

**CLARK COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN**

**BOULDER CITY CONSERVATION EASEMENT
MANAGEMENT PLAN**

Version 3.2

January 2015



desert conservation
PROGRAM

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Acknowledgements

The Desert Conservation Program would like to recognize Thomas O'Farrell for his work in developing Version 1.0 of the Management Action Plan for the Boulder City Conservation Easement. Additionally, we would like to recognize the efforts of Rob Sutter and Mary Peters for their work in the development of Versions 3.0 and 3.1 of this management plan.

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EXECUTIVE SUMMARY

This management plan identifies actions for managing the Boulder City Conservation Easement (BCCE), a unit of the Clark County reserve system under the Multiple Species Habitat Conservation Plan (MSHCP). This management plan links management actions to the conservation goals and objectives to preserve, protect, maintain, and enhance the natural resource values of the BCCE. It defines management responsibilities and serves as a guide for the day-to-day management activities. The development of a management plan for the BCCE meets the intent of Condition P of the Section 10(a)(1)(B) incidental take permit, which is to ensure that uses of the BCCE are consistent with protection and management of the desert tortoise and its habitat (USFWS 2001).

The BCCE is located in the northeastern Mojave Desert within the Eldorado Valley in southeastern Clark County, Nevada. The 86,423-acre reserve unit is south of Boulder City, approximately 4 miles south of the intersection of U.S. Highways 95 and 93. Primary purpose of the reserve unit is to protect and manage desert tortoise and its habitat.

This management plan describes the background of the MSHCP and history of the easement, and provides detailed descriptions of the reserve unit including physical, biological, water, and cultural resources; land uses; and threats to natural resources. The primary section of this plan is identification of management goals, objectives, and actions. As listed in the table below, the goals are broad, general statements that establish management direction of the BCCE, whereas the objectives provide further explanation regarding the intent of the goals. Numerous actions are planned that define day-to-day management activities and identify additional actions, steps, and tools to meet these objectives and to achieve goals. Each management action is linked to measures that assess the effectiveness of the action, and ultimately the success of this management plan.

Goal	Protect and manage the BCCE for the desert tortoise and its habitat.
Objectives	Restore and enhance habitat for desert tortoise
	Install and maintain infrastructure that controls tortoise movement
	Manage direct threats to desert tortoise
Goal*	Protect and manage the BCCE for other MSHCP covered species (Appendix X).
Goal	Manage the property and public uses to meet conservation obligations and legal requirements.
Objectives	Manage road network to support conservation and provide appropriate access for management and public use
	Provide law enforcement
	Manage property to control invasive plant species and noxious weeds to reduce threat of fire
	Educate the public on allowable uses and current activities
	Manage allowable uses
	Manage prohibited uses (Appendix X)
* There are no specific management objectives for this goal because it is assumed that if the BCCE is protected and managed for the desert tortoise, other MSHCP covered species will benefit.	



ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
ACEC	Area of Critical Environmental Concern
AFY	acre-feet per year
BCCE	Boulder City Conservation Easement
BLM	Bureau of Land Management
City	City of Boulder City
DCP	Desert Conservation Program
MSHCP	Multiple Species Habitat Conservation Plan
NCA	National Conservation Area
NDOT	Nevada Department of Transportation
NPS	National Park Service
OHV	off-highway vehicle
Permittees	Clark County, the cities of Las Vegas, North Las Vegas, Mesquite, Henderson, and Boulder City, and the Nevada Department of Transportation
RMP	Resource Management Plan
SR	State Route
US 95	U.S. Highway 95
USFWS	U.S. Fish and Wildlife Service



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1.0 INTRODUCTION

The Clark County Desert Conservation Program (DCP) manages Endangered Species Act compliance on behalf of Clark County and the cities of Boulder City, Henderson, Las Vegas, North Las Vegas, Mesquite, and the Nevada Department of Transportation (collectively, the Permittees) through implementation of the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and associated Section 10(a)(1)(B) incidental take permit. The incidental take permit required that the Permittees establish a conservation easement in the Eldorado Valley to be managed and protected for the benefit of the desert tortoise as partial mitigation for the take of desert tortoise (*Gopherus agassizii*) and its habitat. The Boulder City Conservation Easement (BCCE) was established by agreement between the County and Boulder City in July of 1995 to fulfill this requirement of the incidental take permit.

