five new monitoring well clusters would be accessed using existing dirt surface roads. Access to BG-1, BG-3, and BG-6 would occur on currently authorized roads. NVE is also requesting authorization for two existing access roads to BG-2 and BG-4; these roads are existing, disturbed, unpaved roads. The access road to BG-2 is 1,372 feet long by 12 feet wide (0.38 acre). It is located in MDM, Township 15 South, Range 66 East, section 7, lot 1. The access road for BG-4 is 3,484 feet long and 18 feet wide (1.44 acres). It is located in MDM, Township 15 South, Range 66 East, section 5, lot 3, SW $\frac{1}{4}$ NW $\frac{1}{4}$.

Table 3. Proposed Background Monitoring Wells ROW Summary Table

Well Cluster	Well Cluster Footprint (acres)	ROW (acres)
BG-1	0.002	0.23
BG-2	0.002	0.23
BG-3	0.002	0.23
BG-4	0.002	0.23
BG-6	0.002	0.23
Total	0.01	1.15

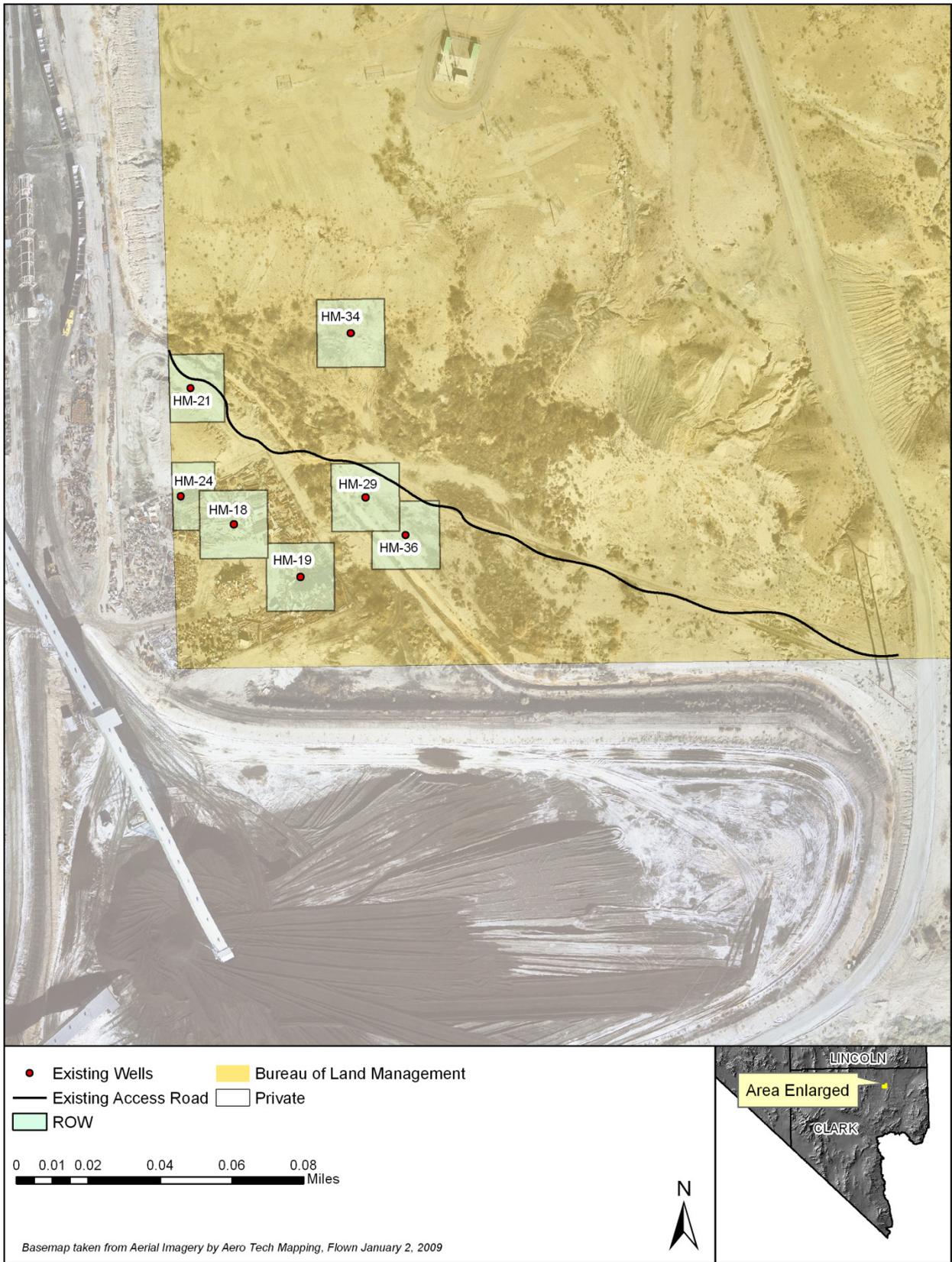


Figure 2. Location of existing wells.

