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

Environmental Assessment
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Bermuda 2745 Zone Pumping Station Discharge Pipeline, Phase II, Partial Realignment

APPLICANT

Las Vegas Valley Water District

GENERAL LOCATION

Generally located east of I-15 and Las Vegas Boulevard Near Sloan, Nevada

BLM CASE FILE SERIAL NUMBER(S)

N-78907/B/ & N-78907-01

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 PURPOSE AND NEED OF THE PROPOSED ACTION 1
1.1.1 Proposed Project Location 1
1.2 EXISTING NEPA DOCUMENTATION 1
1.2.1 Conformance with Applicable Land Use Plan 1
1.3 SCOPING ISSUES 1
2.0 PROPOSED ACTION AND ALTERNATIVES 2
2.1 PROPOSED ACTION 2
2.2 NO ACTION ALTERNATIVE 4
2.3 ALTERNATIVES CONSIDERED AND DROPPED 4
3.0 AFFECTED ENVIRONMENT 4
3.1 AIR QUALITY 6
3.1.1 Proposed Action 6
3.1.1.1 Ambient Air Quality Standards and Regulations 6
3.1.1.2 Air Pollutants in Clark County 8
3.2 CULTURAL / HISTORICAL 8
3.2.1 Proposed Action 8
3.3 NOXIOUS WEEDS/INVASIVE NON NATIVE SPECIES 9
3.3.1 Proposed Action 9
3.4 THREATENED AND ENDANGERED SPECIES 10
3.4.1 Proposed Action 10
3.5 MIGRATORY BIRDS 10
3.5.1 Proposed Action 10
3.6 HUMAN HEALTH AND SAFETY 10
3.6.1 Proposed Action 10
3.7 WILDLIFE 10
3.7.1 Proposed Action 10
3.8 VEGETATION 11
3.8.1 Proposed Action 11
4.0 ENVIRONMENTAL EFFECTS 11
4.1 AIR QUALITY 11
4.1.1 Proposed Action 11
4.1.2 No Action 12
4.2 CULTURAL / HISTORICAL 12
4.2.1 Proposed Action 12
4.2.2 No Action 12
4.3 NOXIOUS WEEDS/INVASIVE NON NATIVE SPECIES 12
4.3.1 Proposed Action 12
4.3.2 No Action 12
4.4 THREATENED AND ENDANGERED SPECIES 12
4.4.1 Proposed Action 12

4.4.2 No Action 12
4.5 MIGRATORY BIRDS 13
4.5.1 Proposed Action 13
4.5.2 No Action 13
4.6 HUMAN HEALTH AND SAFETY 13
4.6.1 Proposed Action 13
4.6.2 No Action 13
4.7 WILDLIFE 13
4.7.1 Proposed Action 13
4.7.2 No Action 13
4.8 VEGETATION 14
4.8.1 Proposed Action 14
4.8.2 No Action 14
5.0 CUMULATIVE IMPACTS 14
5.1 PROPOSED ACTION 15
5.1.1 Air Quality 15
5.1.2 Noxious Weeds/Invasive Non Native Species 15
5.1.4 Threatened and Endangered Species 16
5.1.5 Vegetation 16
6.0 MITIGATION MEASURES AND RESIDUAL IMPACTS 17
7.0 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED 17
8.0 LIST OF PREPARERS 17

List of Tables

Table 3.0 Supplemental Authorities 4
Table 3.1 Clark County Air Quality Standards 6

List of Appendixes

Appendix A: Maps
Appendix B: Noxious Weed Risk Assessment
Appendix C: Stipulations (Mitigation Measures and Residual Impacts)

1.0 INTRODUCTION

In May, 2009, the Las Vegas Valley Water District (LVVWD) submitted an amendment application to the Bureau of Land Management (BLM) for a partial re-alignment of the Bermuda 2745 Zone Pumping Station Discharge Pipeline, Phase II Project.

1.1 PURPOSE AND NEED OF THE PROPOSED ACTION

In October, 2004, The Las Vegas Valley Water District (LVVWD) was issued a Right-of-Way (ROW) for the Bermuda pipeline in Clark County, Nevada. The pipeline extends approximately 4.5 miles south of St Rose Parkway, east of Las Vegas Blvd to the Sloan 2745 Zone Reservoir. Since the ROW was issued it has become necessary to re-align a portion of the pipeline to avoid conflicts with current and planned development.

1.1.1 Proposed Project Location

Permanent ROW:
Township 23 South, Range 61 East, MDM.
Section 16, N½SW¼NE¼NW¼NW¼, N½SW¼NW¼NW¼NW¼, N½SE¼NW¼NW¼NW¼.

Section 20, S½SW¼SE¼NW¼, W½NW¼NW¼NE¼SW, NW¼NE¼SW¼SW¼, NW¼SW¼SW¼, E½NW¼SW¼SW¼SW¼
(Encompassing approximately 3.8 acres)

Short Term ROW (STR):
Township 23 South, Range 61 East, MDM.
Section 16, N½SW¼NE¼NW¼NW¼, N½SW¼NW¼NW¼NW¼, N½SE¼NW¼NW¼NW¼.

Section 20, S½SW¼SE¼NW¼, W½NW¼NW¼NE¼SW, NW¼NE¼SW¼SW¼, NW¼SW¼SW¼, E½NW¼SW¼SW¼SW¼
(Encompassing approximately 3.8 acres)

1.2 EXISTING NEPA DOCUMENTATION

Las Vegas RMP EIS, ROD signed October 5, 1998

1.2.1 Conformance with Applicable Land Use Plan

This proposed action is in conformance with the Las Vegas Resource Management Plan EIS (LVRMP), approved on October 5, 1998. The plan has been reviewed and it is determined the proposed action conforms with land use plan decision RW-1 and RW-1-h under the authority of the Federal Land Policy and Management Act of October 21, 1976 (FLPMA), as amended (43 U.S.C. 1761 et.seq.)

1.3 SCOPING ISSUES

A review of the Master Title Plats identified several authorized ROW's within or adjacent to the proposed pipeline re-alignment. These include two communication lines

for Central Telephone (NVCC-017357 & N-63157), a Clark County graveled roadway (N-60561), and a City of Henderson roadway, drainage facilities, and municipal utilities (N-80144).

Internal scoping was done for the project and the following concerns were raised:

- Since the proposed action is a construction project encompassing more than 0.25 acre, ensure compliance with Clark County Department of Air Quality and Environmental Management (DAQEM) requirements.
- Prevent the spread of or introduction of Noxious Weeds within and adjacent to the proposed action.
- Any disturbance in ephemeral channels will require consultation with the Army Corps of Engineers and Nevada Department of Environmental Protection.
- The proposed project is located in desert tortoise habitat, a federally listed threatened species.

2.0 PROPOSED ACTION AND ALTERNATIVES

Two alternatives have been identified for analysis; the proposed action and the no action alternative.

2.1 PROPOSED ACTION

The proposed project consists of amending the current permanent ROW and STR's along a portion of the Bermuda Pipeline near Sloan, Nevada. Upon completion of the amendment, approximately 330 feet by 50 feet of permanent (0.38 acres) and short term (0.38 acres) ROW for a total of approximately 0.76 acres (undisturbed) would no longer be necessary and would be relinquished at a future date.

Permanent ROW

The Las Vegas Valley Water District (District) plans to amend their current ROW to include an additional 3,311 feet long by 50 feet wide area (approximately 3.8 acres) for the installation of a 48-inch diameter pipeline. The 48-inch diameter pipeline is composed of mortar-lined, coated steel pipe (MLCP). Because of the pipeline diameter, a 50-foot permanent ROW is being requested. Initial installation also requires the additional STR to accommodate the large amount of equipment and materials necessary to construct the pipeline.

The depth of the trench ranges from 10 to 12 feet. The width of the bottom of the trench varies from 7 to 10 feet to allow 2 feet of work area on each side of the pipe. From the top of the pipe to grade, the trench must be sloped on each side at a 1:1 ratio. This creates top of trench openings of 19 to 22 feet.

The District needs the entire ROW for construction access during and after construction of the project. Equipment used during construction includes pick-up trucks, backhoes, rock saws, loaders, dump trucks and cranes.

It is estimated that 5 to 20 people, including survey crews, inspectors, contractors, laborers and equipment operators would be required during construction activities. However, it is unlikely all 50 people will be on site at one time.

Pre construction activities are anticipated to begin upon issuance of the ROW and construction is expected to begin in early 2010. The construction activities will take approximately 12 months to complete, and will consist of the following components:

1) ROW centerline is staked; ROW exterior limits are staked and fenced across federal lands

2) Top six inches of previously disturbed ROW areas is scraped and moved to the side along the pipeline route.

3) Plant material is removed from undisturbed ROW and disbursed per Federal stipulation requirements; top six inches are then scraped and moved to the side along the pipeline route.

4) The prefabricated pipe sections (40'-50' long) are delivered to the site and laid out along the ROW prior to installation.

5) Trench is dug with track mounted backhoe; rock saws may be used, depending on the soil.

6) Bedding added and compacted; zinc anodes for cathodic protection are laid into place.

7) Pipeline, valve vaults (1-2), blow-off valves (1-2), air valves and test stations are installed.

8) Trench backfilled, and ROW cleared of equipment and fencing. Surface conditions conformed to rehabilitation and stabilization requirements.

Heavy machinery to be used during construction include: grading equipment, backhoes, water trucks, pick-up trucks, rock saws, loaders, dump trucks, cranes and any other equipment required to complete construction.

It is not anticipated that any excess material will be generated from the proposed realignment. However, should it be necessary, any excess mineral material will be disposed of in accordance with 43 CFR 3600 regulations.

Once the Bermuda 2745 Zone Pumping Station and Discharge Pipeline and the Sloan 2745 Zone Reservoir are constructed and operational, the facilities will be in constant use. Maintenance will be performed as scheduled, or as the need arises.

STR
The temporary use areas are 50 feet in width and are immediately adjacent to the requested permanent ROW realignment. These areas will be used for storage of excavated trench material until backfilling of the trenches, access by construction vehicles and personnel, and storage of pipeline materials. The STR will be needed during the construction of the facility, from approximately May of 2010 until June, 2011 and will encompass approximately 3.8 acres.

