



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
Southern Nevada District Office
Las Vegas Field Office
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Las Vegas, NV 89130
<http://www.blm.gov/nv/st/en/fo/lvfo.1.html>

In Reply Refer to:
N- 66151
N-87393
2800 (NVS0056)

AUG 04 2009

Dear Interested Parties:

Enclosed for your review and comment is the Bureau of Land Management, Las Vegas Field Office, Environmental Assessment (EA) for the Nevada Power Company d/b/a NV Energy Site Characterization and Sampling Project In WMU-7 and Section 5. This document analyzes the potential impacts associated with the site characterization and sampling in the vicinity of the Reid Gardner Generating Facility.

Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

Comments concerning the EA for the Nevada Power Company d/b/a NV Energy Site Characterization and Sampling In WMU-7 and Section 5 will be accepted through August 20, 2009. Please submit your comments to Ms. Beth Ransel, Program Manager, PPT, at the address above. For more information regarding this action, please contact Ms. Ransel at (702) 515-5089.

Sincerely,

Program Manager
Power Project Team
Division of Lands

Enclosure

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

**Environmental Assessment
DOI-BLM-NV-S010-2009-0259-EA
August 4, 2009**

**Nevada Power Company d/b/a NV Energy
Site Characterization and Sampling
In WMU-7 and Section 5**

APPLICANT

Nevada Power Company d/b/a NV Energy

GENERAL LOCATION

The proposed action is generally located within or adjacent to the right-of-way for the Reid Gardner Generating Facility

BLM CASE FILE SERIAL NUMBER(S)

N-66151/C/
N-87393

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



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1.0 BACKGROUND INFORMATION

1.1 INTRODUCTION

NV Energy (NVE) operates the Reid Gardner Generating Facility (Facility) in Moapa, Nevada. The Facility is a four unit, 650 MW coal fired power plant located on 480 acres in Moapa Valley, Nevada. The Facility is located 4 miles west of Glendale and approximately 45 miles northeast of Las Vegas (Figure 1). The Facility is surrounded by U.S. Bureau of Land Management Las Vegas Field Office (BLM) managed lands to the north and south. There are two areas associated with the Facility on BLM managed lands that require site characterization studies be completed; Waste Management Unit 7 (WMU-7), and a portion of Section 5.

WMU-7 was constructed in 1963 and served as a landfill for both the Facility and community municipal waste prior to 1985. Most non-hazardous solid wastes generated in the early history of the Facility, possibly as early as 1963, reportedly were disposed in this landfill. A small portion of WMU-7 is located on NVE property, but the majority of it is located within land managed by the BLM northeast of the current Reid Gardner Station (RGS) Mesa fly-ash landfill. To determine the extent and contents of the WMU-7 landfill, NVE conducted soil sampling and a ground penetrating radar (GPR) survey in November 2005 under BLM right-of-way (ROW) grant N-80651. The original sampling consisted of 12 soil borings under N-80651. Subsequently ROW N-66151 was granted to provide eight acres and a fence around the previously defined WMU 7 area, including monitoring well KMW 12. The sampling and GPR survey results indicated the presence of buried debris and contaminant concentrations above screening levels for industrial soils. From those results, WMU-7 is estimated to be approximately 300 feet long and 200 feet wide (approximately 1.37 acres). The depth of the waste material varies between 6 to 12 feet below the surface and the thickness of the waste horizon is approximately 4 feet thick. The amount of waste material is estimated to be 8,888.9 cubic yards. NVE has been directed by the Nevada Department of Environmental Protection (NDEP) to provide additional information to delineate the extent and depth of the contamination associated with WMU-7. NVE has submitted and NDEP has approved the required sampling and analysis plan to complete this effort.

NVE conducted environmental investigation on NVE lands within the Facility in April 1986 to assess subsurface conditions near a chemical storage area. The investigations revealed approximately ten feet of diesel free product in one of the monitoring wells installed for investigation. The majority of the Total Petroleum Hydrocarbon (TPH) contamination occurs on NVE property, with a minor area located within land managed by the BLM, northeast of the current Facility coal pile. Previous investigations completed on NVE property at the Facility suggest that the fuel release originated from leaking underground product piping associated with an 850,000 gallon above ground storage tank (AST) containing diesel fuel. The AST is currently out of service; NVE plans to empty the AST, clean it out, and dismantle the AST. Diesel unloading and fuel transfer piping are located west of the AST. Free product recovery efforts were initiated in 1986 and are still ongoing to date. Previous reports estimate up to 400,000 gallons of diesel fuel were released to the subsurface. Through June 2008, approximately 272,000 gallons of diesel have been recovered on NVE property at the Station.