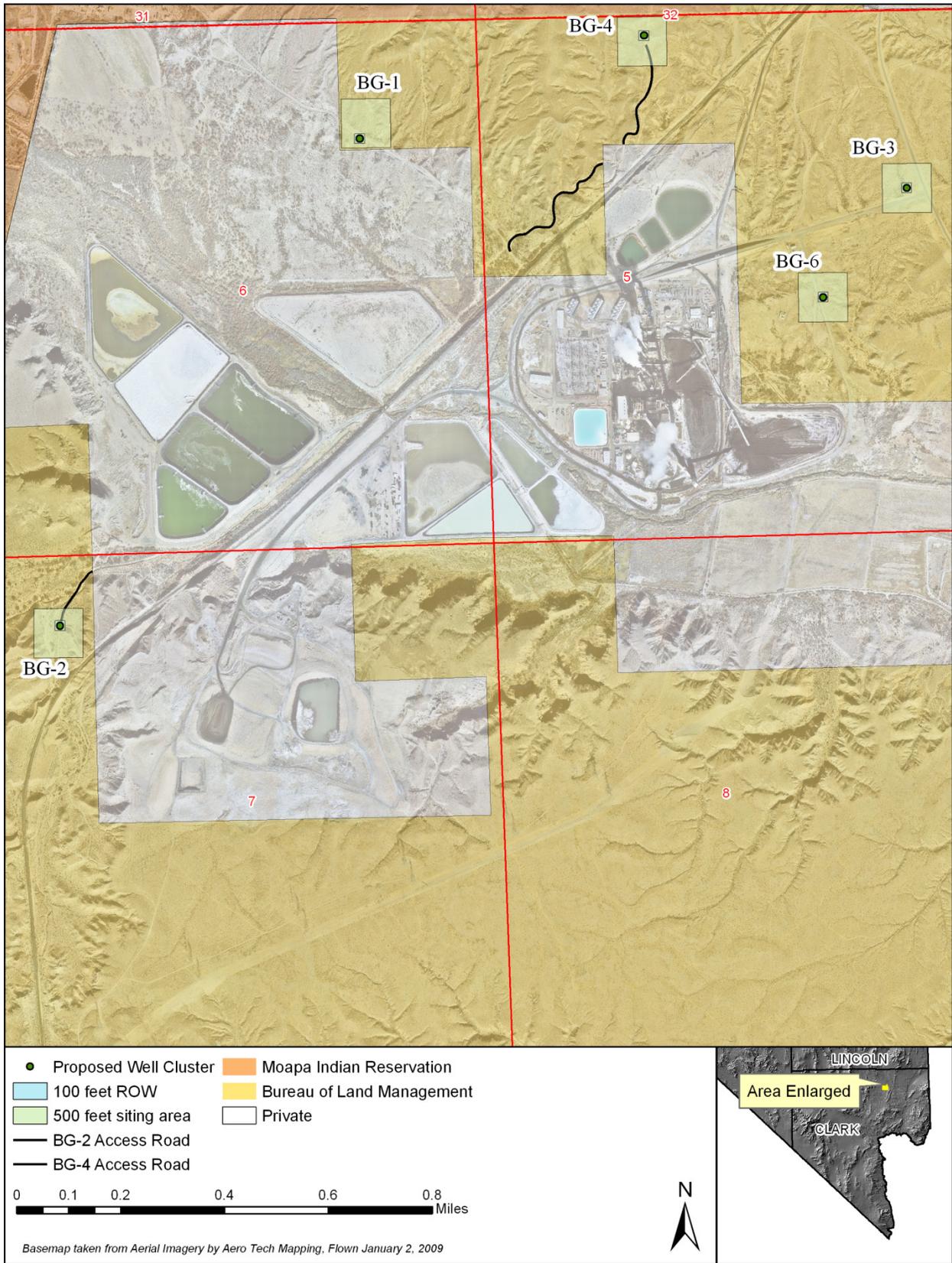


Figure 3. Location of proposed background monitoring wells.

INSTALLATION WORK FORCE NUMBERS, VEHICLES, EQUIPMENT, AND TIME FRAMES

Between five and ten workers per day would be required for soil boring, drilling, installation of the new background monitoring wells, and environmental monitoring. Facilities are available at the Station. Equipment that would be used during the installation of the background monitoring wells includes a drill rig, a pick-up truck with trailer, and pick-up trucks without trailers. No new construction activities are required for the seven existing wells. Installation of the five monitoring well clusters is projected to be completed over an approximately 10-week period beginning in January 2011.

FLAGGING OR STAKING THE USE AREAS

All areas to be disturbed during the construction period would be staked with flagging. All installation activities would be confined to these areas to prevent unnecessarily affecting resources. Stakes and flagging that are disturbed during the drilling process would be repaired or replaced before drilling continues. Stakes and flagging would be removed when drilling and well installation activities are completed.

SITE CLEARING, GRADING, OR EXCAVATION

No clearing or grading would occur within the final 100 × 100-foot well cluster ROW area. Although the ROW area would not be cleared or graded, existing vegetation would be crushed and trampled and soils would be disturbed by vehicle traffic, drilling activities, and worker foot traffic during the installation phase.

DESCRIPTION OF THE WELL INSTALLATION PROCESS

Each new well cluster and 100 × 100-foot ROW would be located at an appropriate location within the 500 × 500-foot analysis area. During installation activities, drill rigs, trucks, and trucks with trailers would drive and crush vegetation within the ROW. All vehicles would limit movements to bare ground or existing disturbed areas within the ROW as much as possible. Vehicles would follow the same route for ingress and egress at each well site.

At each cluster, three separate soil borings would be advanced to varying depths within the saturated zone of the underlying alluvial or bedrock aquifers and converted into groundwater monitoring wells. The shallow wells would be approximately 25 feet deep. The medium well designation within the alluvial aquifer would imply a well screened depth beneath a confining layer and/or below the shallow well and above the deep well and the Muddy Creek formation. The deep well designation within the alluvial aquifer would be screened on top of the Muddy Creek formation. Soil borings would be conducted using a truck-mounted or all-terrain sonic drilling machine. Drilling and installation of the background monitoring wells would follow guidelines set forth in the approved U.S. Environmental Protection Agency standard operating procedures in the NVE Quality Assurance Project Plan (Stanley Consultants 2008a).

SPILL PREVENTION AND CONTAINMENT DURING DRILLING ACTIVITIES AND OPERATION

The use of hazardous materials is expected to be minimal during the installation of the new background monitoring wells. For any hazardous materials stored or used on-site, the contractor would implement measures to minimize the potential for spills. The contractor would also provide adequate spill response

equipment, and absorbents would be readily available. In addition, all contractor personnel working at the proposed project site would be properly trained to control and clean up any spills.

2.1.1 Operations and Maintenance

OVERVIEW

Each of the five new well clusters and seven existing wells would be visited quarterly by one to two workers in one standard 4-wheel-drive pick-up truck or sport utility vehicle with trailer and sampling equipment to inspect conditions and record data. The same access roads used during installation of the wells would be used for the life of the project. Access roads would be maintained as necessary to prevent off-road detours due to ruts, mud holes, etc. It is anticipated that maintenance would occur no more than once per year. More frequent maintenance may be performed, if needed, to maintain roads in an acceptable condition. The BLM would be notified, desert tortoise clearances would be conducted, and the work performed as needed.

Monitors would access the wells on the existing roads described under the installation process. Monitors would drive directly up to each well site, and would park vehicles and equipment within the 100 × 100-foot ROW area. All workers conducting quarterly monitoring would attend a desert tortoise education program presented by a qualified tortoise biologist.

Aquifer pump tests would be performed using a water tank mounted in the bed of a pick-up truck or on a small trailer towed behind a pick-up truck, a portable pump, and a gasoline-powered generator. A 55-gallon drum to contain well purge water would be temporarily placed on the ground next to each well cluster during testing. Should the well need to be redeveloped, the same equipment used for aquifer pump tests would be used for well redevelopment.

NVE would maintain the monitoring wells. Any problems would be promptly reported to on-site Station personnel, who will coordinate both routine maintenance and any necessary repairs. Should operation and maintenance activities require disturbance outside the ROW or scope of ROW, NVE would need to apply for additional authorization from the BLM.

2.1.2 Termination and Restoration

A decommissioning plan will be developed by NVE and approved by the BLM. The decommissioning plan will include a site reclamation plan and monitoring program. Resource conservation measures, mitigations, and stipulations developed for the construction phase shall be applied to similar activities during the decommissioning phase.

REMOVAL OF STRUCTURES

At the end of the project's useful life (about 30 years), NVE will obtain any necessary authorization from the BLM to abandon the monitoring wells. All surface structures associated with the wells will be removed and recycled or disposed of at approved facilities.

STABILIZATION AND REHABILITATION OF DISTURBED AREAS

Reclamation procedures would be based on site-specific requirements and techniques commonly employed at the time the area is to be reclaimed and would include revegetating disturbed areas. All areas of disturbed soil would be reclaimed using weed-free native shrubs, grasses, and/or forbs. Vegetation

cover, composition, and diversity would be restored to values consistent with the surrounding ecological setting.

2.2 No-Action Alternative

Under the No-Action Alternative, NVE's ROW application to install fifteen new background monitoring wells and the request to authorize the existing wells would not be approved. The background monitoring wells would not be installed as required by the NDEP and the existing wells would not be authorized. Selection of the No-Action Alternative does not preclude the authorization or approval of other proposals or projects in this area the future.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

3.1 Introduction

The Proposed Action is located in the upper Moapa Valley in the northeastern Mojave Desert. The Moapa River in the Moapa Valley drains to the southeast, ultimately emptying into Lake Mead and the Colorado River immediately south of the town of Overton. The region around the Moapa Valley is typified by Basin and Range topography, with steep rocky ranges oriented northeast to southwest, with wide valleys in between. The Mormon Mountains are situated to the northeast, the Meadow Valley Mountains to the northwest, the Arrow Canyon Range to the west, and the North Muddy Mountains to the southeast.