The management goal prescribed for the BCCE is to ensure that the property is retained in a natural condition, and to prevent any uses that would impair the conservation, protection, restoration and enhancement of the natural resource values, especially those values associated with habitat for the desert tortoise and other indigenous flora and fauna. The development of a management plan for the BCCE meets the intent of Condition P of the incidental take permit (U.S. Fish and Wildlife Service [USFWS] 2001), which is to ensure that uses of the BCCE are consistent with protection and management of the desert tortoise and its habitat. This management plan describes how the BCCE will be managed by DCP staff and presents specific actions relative to priority focus areas and the goals of the DCP. The purpose for this management plan is to identify actions by which to manage the BCCE in a manner to preserve, protect, maintain, and enhance natural resource values of the property, primarily for the desert tortoise but also for other indigenous flora and fauna. This plan links management actions (Section 3.2) to the conservation goals and objectives developed for the BCCE (Section 3.1), and establishes overall management direction and clarifies management responsibilities (Section 1.3). It serves as a guide for day-to-day activities and defines future discretionary actions to manage public uses and achieve desired habitat conditions for the desert tortoise and other species covered by the MSHCP. Implementation of the many management actions will be detailed in separate restoration or project plans.

1.1 HISTORY OF THE BCCE

In 1958, Congress authorized the Secretary of the Interior to convey up to 126,775 acres of Bureau of Land Management (BLM) land in the Eldorado Valley to the Colorado River Commission, an agency of the State of Nevada. The Colorado River Commission requested in 1968 the conveyance of 107,412 acres from the BLM, referred to as the Eldorado Valley Transfer Area. In 1990, Boulder City (City) proposed to purchase the Eldorado Valley Transfer Area from the Colorado River Commission to manage as a buffer against development that might not meet the City's limited growth ordinance. The Secretary of the Interior eventually signed a Contract of Sale and Land Patent (deed) that conveyed the Eldorado Valley Transfer Area to the Colorado River Commission in July 1995. The Colorado River Commission subsequently transferred the deed to the City. The deed stipulated that the Eldorado Valley Transfer Area was to be used for desert tortoise conservation, public recreation, and a solar power peaking station. The Colorado River Commission also stipulated



that the deed was subject to valid existing rights, including rights-of-way, reservations, restrictions, covenants, easements, and conditions of record described in the contract.

Under the Desert Conservation Plan (predecessor to the MSHCP) and associated Section 10 incidental take permit (Clark County 1994; USFWS 1995), the Permittees were required to establish an approximately 85,000-acre conservation easement in the Eldorado Valley Transfer Area that would be managed and protected for the benefit of the desert tortoise as partial mitigation for take of the tortoise and its habitat. During the development of the Desert Conservation Plan, the City and County signed the Interlocal Agreement for Sale and Grant of a Conservation Easement in July 1994 (Appendix A), which stipulated that the City would grant a conservation easement to the County once the land was acquired from the Colorado River Commission. The BCCE was thereby established on 86,423 acres of land by a Conservation Easement Grant from the City to the County in July 1995. Condition 7 of the Section 10 incidental take permit associated with the Desert Conservation Plan stated:

Upon purchase of lands under the Eldorado Valley Transfer Act, Boulder City shall convey a conservation easement affecting 85,000 acres to an entity designated by the County, which will guarantee that those lands will be managed and protected for the benefit of the tortoise. Boulder City shall be responsible for supervising and regulating the activities which it authorizes or permits within the area in a fashion consistent with this Permit and the terms of the [Clark County Desert Conservation Plan]. Boulder City will annex those lands and adopt an ordinance which will incorporate the terms of the conservation easement to make it illegal to carry out any activity prescribed by the conservation easement as incorporated in the ordinance. Boulder City and the County will contract to provide law enforcement services to enforce the terms of the conservation easement and the ordinance.

The Section 10 incidental take permit associated with the MSHCP (USFWS 2001) included the requirement to maintain the BCCE as a conservation reserve for covered species. Condition P of that Section 10 permit stated:

The Permittees shall ensure that any future development or use of the 85,000-acre conservation easement be consistent with the goals outlined in the [Desert Conservation Plan] which are to protect and manage the desert tortoise and its habitat. Furthermore, the Permittees shall take measures necessary to ensure maintenance in perpetuity, of connectivity for desert tortoise and other Covered Species, within the Boulder City Conservation Easement, including an adequate North-South corridor for the desert tortoise, as determined by the [adaptive management program].

1.2 GUIDING DOCUMENTS

The primary guiding documents for the MSHCP include:

- MSHCP and Environmental Impact Statement (Clark County 2000a)
- Incidental Take Permit No. TE034927-0 (USFWS 2001)



- MSHCP Implementing Agreement (Clark County 2000b)
- Biological and Conference Opinion (USFWS 2000)

These documents are available electronically at:

<http://www.clarkcountynv.gov/Depts/dcp/Pages/GuidingDocuments.aspx>

In addition to these guiding documents, the management of the BCCE is governed by a series of specific documents executed between Clark County, on behalf of the Permittees, Boulder City, and the U.S. Fish and Wildlife Service. These documents include:

- Interlocal Agreement for Sale and Grant of a Conservation Easement (July 1994).
- Amendment to the Conservation Easement Grant by and between the City of Boulder City and the County of Clark, Nevada also known as the Boulder City Conservation Easement (August 2010).