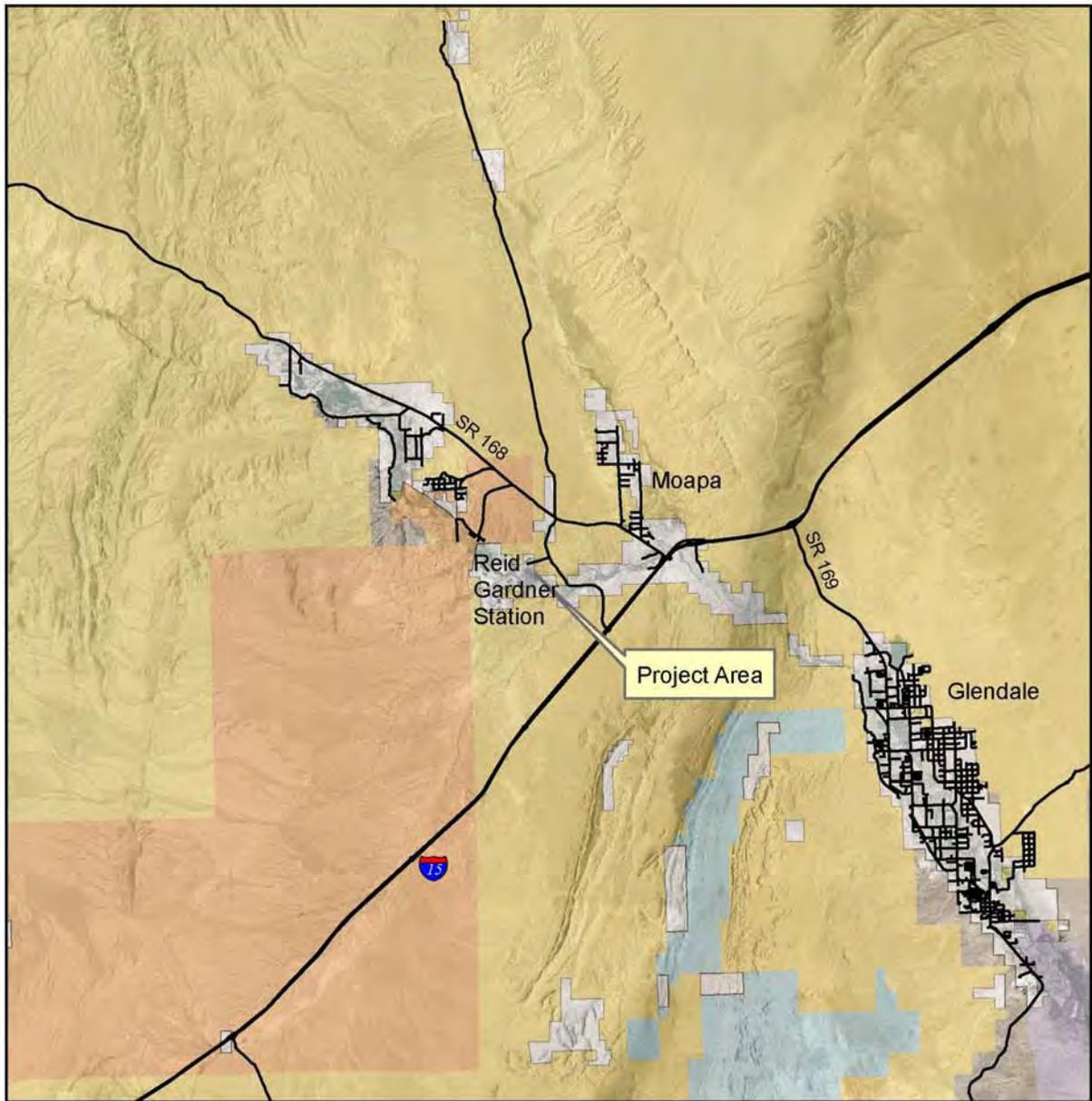
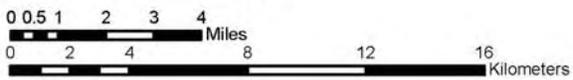


Figure 1. Project Location



Basemap taken NAIP 2006.



NVE has been directed by NDEP to provide additional information to delineate the extent and depth of the diesel fuel contamination associated with section 5. NVE has submitted and NDEP is currently reviewing the required sampling and analysis plan to complete this effort.

The project area would be situated partially on land administered by the BLM. The proposed soil borings would be located in the following portions of Clark County, Nevada, USGS Moapa West 7.5' quadrangle:

NE ¼ of the NW ¼, NW ¼ of the NE ¼ of section 7, T. 15 S., R. 66 E., MDM
NW ¼ of the SE ¼ of section 5, T. 15 S., R. 66 E., MDM

1.2 PURPOSE AND NEED AND DECISION TO BE MADE

1.2.1 PURPOSE AND NEED

The purposes for the proposed action are to confirm the boundaries of the buried debris in WMU-7, delineate the horizontal and vertical extent of contamination above action levels in WMU-7, and confirm the extent of TPH contamination in soils of Section 5.

The need for the action is established by the BLM's responsibility under Sec. 501. of the Federal Land Policy and Management Act of 1976 (FLPMA) as amended [43 U.S.C. 1761] to respond to requests to grant, issue, or renew rights-of-way over, upon, under, or through such lands for facilities which are in the public interest and which require rights-of-way. The need for action is further established by the Administrative Order on Consent (AOC) signed by NVE and NDEP on February 22, 2008 regarding the Facility. The site characterization is needed to evaluate risks to human health and the environment, and to develop remediation alternatives for both WMU-7 and Section 5.

1.2.2 DECISION TO BE MADE

NVE has submitted a right-of-way amendment application and land use permit (LUP) application to the BLM under the authority of the FLPMA. In accordance with the regulations found at 43 CFR 2800 and 2920, the BLM will make a decision to approve or deny these two applications, wholly or in part, as analyzed in this assessment.

1.3 EXISTING NEPA DOCUMENTATION

Las Vegas RMP EIS, ROD signed October 5, 1998; Environmental Assessment NV-2006-292, Case file #N-82003.

1.4 CONFORMANCE WITH APPLICABLE REGULATIONS AND LAND USE PLANS

The principals of multiple use management for the BLM are established through FLPMA. The current Las Vegas BLM 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-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”;
- LD-2-a: “Land use lease or permit applications and airport lease applications will be addressed on a case-by-case basis, where consistent with other resource management objectives and local land uses. Special terms and conditions regarding use of the public lands involved will be developed as applicable” (BLM 1998a).

The proposed action would occur on land administered by the BLM and both a ROW and LUP would be issued by the BLM for the purpose of site characterization at WMU-7 and Section 5.

1.5 SCOPING, PUBLIC INVOLVEMENT AND ISSUES

Because of the small scale and temporary nature of the proposed action no public scoping meetings were held. On Friday, April 17th, 2009, BLM resource specialists met with NVE representatives to tour the project location and discuss potential issues, the following preliminary issues were identified for analysis.