Environmental Effects will be evaluated for the Proposed Action taking into account compliance with the ROW Stipulations and terms and conditions located in Appendix A.

3.2 Affected Resources

Pursuant to BLM NEPA Handbook H-1790-1, Appendix 5, this EA must consider supplemental authorities as required by statute, Executive Order, or State guidelines (BLM 2008b). Table 4 presents a list of all resources, including those supplemental authorities, considered for analysis by BLM resource specialists.

Table 4. Supplemental Authorities and other Resources Evaluated for the Proposed Action

Resource	Determination	Rationale
Air Quality	NI	The project area is within an area of non-attainment for PM ₁₀ and carbon monoxide. The drilling activities and operation of gas-powered vehicles and equipment would occur in the short term and would result in a temporary, minor increase in both PM ₁₀ and carbon monoxide. Those increases would occur intermittently for the duration of drilling activities (two months) and would not result in changes to the attainment status of the project area. NVE would obtain all necessary dust control permits through the Clark County Department of Air Quality and Environmental Management. PM ₁₀ levels would be further reduced through the implementation of dust control measures described in terms and conditions of the dust control permit.
Areas of Critical Environmental Concern	NP	The Proposed Action is not located within or adjacent to any Area of Critical Environmental Concern or critical desert tortoise habitat.
BLM Natural Areas	NP	There are no designated Natural Areas within the BLM Southern Nevada District.
Cultural Resources	NP	To comply with Section 106 of the National Historic Preservation Act, the BLM Archaeologist conducted an existing data review of the area of potential effect (APE) according to 36 CFR 800.4. The APE was previously evaluated for numerous undertakings. Results are detailed in BLM Cultural Resource reports 5-1592, 5-1756 and HRC reports 1-1-12 and 5-4-4. There are no historic properties within the APE for the proposed well sites or access roads; no further evaluation is required. As proposed, the undertaking would have no effect to historic properties.
Greenhouse Gas Emissions	NI	Currently there are no emission limits for suspected greenhouse gas (GHG) emissions, and no technically defensible methodology for predicting potential climate change from GHG emissions. Although an increase in GHG emissions would occur as a result of drilling activities, the increase would be minimal, and emissions would return to existing levels following drilling.

Table 4. Supplemental Authorities and other Resources Evaluated for the Proposed Action (Continued)

Resource	Determination	Rationale
Environmental Justice	NI	Residents of the Moapa Reservation are the closest Environmental Justice population (under the criteria of a minority population) to the project area. Because of the localized nature of the Proposed Action, there would be no effect to Environmental Justice communities as a result of the Proposed Action.
Farmlands (Prime and Unique)	NP	No prime or unique farmlands occur in the project area.
Fish and Wildlife (excluding federally listed species)	NI	Wildlife in the general area consists of small mammals, birds, and reptiles. These species would be displaced as lands are disturbed within the project area. Primary direct impacts of the Proposed Action would occur as a result of construction activities and increased vehicle traffic and would consist of increased risk of mortality for ground-dwelling animals and less mobile species such as reptiles, displacement of individual animals, loss and fragmentation of habitat, and increased risk of harassment of wildlife. The increased risk of mortality from vehicle traffic would continue during quarterly monitoring visits. Wildlife species in the general area are common and widely distributed throughout the region. The loss of some individual animals and their habitat would have a negligible impact on populations throughout the region.
Floodplains	NP	The project area is located within the floodplain of the Muddy River. The Proposed Action would not result in an increase to flood hazards downstream.
Fuels/Fire Management	NP	There are no fuels projects planned or proposed in the project area.
Geology/Mineral Resources/Energy Production	NI	No mining claims or mining operations are present. Mineral materials are not expected to be severed from the property by this action.
Hydrologic Conditions	NI	No impact to local hydrologic conditions would occur from the Proposed Action.
Invasive Species/Noxious Weeds	NI	Full accountability for weed control is required of NVE. Populations of weed species would not expand above local endemic ratios. Herbicide use in tortoise habitat is not permitted at this time, so hand-pulling and other mechanical methods would be necessary. All stipulations requiring vehicles and equipment to be clean upon entering the site are required.
Lands/Access	NI	Current land uses in the project area would continue unaffected by the Proposed Action. There would be no change to existing access as a result of the Proposed Action.
Livestock Grazing	NP	The project area has been closed to grazing in accordance with the Las Vegas BLM Resource Management Plan (RMP).
Migratory Birds	PI	Migratory birds—including the western burrowing owl, a BLM sensitive species—may be present in the project area. Detailed analysis of migratory birds is required.
Native American Religious Concerns	NP	Surface disturbance would be minimal and no prehistoric or historical sites will be affected.
Paleontology	NP	No fossil-bearing strata would be affected by the Proposed Action.
Rangeland Health Standards	NP	This is not a grazing or restoration action. The project area has been closed to grazing in accordance with the Las Vegas RMP.
Recreation	NP	The project area is not within a Special Recreation Management Area. Additionally, there are no developed or primitive recreational opportunities identified in the project area.
Socioeconomics	NI	The Proposed Action would not result in adverse or beneficial impacts to social or economic values.
Soils	NI	All drilling fluids and cuttings would be removed from the site.
Threatened, Endangered or Candidate Plant Species	NP	There are no known occurrences of BLM sensitive species, threatened, endangered, or candidate plant species in the project area. As a result of the small project footprint, any potential impacts to unknown occurrences would be negligible.

Table 4. Supplemental Authorities and other Resources Evaluated for the Proposed Action (Continued)

Resource	Determination	Rationale
Threatened, Endangered or Candidate Animal Species	PI	The project area occurs in desert tortoise habitat and may result in impacts to desert tortoise and habitat. Detailed analysis of desert tortoise is required.
Wastes (hazardous or solid)	NI	There would be no change in the type or quantity of wastes, hazardous and solid, present in the project area as a result of the Proposed Action.
Water Resources/Quality (drinking/surface/ground)	NI	There would be no change to surface or groundwater quality. Wells would be drilled according to Nevada Administrative Code protocols. Well heads would be secured to prevent any potential contamination. Monitoring data would be provided to the BLM, including copies of the well logs. Once the project is complete, the wells would be decommissioned as appropriate.
Wetland/Riparian Zones	NI	The project area does not occur in a wetland/riparian zone. Additionally, all existing vegetation would be avoided as possible.
Wild and Scenic Rivers	NI	The Muddy River has been found to be eligible for inclusion in the National Wild and Scenic River System. The Proposed Action is not expected to result in impacts to the eligibility status of the Muddy River. The cultural resources, wildlife, fish, and free-flow nature of the Muddy River would not be adversely affected by the Proposed Action.
Wilderness and Wilderness Study Areas	NP	The Proposed Action is not located within or adjacent to designated Wilderness or Wilderness Study Areas.
Woodland/Forestry	NI	To the extent possible, well sites would be chosen to avoid mesquite trees. If impacts to mesquite trees are unavoidable, contact the BLM Botanist (702-515-5000) for further guidance. Cactus and yucca may be present within the project area. Cactus and yucca are considered government property and are regulated under the Nevada BLM forestry program. All cactus and yucca within the project area would be avoided or salvaged and replanted in undisturbed portions of the project area. Unless otherwise directed, all salvaged cactus and yucca must be watered and otherwise maintained for a period of one year. To ensure successful salvage and transplant, all cactus and yucca must be salvaged using a contractor with at least three years experience salvaging and maintaining plant materials in the Mojave or Sonoran desert (or other as approved by the BLM Botanist).
Vegetation (excluding federally listed species)	NI	As a result of the small project footprint, impacts to vegetation would be negligible.
Visual Resources	NI	The Proposed Action occurs on lands managed as Visual Resource Management Class III, which allows for moderate levels of change to the existing landscape. As a result of the existing development in the surrounding area, the Proposed Action is not expected to dominate the view of the casual observer. All temporary disturbances would be restored in accordance with BLM restoration standards.
Wild Horses and Burros	NP	There are no wild horses or burros in the project area.
Areas with Wilderness Characteristics	NP	The Proposed Action occurs in an area which was inventoried for wilderness characteristics per section 603 of FLPMA. Following the inventory process, unit NV-050-02R-03/Moapa (53,023 acres) was dropped from further wilderness consideration.