The Amendment to the Conservation Easement Grant revised and added language and exhibits to the 1995 Grant that clarified locations of rights-of-way, provided guidelines and requirements for third party projects to restore and mitigate surface disturbances, and identified locations for treated wastewater effluent discharge. These documents are available on the DCP website:

<http://www.clarkcountynv.gov/Depts/dcp/Pages/BCCE.aspx>.

Certain federal, state, and local regulations also apply to actions that occur within the BCCE. Boulder City Code, Title 7, Chapter 5 (7-5-8) lists prohibited activities, with exceptions to these activities that can occur on the easement with appropriate permission from the City, County, and/or USFWS. Any restoration or conservation action that could adversely affect the flood capacity of the 100-year floodplain is subject to review and approval by the City to meet the requirements of the National Flood Insurance Program (Boulder City Code 11-40-3). Any restoration project that disturbs more than one acre is subject to the provisions of stormwater discharge controls under Section 402 of the Clean Water Act and requires compliance with the Construction Stormwater General Permit issued by the Nevada Division of Environmental Protection. Management actions that could affect BLM land would be subject to the Federal Land Policy and Management Act for applicable right-of-way authorization, which also triggers environmental and cultural assessments under the National Environmental Policy Act and National Historic Preservation Act.

1.3 MANAGEMENT ROLES AND RESPONSIBILITIES

Clark County, a Permittee to the MSHCP, serves as the Plan Administrator of the MSHCP on behalf of the other Permittees. Clark County is also the grantee of the conservation easement. The City of Boulder City is also a Permittee to the MSHCP as well as the grantor of the conservation easement. The management of the easement is governed by an interlocal agreement between the City of Boulder City and Clark County executed in July 1994 (Appendix A). The easement agreement outlines the required management activities for the conservation of the desert tortoise, allowable and prohibited uses of the BCCE, rights of the grantor (Boulder City) and the grantee (Clark County), and other policies and procedures. In 2010, Boulder City and Clark County amended the BCCE agreement to address needed clarifications in Clark County's decision process as Plan Administrator



of the MSHCP, Boulder City treated wastewater discharge onto the BCCE, requirements of third party projects that take place in the BCCE, and provisions for law enforcement.

The Clark County Board of County Commissioners represents the County as the grantee of the BCCE with the City. The role of the Board of County Commissioners is to review and approve the budget and expenditure of funds by the DCP to manage the BCCE, and to review the DCP's selection of contractors, approve contract awards, and obligate funds for conservation projects.

The DCP acts on behalf of the Board of County Commissioners as the grantee of the BCCE and serves in the primary role of implementing day-to-day activities to manage the BCCE in accordance with the Grant and guiding documents of the MSHCP. The DCP is responsible for planning and implementing management actions for long-term maintenance of natural resource values of the BCCE for the benefit of the desert tortoise. The DCP is responsible for regularly reviewing this management plan for any changes or additions to management goals, objectives, and actions for the BCCE, and to update priority and implementation status of management actions.

The City holds fee title to the land and is the grantor of the conservation easement grant to the County. The City has the responsibility to enact and enforce ordinances and regulations to restrict the use of the BCCE in accordance with the Grant, as amended, and provides peace officers with authority to patrol the BCCE as agreed with and funded by the DCP. The City maintains the right to permit exceptions to prohibited uses and permit specific activities listed in the Grant, including non-intrusive monitoring for desert tortoise, non-consumptive recreation, and surface disturbance associated with habitat improvements. The City is responsible for minimizing impacts to natural resource values of the BCCE for its use of the property for treated wastewater effluent discharge and for construction of utilities and transmission lines.

The role of the USFWS is to review the biennial budget for managing the BCCE and to approve activities that involve collection of biological data and habitat improvement projects for the benefit of desert tortoise. The USFWS is also responsible for reviewing and approving certain uses of the property, including construction, effluent discharge, and motorized vehicle activities.