2.2 NO ACTION ALTERNATIVE

The no action alternative would be for the BLM to not authorize the amended ROW and STR. LVVWD would not be able to avoid the conflict(s) with current and planned development in the area associated with the currently authorized alignment. This would likely result in a substantial delay and/or cost increase for the pipeline and would likely result in a longer and less direct route.

2.3 ALTERNATIVES CONSIDERED AND DROPPED

No additional alternatives were considered for this proposal.

3.0 AFFECTED ENVIRONMENT

In addition to the supplemental authorities identified in the table below, wildlife and vegetation resources were identified as potentially being impacted.

Table 3.0 Supplemental Authorities

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Air Quality			✓	The proposed paved roadway, drainage, and municipal utility facilities are located within hydrographic basin 212 which is in non-attainment for PM_{10}, CO, and O_3;
Area of Critical Environmental Concern (ACEC)	✓			The proposed project is not located in an ACEC.
Cultural/Historical			✓	To comply with Section 106 of the National Historic Preservation Act (NHPA), the BLM Archaeologist conducted an existing data review of the area of potential effect (APE) for the proposed undertaking. The APE was previously evaluated for cultural resources in support of the Las Vegas Valley Disposal Boundary Environmental Impact Statement (EIS); refer to BLM Cultural Resource reports 5-2467. No historic properties or Native American concerns were identified within the APE; no further evaluation is required.

Table 3.0 Supplemental Authorities				
Supplemental Authority	**Not Present**	**Present/Not Affected**	**Present/May be Affected**	**Rationale**
Environmental Justice	✓			No minority or low income group would be disproportionately impacted by health or environmental effects.
Farmlands Prime or Unique	✓			Resource is not present.
Noxious Weeds/Invasive Non-native Species			✓	A noxious weed risk assessment (WRA) was completed and approved for the project. The impacts will be addressed in the EA.
Native American Religious Concerns	✓			All applicable Tribal consultation requirements have been completed and no issues have been identified.
Floodplains	✓			Resource is not present.
Riparian/Wetlands	✓			Resource is not present.
Threatened, Endangered Species.			✓	Appropriate mitigation will be implemented in accordance with the Biological Opinion as a condition of the permit.
Migratory Birds			✓	The impacts will be addressed in the EA.
Waste – Hazardous/Solid	✓			There are procedures in place for cases of hazardous materials spills.
Water Quality	✓			Resource is not present.
Wild & Scenic Rivers	✓			Resource is not present.
Wilderness	✓			Resource is not present.
Forests and Rangelands (HFRA only)	✓			The project does not meet HFRA criteria.
Human Health and Safety.			✓	The potential exists for injury to workers during construction. Occupational Safety and Health Administration (OSHA) standards will be implemented.

3.1 AIR QUALITY

3.1.1 Proposed Action

The United States Environmental Protection Agency (USEPA) has determined and administered through Clark County Department of Air Quality and Environmental Management (CCDAQEM) Hydrographic Basin 212 is in "non-attainment" for the criteria pollutant, PM_{10}, CO, and O_3,

The effects of ambient air quality within an air basin depend mainly on the characteristics of the receptors and the type, amount, and duration of exposure. National Ambient Air Quality Standards (NAAQS) specify the concentration and duration for which pollutants may cause adverse health effects to humans and the environment. National primary ambient air quality standards define levels of air quality, with an adequate margin of safety to protect the public health. National secondary ambient air quality standards define levels of air quality, with an adequate margin of safety, to protect the public welfare from any known or anticipated adverse effects of pollutant. Where differences in local and national standards exist, the more stringent standards apply.

A designation of "non-attainment" by the USEPA for an area and relates to whether the area violates the NAAQS, as set forth in the Clean Air Act (1990). Table 3.1 presents the NAAQS for PM_{10}, CO, and O_3.

3.1.1.1 Ambient Air Quality Standards and Regulations

The Clark County Air Quality Standards (CCAQS) were established in order to protect human health and the environment. The standards are presented in the Table 3.1.

Table 3.1 Clark County Air Quality Standards.
Sulfur dioxide, PM_{10}, $PM_{2.5}$, carbon monoxide, ozone, nitrogen dioxide, and lead are monitored to protect human health.

Pollutant	Standard	Standard Value*	Standard Type
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	0.03 ppm	Primary
	24-Hour Average	0.14 ppm	Primary
	3-Hour Average	0.5 ppm ≥ (1300 μg/m$^{3)}$)	Secondary
Particulate Matter (PM_{10})	Annual Arithmetic Mean	50 μg/m^3≥	Primary and Secondary
	24-Hour Average	150 μg/m^3≥	Primary and Secondary
Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	15 μg/m^3	Primary and Secondary
	24-Hour Average	35 μg/m^3	Primary and Secondary
Carbon Monoxide (CO)	8-Hour Average	10 mg/m^3≥ (9.0 ppm)	Primary
	1-Hour Average	40 mg/m^3≥ (35.0 ppm)	Primary
Ozone (O_3)	8-Hour Average	0.075 ppm	Primary and Secondary
	1-Hour Average	0.12 ppm	Primary and Secondary
Nitrogen dioxide (NO_2)	Annual Arithmetic Mean	100 μg/m^3≥ (0.053 ppm)	Primary and Secondary
Lead (Pb)	Quarterly Average	1.5 μg/m^3≥	Primary and Secondary

* Parenthetical value is an approximate equivalent concentration.

Particulate Matter

Due to small size of the particles, PM_{10} is considered of interest in air pollution studies because they are not removed by the natural filtering mechanisms of the nasal passages and sinuses. Because PM_{10} can be inhaled into the lungs it may cause health problems, especially to those who are elderly, the very young, or those who suffer with respiratory ailments.

PM_{10} in the atmosphere is produced from a variety of naturally occurring and man made/induced sources. Specific examples include naturally-occurring soil material being mobilized (airborne), especially when disturbed by surface activities, and motor vehicles which produce small particles during their operation due to wear of tires and brake linings. Other components in coarse and fine PM_{10} emissions include elemental carbon (soot), organic material, nitrates, and sulfates. However, the largest sources of particulate matter are from construction activities, vacant lands, and paved and unpaved roads.

As a result of the non-attainment designation, Clark County is required to develop and prepare a State Implementation Plan (SIP) for each criteria pollutant determined to have exceeded the NAAQS. The SIP for PM_{10}, which is approved by the USEPA, identifies the process by which PM_{10} emissions for any potential emitters (individual and cumulative) will be controlled so as not to exceed the standard.

Carbon monoxide

CO is formed by the incomplete combustion of fossil fuels and other carbon-containing materials. Carbon monoxide binds with hemoglobin in the blood and interferes with the exchange of oxygen and carbon dioxide in the respiratory and circulatory systems. Acute exposures to CO may cause dizziness, drowsiness, shortness of breath, and decreased respiratory function. There have been no violations of the NAAQS since 1999 (RMP 1998).

Currently, Clark County has a State Implementation Plan (SIP) in place for the attainment of the standard for CO emissions. The SIP, which is approved by the USEPA, identifies the process by which CO emissions for any potential emitters (individual and cumulative) will be controlled so as not to exceed the standard. Clark County has requested a designation of "maintenance" for CO as a result of no exceedances in the Las Vegas Valley.

Ozone

O_3 is a gas compound of three oxygen atoms that occurs both in the earth's upper atmosphere (stratosphere) and at ground level (troposphere). O_3 in the stratosphere, which extends from six to thirty miles, occurs naturally

and protects life from the sun's harmful ultraviolet rays. O_3 forming at ground level (troposphere) is a pollutant that poses a significant health risk to humans and the environment.

Ground level O_3 is formed through a chemical reaction between Nitrogen Oxides (NOx) and Volitile Organic Compounds (VOC's) in the presence of sunlight. Vehicle exhaust and other emission sources (commercial / industrial) and other natural sources, emit NOx and VOCs. Since sunlight is an important factor, the formation of O_3 pollution is usually a summertime problem, but can occur anytime throughout the year.

The USEPA changed the standard for ozone from 84 ppb to 75 ppb, in March of 2008. This new standard will require implementation of Volatile Organic Compound (VOC) reduction strategies. There are a number VOC reduction strategies available, including but not limited to reformulated fuel, vapor recovery, double walled under-ground storage tanks, increase mass transit and car pooling. It is not known at this time which of these reduction strategies would be implemented by CCDAQEM as part of the SIP to show attainment for the new ozone standard. BLM will work closely with Clark County to ensure BLM authorizations are included as part of the SIP for the affected area. Clark County is not required to submit a completed SIP to the USEPA for signature until sometime in 2012.

3.1.1.2 Air Pollutants in Clark County

The CCDAQEM has the authority to regulate sources of air pollution in Clark County with USEPA oversight. In order to regulate and enforce the NAAQS, the CCDAQEM operates air quality monitoring instruments to measure ambient concentrations of the criteria air pollutants identified in Table 3.1. Since the proposed project is within hydrographic basin 212, construction and ongoing operation must remain within the limits and dust control permits will be required from the CCDDAQEM for construction activity. The Clark County Dust Control Program requires construction projects of 0.25 acres or more to implement Best Management Practices (BMP's) under Section 90 of the county regulations.

3.2 CULTURAL / HISTORICAL

3.2.1 Proposed Action

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). To comply with Section 106 of the National Historic Preservation Act (NHPA), the BLM Archaeologist conducted an existing data review of the area of potential effect (APE) for the proposed undertaking. The

APE was previously evaluated for cultural resources in support of the Las Vegas Valley Disposal Boundary Environmental Impact Statement (EIS); refer to BLM Cultural Resource reports 5-2467. No historic properties or Native American concerns were identified within the APE.

3.3 NOXIOUS WEEDS/INVASIVE NON NATIVE SPECIES

3.3.1 Proposed Action

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.