NP – Not present in the area impacted by the Proposed Action.

NI – Present, but not affected to a degree that detailed analysis is required.

PI – Present with potential for relevant impacts that need to be analyzed in detail in the EA.

3.3 Affected Environment and Environmental Effects

3.3.1 Threatened, Endangered or Candidate Animal Species

Threatened and endangered (T&E) species are placed on a federal list by the U.S. Fish and Wildlife Service (USFWS) and receive protection under the Endangered Species Act (ESA) of 1973, as amended. The only T&E species known to occur in the vicinity of the project area is the threatened Mojave Desert

tortoise (*Gopherus agassizii*). Historical survey data indicate that the project area is low- to moderate-density tortoise habitat. Typical Mojave Desert tortoise habitat occurs on flats and bajadas characterized by scattered shrubs and abundant inter-space for growth of herbaceous plants.

Additionally, there is a documented sighting of a Gila monster (*Heloderma suspectum*) in the area of the Station. The Gila monster is classified as a protected species under Nevada Administrative Code 503.080. Gila monsters generally inhabit upland desert scrub and are typically associated with desert washes, bajadas, and rocky slopes. A qualified biologist, in accordance with Nevada Department of Wildlife (NDOW) protocols, would handle any encounters with a Gila monster and notify an NDOW Officer immediately.

PROPOSED ACTION

Because the project area occurs within desert tortoise habitat, there is potential for tortoises to wander into the project area. If not noticed and avoided during drilling activities, desert tortoises could be either killed (by crushing) or they may be harassed (by being moved out of harm's way). This project would disturb a total of 2.85 acres of desert tortoise habitat. There would be no cross-country motorized travel during final identification of the new well sites. Once the final well sites are identified, an authorized tortoise biologist would be present to monitor motorized travel on authorized routes to and from the well sites. Additionally, the authorized biologist would conduct tortoise clearance surveys of each well site prior to drilling, and monitor activities on site during drilling, to prevent crushing of tortoises and burrows; specifically, the authorized biologist would walk in front of vehicles when traveling over undisturbed habitat. All vehicles would travel the same route for ingress and egress to the existing and new well sites. Individuals conducting quarterly monitoring would go through a tortoise education program presented by a qualified tortoise biologist as described in the terms and conditions (Appendix A).

Consultation for this project is covered under the Programmatic Biological Opinion for Multiple Use Activities (1-5-97-F-251), contingent upon compliance with the terms and conditions for Area B presented in Appendix A of this EA.

NO ACTION

Under the No-Action Alternative, the BLM would not issue a ROW grant for the 15 new background monitoring wells, seven existing background wells, and access roads. Impacts to special-status wildlife species would continue to be subject to the existing conditions and trends associated with operation of the Station.

3.3.2 Migratory Birds

Under the Migratory Bird Treaty Act (MBTA) of 1918 and subsequent amendments (16 USC 703–711), it is unlawful to take, kill, or possess migratory birds. Executive Order 13186 issued January 11, 2001, further defines the responsibilities of federal agencies to protect migratory birds. The project area occurs in the northern Mojave Desert in typical upland desert habitat that supports a variety of migratory bird species. Migratory bird species likely to occur within the project area are those typically associated with the creosote–white bursage vegetation community, and include common raven (*Corvus corax*), mourning dove (*Zenaidura macroura*), and black-throated sparrow (*Amphispiza bilineata*). Migratory birds listed by the BLM as sensitive species, such as burrowing owl (*Athene cunicularia*), LeConte's thrasher (*Toxostoma lecontei lecontei*), loggerhead shrike (*Lanius ludovicianus*), phainopepla (*Phainopepla nitens*), and others, may occur in the project area.

PROPOSED ACTION

Drilling activities and operation of facilities associated with the Proposed Action would result in the disturbance of up to 2.85 acres. Migratory birds are expected to avoid those areas and move into adjacent areas during installation. Birds are expected to re-establish themselves in these areas once drilling activities are completed. There would be an increased risk for birds to be directly struck or injured by vehicles and equipment during drilling activities as they move away from disturbances. To prevent undue harm to migratory bird species, project-related activities would be scheduled to take place outside the migratory bird breeding period. In upland desert habitats and ephemeral washes containing upland species, the season occurs generally between March 15 and July 30, annually. If drilling activities have to occur during the breeding season, a qualified biologist would survey the area for nests prior to commencement of those activities. Surveys would include burrowing owl and ground-nesting species in addition to those nesting in vegetation. If any active nests (those containing eggs or young) are found, an appropriately sized buffer zone would be established in coordination with the BLM wildlife biologist, and that area would be avoided until the young birds fledge.

NO ACTION

Under the No-Action Alternative, the BLM would not issue a ROW grant for the 15 new background monitoring wells, seven existing background wells, and access roads. Migratory birds would continue to be subject to the existing conditions and trends associated with operation of the Station.

3.4 Cumulative Impacts

Council on Environmental Quality regulations for implementing NEPA define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions (RFA) regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

The BLM NEPA Handbook states that the purpose of the cumulative effects analysis is to ensure that decision-makers consider the full range of the consequences of the Proposed Action and No-Action Alternative (BLM 2008b). Those resources identified for detailed analysis that would be directly or indirectly affected by the Proposed Action are analyzed below. If the actions under the Proposed Action and No-Action Alternative have no direct or indirect effect on a resource, then the cumulative impacts on that resource are not addressed below.

Table 5 summarizes past, present, and reasonably foreseeable future actions. Past actions are considered those that have occurred within the past 50 years. Present actions are considered those occurring at the time of this evaluation. Future actions are those that are in planning stages with a reasonable expectation of occurring over the next 20 years. These actions were identified through correspondence with the BLM, Las Vegas Field Office.

3.4.1 Threatened, Endangered or Candidate Animal Species

Past and present actions have contributed to the temporary and permanent loss of habitat, and habitat fragmentation within the project area and around the Station. Reasonably foreseeable future actions are expected to contribute to additional loss of habitat and habitat fragmentation. The incremental impacts to desert tortoise from the Proposed Action would consist of disturbance to 2.85 acres of habitat during drilling activities associated with the new wells. In addition, there would be quarterly monitoring visits to the new well clusters and existing wells that would lead to an increased risk of mortality along existing

roads. The impacts from the Proposed Action could contribute to the direct loss of habitat from past, present and reasonably foreseeable future actions, and increased mortality and habitat fragmentation from additional vehicle travel on existing roads. However, the proposed mitigation measures would likely offset those impacts.