1.4 IMPLEMENTATION PLAN AND BUDGET PROCESS

The MSHCP provides guidance on developing biennial budgets for implementation. The DCP, as the MSHCP Administrator, is responsible for developing a biennial Implementation Plan and Budget that is responsive to key provisions outlined in the MSHCP. Although the process of developing the Implementation Plan and Budget has varied over the past biennia, the general steps of the budget development process are to determine available funding and to identify and recommend actions that further the purpose of the MSHCP. Certain actions that are stipulated by the Section 10 incidental take permit are considered required expenditures to maintain compliance, and therefore are non-discretionary. These non-discretionary actions include administering and managing the MSHCP implementation, supporting the Adaptive Management Program, managing the BCCE, managing acquired properties and water rights, maintaining the tortoise fencing program along major roads, wild tortoise pick-up services, and the public information and education program. Other actions that further the goals and objectives of the MSHCP but are not directly specified in the incidental take



permit are considered discretionary, such as scientific research projects and desert tortoise augmentation projects.

Management actions on the BCCE are primarily funded through Section 10 mitigation fees and from the proceeds of federal land sales under the Southern Nevada Public Lands Management Act. Other outside sources of funding for conservation actions could include private grants, donations of in-kind labor, and mitigation fees paid by third parties as part of their compliance with Section 7 of the Endangered Species Act. These third-party Section 7 mitigation fees are typically restricted to enhancement or restoration of desert tortoise habitat.



2.0 RESERVE UNIT DESCRIPTION

The BCCE is located in the northeastern Mojave Desert within the Eldorado Valley, in southeastern Clark County, Nevada (Figure 1). The BCCE begins approximately 4 miles south of the intersection of US 95 and US 93, and extends for approximately 22 miles along US 95. State Route (SR) 165 and Eldorado Valley Drive cross the BCCE to the east and west, respectively. The BCCE is within the city limits of Boulder City, approximately 2 miles south-southwest of the developed area of the City.

The BCCE consists of 86,538 acres that is split by U.S. Highway 95 (US 95) into a North Section, consisting of 39,114 acres, and a South Section consisting of 47,424 acres. Excluded from the South Section is the Energy Zone, an area of 3,064 acres designated by the City for energy development (Figure 2).

The legal description (section-township-range) of the BCCE is included as Exhibit A to Appendix A, the Conservation Easement Grant.

2.1 EXPANSION CRITERIA

Boulder City and DCP have considered and reviewed proposals to reconfigure or expand the Energy Zone. Land within the existing Energy Zone would be exchanged with the BCCE to expand the zone toward US 95. To date, these proposals for exchanges have not been approved.

Any future land expansion of the BCCE will consider the following criteria:

- Expansion area includes more than 75 percent undeveloped habitat suitable for desert tortoise.
- Expansion area is adjacent to the BCCE or to public lands adjacent to the BCCE that are also dedicated to habitat protection for tortoise, other wildlife, or plants.

Any future requests to exchange areas within the BCCE will consider the following criteria:

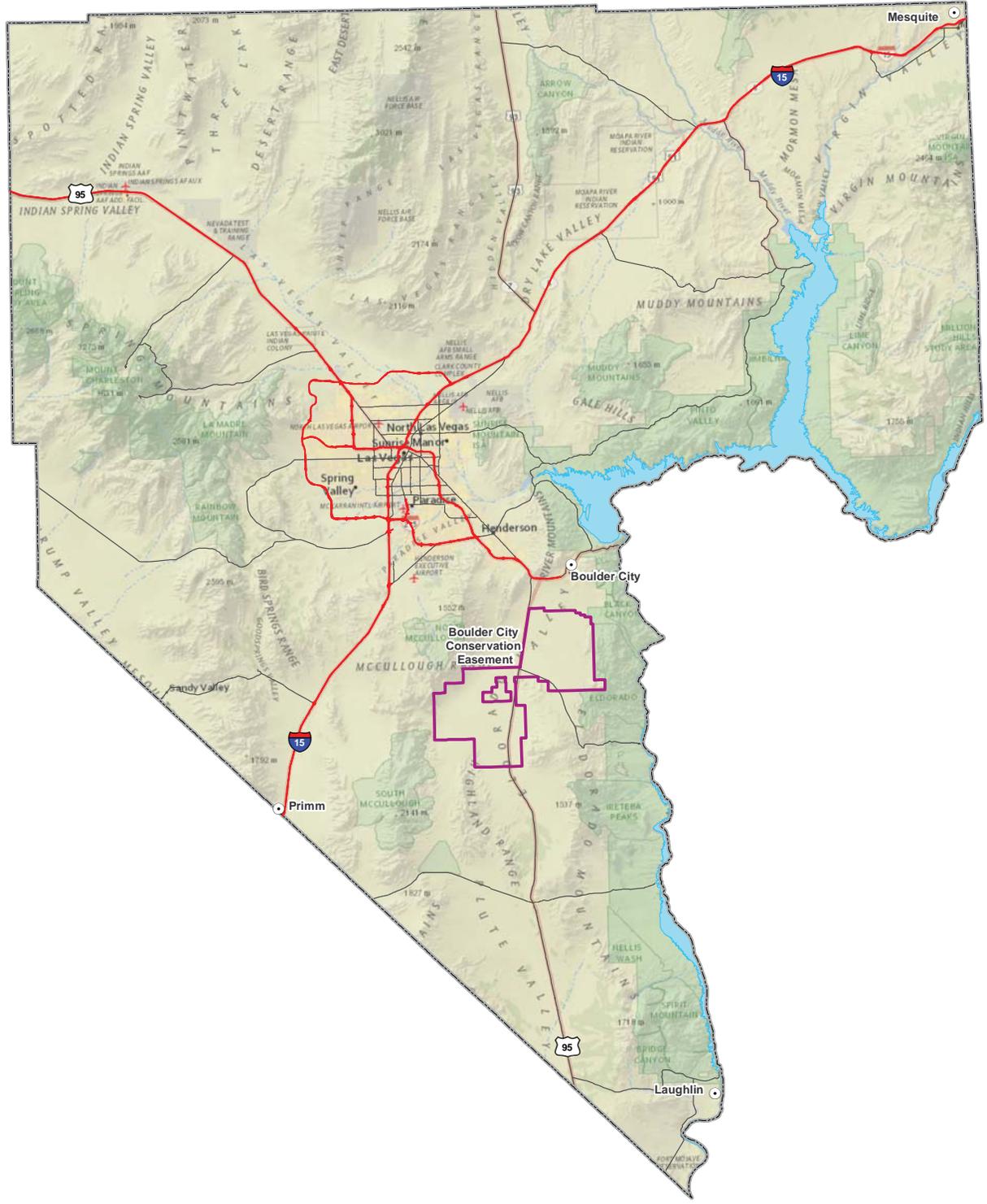
- Exchange area is adjacent to the BCCE or to public lands adjacent to the BCCE that are also dedicated to habitat protection for tortoise, other wildlife, or plants.
- Exchange land added to the BCCE is better quality tortoise habitat than the land being removed.

2.2 LAND USE

Land use includes land ownership, existing land use, land use plans, and zoning. Land use and land management practices can have a significant impact on natural resources, including water, soil, nutrients, plants, and animals.

2.2.1 Land Ownership

The BCCE is located on private lands within the jurisdictional limits of the City of Boulder City (Figure 3). Land to the north of the BCCE is also within Boulder City jurisdiction. Land to the east, west, and south is primarily under federal ownership and is managed by the BLM. The eastern edge



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, iPC

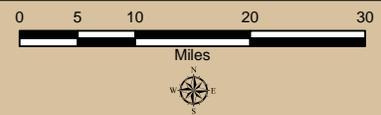
Legend

- Boulder City Conservation Easement
- Lake Mead
- Clark County
- Freeways
- Highways/Major Roads