Southern Nevada rangelands are being impacted by the presence of invasive, non-native vegetation (weeds). The Las Vegas Field Office (LVFO) of the BLM has prepared the LVFO Weed plan that provides guidance for an active integrated weed management program using best management practices (BMP). The BMPs originated from a cooperative effort between BLM and other Federal agencies which produced the document, Partners Against Weeds. The LVFO Noxious Weed Plan will narrow that focus as it dovetails into the Partners Against Weeds action plan. Weeds are seen as a major threat to ecosystem health in southern Nevada. The presence of weeds in any landscape increases the inter-specific competition for resources. In most situations weeds out-compete native plants and displace them.

The management of weeds is further guided by the LVRMP which identifies two objectives for resource management involving weeds. 1) RP-1-f., which states; "Use integrated weed management techniques to control and eradicate tamarisk, such as burning, chemical, biological or mechanical treatments, where potential for treatment is good. Rehabilitate the area with native species to help reduce the potential for tamarisk re-establishment and improve ecosystem health." 2) VG1, which states; "Maintain or improve the condition of the vegetation on public lands to a Desired Plant Community or to a Potential Natural Community." The LVFO Noxious Weed Plan was approved on December 18, 2006.

3.4 THREATENED AND ENDANGERED SPECIES

3.4.1 Proposed Action

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 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*).

3.5 MIGRATORY BIRDS

3.5.1 Proposed Action

Executive Order (January 11, 2001) further defines the responsibilities of the federal agencies to protect migratory birds; under the Migratory Bird Treaty Act of 19 18 and subsequent amendments (16 U.S.C. 703-71 1) state that it is unlawful to take, kill, or possess migratory birds. Numerous bird species travel through Nevada during spring and fall migrations. A complete list is published at the USFWS web site (USFWS 2006). A list of those that are protected birds is in 50 CFR 10.13. The list of birds protected under this regulation is extensive and the project area has potential to support many of these species. Typically, the breeding season is when these species are most sensitive to disturbance, which generally occurs from March 15 through July 30.

3.6 HUMAN HEALTH AND SAFETY

3.6.1 Proposed Action

In general the proposed pipeline realignment serve to enhance public health and safety by providing a reliable source of potable water for drinking and fire suppression in the Sloan area.

During construction, the use of heavy equipment, vehicles, and mechanical tools will likely contribute to the potential for injuries.

3.7 WILDLIFE

3.7.1 Proposed Action

The Proposed Project area supports wildlife characteristic of the north-eastern Mojave Desert. Biological diversity varies according to topography, plant community, and proximity to water, soil type, and season. Many of these species have adapted complex life strategies for survival in the desert environment.

Several common species of reptiles would be represented in the surrounding habitat types. These species include the western whip-tail (*Cnemidophorous tigris*), desert iguana (*Dipsosaurus dorsalis*), side-blotched lizard (*Uta stansburniana*), zebra-tail lizard (*Callisaurus draconoides*), desert tortoise (*Gopherus agassizii*), western shovel-nosed snake (*Chionactis occipitalis*) and garter snake (*Thamnophis* sp.).

Common bird species that would be represented include horned lark (*Eremophila alpestris*), black-throated sparrow (*Amphispiza quinquestriata*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), and red- tailed hawk (*Buteo jamaicensis*).

Common mammal species include the black-tailed hare (*Lepus californicus*), and the desert cottontail (*Sylvilagus audubonii*). Evidence observed during a site visit suggested the presence of common Mojave Desert rodent inhabitants such as cactus mice (*Peromyscus eremicus*). All of these species maintain dens and nest, hunt and forage, and relay on close ecological relationships to the habitat in which they live.

3.8 VEGETATION

3.8.1 Proposed Action

The proposed pipeline realignment would be constructed in an area with Mohave Desert Shrub vegetation. This community is co-dominated by creosote bush (*Larrea tridentata*) and bur sage (*Ambrosia dumosa*) but also includes other common plants such as Mormon tea (*Ephedra* sp), Mojave yucca (*Yucca schidigera*), Beavertail Cactus *(Opuntia basilaris*), Desert Trumpet (*Eriogonum inflatum*), Burrobush (*Hymenoclea salsola*), and Desert Stipa (*Stipa speciosa*).

4.0 ENVIRONMENTAL EFFECTS

4.1 AIR QUALITY

4.1.1 Proposed Action

In general the impacts associated with air quality are anticipated to be minor and short term in nature. Approximately 7.46 acres of disturbance associated with the pipeline realignment occurs within Hydrographic basin 212. Increased emissions of PM_{10} would likely occur as a result of soil disturbance associated with vegetation removal, construction activities, and movement of construction equipment. It is estimated, using a general estimate of 0.42 tons/month of PM^{10} emissions for each acre of disturbance, that the proposed realignment would produce up to 3 tons of PM^{10} emissions during the one month of construction. However, the use of water during construction activities would reduce the potential emissions.

A localized short-term increase in emissions of CO and O3 may also likely occur from construction equipment emissions utilized during construction.

However, any potential impacts are expected to be minor since the proposed pipeline re-alignment would be subject to compliance with CCDAQEM permitting requirements.

4.1.2 No Action

No new impacts to air quality would be expected.

4.2 CULTURAL / HISTORICAL

4.2.1 Proposed Action

No impacts to cultural resources would be expected.

4.2.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may occur.

4.3 NOXIOUS WEEDS/INVASIVE NON NATIVE SPECIES

4.3.1 Proposed Action

A noxious weed risk assessment (WRA) was completed for the proposed project (see Appendix B). The WRA, did not reveal the presence of any noxious weed species, but did identify two common invasive weed species Red Brome (*Bromus rubens*), and tumble mustard (*Sysimbrium altissimum*) in the area. The project was given an overall risk rating of moderate. Project activities and mitigations will be implemented to prevent the spread of noxious/invasive weeds into the project area.

4.3.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may occur. Additionally, anticipated future development along the I-15 corridor and adjacent private lands in the area will likely contribute to the continued presence of red brome and tumble mustard in the area.

4.4 THREATENED AND ENDANGERED SPECIES

4.4.1 Proposed Action

The proposed action has a may affect determination for the threatened desert tortoise (Gopherus agassizii) and will disturb approximately 7.46 acres of habitat. This project will have no affect on any other federally listed species or designated critical habitat.

4.4.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may occur. Additionally, continued impacts to T&E species would be expected due to continued development along I-15 and Las Vegas Boulevard.

4.5 MIGRATORY BIRDS

4.5.1 Proposed Action

Under the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 U.S.C. 703-711), it is unlawful to take, kill, or possess migratory birds. A list of those protected birds can be found in 50 C.F.R. 10.13. The issuance of a ROW for this project requires the proponent to comply with the Migratory Bird Treaty Act and avoid potential impacts to those listed birds.

Depending on the time of year for construction, there is the potential to disturb nesting birds within or immediately adjacent to the proposed ROW. In order to ensure there is no impact on nesting migratory birds, surveys for nests shall be completed prior to any activities if construction occurs from March 1 through July 30.

4.5.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may occur.

4.6 HUMAN HEALTH AND SAFETY

4.6.1 Proposed Action

During construction, worker and public safety would be mandated by compliance with federal, state, and local health and safety regulations/requirements. Occupational Safety and Health Administration (OSHA) standards will be implemented.

4.6.2 No Action

An increase in construction duration and materials associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may be realized.

4.7 WILDLIFE

4.7.1 Proposed Action

The primary direct impact of the proposed pipeline re-alignment on wildlife would be killing or maiming of ground dwelling animals during construction and the loss of vegetative cover/habitat. Additional impacts associated with the mortality from vehicular traffic during construction may also be realized.

4.7.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the

area may occur. Additionally, impacts to wildlife would be expected due to continued development along I-15 and Las Vegas Boulevard.

4.8 VEGETATION

4.8.1 Proposed Action

There is approximately 7.46 acres of new disturbance proposed as part of the project. There are 3-5 yucca's which may be impacted by the proposed pipeline re-alignment.

4.8.2 No Action

Impacts associated with the need for additional facilities and/or having to utilize a longer less direct route in order to avoid current and planned development in the area may occur. Additionally, impacts to wildlife would be expected due to continued development along I-15 and Las Vegas Boulevard.

5.0 CUMULATIVE IMPACTS

The October 1998 RMP EIS identifies general management directions for the BLM on approximately 3.3 million acres of federal lands in Clark and a portion of southern Nye Counties in Nevada.

The geographic area for the cumulative effects analysis is the area within a half mile (2,640 feet) of the proposed action. The geographic area was chosen to capture the majority of the cumulative uses in the nearby area. Existing uses within the geographic area include, I-15, Las Vegas Boulevard, sand and gravel operations, dirt roads, and various linear utilities ROW's, (including the portion of the Bermuda pipeline not being re-aligned).

Past actions are those that are presently existing, present actions are considered to be those occurring at the time of this evaluation, and future actions are those that are in planning stages with a reasonable expectation of occurring within the next ten years. The timeframe for future actions was set at ten years, to align with the internal BLM standards for planning and due to the inability to extrapolate meaningfully beyond that time period due to the immense growth and development in the Southern Nevada District Office planning area.

Potential cumulative impacts associated with the proposed action are expected to be mostly associated with current/future management concerns and for several of the supplement authorities. Management concerns relevant to the proposed action are associated with current BLM objectives as identified in current planning/compliance documents.

Currently, there are several ROW's which overlap or are contiguous with the proposed project. These include two communication lines for Central Telephone (NVCC-017357 & N-63157), a Clark County graveled roadway (N-60561), and a City of Henderson roadway, drainage facilities, and municipal utilities (N-80144), and the remainder of the LVVWD Bermuda Pipeline (N-78907).

Numerous other authorizations/uses such as linear ROW's for I-15, Las Vegas Boulevard, various utilities and a site type ROW for a NV Energy substation within the cumulative impact area.

Potential future actions which would either overlap or be adjacent to the proposed project area would likely include either modification to existing facilities/uses or new facilities to support the development of lands along I-15 and Las Vegas Boulevard.

Any past, current, or future projects within the vicinity of the proposed action, would be required to comply with all federal, state, and local regulations. Additionally, it is anticipated that one or more of the following list of conservation/protection requirements and existing NEPA documentation for public and private lands in Clark County would be applicable.