- The WMU-7 borehole locations proposed outside the east side of the fence were relocated to avoid cultural resources.
- Determine what effect the proposed action would have on migratory birds, desert tortoise and other wildlife species.
- There is a need to avoid disturbance to catclaw acacia in the section 5 borehole locations.
- Determine how the proposed action would affect the spread of noxious and invasive species.

Following the field trip no new issues were identified. In addition to the above issues, there are several supplemental authorities that have provided guidance on other issues and resources necessary for analysis. These are further described in Chapter 3 Affected Environment.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

NVE proposes to collect soil samples in order to complete further site characterization of WMU-7 and investigation of the TPH contamination in Section 5. Twenty total soil borings are proposed in connection with the investigation of the WMU-7 area; of these, 17 are located on BLM managed lands and three are on NVE property (Figure 2). Sixteen total soil borings are proposed in connection with the investigation of the Section 5 area; of these, only two are located on BLM managed lands and 14 are on NVE property (Figure 3). All boring sites would be located on previously disturbed land, to further avoid resource damage, minor adjustments to the soil boring locations may be made in the field.

Soil Boring

The soil boring holes would be drilled to a maximum depth of 30 feet below ground surface, or five feet into the native geology beneath the buried debris (whichever is shallower) to determine vertical and lateral extent of contamination. Soil samples would be continuously collected using

a split spoon sampling device and field screened with a photo-ionization detector (PID). Soil samples would be collected as independent, discrete samples. Up to three discrete samples would be collected from each soil boring for laboratory analysis. One sample would be collected from the surface (within two feet of ground surface). One sample would be collected from within the buried debris based on the Project Geologist's discretion (e.g., PID readings, visual or olfactory observations, etc.). If no buried debris is encountered, PID readings are at background levels, and there are no visual or olfactory indications of contamination, this soil sample would be collected between five to ten feet below ground surface. Finally, one soil sample would be collected in the native geology underneath the buried debris. Soil borings would be six to eight inches in diameter and no more than 30 feet deep. The area disturbed by drilling would be limited to access routes, the boring location, and the area occupied by personnel and vehicles. This would be no more than 0.2 acres per borehole location and would occur entirely on previously disturbed land.

The equipment used to complete the soil borings would be limited to one truck-mounted hollow-stem auger drilling machine and one or two pick up trucks (or equivalent) to carry additional equipment and workers for a total of two to three vehicles on site. The drill crew would consist of a four person team: driller, helper, logger, and biological monitor. The biological monitor would first clear the area, and then accompany the drill crew. The logger would collect a coordinate measurement using a hand held global position system (GPS) and place a lath with flagging to mark each location.

Decontamination of sampling equipment would be conducted to assure quality of samples collected and would be completed according the USEPA Region 9 decontamination procedures referenced in Appendix E of the approved QAPP dated May 2008 and approved by the NDEP on July 17, 2008. Equipment would be decontaminated in a designated area of the Facility, and not on BLM managed lands. All drill cuttings and decontamination fluids generated during the drilling activities would be stored in visibly labeled drums and temporarily located on site at the Facility. Appropriate offsite disposal would be completed after the laboratory analysis results have been received.

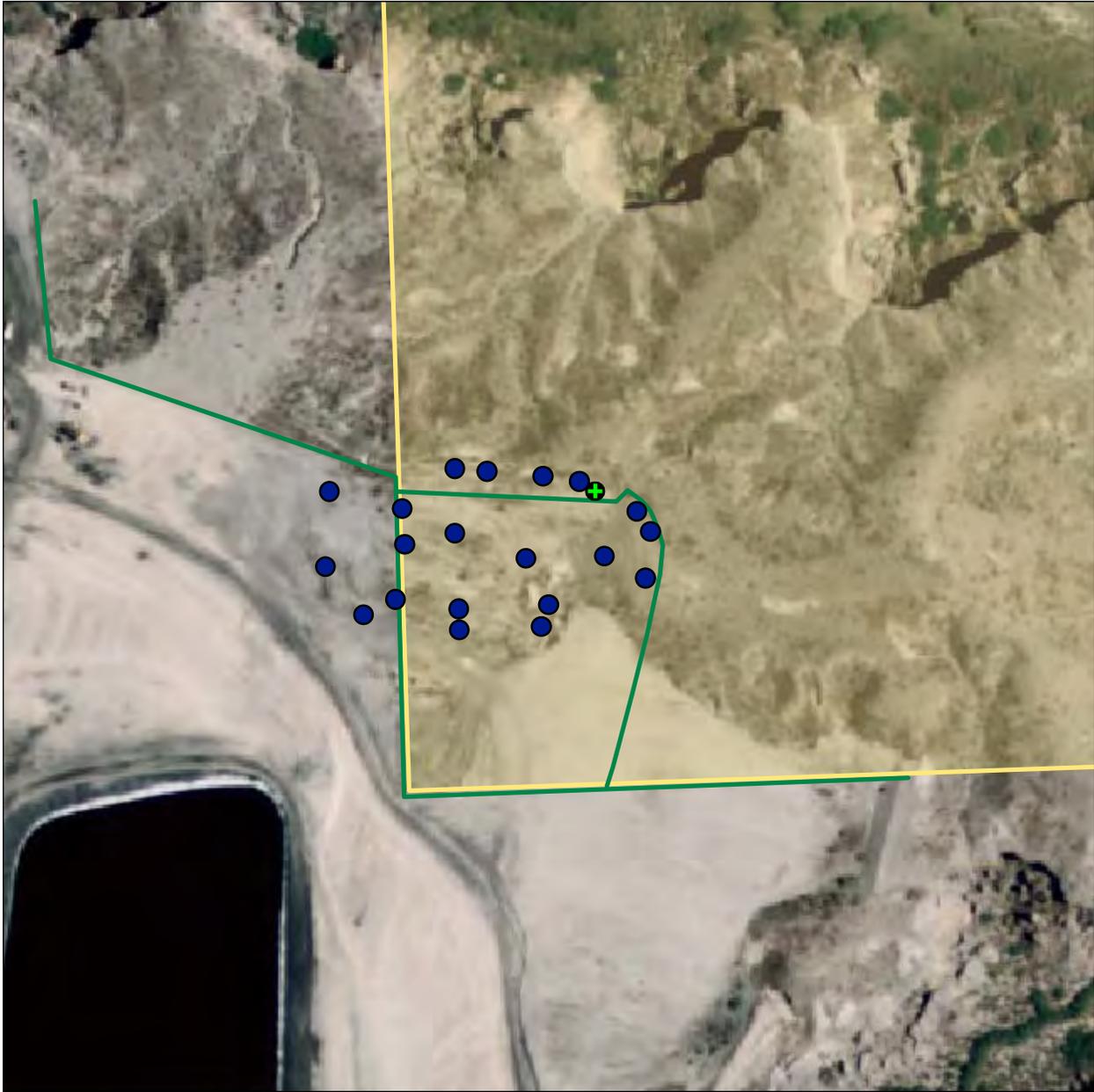
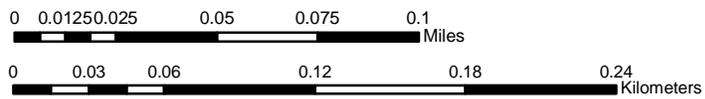