Clark County

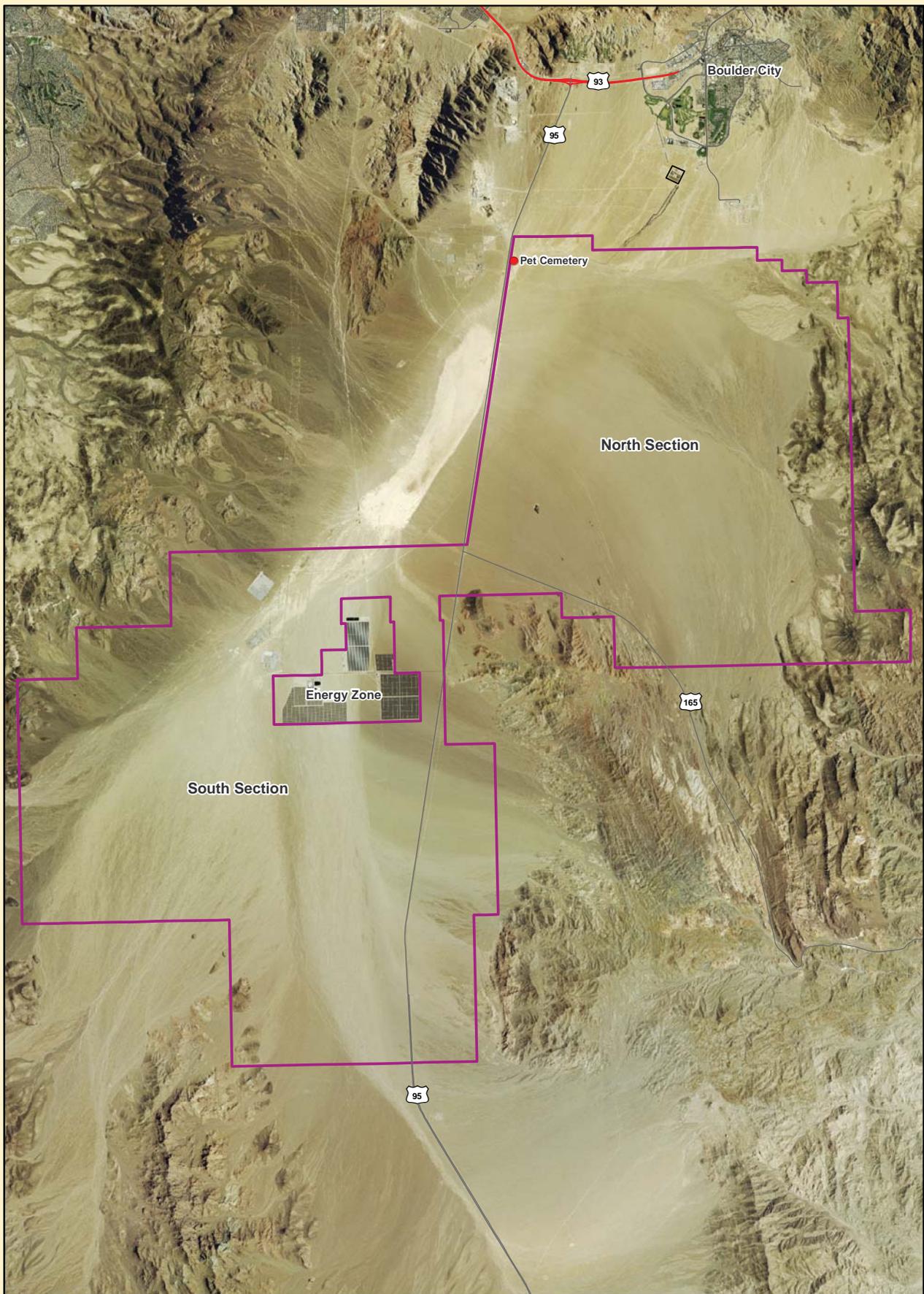
Location of the BCCE

Figure 1



Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 2/10/2014
 Name: BCCE_Management_figure1