1) Nevada Revised Statutes (NRS) 527.060-1.20 protects all cacti and yucca.
2) Las Vegas RMP EIS
3) Las Vegas Valley Disposal Boundary EIS
3) Clark County MSHCP EIS

5.1 PROPOSED ACTION

The proposed partial pipeline re-alignment is necessary to avoid conflicts with current and planned development near Sloan, Nevada. Upon completion, the entire Bermuda pipeline, including the proposed re-alignment, will provide reliable source water for drinking and fire suppression in the area for current/planned needs. The type and configuration of future development in the area which may benefit from the Bermuda pipeline, is not known at this time but will be contingent upon approval by the municipality with jurisdiction.

5.1.1 Air Quality

Past and present actions in the area that contribute to the existing air quality conditions include I-15, Las Vegas Boulevard, unpaved roadways, sand and gravel operations, utility lines, development of the private lands, and the installation of the Bermuda pipeline. Reasonably foreseeable future actions would include the proposed, development of the private lands, modification of existing facilities/uses, or the installation of new facilities with a similar purpose.

The proposed action and all of the past, and future actions included in the cumulative impacts area, are within Hydrographic Basin 212. This hydrographic basin is currently subject to compliance with CCDAQEM Section 90 rules. Since the Section 90 rules are designed to achieve air quality attainment with CCAQS, no cumulative impacts are expected. Additionally, it is not anticipated that all of the present and future actions would be occurring simultaneously thereby reducing potential additive effects.

5.1.2 Noxious Weeds/Invasive Non Native Species

Past, present, and future actions have the potential to introduced and contributed to the spread of invasive, nonnative species within the cumulative impact area.

Past actions have disturbed approximately 120 acres within the cumulative impacts area. Present actions including the proposed pipeline re-alignment and installation of the remaining Bermuda pipeline facilities on private lands which would result in the disturbance of approximately 45 acres. Future actions such as additional utility lines may disturb an additional 19 to 25 acres.

Due to the amount of past, present, and future disturbance in the cumulative impacts area, the proposed action could cause incremental increases in noxious weeds. However implementation of the approved mitigation and control measures would minimize this risk.

Cumulative impacts associated with the past, present, and future actions are expected to be mitigated though current BLM management for those species identified on the Nevada state list of noxious weeds, compliance with the Federal Noxious Weed Act, Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, Executive Order 13112 issued February 3, 1999, and Nevada Revised Statute Chapter 555.005. These documents define what species are considered noxious and invasive, as well as, mandate that appropriate actions are taken to reduce the potential for the introduction and/or spread of those species on federal and private lands.

5.1.4 Threatened and Endangered Species

The only T&E species known to occur in the general vicinity of the site is desert tortoise, a threatened species. This project will have no affect on any other federally listed species or designated critical habitat. Previous consultation under Section 7 of the Endangered Species Act was completed with the USFWS which resulted in the issuance of a Programmatic Biological Opinion file No. 1-5-96-F-023R.3 for the Las Vegas Valley (Programmatic BO). By complying with the terms and conditions of the Programmatic BO, any past, present, or future actions on federal lands within the cumulative impacts area are expected to have minimal impact.

Any present or future activities within the cumulative impacts area on private lands will have to comply with "The Final Clark County Multiple Species Habitat Conservation Plan and Environmental Impact Statement for Issuance of a Permit to Allow Incidental Take of 79 Species in Clark County, Nevada" finalized September 2000. Therefore, only minimal impacts would be expected.

5.1.5 Vegetation

Past, present, and future actions have the potential to impact vegetation within the cumulative impact area. Past actions have disturbed approximately 120 acres and present actions including the proposed access road would result in the disturbance of approximately 45 acres. Future actions such as additional utility lines may disturb an additional 19 to 25 acres.

The majority of the disturbance associated with the past, present, and a future

actions have/will result in the permanent loss of vegetation within the cumulative impacts area. However, with the exception of cacti and yucca, the vegetation is comprised of plants which are common in the Mojave Desert and are not currently sensitive or specifically protected under federal, state, or local regulations. All cacti and yucca in the state of Nevada are afforded protection under NRS 527.060-1.20. Therefore, the potential past and present cumulative impacts associated with the proposed action are expected to be minor.

6.0 MITIGATION MEASURES AND RESIDUAL IMPACTS

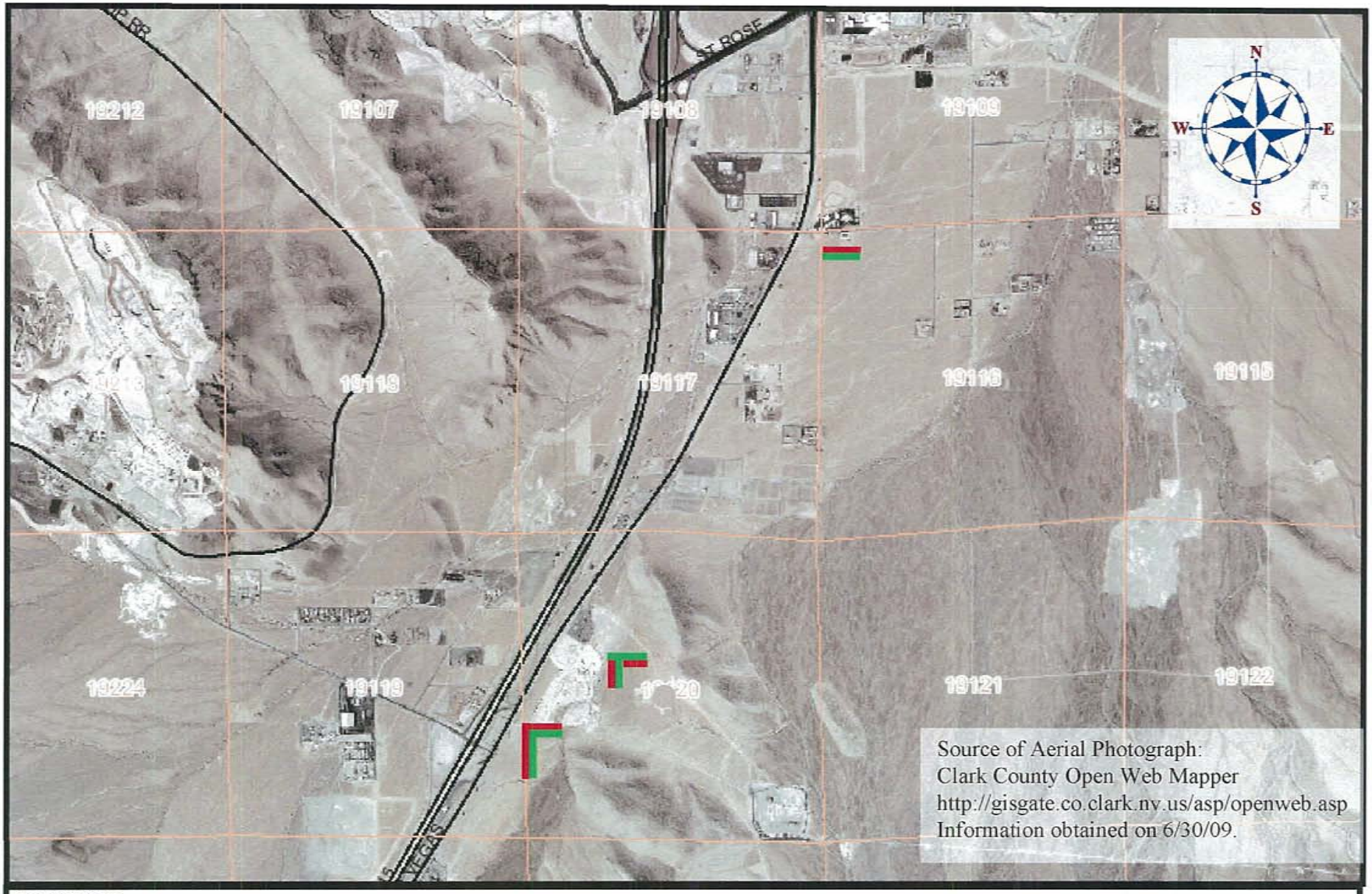
Mitigation measures for this project are located in Appendix C of this document.

7.0 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

Central Telephone
Sprint Communications Co. LP
Department of Transportation
Nevada Energy
Clark County
City of Henderson
Calnev Pipeline Co.

8.0 LIST OF PREPARERS

Name	Title	Org.	Responsibility
Mark Slaughter	Wildlife Biologist	BLM	Wildlife/ T&E Animals
Fred Edwards	Botanist	BLM	Vegetation/ T&E Plants
Nora Caplett	Noxious Weed Specialist	BLM	Noxious Weeds
Susanne Rowe	Archeologist	BLM	Cultural, Native American, and Paleontological
Dorothy Jean Dickey	Realty Specialist	BLM	Visual Resources
George Varhalmi	Geologist	BLM	Minerals
	Range Management Specialist	BLM	Noxious Weeds
Jeff Steinmetz	Environmental Coordinator	BLM	NEPA, RMP Conformance
	Air Quality Specialist	BLM	Air Quality
Sarah Peterson	Hydrologist	BLM	Soil, Air, Water, Riparian Resources



LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N-78907/B/ & N-78907-01

Township 23 South, Range 61 East, sec. 16 & 20

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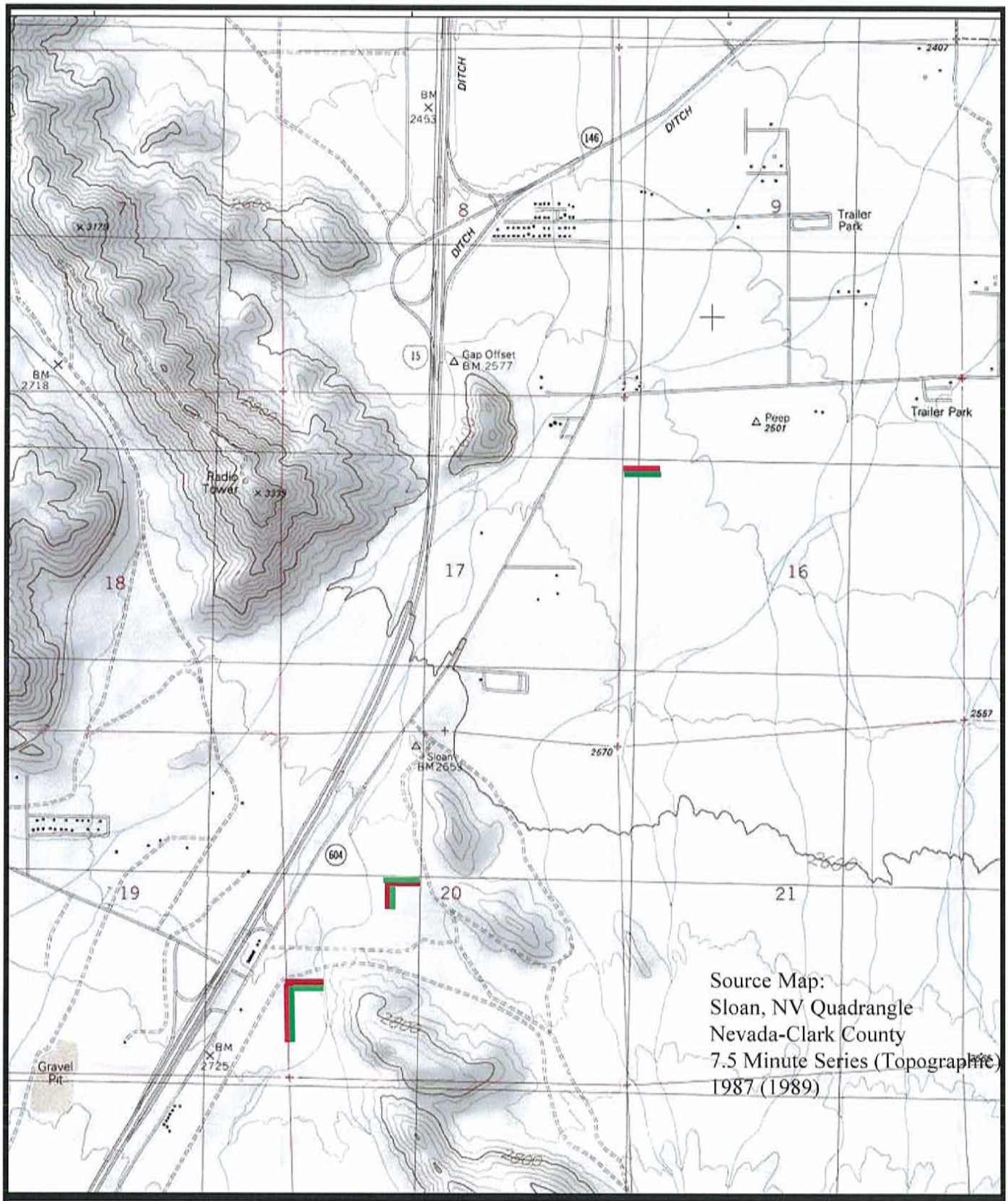

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N78907/B & N78907-01

Township 23S Range 61E

Section 8, 16, 17, 20

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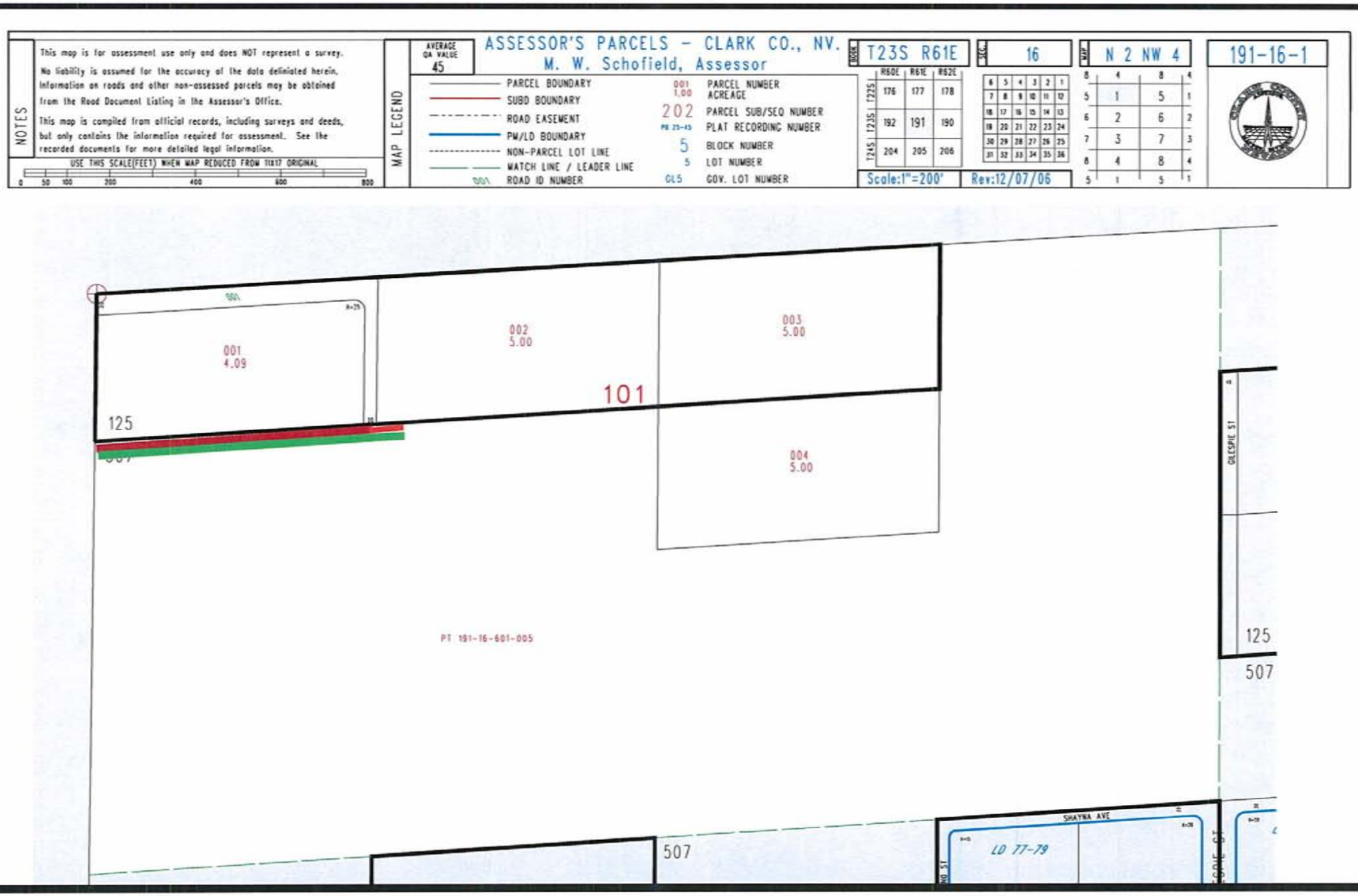

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N-78907/B/ & N-78907-01

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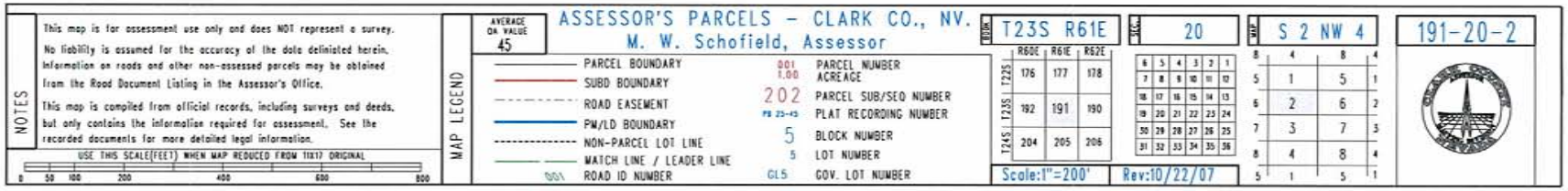