Figure 2. WMU-7 Boreholes

- WMU7 proposed soil borings
- ⊕ Active Monitoring Well
- WMU-7 Existing Fence
- Bureau of Land Management



Basemap taken NAIP 2006.

Roads and Access

WMU-7 presently has a fence that enclosed the previous soil boring locations that were conducted in 2005. The new soil boring sites would be both within and outside of that fence. Access to and from the proposed drilling locations would be via two gates in the fenced perimeter (Figure 2). All access would be across previously disturbed land (Figure 3).



Figure 3. WMU-7

The Section 5 proposed soil boring sites occur within and outside the NVE fence line (Figure 4). Access to and from the proposed drilling locations on NVE property would be from within the Facility. Access to and from the BLM administered area would be on existing dirt roads from north and east of the project area. Vehicle and equipment parking during drilling would be on existing roads and disturbance. No improvements to the existing roads are required.

Project Compliance

A ROW amendment to Grant N-66151 must be obtained from the BLM. Upon approval of the amended ROW grant, NVE would contact the BLM Authorized Officer (AO) at least five (5) days prior to commencing construction and/or surface disturbance activities. NVE would conduct all activities associated with the construction operation, and termination of the ROW within the authorized limits of the ROW in compliance with BLM stipulations. A copy of the complete ROW grant and other authorizing documents would be made available on the ROW area during construction, operation and termination.

A LUP (SF-2920) must also be obtained from the BLM. Upon approval, NVE would contact the BLM Authorized Officer (AO) at least five (5) days prior to commencing the surface disturbance activities. NVE would conduct all activities within the limits of the LUP and in compliance with BLM stipulations. A copy of the complete LUP and other authorizing documents would be made available during operation and termination.

2.2 NO ACTION ALTERNATIVE

The no action alternative would be for the Bureau of Land Management to not authorize the ROW or LUP. This would result in non-compliance with the AOC signed by NDEP for NVE to provide additional information to delineate the extent and depth of WMU-7 and the TPH contamination in Section 5.



Figure 4. Section 5 Boreholes

- Section 5 borings
- Existing Access Road
- Bureau of Land Management

0 0.0125 0.025 0.05 0.075 0.1 Miles

0 0.025 0.05 0.1 0.15 0.2 Kilometers



Basemap taken NAIP 2006.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

This section describes the environment that may be affected by the proposed action and alternative carried forward for the analysis in this EA.

3.1 GENERAL SETTING & LAND USE

The Proposed Action is located in the upper Moapa Valley in the northeastern Mojave Desert just outside of the southern edge of the Great Basin. 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 in northeast to southwest direction 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. The Proposed Action is situated in two parcels. One WMU-7 is within the Moapa Valley north of the Moapa River. The other parcel in Section 5 is on a mesa one-half mile south of the Muddy River. Elevation of the mesa site is approximately 150 ft. higher than that of the valley at 1,600 ft. Vegetation around WMU-7 consists primarily of Tamarisk, although vegetation has been cleared from the site itself. Low, widely spaced shrubs typical of the Mojave Desert are found in Section 5.

3.2 SUPPLEMENTAL AUTHORITIES

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. The following table presents a list of resources considered for analysis by BLM Resource Specialists. Although there were no specific issues identified related to vegetation and wildlife, they are included in detailed analysis because of their relevance to other resources and general environmental impacts.

Table 1. Supplemental Authorities

Supplemental Authorities	Present	Affected	Rationale
Air Quality	Yes	Yes	Discussed in detail in following section
Areas of Critical Environmental Concern	No	No	Not present.
Cultural Resources	Yes	No	Discussed in detail in following section
Environmental Justice	No	No	Not present.
Farmlands (Prime and Unique)	No	No	Not present.
Fish Habitat	No	No	Not present.
Floodplains	No	No	Not present.
Forests and Rangelands	No	No	Not present.
Migratory Birds	Yes	Yes	Discussed in detail in following section
Native American Religious Concerns	No	No	Not present.
Noxious Weeds/Invasive Non-Native Species	Yes	Yes	Discussed in detail in following section
T&E Species (animal or plant)	Yes	Yes	Discussed in detail in following section
Wastes, Hazardous or Solid	Yes	Yes	The action is being proposed in order to plan for the clean up of diesel contaminated soils and solid wastes. It is discussed in detail in following section.
Water Quality, Drinking/Ground	No	No	Area is previously disturbed, no increase in runoff or erosion due to project. Soil borings will be reclaimed following NDWR and NRS Statutes protocols, no risk of further groundwater contamination.
Wetland-Riparian Zones	Yes	Yes	All activities will occur in previously disturbed areas, all riparian vegetation will be avoided.
Wild and Scenic Rivers	No	No	Not present.
Wilderness and Wilderness Study Areas	No	No	Not present.