Legend

Boulder City Conservation Easement

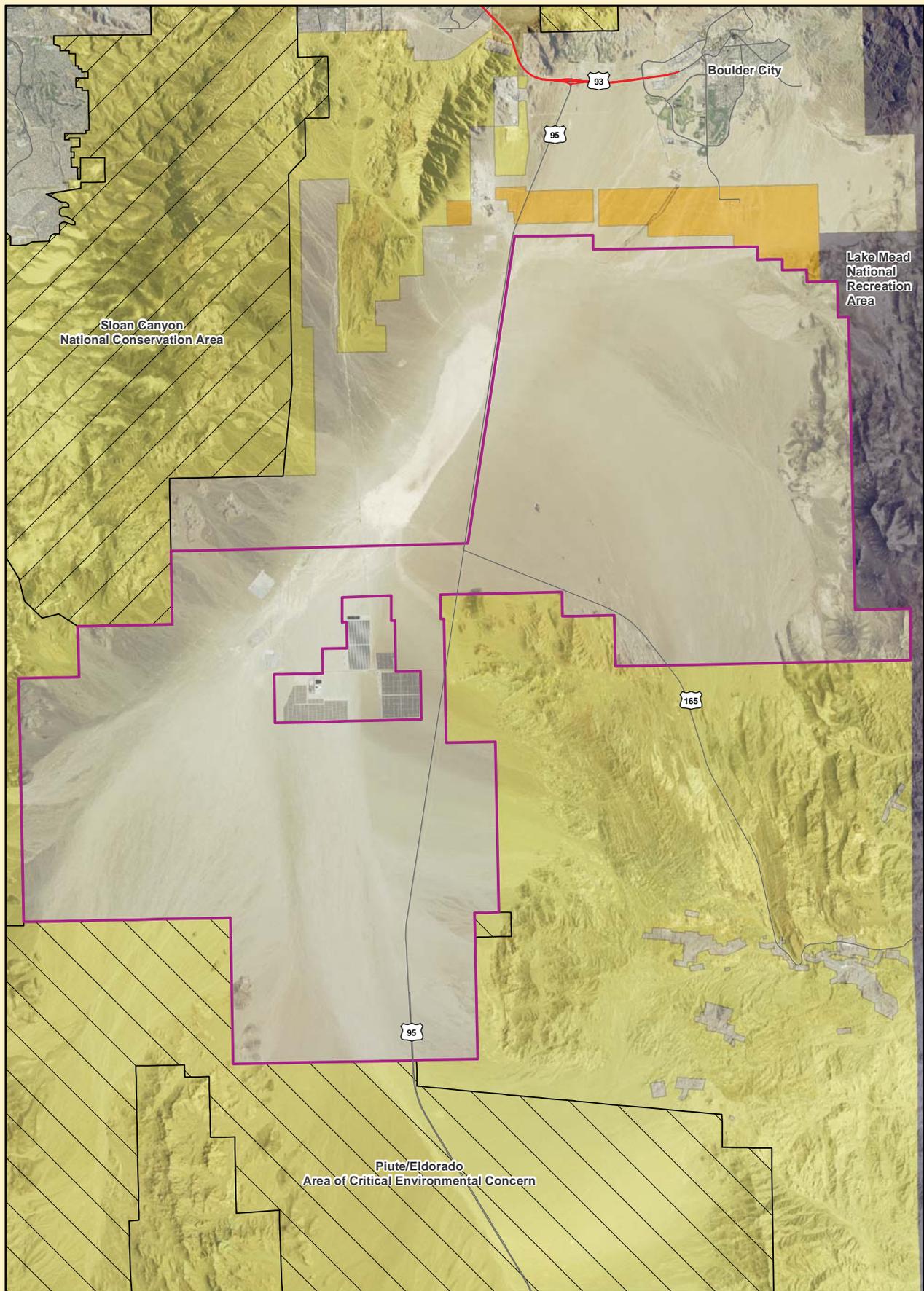
Clark County

BCCE Detail Map

Figure 2

0 1 2 4 6
Miles

Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 2/11/2014
 Name: BCCE_Management_figure2



Legend

- Boulder City Conservation Easement
- Bureau of Land Management
- Department of Energy
- National Park Service
- Private/Municipal

Clark County

BCCE Land Ownership

Figure 3

0 1 2 4 6

Miles

Desert Conservation
PROGRAM

Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 2/11/2014
 Name: BCCE_Management_figure3



of the North Section is adjacent to the Lake Mead National Recreation Area, administered by the National Park Service (NPS). Managed by BLM, Sloan Canyon National Conservation Area (NCA) is to the west of the BCCE and Piute-Eldorado Area of Critical Environmental Concern (ACEC) is to the south.

2.2.2 Historic, Existing, and Adjacent Land Use

Historical Land Use

Prior to conveyance of the Eldorado Valley Transfer Area to the Colorado River Commission and sale to the City, BLM managed the area for multiple uses, including energy transmission, telecommunications, mining, off-highway vehicle (OHV) racing, hunting, grazing, and open recreation. The most prominent use of the area before establishment of the easement was as an energy transmission hub.