Table 5. Past, Present, and Reasonably Foreseeable Future Actions Considered for Cumulative Impacts Analysis

Action	Description	Resources Affected	Area of Impact
Past and Present Actions			
Reid Gardner Station	Coal-fired electric generation station producing 650 MW of total electrical output.	All	680 acres
Utility Corridor	Several high-voltage electrical transmission lines and the Kern River natural gas pipeline. The BLM identifies the corridor as 2,640 feet wide. Existing disturbance within the corridor is only 600 feet wide.	All	200 acres
WMU-7 and Section 5 Site Characterization	Collect soil samples to complete site characterization of WMU-7 and investigation of the TPH contamination in Section 5. Twenty total soil borings were collected in connection with the investigation of the WMU-7 area. Sixteen total soil borings were collected in connection with the investigation of the Section 5 area.	All	No new ground disturbance, 0 acres
Tortoise Fencing Installation	Tortoise fencing has been installed to surround the new south lateral solid waste landfill and the proposed mesa evaporation ponds.	All	444 acres
Reasonably Foreseeable Future Actions			
Reid Gardner Facility Pond and Landfill Expansion Project	Construct, maintain, and operate new evaporation ponds and new solid waste landfill for combustion materials produced at the plant.	All	444 acres (same as existing fenced area described above)

3.4.2 Migratory Birds

Past and present actions have contributed to the temporary and permanent loss of habitat, and habitat fragmentation within the project area and around the Station. Reasonably foreseeable future actions are expected to contribute to additional loss of habitat and habitat fragmentation. The incremental impacts to migratory birds from the Proposed Action would consist of disturbance to 2.85 acres of habitat during drilling activities associated with the new wells. The impacts from the Proposed Action could contribute to the direct loss of habitat from past, present, and reasonably foreseeable future actions. However, the proposed mitigation measures would likely offset those impacts.

4.0 CONSULTATION AND COORDINATION

There is general public interest in this type of potential action. The Proposed Action has involved consultation and coordination among the affected parties and governing entities. Representatives of the BLM and NVE met as needed to evaluate this Proposed Action (Table 6).

4.1 List of Preparers/ Reviewers

Table 6. List of Preparers/Reviewers

Name	Title	Affiliation	Responsibility
Kristina Tryon	Realty Specialist	BLM	Project Manager
Lisa Christianson	Air Resources Specialist	BLM	Air quality, greenhouse gas emissions
Mark Slaughter	Supervisory Wildlife Biologist	BLM	Areas of Critical Environmental Concern, fish and wildlife, migratory birds, threatened, endangered or candidate animal species, threatened, endangered or candidate plant species, woodland/forest, vegetation
Sendi Kalcic	Wilderness Planner	BLM	BLM Natural Areas, Wilderness, Wilderness Study Areas
Susanne Rowe	Archaeologist	BLM	Cultural resources, Native American religious concerns, paleontology
John Evans	Environmental Planner	BLM	Environmental justice
Sarah Peterson	Hydrologist	BLM	Floodplains, hydrologic conditions, soils, water resources, wetland/riparian zones
Evan Allen	Geologist	BLM	Geology, mineral resources, energy production
Nora Caplette	Botanist	BLM	Invasive species, noxious weeds
Marilyn Peterson	Outdoor Recreation Planner	BLM	Recreation, Wild and Scenic Rivers
Lauren Brown	Visual Resource Specialist	BLM	Visual resources
Steve Leslie	Project Manager	SWCA Environmental Consultants	Project Management, NEPA, human resource sections
Kelsey Travis	Project Intern	SWCA Environmental Consultants	Project Assistant
Mike Swink	Biologist	SWCA Environmental Consultants	Wildlife, vegetation, special status species

5.0 LITERATURE CITED

Bureau of Land Management (BLM). 1998. *Proposed Las Vegas Resource Management Plan and Final Environmental Impact Statement*. Las Vegas: U.S. Department of the Interior, Bureau of Land Management, Las Vegas Field Office.

———. 2008a. *Environmental Assessment NV-2006-292 Reid Gardner Facility Pond and Landfill Expansion Project*. Las Vegas: U.S. Department of Interior, Bureau of Land Management, Las Vegas Field Office.

———. 2008b. *National Environmental Policy Act Handbook*. BLM Handbook H-1790-1. Washington, D.C.: U.S. Department of Interior, Bureau of Land Management.

NV Energy (NVE). 2010. *Plan of Development Evaluation of Background Conditions at Reid Gardner Station*. July.

APPENDIX A

ROW Stipulations and Terms and Conditions

Exhibit A

Stipulations N-88975

1.0 Special Stipulations

- 1.1. Holder is required to ensure that all wells are drilled according to NAC protocols.
- 1.2. Holder must ensure that the well heads are secured and locked to prevent potential contamination.
- 1.3. Holder must provide all monitoring data to the BLM, including copies of the well logs.
- 1.4. Once the wells are no longer needed, Holder is required to follow proper well abandonment procedures.
- 1.5. Cross-country vehicle travel is not permitted in the 500' x 500' analysis areas until the 100' x 100' right-of-way locations have been identified. Once the 100' x 100' locations are identified, then cross-country vehicle travel (drive and crush) is permitted within the right-of-way during installation activities, provided that vehicles will limit movements to bare ground or existing disturbed areas within the right-of-way as much as possible. Once wells are installed, Holder shall require vehicles to follow a designated route for ingress and egress at each well site.
- 1.6. Holder shall mark the corners of the 100' x 100' right-of-way with stake and/or lath. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the Holder. Holder shall maintain all boundary stakes and/or laths in place for the term of the authorization.
- 1.7. Holder is responsible for ensuring that all cactus and yucca within impact areas are salvaged and replanted in undisturbed portions of the project area. Unless otherwise directed by the BLM botanist, all replanted cactus and yucca must be watered and otherwise maintained for a period of one year. To ensure successful salvage and transplant, all cactus and yucca must be salvaged using a contractor (or other approved by the BLM botanist) with at least three years experience salvaging and maintaining plant materials in the Mojave or Sonoran Deserts.
- 1.8. Holder must, to the extent possible, choose well sites and access routes to avoid impacts to mesquite trees. If impacts to mesquite trees are unavoidable, the Holder shall contact the BLM Botanist at 702-515-5000 for further guidance on suitable mitigation. The Holder shall comply with the suitable mitigation requirements for impacts to mesquite trees as determined by the authorized officer.

2.0 General Stipulations

- 2.1. The right-of-way is issued subject to all valid existing rights.
- 2.2. No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the authorized officer.

- 2.3. The right-of-way shall be maintained in a sanitary condition at all times. Waste materials at those sites shall be disposed of promptly at an approved waste disposal site. "Waste", as used in this paragraph, shall mean all discarded matter of any kind.
- 2.4. Holder shall conduct all activities associated with construction, operation, maintenance and termination of this right-of-way within its authorized limits.
- 2.5. Holder shall maintain the right-of-way in a safe, useable condition, as directed by the Authorized Officer. A regular maintenance program shall include, but is not limited to, soil stabilization.
- 2.6. Holder shall maintain copy of the authorization along with stipulations on construction site at all times. In the event that the public land underlying the right-of-way 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 right-of-way, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part [2800][2880], including any rights to have the holder apply to BLM for amendments, modifications, or assignments and for 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 right-of-way, 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.
- 2.7. Within 90 days of construction completion, the Holder shall provide the Authorized Officer with data in a format compatible with the Bureau's Arc-Info Geographic Information System to accurately locate and identify the right-of-way:

Acceptable data formats are:

Corrected Global Positioning System files with sub-meter accuracy or better, in UTM NAD 83; Zone 11;

ARCGIS export files on a CD ROM, shapefile, geodatabase.

Data may be submitted in any of the following formats:

ARCGIS interchange, shapefile or geodatabase format.

CD ROM in compressed or uncompressed format.