Additional Resources	Present	Affected	Rationale
Wildlife	Yes	Yes	Discussed in detail in following section
Vegetation	Yes	Yes	Discussed in detail in following section
Visual Resources	Yes	Yes	Discussed in detail in following section

3.3 ***AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS***

3.3.1 **AIR QUALITY**

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the air basin, and the meteorological conditions. The U.S. Environmental Protection Agency (EPA) has developed the National Ambient Air Quality

Standards (NAAQS) for six criteria pollutants which include nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), lead (Pb), ozone (O₃), and particulate matter (PM).

The EPA recently reviewed air quality criteria for O₃ and related photochemical oxidants and NAAQS for O₃, and on March 12, 2008 the EPA significantly strengthened its NAAQS for ground-level ozone. EPA revised the primary and secondary O₃ standards on the basis of the then latest scientific evidence linking exposures to ambient O₃ to adverse health and welfare effects at levels allowed by the 1-hour average standards (62 FR 38856). With regard to the primary standard for O₃, EPA is reducing the level of the 8-hour standard from 0.080 parts per million (ppm) to 0.075 ppm. With regard to the secondary standard for O₃, EPA is revising the current 8-hour standard by making it identical to the revised primary standard. EPA is also making conforming changes to the Air Quality Index (AQI) for O₃, setting an AQI value of 100 equal to 0.075 ppm, 8-hour average, and making proportional changes to the AQI values of 50, 150 and 200 (40 CFR Parts 50 and 58).

A designation of either "attainment" or "non-attainment" is provided for an area, which relates to whether the area violates the NAAQS or contributes to a nearby violation. Areas where the ambient concentrations exceed the NAAQS are considered non-attainment, and as such, are regulated more strictly to reduce emissions in order to meet the NAAQS pollutant levels. Clark County is in attainment for all criteria pollutants except for CO, PM less than 10 microns (PM₁₀), and O₃. Non-attainment areas for those pollutants include the portions of Clark County that lie in hydrographic areas 164A, 164B, 165, 166, 167, 212, 213, 214, 216, 217, and 218, but excluding the Moapa River Indian Reservation and the Fort Mojave Indian Reservation.

3.3.1.1 PROPOSED ACTION

The proposed action is in Hydrographic Basin 13, Area 218 that is designated as a non-attainment area for the EPA 8-hour ozone standard (CCDAQEM 2008a). The project area is also within the non-attainment area for PM₁₀ and CO₂ for Clark County. The drilling activities would occur in the short term and would result in a temporary, minor increase on dust levels. Those impacts would occur only in the short-term and would be reduced through the implementation of dust control measures listed in chapter 4.

3.3.1.2 NO ACTION

Under the No Action Alternative, drilling activities would not occur and the extent of buried debris and soil contamination would not be determined. Air quality conditions in the project area would continue in their present state.

3.3.2 WILDLIFE

The project area occurs in upland desert habitat that supports a variety of wildlife species. Typical wildlife in the area consists of small mammals, birds, and reptiles that are common and widespread in distribution. Most of the project area is currently removed from wildlife habitat by existing disturbances and fencing.

3.3.2.1 PROPOSED ACTION

All project disturbances would occur within existing fenced and disturbed areas. The proposed actions would result in short term impacts to wildlife habitat. Impacts to wildlife and wildlife

habitat consist of (1) harassment from human presence, (2) temporary disturbance from noise and vibration resulting from construction activities, and (3) direct mortality or injury from crushing by equipment or vehicle accidents. Impacts to wildlife would be minor because of the temporary nature of the proposed action and the majority of the species inhabiting the area such as reptiles, birds, and small mammals, are mobile species that would likely move away prior to being directly impacted. Impacts to wildlife would be further reduced by implementation of the measures listed in chapter 4 and stipulations in Appendix A.

3.3.2.2 *NO ACTION*

Under the No Action Alternative drilling activities would not be permitted and the extent of buried debris and soil contamination would not be determined. Wildlife would remain subject to current conditions and environmentally related trends in and adjacent to the project area.

3.3.3 SPECIAL STATUS SPECIES

THREATENED AND ENDANGERED 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 desert tortoise (*Gopherus agassizii*). Historical survey data indicates that the area surrounding the project sites is low to moderate density tortoise habitat. Although the area associated with the project is located within an existing disturbed area, aerial images show that a large amount of undisturbed habitat exists adjacent to the project sites.

3.3.3.1 *PROPOSED ACTION*

Because the project area is surrounded by undisturbed 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). Impacts to desert tortoise would be reduced by implementation of mitigation measures listed in chapter 4. Therefore, the proposed action has a may affect determination for the threatened desert tortoise. This project would have no affect on any other federally listed species or designated critical habitat. ESA Section 7 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 standard stipulations included in Appendix A.

3.3.3.2 *NO ACTION*

Under the No Action Alternative drilling activities would not be permitted and the extent of buried debris and soil contamination would not be determined. Special status species would remain subject to current conditions and environmentally related trends in and adjacent to the project area.

3.3.4 MIGRATORY BIRDS

Under the Migratory Bird Treaty Act (MBTA) of 1918 and subsequent amendments (16 U.S.C. 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. Migratory birds, including BLM 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.