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N-78907/B/ & N-78907-01

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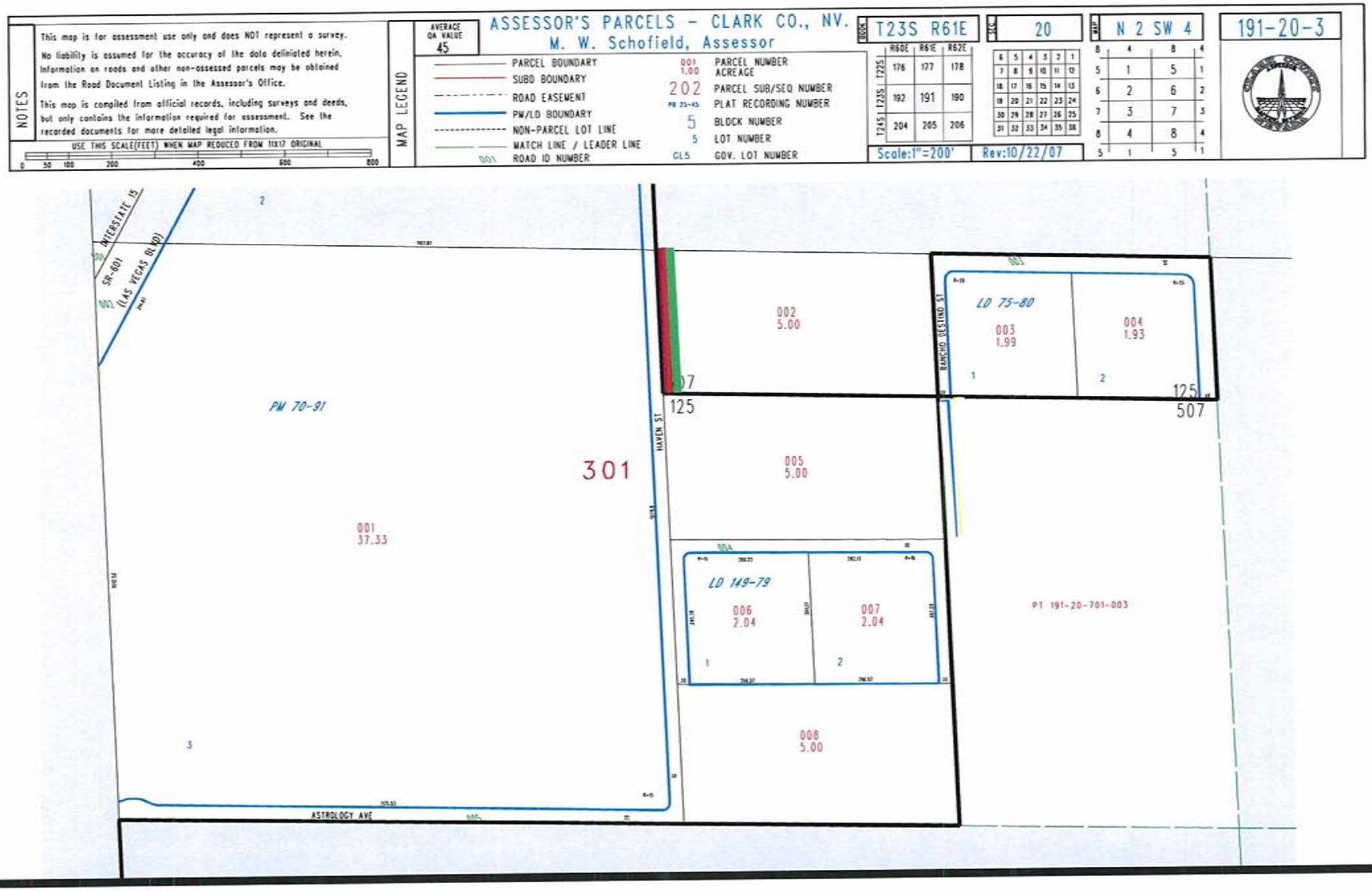

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N-78907/B/ & N-78907-01

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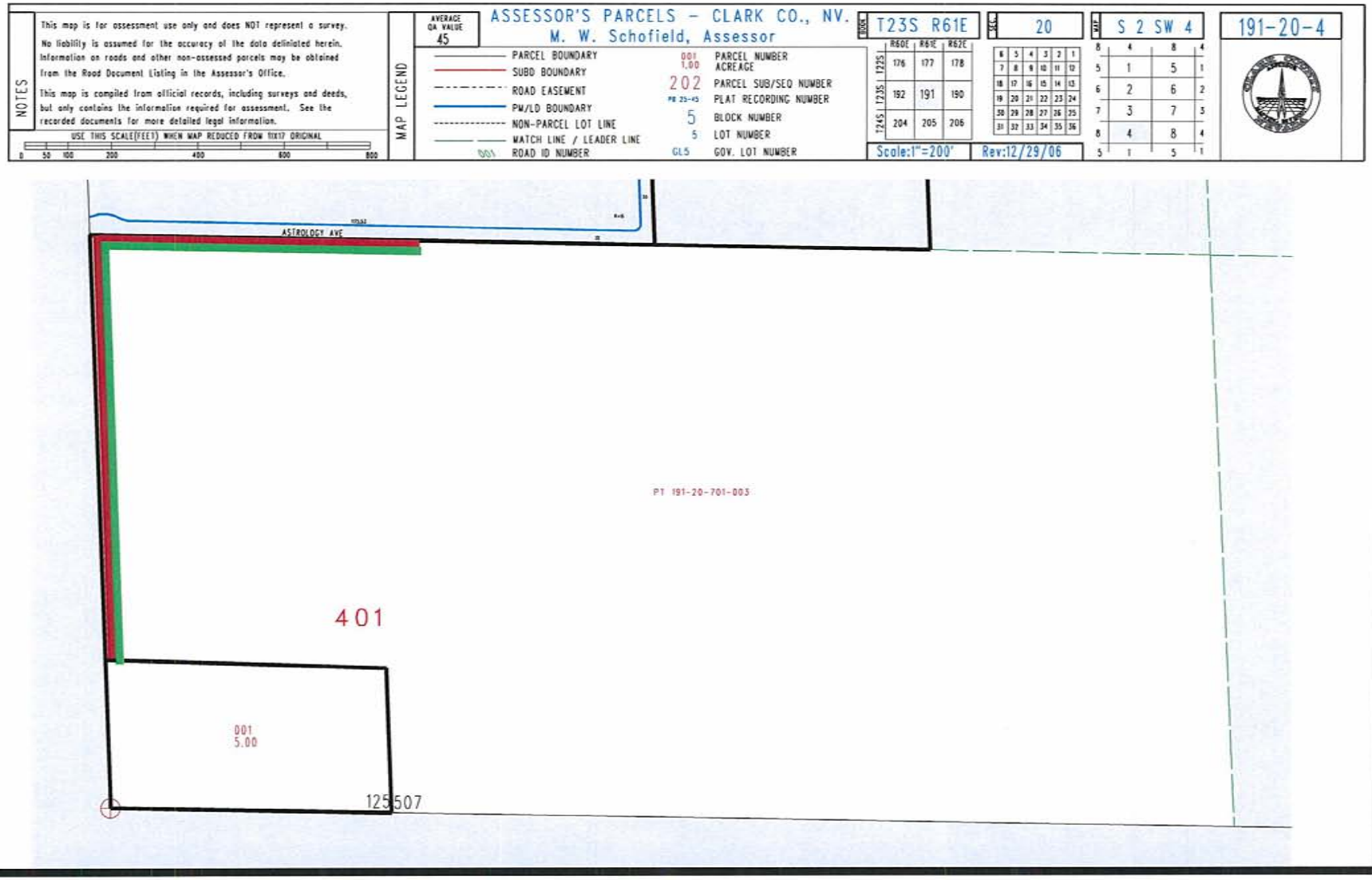

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit B

N-78907/B/ & N-78907-01

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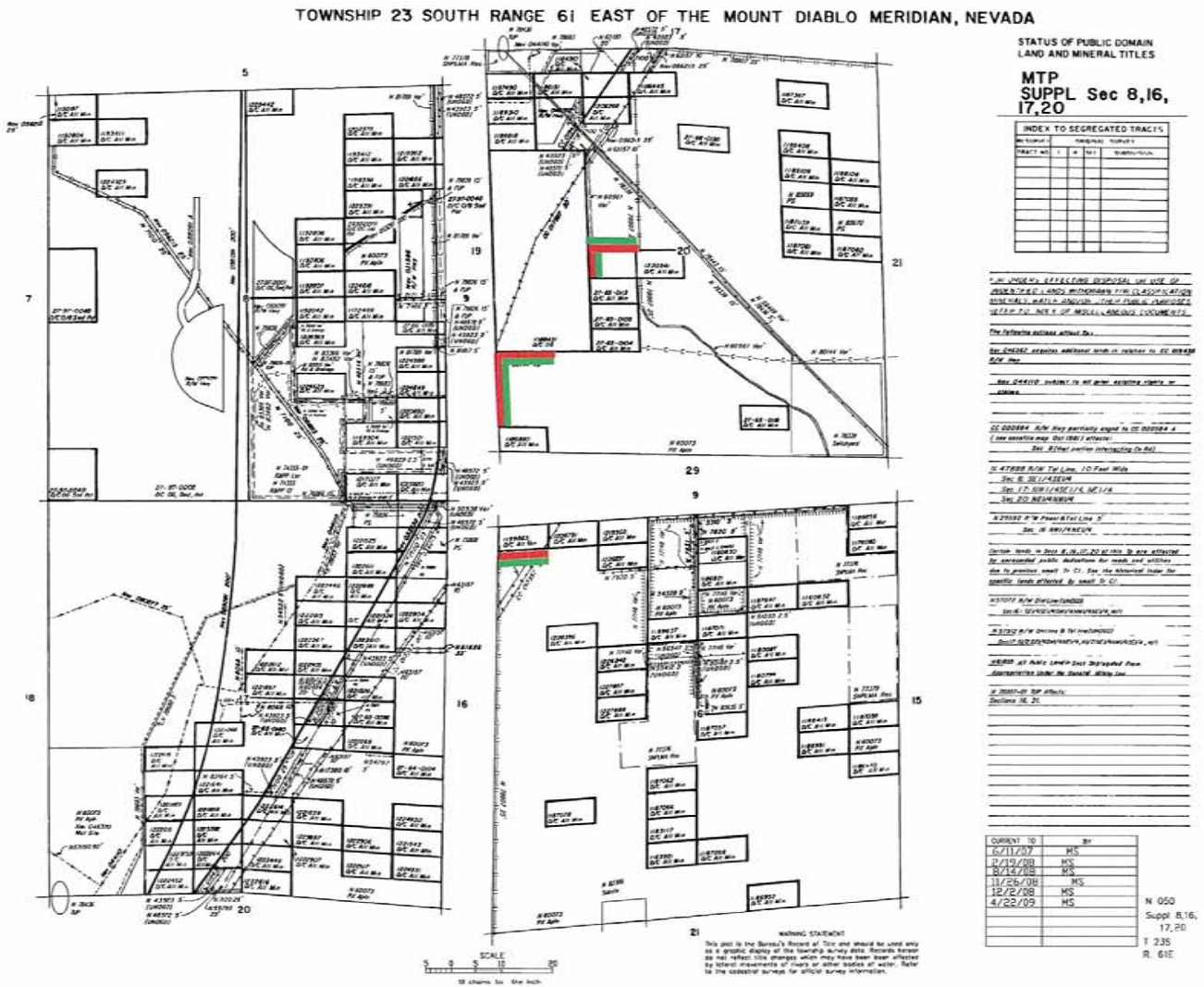

LEGEND

Permanent Right of Way

Short Term Right of Way

Exhibit C

N-78907/B/ & N-78907-01

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APPENDIX B

NOXIOUS WEED RISK ASSESSMENT

NOXIOUS WEEDS RISK ASSESSMENT

1. **Project Name:** Las Vegas Valley Water District Bermuda Pipeline re-alignment. **NEPA LV No.** 2009-000

2. **Date Risk Assessment was completed:** June 23, 2009

3. **Describe steps taken to complete Risk Assessment:** Review of the Las Vegas Field Office "Noxious Weed Plan" and a site visit.