All data shall include metadata for each coverage, and conform to the Content Standards for Digital Geospatial Metadata Federal Geographic Data Committee standards. Contact the GIS Department at (702) 515-5000.

3.0 Air Quality

- 3.1. The Holder shall not violate applicable air standards or related facility siting standards established by or pursuant to applicable federal, state, or local laws or regulations. The Holder shall be responsible for dust abatement within the limits of the right-of-way and is

responsible for obtaining all necessary permits from appropriate authorities for acceptable dust abatement and control methods (e.g., water, chemicals). The Holder shall be solely responsible for all violations of any air quality permit, law or regulation, as a result of its action, inaction, use or occupancy of the right-of-way.

Notwithstanding whether a violation of any air quality permit, law or regulation results, the Holder will cooperate with the Authorized Officer in implementing and maintaining reasonable and appropriate dust control methods in conformance with law and appropriate to the circumstances at the sole cost of the Holder.

Prior to relinquishment, abandonment, or termination of this right-of-way, the Holder shall apply reasonable and appropriate dust abatement and control measures to all disturbed areas. The abatement and measures shall be designed to be effective over the long-term (e.g., rock mulch or other means) and acceptable to the Authorized Officer.

- 3.2. During excavation, backfilling, and contouring, the disturbed soil should be wetted sufficiently in order to effectively reduce airborne dust and reduce soil erosion.

4.0 Cultural

- 4.1. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the Holder, or any person working on his behalf on public or Federal lands shall be immediately reported to the Authorized Officer. 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. Any decision regarding suitable mitigation measures will be made by the Authorized Officer after consulting with the Holder. Holder shall be responsible for the resultant mitigation costs.

5.0 Hazardous Material/Pesticides/Liability

- 5.1. No hazardous material, 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, 42 U.S.C. 6901, *et seq.*) shall be used, produced, transported, released, disposed of, or stored within the right-of-way area at any time by the Holder. The Holder shall immediately report any release of hazardous substances (leaks, spills, etc.) caused by the Holder or third parties in excess of the reportable quantity as required by federal, state, or local laws and regulations. A copy of any report required or requested by any federal, state or local government agency as a result of a reportable release or spill of any hazardous substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved federal, state or local government agency.
- 5.2. The Holder shall immediately notify the Authorized Officer of any release of hazardous substances, toxic substances, or hazardous waste on or near the right-of-way potentially affecting the right-of-way of which the Holder is aware.

- 5.3. As required by law, Holder shall have responsibility for and shall take all action(s) necessary to fully remediate and address the hazardous substance(s) on or emanating from the right-of way.
- 5.4. Use of pesticides shall comply with the applicable Federal and state laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the Holder shall obtain from the Authorized Officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers and any other information deemed necessary by the Authorized Officer.

The plan shall be submitted no later than December 1 of any calendar year that covers the proposed activities for the next fiscal year.

Pesticides shall not be permanently stored on public lands authorized for use under this right-of-way.

- 5.5. The Holder shall comply with all applicable local, state, and federal air, water, hazardous substance, solid waste, or other environmental laws and regulations, existing or hereafter enacted or promulgated. To the full extent permissible by law, the Holder agrees to indemnify and hold harmless, within the limits, if any, established by state law (as state law exists on the effective date of the right-of-way), the United States against any liability arising from the Holder's use or occupancy of the right-of way, regardless of whether the Holder has actually developed or caused development to occur on the right-of-way, from the time of the issuance of this right-of-way to the Holder, and during the term of this right-of-way. This agreement to indemnify and hold harmless the United States against any liability shall apply without regard to whether the liability is caused by the Holder, its agents, contractors, or third parties. If the liability is caused by third parties, the Holder will pursue legal remedies against such third parties as if the Holder were the fee owner of the right-of-way.

Notwithstanding any limits to the Holder's ability to indemnify and hold harmless the United States which may exist under state law, the Holder agrees to bear all responsibility (financial or other) for any and all liability or responsibility of any kind or nature assessed against the United States arising from the Holder's use or occupancy of the right-of way regardless of whether the Holder has actually developed or caused development to occur on the right-of-way from the time of the issuance of this right-of-way to the Holder and during the term of this right-of-way.

- 5.6. Mineral material generated, and not needed for the development of the proposed action within the right-of-way site, requires a specific BLM use authorization in accordance with regulations at 43 CFR 3600 prior to the removal of in place excess mineral material. All mineral material needs to be used on site within the right-of-way or stockpiled on site for sale by the BLM.

6.0 Survey Monuments

- 6.1. Holder shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management 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 and Nevada Revised Statutes, Chapter 329, Perpetuation of Corners. 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.

7.0 Vegetation/Noxious Weeds/Land surface Treatment/Soil/Water/Riparian

- 7.1. The Holder shall be responsible for weed control on disturbed areas within the limits of the right-of-way. The Holder is responsible for consultation with the Authorized Officer and/or local authorities for acceptable weed control methods within limits imposed in the right-of-way stipulations.
- 7.2. The Holder will limit the size of any vegetation and/or ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The project proponent will avoid creating soil conditions that promote weed germination and establishment.
- 7.3. The Holder is responsible for ensuring that all project related vehicles and equipment arriving at the site (including, but not limited to, drill rigs, dozers, support vehicles, pickups and passenger vehicles, including those of the operator, any contractor or subcontractor and invited visitors) do not transport noxious weeds onto the project site. The operator shall ensure that all such vehicles and equipment that will be traveling off constructed and maintained roads or parking areas within the project area have been power washed, including the undercarriage, since their last off road use and prior to off road use on the project. When beginning off road use on the project, such vehicles and equipment shall not harbor soil, mud or plant parts from another locale.
- 7.4. Land surface treatment for areas previously disturbed: Following excavation, trenches will be backfilled with the excavated soil. The soil will be distributed and contoured evenly over the surface of the disturbed area. The soil surface will be left rough to help reduce potential wind erosion.
- 7.5. Land surface treatment for areas previously undisturbed: Strip the top three to six inches of soil material with associated plant material over all surfaces to be disturbed by construction. Stockpile this material along the course of construction will be salvaged and transplanted out of harm's way but still within the right of way. At the conclusion, including trench backfilling and compaction, replace the stockpiled soil with plant debris uniformly back on the surface of the disturbed area.
- 7.6. Soil/Water/Riparian: If work is to occur in Ephemeral channels, need to consult with Army Corp of Engineers (ACOE) and Nevada Department of Environmental Protection (NDEP). If drilling boreholes, holder needs to follow Nevada Administrative Code (NAC) protocols for drilling.

8.0 Migratory Birds

- 8.1. To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.

If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

9.0 Threatened and Endangered Wildlife and Plant Species Stipulations

- 9.1. The Holder is required to have an authorized biologist survey well sites prior to drilling wherein vegetation will be removed and remain onsite during drilling operations.
- 9.2. The Holder is required to have an authorized biologist monitor routes to proposed well sites that do not follow existing roads to prevent crushing of tortoises and burrows. Specifically, the authorized biologist will walk in front of vehicles while traveling over undisturbed habitat.
- 9.3. The Holder is required to have individuals who will conduct quarterly monitoring go through a tortoise education program presented by a qualified tortoise biologist as described in Term 1.a. of Terms and Conditions, below.
- 9.4. The Holder will comply with the terms and conditions of the **Biological Opinion for this project** on file at the Bureau of Land Management, Las Vegas Field Office and included below.