3.3.4.1 PROPOSED ACTION

Since the proposed project is located in a previously disturbed and denuded area, impacts to migratory birds are unlikely. Displacement from the adjacent area would constitute a temporary minor adverse impact, but birds would likely reestablish themselves once construction activities are over. There is a low potential for birds to be directly struck or injured by construction activities as they move away from disturbances. If construction occurs during breeding activities, nests may be abandoned, causing a moderate adverse impact. Additionally, mitigation measures provided in chapter 4 would reduce adverse impacts to negligible levels.

3.3.4.2 NO ACTION

Under the No Action Alternative drilling activities would not be permitted and the extent of buried debris and soil contamination would not be determined. Migratory birds would remain subject to current conditions and environmentally related trends in and adjacent to the project area.

3.3.5 VEGETATION

WMU-7 is a disturbed area with sparse vegetation. According to SWReGAP analysis Sonora-Mojave Creosotebush – White Bursage Desert Scrub is present in the adjacent areas (EPA 2005). Section 5 is also a disturbed area and includes a network of existing dirt surface roads and tracks. Section 5 does have species common to desert washes including catclaw acacia (*Acacia greggii*) and mesquite (*Prosopis* spp).

3.3.5.1 PROPOSED ACTION

All site access and drilling activities would occur within existing disturbance. Cactus, Yucca, and Catclaw acacia would be avoided during drilling activities. Approved access roads would be GPS'd to indicate the approved area for travel along the project so impacts would be negligible.

3.3.5.2 NO ACTION

Under the No Action Alternative, drilling activities would not occur and the extent of buried debris and soil contamination would not be determined. There would be no change to the existing plant community. Determination of the extent of contamination would not be completed.

3.3.6 NOXIOUS WEEDS/INVASIVE NON NATIVE SPECIES

The Federal Noxious Weed Act, Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. Executive Order 13112 issued February 3, 1999 further defines the responsibilities of Federal Agencies to prevent the introduction of invasive species and provide for their control by minimizing the economic, ecological and human health impacts that invasive species cause. The issuance of a ROW grant for this project requires the proponent to comply with the Executive Order 13112 and prevent the spread or introduction of invasive species and noxious weeds.

Noxious weeds have not been observed in or near the project area and are not believed to occur in the project area. Invasive weeds have not been recorded in the project area, but it is assumed that weeds typical of Southern Nevada, such as Sahara mustard (*Brassica tournefortii*) could occur there.

3.3.6.1 PROPOSED ACTION

During drilling activities, seeds of invasive or noxious weeds could be brought into the project area and dispersed by construction equipment and workers. Implementation of best management practices and mitigation measures listed in chapter 4 would reduce the potential for weeds to be introduced or spread within and around the project area. Therefore, adverse impacts from weeds would be minimal.

3.3.6.2 NO ACTION

Under the No Action Alternative drilling activities would not be permitted and the extent of buried debris and soil contamination would not be determined. The condition of noxious weeds and invasive non-native species in the project area would continue at its present state.

3.3.7 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties. For the purposes of Section 106, historic properties are defined as those that are listed in or eligible for nomination to the National Register of Historic Places (NRHP).

In preparation for permitting the drilling activities, the BLM Archaeologist conducted an existing data review and field inspected all areas proposed for disturbance. The area of potential effect (APE) for the WMU-7 boreholes was previously inventoried for cultural resources with details discussed in BLM Cultural Resource Report 5-2372. Near the proposed WMU-7 drilling sites are several loci of the Black Dog Mesa Archaeological Complex. These loci were determined eligible to the National Register of Historic Places (NRHP); however, none of the eligible loci are located within the APE for the proposed action. The Section 5 boreholes are located within previously disturbed areas. Because of the extent of previous disturbance, the probability of finding intact cultural properties is negligible; therefore, the BLM Archaeologist has determined that these sites are exempt from Section 106 review as set forth in Section VII.A.2 of the State Protocol Agreement with the Nevada State Historic Preservation Office (SHPO). Drilling as proposed in the locations analyzed should have no effect to historic properties.

3.3.8 WASTES, HAZARDOUS OR SOLID

WMU-7 served as a landfill for Facility municipal wastes prior to 1985. Most non-hazardous waste generated at the Facility before 1985 were reportedly disposed of in this landfill. The soil survey performed in 2005 included borings that were advanced no more than 19 feet below the surface. Debris encountered consisted of rags, plastic, metal, glass and paper items. Fly ash discoloration was also encountered at different depths throughout the survey area.

In section 5, previous investigations have revealed approximately ten feet of diesel free product in one of the monitoring wells installed for investigation. Previous investigations completed on

NVE property at the Facility indicate that the fuel release originated from leaking underground product piping associated with an 850,000 gallon AST containing diesel fuel.

3.3.8.1 PROPOSED ACTION

The Proposed Action would allow NVE to characterize the spatial extent of the contaminated area, which could facilitate cleanup operations, resulting in beneficial impacts.

All drill cuttings and decontamination fluids generated during the drilling activities would be stored in visibly labeled drums and temporarily located on site at the Facility. Appropriate offsite disposal would be completed after the laboratory analysis results have been received. Therefore, adverse impacts from wastes, hazardous or solid would be negligible.

3.3.8.2 NO ACTION

Under the No Action Alternative, drilling would not be permitted and the extent of buried debris and soil contamination would not be determined. There would be no change to solid waste and contaminated soil conditions in the project area.

3.3.9 VISUAL RESOURCES

The landscape in the project area varies from WMU-7 to Section 5. Within the fenced area of WMU-7, the terrain is flat with low growing, sparse vegetation. North and east of WMU-7, the terrain is drops off in washes and gullies. The Section 5 area is at a lower elevation than WMU-7 and is adjacent to stands of taller vegetation. The landscape at Section 5 is dominated by the RGS facilities. Lands in the project area are classified as BLM Visual Resource Management (VRM) Class III. The management objective for class III is to partially retain the existing character of the landscape (BLM 1986). The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

3.3.9.1 PROPOSED ACTION

Implementation of the proposed action would not alter the existing landscape. The drilling activities would not result in contrasts with the characteristic topographic features, vegetation or structures present within the area. The proposed action is consistent with BLM VRM class III management objectives.