4. **Project Description:**

The proposed project consists of amending the current permanent and short term ROW's along a portion of the Bermuda Pipeline. Upon completion of the amendment, approximately 330 feet by 50 feet of permanent (0.38 acres) and short term (0.38 acres) ROW for a total of approximately 0.76 acres will be relinquished (all undisturbed).

Permanent ROW

The Las Vegas Valley Water District (District) plans to install approximately 16,500 linear feet of 48-inch diameter pipeline. The 48-inch diameter pipeline is composed of mortar-lined, coated steel pipe (MLCP). Because of the pipeline diameter, a 50-foot permanent right-of-way is being requested. Initial installation also requires the additional temporary use areas to accommodate the large amount of equipment and materials necessary to construct the pipeline.

The depth of the trench ranges from 10 to 12 feet. The width of the bottom of the trench varies from seven to 10 feet to allow two feet of work area on each side of the pipe. From the top of the pipe to grade, the trench must be sloped on each side at a 1:1 ratio. This creates top of trench openings of 19 to 22 feet.

The District needs the entire right-of-way for construction access during and after construction of the project. Equipment used during construction includes pick-up trucks, backhoes, rock saws, loaders, dump trucks and cranes.

Short Term ROW

The temporary use areas are 50 feet in width and are immediately adjacent to the requested right-of-way grant areas. These areas will be used for storage of excavated trench material until backfilling of the trenches, access by construction vehicles and personnel, and storage of pipeline materials. The temporary use areas will be needed during the construction of the facility, from approximately May of 2010 until June, 2011.

All construction activities will be confined to the area within the permanent and short term ROW areas.

5. **Project Location**: The proposed pipeline re-alignment and construction area are located east I-15 and Las Vegas Boulevard, near Sloan, Nevada, and encompass approximately 7.6 acres

   Permanent (Perm) ROW:

   Mount Diablo Meridian, Nevada
   Township 23 South, Range 61 East:

   Section 16, N½SW¼NE¼NW¼NW¼, N½SW¼NW¼NW¼NW¼, N½SE¼NW¼NW¼NW¼

   Section 20, S½SW¼SE¼NW¼, W½NW¼NW¼NE¼SW, NW¼NE¼SW¼SW¼, NW¼SW¼SW¼, E½NW¼SW¼SW¼SW¼

   Short Term (STR) ROW:

   Mount Diablo Meridian, Nevada
   Township 23 South, Range 61 East:

   Section 16, N½SW¼NE¼NW¼NW¼, N½SW¼NW¼NW¼NW¼, N½SE¼NW¼NW¼NW¼

   Section 20, S½SW¼SE¼NW¼, W½NW¼NW¼NE¼SW, NW¼NE¼SW¼SW¼, NW¼SW¼SW¼, E½NW¼SW¼SW¼SW¼

6. **Factor 1** assesses the likelihood of noxious/invasive weed species spreading to the project area. For this project, the factor rates as __Low_____, __3___ **(List rating and score)** at the present time. This rating was based on the following findings:

   Currently, there are no noxious weeds within the proposed ROW and none were observed in the immediate vicinity. However, two common invasive weed species Red Brome (*Bromus rubens*), and tumble mustard (*Sysimbrium altissimum*) were observed.

7. **Factor 2** assesses the consequences of noxious/invasive weed establishment in the project area. For this project, the factor rates as ___Moderate_____, __5___ **(List rating and score)**. This rating was based on the following findings:

   The anticipated earth work activities associated with the proposed project will disturb/remove native vegetation. These disturbed areas may provide suitable areas for noxious/invasive weeds to germinate and become established. During construction vehicles and construction equipment could facilitate the transportation of seeds to and from the project area. The project area is interspersed with private lands and there are several existing utility ROW's in the area. Therefore, direct impacts to

native vegetation within proximity to the proposed project are anticipated to be moderate due to on-going and future disturbance in the area. Cumulative impacts associated with the proposed project are expected to be mitigated though current BLM management for those species identified on the Nevada state list of noxious weeds. Should any noxious weeds be identified or become established within the authorized ROW, the applicant will coordinate any control/eradication methods (manual or chemical) with the BLM. Should it be necessary, a Pesticide Use Proposal (PUP) shall be submitted for approval by BLM prior to any treatment with herbicides. Future management and control of noxious weeds may necessitate the completion of an integrated and comprehensive weed management for all of Clark County.

8. Factor 1 * Factor 2 = **Risk Rating:** Moderate, 15 **(Score and rating).**
(The Risk Rating is obtained by multiplying Factor 1 by Factor 2.)

9. Based on this risk rating, preventative management measures **are** ~~**are not**~~ (circle one) needed for this project. Preventative management measures developed for this project are as follows:

1) At the onset of project planning in the NEPA analysis phase, the project proponent shall complete this Risk Assessment Form for Noxious/Invasive Weeds. This will provide the BLM with information about the types of weed surveys to be conducted, the methods of weed treatments and weed prevention schedules for the management of noxious weeds on the project footprint. This will also identify the level of noxious weed management necessary. If pesticides are proposed then follow the pesticide stipulation below.

2) The project proponent shall coordinate project activities with the BLM Weed Coordinator (702-515-5000) regarding any proposed herbicide treatment. The project proponent shall prepare, submit, obtain, and maintain a pesticide use proposal (PUP) for the proposed action.

3) The project proponent shall begin project operations in weed free areas whenever feasible before operating in weed-infested areas.

4) The project proponent shall locate equipment storage, machine, and vehicle parking or any other area needed for the temporary placement of people, machinery, and supplies in areas that are relatively weed-free. The project proponent shall avoid or minimize all types of travel through weed-infested areas or restrict major activities to periods of time when the spread of seeds or plant parts are least likely.

5) BLM or the project proponent shall determine equipment-cleaning sites (if equipment is infested with weed seeds, plant parts, or mud and dirt). Project related equipment and machinery (this especially includes the nooks and crannies of undercarriages) will be cleaned using compressed air or water to remove mud, dirt, and plant parts before moving into and from relatively weed-free areas. Seeds and

plant parts will be collected, bagged, and deposited in dumpsters destined for local landfills, when practical.

6) Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product and dispose of in a dumpster for deposit in local landfills. Disposal methods may vary depending on the project. If you have questions consult with the LVFO Noxious Weed Coordinator.

7) The project proponent shall evaluate options, including area closures, to regulate the flow of traffic on sites where native vegetation needs to be established.

10. Based on this risk rating, project modifications ~~are~~/**are not** (circle one) needed for this project. Project modifications developed for this project are as follows.

Weed Risk Assessment completed by: William Garrett

Reviewed by/Date Reviewed: _____ Date: 08-04-09
Acting (Noxious Weed Coordinator)

APPENDIX C

STIPULATIONS
(Mitigation Measures and Residual Impacts)

APPENDIX C

STIPULATIONS
(Mitigation Measures and Residual Impacts)

APPENDIX C
Stipulations N- 78907/B/ & N-78907-01

1.0 Special Stipulations

1.1 The Holder, as a political subdivision of the State of Nevada, shall be held liable in accordance with the provisions of 43 CFR 2807.13.

1.2 If any Hazardous Material will be used, produced, stored, or transported on or within the ROW area or any facilities located thereon, or used in the construction, maintenance, or termination of the ROW or any of the facilities, the Applicant shall submit a Plan of Development in accordance with the requirements enumerated in the BLM Handbook 2801-1.

1.3 The Holder agrees to survey for nests of migratory birds between the periods of March 15 and July 30 and should a nestling be found the Holder will use properly qualified personnel, as agreed upon by the BLM and the Holder, to avoid the nest or minimize adverse impact to the nest and nestling, including relocation of the nest if appropriate. The Holder will consult with the Authorized Officer on a case by case basis to determine the appropriate minimization efforts.

2.0 General Stipulations

2.1 The ROW 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 ROW 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 ROW 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 ROW within its authorized limits.

2.6 Holder shall maintain the ROW 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. In the event that the public land underlying the ROW and STR (N-84617 & N-85617-01) encompassed in this grant, or a portion thereof, is conveyed out of Federal ownership and administration of the ROW or the land underlying the ROW is not being reserved to the United States in the patent/deed and/or the ROW is not within a ROW corridor being reserved to the United States in the patent/deed, the United States waives any right it has to administer the ROW,

or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part [2800][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 ROW, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the ROW shall be considered a civil matter between the patentee/grantee and the ROW Holder.

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 ROW:

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 ROW 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 ROW.

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 ROW, 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 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 ROW.

5.2 Mineral material generated, and not needed for the development of the proposed action within the ROW 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.

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 BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the holder shall secure the services of a Professional Land Surveyor or Bureau cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States 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 ROW. The Holder is responsible for consultation with the Authorized Officer and/or local authorities for acceptable weed control methods within limits imposed in the ROW 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 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.

7.4 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 Threatened and Endangered Wildlife and Plant Species Stipulations

8.1. 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 Biological Opinion 1-5-96-F-23R.3

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

1. To implement Reasonable and Prudent Measure Number 1, BLM shall fully implement the following measures to minimize take of desert tortoises due to activities associated with construction or development activities:

a. Applicants or project proponents will search for and remove tortoises from project areas within the programmatic area if (1) survey data indicate that tortoises are present based on observation of live tortoises, recent sign, or active burrows, (2) tortoises may be relocated to secure habitat within 2 miles from the point of capture and barriers will exist to prevent tortoises from re-entering project areas and appear in harm's way, and (3) the tortoises appear to be healthy, unless the Service determines that survey and removal will not contribute toward recovery.

N-78907B does not meet the required conditions as stated in term and condition 1.a. as there is secured habitat within two miles of the project site to relocate tortoises but there is not barrier to prevent relocated tortoises from returning to the project area. Therefore, a clearance survey is voluntary. If a clearance is conducted, any tortoises found must be relocated to the Desert Tortoise Conservation Center following term and condition 1.b.