Terms and Conditions of the Multiple Use Biological Opinion for Area B

File No. 1-5-97-F-251

In order to be exempt from the prohibitions of section 9 of the Act, the Bureau must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. To implement Reasonable and Prudent Measure Number 1, the Bureau shall fully implement the following measures:
 - a. A qualified tortoise biologist, or designee of the Bureau, shall present a tortoise-education program to all foremen, workers, and other employees working on the project. The program will include information on the life history of the desert tortoise, legal protection for desert tortoises, penalties for violations of Federal and State laws, general tortoise activity patterns, reporting requirements, measures to protect tortoises, terms and conditions of this biological opinion, and personal measures employees can take to promote the conservation of desert tortoises. The definition of "take" will also be explained. Workers will be encouraged to carpool to and from project sites. The presentation shall be approved by the Service prior to implementation. Specific and detailed instructions will be provided on the proper techniques to capture and move

tortoises which appear onsite, in accordance with Service-approved protocol. Currently, the Service-approved protocol is Desert Tortoise Council 1994, revised 1999.

- b. A speed limit of 25 miles per hour shall be required for all vehicles on the project site and unposted dirt access roads.
- c. During construction activities, tortoise burrows should be avoided whenever possible. If a tortoise is found onsite during project activities which may result in take of the tortoise (e.g., in harms way), such activities shall cease until the tortoise moves, or is moved, out of harms way. The tortoise shall be moved by either a tortoise biologist or individual trained in the proper technique of handling and moving desert tortoises. All workers will also be instructed to check underneath all vehicles before moving such vehicles.
Tortoises often take cover under vehicles.
- d. **The project shall require a tortoise biologist onsite during construction activities unless determined by the Bureau and Service that an onsite biologist is not necessary. Unless fenced and cleared, projects will require an onsite biologist during construction of the project during the tortoise active period (March 1 through October 31), and a biologist on call during the tortoise inactive period (November 1 through February 28/29).**
- e. The FWS must approve the selected consulting firm/biologist to be used by the applicant to implement the terms and conditions of this biological opinion or permit issued by the Bureau. Any biologist and/or firm not previously approved must submit a curriculum vitae and be approved by the FWS before authorized to represent the Bureau in meeting compliance with the terms and conditions of this biological opinion. Other personnel may assist with implementing mitigation measures, but must be under direct field supervision by the approved qualified biologist.

In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992), a qualified desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields as determined by the Bureau. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign, which should include a minimum of 60 days field experience. All tortoise biologists shall comply with the Service-approved handling protocol (Desert Tortoise Council 1994, revised 1999) prior to conducting tasks in association with terms and conditions of this biological opinion. In addition, the biologist shall have the ability to recognize and accurately record survey results.

- f. **All project areas including construction sites, access routes, staging areas, and fencelines, will be cleared by a qualified biologist before the start of construction or ground disturbance.** The parcel shall be surveyed for desert tortoise using survey techniques which provide 100-percent coverage. During the tortoise active season, the preconstruction clearance shall be no more than 3 days before initiation of construction. During the tortoise inactive season, the preconstruction clearance shall be within 5 days before work begins.
- g. Desert tortoises encountered experiencing heat stress will be placed in a tub, by a qualified tortoise biologist, with one inch of water in an environment with a temperature between 76 degrees F and 95 degrees F for several hours, until heat stress symptoms are

disturbance on land not considered to be tortoise habitat by a tortoise biologist, and approved by the Bureau, are not assessed a tortoise remuneration fee. Remuneration fees will be used to fund management actions which are expected to benefit the desert tortoise. Actions may involve: Habitat acquisition; population or habitat enhancement or protection; research that increases our knowledge of desert tortoise biology, habitat requirements, or factors affecting habitat attributes; reducing loss of individual animals, documenting the species' current status and trend, and preserving distinct population attributes or any other action described in the Management Oversight Group's report titled *Compensation for the Desert Tortoise* (Hastey, et al. 1991) or Recovery Plan.

- e. Payment of a remuneration fee, currently set at \$774.00 per acre, will be required for all projects prior to issuance of the lease, permit, notice to proceed, or other Bureau authorization, with the following exceptions:
- (1) R&PP leases may be issued prior to payment of remuneration fees. Payment of fees on R&PP leases may be deferred until immediately prior to surface disturbance. If the R&PP project consists of phased development of the lease area, fees will be paid for each phase immediately prior to surface disturbance.
 - (2) Because many mining plans of operation are phased in over a number of years, remuneration fees may be collected prior to the beginning of each phase.
 - (3) Other projects, such as parks, that are built in phases will be assessed the remuneration fee at the beginning of each phase.
 - (4) Projects impacting less than 0.25-acres will not be assessed a remuneration fee. The 0.25-acres refers to the total project area and does not apply to each phase of a project.
 - (5) Mineral material sales and leases will be charged a fee of 25 cents per yard up to the equivalent of \$774.00 per acre of disturbance, or will be assessed \$774.00 per acre for each phase of disturbance, at the discretion of the Bureau.
 - (6) Range and wildlife projects impacting less than 0.25-acres per allotment will be exempt from fees. The Bureau and Service shall decide on appropriate offsite habitat enhancement activities on a case-by-case basis for projects impacting more than 0.25-acres. All activities on an allotment count toward the cumulative acreage total for the allotment or wildlife project. Range projects will include fences, pipelines, water hauls, and spring developments.
 - (7) Unless the Bureau determines that lands proposed for disposal are exempt from mitigation fees under the CCDCP, remuneration fees for land disposal actions will not be required under this biological opinion; consequently, no incidental take will be authorized in association with such actions. Once transferred out of Federal ownership, the owner must comply with the terms of the CCDCP in order to be covered under the incidental take permit issued to Clark County (PRT-801045), or apply for their own incidental take permit under section 10(a)(1)(B) of the Act. Consistent with Bureau policy, the legal title of lands leased under the R&PP Act shall not be transferred out of Federal ownership until appropriate remuneration fees have been collected as specified in Terms and Conditions **3.f.** and **3.g.** below.

The current rate of \$774.00 per acre will be indexed for inflation as described in Term and Condition **3.g.** below.

- f. For Community Sand And Gravel Sales: Fees will be assessed on the basis of cubic yards of material removed from project site. A fee of 25 cents per cubic yard will be applied until such time as the fees collected are equal to \$774.00 per acre for each acre of surface disturbance, or the equivalent rate as indexed for inflation. The fee shall be paid directly to the Bureau while purchasing mineral materials at the Las Vegas District Office. The fee shall be deposited directly into the Bureau's 5320 account.
- g. For Projects Other Than Community Sand And Gravel Pits (including mineral material sales): Prior to issuance of the permit, right-of-way grant, lease (except R&PP leases), notice to proceed, or approval of any action to be covered under this biological opinion, and prior to any surface-disturbing activity associated with the proposed project, including R&PP leases, the project proponent shall pay a remuneration fee of \$774.00 for each acre of surface disturbance. For phased projects (e.g., mineral material sales), fees will be paid prior to surface disturbance associated with each phase. This rate will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) on January 31 of each year, beginning January 31, 1998. Fees assessed or collected for projects covered under this biological opinion after January 31st of each year will be adjusted based on the CPI-U. Information on the CPI-U can be found on the Internet at: <http://stats.bls.gov/news.release/cpi.nr0.htm>.

The surface disturbance for this project is 2.85 acres. The total fee for this project is \$2,205.90 (\$774.00 x 2.85 acres).

This fee will be paid directly to the Bureau of Land Management, Information Access Center. These funds are independent of any other fees collected by the Bureau of Land Management for desert tortoise conservation planning.