3.3.9.2 NO ACTION

Under the No Action Alternative, drilling would not be permitted and the extent of buried debris and soil contamination would not be determined. There would be no change to the characteristic landscape in the project area.

3.4 CUMULATIVE IMPACTS

In accordance with the NEPA Handbook, H-1790-1, (2008), the analysis of cumulative impacts considers only those resource values identified as being impacted by the proposed action and

alternatives. Cumulative impacts “result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.” Cumulative impacts could result from individually minor, but collectively significant actions, taking place over a period of time (Council on Environmental Quality, Regulations for Implementation of NEPA, 1508.7). The resource values analyzed for the Site Characterization which may involve a cumulative impact with other past, present and reasonably foreseeable future actions consist of air quality, wildlife and special status species, migratory birds, and noxious and invasive weeds.

Table 2. Past, Present and Reasonably Foreseeable Future Actions Considered for Cumulative Impacts Analysis

Action	Description	Area of Impact (ac) ¹
Past and Present Actions		
Reid Gardner Facility	Coal-fired electric generation station producing 650 MW of total electrical output.	680
Moapa Indian Reservation	The Reservation is approximately 71,954 acres. Current disturbance on reservation lands is approximately 740 acres.	740
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.	200
Initial sampling at WMU-7	The original sampling consisted of 12 soil borings under N-80651. Subsequently ROW N-66151 was granted to provide eight acres and a fence around the previously defined WMU 7 area, including monitoring well KMW 12.	8
Reasonably Foreseeable Future Action		
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.	444 acres

The following subsections identify cumulative impacts to air quality, biological resources, and noxious and invasive weeds. No impacts were determined for cultural resources or visual resources from the proposed action and so they are not considered for cumulative impacts.

Air Quality:

The Proposed Action is located in the Air Quality Hydrographic Area 218. Incremental impacts to Air Resources beyond those of the existing facility are due to temporary equipment use while conducting the studies. These impacts are expected to be minimal. The air emission parameters of concern for the Proposed Action would be fugitive dust (PM10 parameter).

Wildlife, Migratory Birds and Special Status Species:

Past and present actions have contributed to the temporary and permanent loss of habitat, and habitat fragmentation within the area of analysis, and the same may be expected from each of the reasonable foreseeable future actions. The incremental impacts of the proposed action when added to other actions consist of a temporary disturbance to habitat during drilling activities, and temporary displacement of wildlife species including migratory birds. This includes increased risk of direct mortality to the threatened desert tortoise. The area of ground disturbance from

past, present and reasonably foreseeable future actions is 2,072 acres. Because there is no new disturbance from the proposed action, the impacts to biological resources from the proposed action would not contribute to direct loss of habitat from those past, present and reasonably foreseeable future actions.

Noxious and Invasive Weeds:

Past and present actions have introduced and contributed to the spread of invasive, nonnative species within the area of analysis, and the same may be expected from each of the reasonable foreseeable future actions. The proposed action may cause minor incremental increases in noxious weeds however; implementation of approved mitigation and control measures would minimize this risk. Noxious weeds and invasive non-native species are likely to increase within the area of analysis in spite of mitigation measures that would be in place for all activities.

4.0 MITIGATION MEASURES

The BLM Las Vegas Field Office standard stipulations would be applied to these actions, and are included as Appendix A. In addition, implementation of the following general mitigation measures would ensure that impacts to identified resources of concern are minimized:

- All activities would be confined to existing roads and disturbances. All employees would be instructed that their activities must be conducted within these areas. Disturbance beyond the existing disturbed areas would be avoided by 1) using authorized and existing roads and already disturbed areas for vehicle and equipment access and travel, and 2) locating turn-around areas, work areas, and vehicle service areas within disturbed areas and existing roads.
- Disturbed areas would be stabilized with appropriate treatments (i.e. water trucks) both during and immediately following soil boring activities.
- A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews prior to commencement of groundbreaking/excavation activities. Training materials and briefings shall include, but not be limited to, discussion of the federal ESA, the consequences of not complying with this act, identification and values of wildlife and natural plant communities, hazardous substance spill prevention and containment measures, and review of all required and recommended conservation measures.
- As part of the WEAP, a desert tortoise education program should be presented to all personnel who would be on site. It shall inform participants of the occurrence of the desert tortoise in the project area and of its threatened status. They shall also be advised of the definition of “take”, the potential impacts to the tortoise, and the penalties for taking a threatened species. All participants shall sign a statement indicating they have completed the education program.
- The proponent shall implement a litter control program during construction activities, removal of trash from the construction site following the close of each work day, and proper disposal of trash in a designated solid waste disposal facility at the end of each work week. This would reduce the attractiveness of the area to opportunistic predators such as coyotes, kit foxes, and common ravens.
- Any fuel or hazardous waste leaks or spills would be immediately contained and cleaned up. Contaminated soil would be removed and disposed of at an appropriate facility.
- The proponent shall be responsible for controlling all undesirable invasive plant species including listed noxious weeds and other invasive plant identified as undesirable by federal, state, and/or local authorities. Control standards and measures must conform to applicable state and federal regulations.
- The proponent is responsible for ensuring that all project related vehicles and equipment arriving at the site (including, but not limited to drill rigs, support vehicles, pickups including those of any contractor or subcontractor) do not transport noxious weeds onto the project site. When beginning off road use on the project, such vehicles and equipment shall not harbor soil, mud or plant parts from another project. If a noxious weed infestation is known or later discovered on the project site, project related vehicles or equipment that have traveled through the infestation shall be power washed including

the undercarriage prior to leaving the site, at an established, identified wash area. Wash water and sediment shall be contained in an adjacent settling basin.