The proponent is required to have an authorized biologist on call to relocate any desert tortoises that enter the work area. If tortoises are encountered that must be moved out of harm's way, the biologist will contact the BLM wildlife staff at (702) 515-5000 to

identify the relocation site or whether the animal will be transferred to the Clark County Tortoise Pick-up Service.

Applicants or project proponents shall contract an authorized desert tortoise biologist to conduct the clearance and removal. Only individuals trained to handle desert tortoises in accordance with Service-approved guidelines shall be authorized to handle desert tortoises, unless they are in imminent danger. Currently, the Service-approved handling guidelines are described in Guidelines for Handling Desert Tortoises during Construction Projects (Desert Tortoise Council 1994, revised 1999). Tortoises shall not be placed on private lands or lands under management by an agency other than BLM, without written permission of the landowner or agency. If unforeseen circumstances occur that would question the survival of tortoises potentially relocated from project areas, BLM shall coordinate with the Service on the disposition of such tortoises.

b. If a tortoise is in imminent danger with immediate death or injury likely (such as from an approaching vehicle or equipment), and the tortoise has been given the opportunity to move but has withdrawn in its shell and is not moving, onsite personnel may capture the tortoise and place it in a clean unused cardboard box or similar container. If tortoises are found that cannot be relocated as described in Term and Condition 1.a., Clark County's tortoise pick-up service will be notified immediately. The contained tortoise will be held in the shade or a temperature-controlled environment until removed by the pick-up service.

2. To implement Reasonable and Prudent Measure Number 2, BLM shall fully implement the following measures minimize destruction of desert tortoise habitat, such as soil compaction, erosion, or crushed vegetation:

a. BLM shall ensure that a fee is paid at the current rate of $754 per acre of disturbance, as indexed for inflation, prior to surface disturbance with the following exceptions:

(1) R&PP leases would be issued prior to payment of remuneration fees. Payment of fees on R&PP leases shall be deferred until immediately prior to surface disturbance. If the R&PP project consists of phased development of the lease area, fees shall be paid for each phase immediately prior to surface disturbance. Likewise, road ROW issued to local governments (e.g., Clark County, cities of Las Vegas, North Las Vegas, Henderson, Mesquite, and Boulder City) may be issued before payment of fees. If payment of remuneration fees is postponed for any project, the applicant must submit a request for a Notice to Proceed before surface disturbance. The applicant shall provide BLM with proof of payment of the,required remuneration fees, before BLM issues the Notice to Proceed. Both of these actions shall occur prior to surface disturbance. A Notice to Proceed shall be issued for each segment of ROW as payment is made.

(2) Because many mining plans of operation are phased in over a number of years, remuneration fees shall be paid for each phase immediately prior to surface disturbance.

(3) Projects impacting less than 0.25 acres will not be assessed a remuneration fee.

(4) Mineral material sales will be charged a fee of 25 cents per yard up to the equivalent of $754 per acre of disturbance.

The fee rate will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) on January 31st of each year. The next adjustment shall occur on January 31, 2010, and will become effective March 1, 2010. Fees assessed or collected for projects covered under this biological opinion after March 1st 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

This fee will be paid directly to the Desert Tortoise Public Lands Conservation Fund Number 730-9999-2315, administered by Clark County or any other administrator approved by the Service. The administrator serves as the banker of these funds and receives no benefit from administering these funds. These funds are independent of any other fees collected by Clark County under the MSHCP.

The surface disturbance for this project is 7.46 acres. The total fee for this project is $5,624.84 ($754.00 x7.46acres).

The payment shall be accompanied by the Section 7 Fee Payment Form (Attachment B), and completed by the payee. Payment shall be by certified check or money order payable to Clark County (or other administrator named by the Service), and delivered to:

Clark County Habitat Conservation
Department of Air Quality and Environmental Management
500 So. Grand Central Parkway (front counter, first floor)
Post Office Box 558270
Las Vegas, Nevada 89155 (702) 455-5821

b. The boundaries of project areas shall be flagged or marked and all equipment, vehicles, and construction materials will remain within the project site or authorized areas. Staging areas will be located in previously disturbed areas whenever possible. Cross-country travel and travel outside authorized areas will be prohibited.

3. To implement Reasonable and Prudent Measure Number 3, BLM shall fully implement the following measure to minimize injury or mortality of desert tortoises during handling and/or removal from BLM lands within the action area:

a. In accordance with Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise (Service 1992), an authorized desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign. As a guideline, an authorized biologist should have 60 field days of experience. In addition, the biologist shall have the ability to recognize and accurately record survey results.

b. All burrows found during clearance surveys within areas proposed for disturbance, whether occupied or vacant, will be excavated by an authorized desert tortoise biologist and collapsed or blocked to prevent desert tortoise reentry. All burrows will be excavated with hand tools to allow removal of desert tortoises or desert tortoise eggs. All desert tortoise handling and excavations, including nests, will be

conducted by an authorized desert tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999).

c. All located desert tortoises and desert tortoise eggs will be relocated offsite 300 feet to 2 miles into adjacent undisturbed habitat. Tortoises found aboveground will be placed under a bush in the shade. A tortoise located in a burrow will be placed in an existing unoccupied burrow of the same size and orientation as the one from which it was taken. If a suitable natural burrow is unavailable or the occupancy status of the burrow is in question, an authorized desert tortoise biologist will construct one of the same size and orientation as the one from which it was removed using the protocol for burrow construction in Section B-5-f (Desert Tortoise Council 1994, revised 1999).

d. Any tortoise found within one hour before nightfall will be placed in a separate clean cardboard box and held in a cool, predator-free location. The box will be covered and kept upright at all times to minimize stress to the tortoise. Each box will be used once and then disposed of properly. The tortoise will be released the next day in the same area from which it was collected and using the procedures described above. Each tortoise will be handled with new disposable latex gloves. After use, the gloves will be properly discarded and a fresh set used for each subsequent tortoise handling.

e. Desert tortoises shall be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises shall be kept shaded at all times until it is safe to release them. No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95°F (35°C). Ambient air temperature shall be measured in the shade, protected from wind, at a height of 2 inches (5 centimeters) above the ground surface. No desert tortoise shall be captured if the ambient air temperature is anticipated to exceed 95°F (35°C) before handling and relocation can be completed. If the ambient air temperature exceeds 95°F (35°C) during handling or processing, desert tortoises shall be kept shaded in an environment that does not exceed 95°F (35°C), and the animals shall not be released until ambient air temperature declines to below 95°F (35°C).

f. Project activities that may endanger a tortoise will cease if a tortoise is found on a project site. Project activities will resume after an authorized desert tortoise biologist removes the tortoise from danger or after the tortoise has moved to a safe area on its own volition.

g. A desert tortoise education program may be required on an action-specific basis if BLM biologist or Service believe that project personnel will encounter desert tortoises. The program would be presented to all personnel onsite during construction activities. This program would contain information concerning the biology and distribution of the desert tortoise, desert tortoise activity patterns, its legal status and occurrence in the proposed project area, the definition of "take" and associated penalties, measures designed to minimize the effects of construction

activities, the means by which employees can facilitate this process, and reporting requirements to be implemented when tortoises are encountered.

4. To implement Reasonable and Prudent Measure Number 4, BLM shall fully implement the following measures to ensure compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion:

All necessary information sheets and forms shall be completed by the proponent. Attachment A must be completed prior to BLM authorizing the action. The proponent must complete Attachment B and return it to the BLM within 30 days of completion of construction. These forms will be modified as necessary with the Service's concurrence.

Attachment A

SECTION 7 FEE PAYMENT FORM

****PAYMENT CAN NOT BE ACCEPTED WITHOUT FORM****

Entire form is to be completed by project proponent

Biological Opinion File Number: 1-5-96-F-23R.3

Case File #: N-78907B

U.S. Fish and Wildlife Service Office that Issued the Opinion:
Nevada Fish and Wildlife Office, Reno, Nevada

Species: Desert tortoise (*Gopherus agassizii*)

Project: Bermuda 2745 Zone Pumping Station Discharge Pipeline, Phase II, Partial Re-alignment

Amount of Payment Received: $_____

Total Payment Required: $ 5,624.84

Date of Receipt: _____

Check or Money Order Number: _____

Number of Acres to be Disturbed: 7.46

Project Proponent: _____

Telephone Number: _____

Authorizing Agencies: _____

Make checks payable to: Clark County Treasurer

Deliver check to: Clark County Desert Conservation Program
c/o Dept. of Air Quality and Environmental Management
Clark County Government Center
500 So. Grand Central Parkway, first floor (front counter)
Las Vegas, Nevada 89106
(702) 455-5821)
Acct No. 730-9999-2315

If you have questions, you may call the Southern Nevada Field Office of the U.S. Fish and Wildlife Service at (702) 515-5230.

Revised 07/13/2005

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: 1-5-96-F-023.R3
Species: desert tortoise (Gopherus agassizii)

Project Name: Bermuda 2745 Zone Pumping Station Discharge Pipeline, Phase II, Partial Re-alignment
Case File No: N-78907B

Acreage of Disturbance Authorized: 7.46
Acreage Actually Disturbed: _____
Fees Assessed: $5,624.84 Rate: $754 per acre

In accordance with this biological opinion, applicants or project proponents may voluntarily choose to search for and remove tortoises from lands to be disturbed within the project area.

☐ Desert tortoise survey conducted Date(s): _____

☐ Voluntary desert tortoise survey conducted

☐ No desert tortoise survey conducted

☐ Migratory bird survey conducted Date(s): _____

Number of desert tortoises injured: _____
Number of desert tortoises killed: _____
Number of desert tortoises removed from the project site: _____
Number relocated to adjacent habitat within 2 miles: _____
Number transferred to the Clark County Tortoise Pick-up Service: _____

(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 removal[1]:

Company: _____

Name: _____

Address: _____

_____

Phone: _____

State Permit #: _____

Deliver this completed form 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. *Revised 07/14/2005*

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