The payment shall be accompanied by the **Section 7 Fee Payment Form**, (Attachment) and completed by the payee. Payment shall be by certified check or money order payable to Bureau of Land Management. Checks may be delivered in person at the BLM Information Access Center (IAC). For private parcel services, such as Fed-Ex or UPS, use the physical address. For US Postal Service, use the PO Box. Note that the zip codes are different for physical vs. PO Box.

Physical Address: Bureau of Land Management
Attn: Information Access Ctr
1340 Financial Blvd.
Reno, NV 89502

PO Box: Bureau of Land Management
Attn: Information Access Ctr
PO Box 1200
Reno, NV 89520-0006

- h. Projects resulting in residual impacts will require the submission of a Bureau-approved reclamation plan, unless determined by the Bureau and Service that reclamation rehabilitation is not necessary. The reclamation plan will describe objectives and methods to be used, species of plants and/or seed mixture to be used, time of planting, success standards, and follow-up monitoring. Depending upon the size and location of the project, reclamation could simply involve recontouring, if necessary, and rehabilitation and restriction of access points or could involve reclamation over the entire area of surface disturbance. Reclamation will be addressed on a case-by-case basis.

4. To implement Reasonable and Prudent Measure Number 4, the Bureau shall fully implement the following measures:
 - a. The project applicant shall notify the Bureau at least 10 days before initiation of the project. Notification shall be made to the Bureau's wildlife staff at (702) 515-5000.
 - b. The Bureau wildlife staff (702/515-5000) and Service (702/515-5230) must be notified of any desert tortoise death or injury due to the project implementation by close of business on the following work day.
 - c. All appropriate NDOW permits or letters of authorization shall be acquired prior to handling desert tortoises and their parts, prior to initiation of any activity which may require handling tortoise.
 - d. The project proponent must submit a document to the Bureau within 30 days of completion of the project showing the number of acres disturbed; remuneration fees paid; and number of tortoises taken, which includes capture and displacement, killed, injured, and harassed by other means, during implementation of programmatic actions.
 - e. All projects to be covered under this biological opinion shall be reviewed by the Bureau's wildlife staff to ensure that appropriate measures have been incorporated into the Bureau authorization (e.g., right-of-way, lease, or sale) to minimize the potential take of desert tortoise and loss of habitat. If determined appropriate by the wildlife staff, the Bureau shall impose additional minimization measures beyond those required in other terms and conditions of this biological opinion, prior to approval or authorization of the proposed action.
 - f. For tortoise removals in Clark County, the applicant shall make prior arrangements with Clark County's tortoise pickup service (702/593-9027) at least 10 days prior to the commencement of tortoise collection. Outside Clark County, initial notification shall be made to the Bureau as stated in Term and Condition **4.b.** above.
 - g. The Bureau will keep an up-to-date log of all actions taken under this consultation; number of acres affected; results of tortoise survey and removal activities (including reported number of desert tortoises injured, killed, or removed from the project site); and date, rate (per acre adjusted for inflation) and amount of fees paid for each project. The Bureau will provide the above information to the Service's Las Vegas Office quarterly for the first year and annually thereafter, beginning 1 year from the date of this biological opinion. Annual reports will be due on February 1st, for the previous calendar year in which actions were covered under this biological opinion. Information will be cumulative throughout the life of this consultation.
 - h. For those actions identified in this biological opinion that require concurrence between the Bureau and Service, written notification of proposed changes or actions will be made a minimum of 30 days in advance. Both agencies will coordinate to the maximum extent practicable to achieve resolution. This may include informal meetings to discuss proposed actions and reach concurrence, or written correspondence. With the exception of mitigation, if concurrence is not reached, no change will take effect.

Attachment B

SECTION 7 LAND DISTURBANCE FEE PAYMENT FORM

Biological Opinion File Number: 1-5-97-F-251

Biological Opinion Issued By: Nevada Fish and Wildlife Office, Reno, Nevada

Species: Desert Tortoise (*Gopherus agassizii*) (Mojave population)

Project Name: NV Energy Reid Gardner Background Wells

Case File/Serial #: N-88975

Project Proponent: NV Energy

Phone Number: _____

Payment Calculations:	Clark County		County _____		County _____	
	Critical habitat	Non-critical habitat	Critical habitat	Non-critical habitat	Critical habitat	Non-critical habitat
# acres anticipated to be disturbed on federal land		2.85				
Fee rate (per acre)		\$774				
Total cost/habitat type (per county)	\$ -	\$2,205.90	\$ -	\$ -	\$ -	\$ -
Total cost per county	\$ 2,205.90		\$ -		\$ -	

Total payment required (all counties): **\$ 2,205.90**

Amount paid: _____ **Date:** _____ **Check/Money Order #:** _____

Authorizing agencies: Bureau of Land Management, _____ Las Vegas, _____ Nevada

Make check payable to: Bureau of Land Management

Deliver check to:	<u>Physical Address</u>	<u>PO Box</u>
	Bureau of Land Management Attn: Information Access Ctr 1340 Financial Blvd. Reno, NV 89502	Bureau of Land Management Attn: Information Access Ctr PO Box 12000 Reno, NV 89520-0006

For BLM Public Room

Process check

to:
 Contributed Funds-All Other
 WBS: LVTFFX000800
 7122 FLPMA
 All other Res. Dev. Project and Management
 Remarks: LLNV934000 L71220000.JP0000 LVTFFX000800
 Desert Tortoise Conservation Program

Please provide a copy of this completed payment form and the payment receipt to NV-930, Attn: T&E Program Lead
****T&E Program Lead will provide a copy to the appropriate District Office(s)**

Attachment B

DESERT TORTOISE SECTION 7 COMPLIANCE FORM

Entire form is to be completed by the project proponent and delivered to the Bureau of Land Management within 30 days of project completion

Biological Opinion File Number: 1-5-97-F-251

Species: desert tortoise (*Gopherus agassizii*)

Project Name: NV Energy Reid Gardner Background Wells Case File No.: N-88975
Acreage of Disturbance Authorized: 2.85
Acreage Actually Disturbed: _____
Fees Assessed: \$2,205.90 Rate: \$774.00

In accordance with this biological opinion, applicants or project proponents must avoid or remove tortoises from lands to be disturbed within the project area.

- Area B mandatory desert tortoise clearance survey
- Area C mandatory desert tortoise clearance survey
- Area C voluntary desert tortoise clearance survey conducted
- Area C voluntary desert tortoise clearance survey not conducted

Date(s) clearance survey(s) conducted: _____
Number of desert tortoises observed: _____
Number of desert tortoise burrows observed: _____
Number of desert tortoises injured: _____
Number of desert tortoises killed: _____
Number of desert tortoises removed from the project site: _____

(Provide a report detailing all tortoise encounters and what happened to the animals. This report will include age class, gender, and health of each animal, maps showing where each tortoise was captured and later relocated, and the air temperature during the relocation.)

Company and persons who conducted the survey and removal¹:

Company: _____
Name: _____
Address: _____
Phone: _____
State Permit #: _____

If desert tortoises were encountered, attach a summary of each action. This summary shall include: date encountered; whether the animal was avoided, injured, killed, or moved out of harm's way; and if the animal was handled, please identify where the animal was relocated to.

Deliver this completed form and required supplemental information to:

Bureau of Land Management
Division of Renewable Resources
4701 N. Torrey Pines Drive
Las Vegas, NV 89130
(702) 515-5000

If you have questions, call the BLM's Wildlife staff at (702) 515-5000.

¹ BLM approval of biological monitors/surveyors required. Submit resumes for review/approval 15 days prior to construction.