5.0 CONSULTATION AND COORDINATION

5.1 INTENSITY OF PUBLIC INTEREST AND RECORD OF CONTRACT

There is general public interest in this type of potential development. The proposed project involved consultation and coordination among the affected parties and governing entities. Representatives of the BLM and NVE met as needed to evaluate this project. Additionally, this EA will be made available for public review and comment for a period of 15 days.

5.2 LIST OF PREPARERS/REVIEWERS

Table 3. List of Preparers

Name	Title	Affiliation	Responsibility
<i>Data Providers and Reviewers</i>			
Nora Caplette	Noxious Weeds Coordinator	BLM	Noxious and Invasive Weeds
Lisa Christianson	Air Quality Specialist	BLM	Air Quality
Fred Edwards	Botanist	BLM	Vegetation,, Special Status Species
Sendi Kalcic	VRM Specialist	BLM	Visual Resources
Katherine Kleinick	Wildlife Biologist	BLM	Wildlife, Migratory Birds, Special Status Species
Mark Moran	Hazardous Materials Specialist	BLM	Hazardous Waste
Sarah Peterson	Hydrologist	BLM	Soil, Air, Water, Riparian Resources
Susanne Rowe	Archaeologist	BLM	Cultural, Native American, and Paleontological Resources
Mark Slaughter	Wildlife Biologist	BLM	Wildlife, Migratory Birds, Special Status Species
Jeff Steinmetz	Environmental Coordinator	BLM	NEPA
George Varhalmi	Geologist	BLM	Soils
<i>Preparers</i>			
Eric Koster	Project Manager	SWCA	Project Management, NEPA
Steve Leslie	Senior Planner	SWCA	NEPA oversight; Human Resource Sections
Greg Seymour	Archaeologist	SWCA	Resource Sections
<i>Reviewers</i>			
Stan Rolf	Environmental Scientist	NV Energy	
Eileen Wynkoop	Manager, Environmental Services	NV Energy	
Tony Garcia	Manager, Environmental Services Department	NV Energy	

6.0 REFERENCES AND LITERATURE CITED

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

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7.0 APPENDIX A

Stipulations N-66151/C/ & N-87393

1.0 Special Stipulations

- 1.1. Activities are to be conducted within existing disturbed areas and access to project across public lands is to be by existing roadways only. No new disturbance is authorized. No drive and crush activity is authorized.
- 1.2. N-87393 ONLY: Parking for all vehicles must be done along existing roadways. Absolutely no off-roadway parking is authorized.

2.0 General Stipulations

- 2.1. The right-of-way/land use permit is issued subject to all valid existing rights.
- 2.2. No signs of 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/land use permit 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 mark the exterior boundaries of the right-of-way with stake and/or lath at 100 to 200 foot intervals. The intervals may be varied at the time of staking at the discretion of the Authorized Officer. 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 until final cleanup and restoration is completed.
- 2.5. Holder shall conduct all activities associated with construction, operation, maintenance and termination of this right-of-way within its authorized limits.
- 2.6. Holder shall maintain the right-of-way/land use permit area in a safe, useable condition, as directed by the Authorized Officer. A regular maintenance program shall include, but is not limited to, soil stabilization.
- 2.7. Holder shall maintain copy of the authorization along with stipulations on construction site at all times.
- 2.8. RIGHT-OF-WAY N-66151 ONLY: In the event that the public land underlying the right-of-way (N-66151) 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, 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.

- 2.9. 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/land use permit sites:

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/land use permit area 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/land use permit area.
- 3.2. 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.

- 3.3. Prior to relinquishment, abandonment, or termination of this right-of-way/land use permit area, 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.
- 3.4. 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/land use permit 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/land use permit area 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/land use permit area.

- 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/land use permit area.

- 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/land use permit area), the United States against any liability arising from the Holder's use or occupancy of the right-of way/land use permit area, 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/land use permit area to the Holder, and during the term of this right-of-way/land use permit. 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/land use permit.

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/land use permit area regardless of whether the Holder has actually developed or caused development to occur on the right-of-way/land use permit area from the time of the issuance of this right-of-way/land use permit to the Holder and during the term of this right-of-way/land use permit.

- 5.6. Mineral material generated, and not needed for the development of the proposed action within the right-of-way/land use permit area, requires a specific BLM use authorization in accordance with regulations at 43 CFR 3600 prior to the removal of in place excess mineral material.

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/land use permit area. 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. 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.
- 7.3. 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 will comply with the terms and conditions of **Biological Opinion 1-5-97-F-251** on file at the Bureau of Land Management, Las Vegas Field Office and included below.

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 Bureau 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 Bureau 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. 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 no longer evident.
- g. Tortoises and nests found shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Burrows containing tortoises or nests will be excavated by hand, with hand tools, to allow removal of the tortoise or eggs.
- h. Tortoises that are moved offsite and released into undisturbed habitat on public land, must be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibernaculum in which it was found, or in an artificially constructed burrow in accordance with Desert Tortoise Council (1994, revised 1999).
- i. Desert tortoises moved during the tortoise inactive season or those in hibernation, regardless of date, must be placed into an adequate burrow; if one is not available, one will be constructed in accordance with Desert Tortoise Council (1994, revised 1999). During mild temperature periods in the spring and early fall, tortoises removed from the site will not necessarily be placed in a burrow.
- j. This project will not require fencing.

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. 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.

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 Reid Gardner Site Characterizations Case file No.: N-87393
Acreage of Disturbance Authorized: 0
Acreage Actually Disturbed: _____
Fees Assessed: \$0 Rate: n/a

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 Recreation and 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.