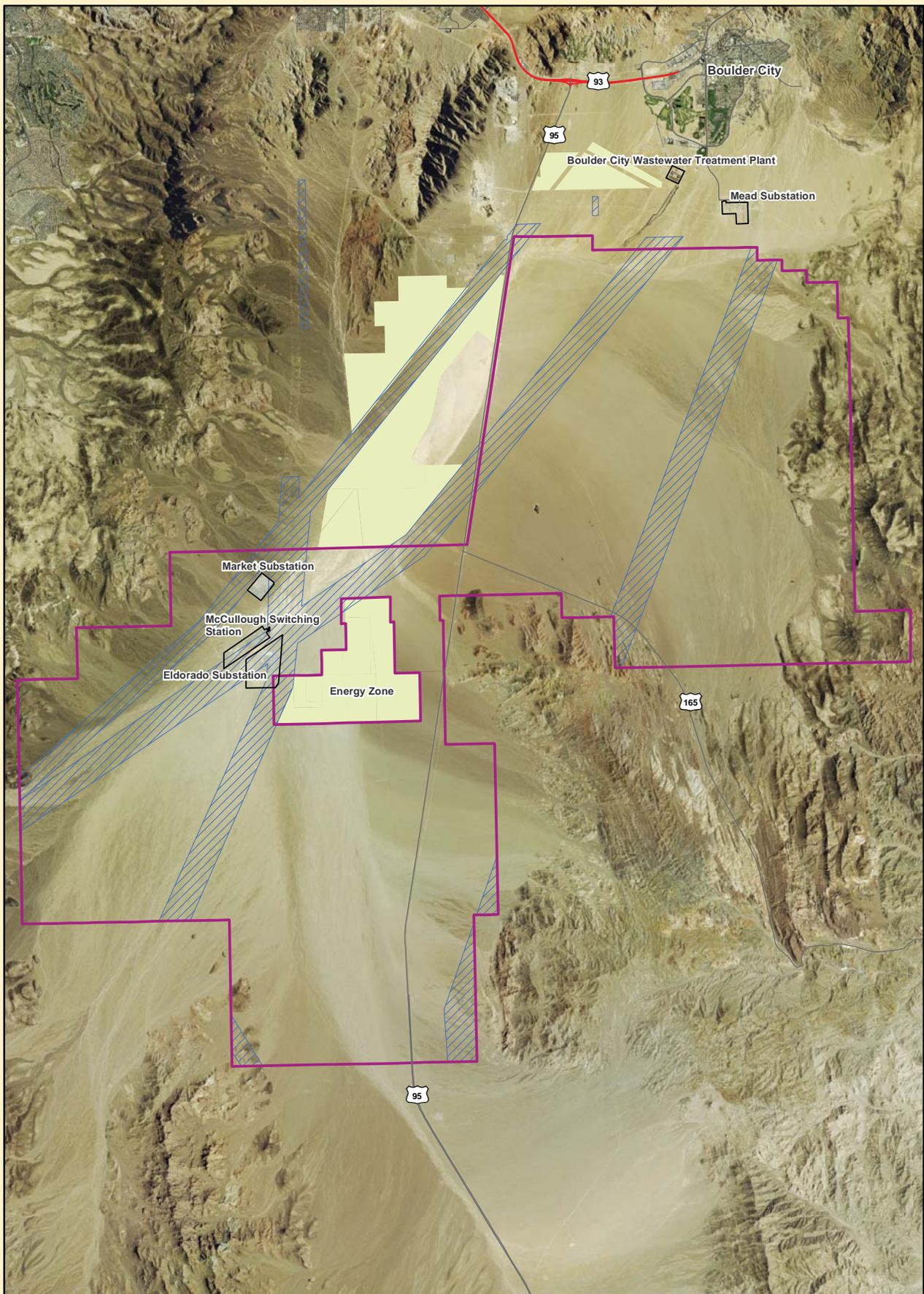
A portion of the BCCE was also previously used for the establishment of a pet cemetery. The pet cemetery located in the northwest corner of the North Section of the easement has been in existence since the 1960s (Figure 2). It was at one time authorized by the BLM under a Recreation and Public Purposes lease to the Humane Society of Southern Nevada; however that lease expired in 1986. There were no BLM authorizations for animal burials reserved to the U.S. or transferred in the deed to the Colorado River Commission, and the City has never sanctioned the pet cemetery within the BCCE. Discarding dead animals on public property is prohibited as a nuisance by Boulder City Code 7-3-8. The pet cemetery covers approximately 14 acres with 1,600 graves. A three wire post and cable barrier fence with a lockable gate was installed around the cemetery in 2013 to contain further encroachment into the easement.

Existing Land Use and Allowable Uses

The BCCE guiding documents limited historical uses to transmission of energy and telecommunications. Overhead transmission lines and access roads, primarily in a northeast-southwest direction, cross the easement (**Error! Not a valid bookmark self-reference.**). There are also three switching yards and substations located within the BCCE, shown in Figure 4 and as listed in Table 1.

Table 1.
Energy Facilities within the BCCE

Facility	Right-of-Way Acreage	Established	BLM Serial Number
Eldorado Substation	366	November 15, 1966	NVN002655
McCullough Switching Yard	406	January 23, 1969	NVN002763
Marketplace (McCullough II) Substation/Switching Yard	170	June 24, 1988	NVN046054



- Legend**
- Boulder City Conservation Easement
 - Bureau of Land Management
 - Department of Energy
 - National Park Service
 - Private/Municipal
 - Transmission Corridors
 - Active and Potential Solar Leases

Clark County

BCCE Utility Facilities

Figure 4



Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 2/11/2014
 Name: BCCE_Management_figure4



The BCCE guiding documents also restricted hunting, non-speed vehicular events, and non-ground disturbing recreation. The BCCE is currently available for non-consumptive recreational uses including hiking, bird watching, bicycling, horseback riding, photography, OHV use, and sightseeing along open roads. Any activity or use of the BCCE that is inconsistent or incompatible with the purposes of the easement is prohibited, except with express written consent of DCP and USFWS and with permission from the City. The list of restricted activities and required approvals is included in Appendix B. Roads that are open to these recreational activities are clearly signed and designated with the road letter for navigation. Limited use roads are private, and generally located within utility right-of-way corridors (Figure 5).

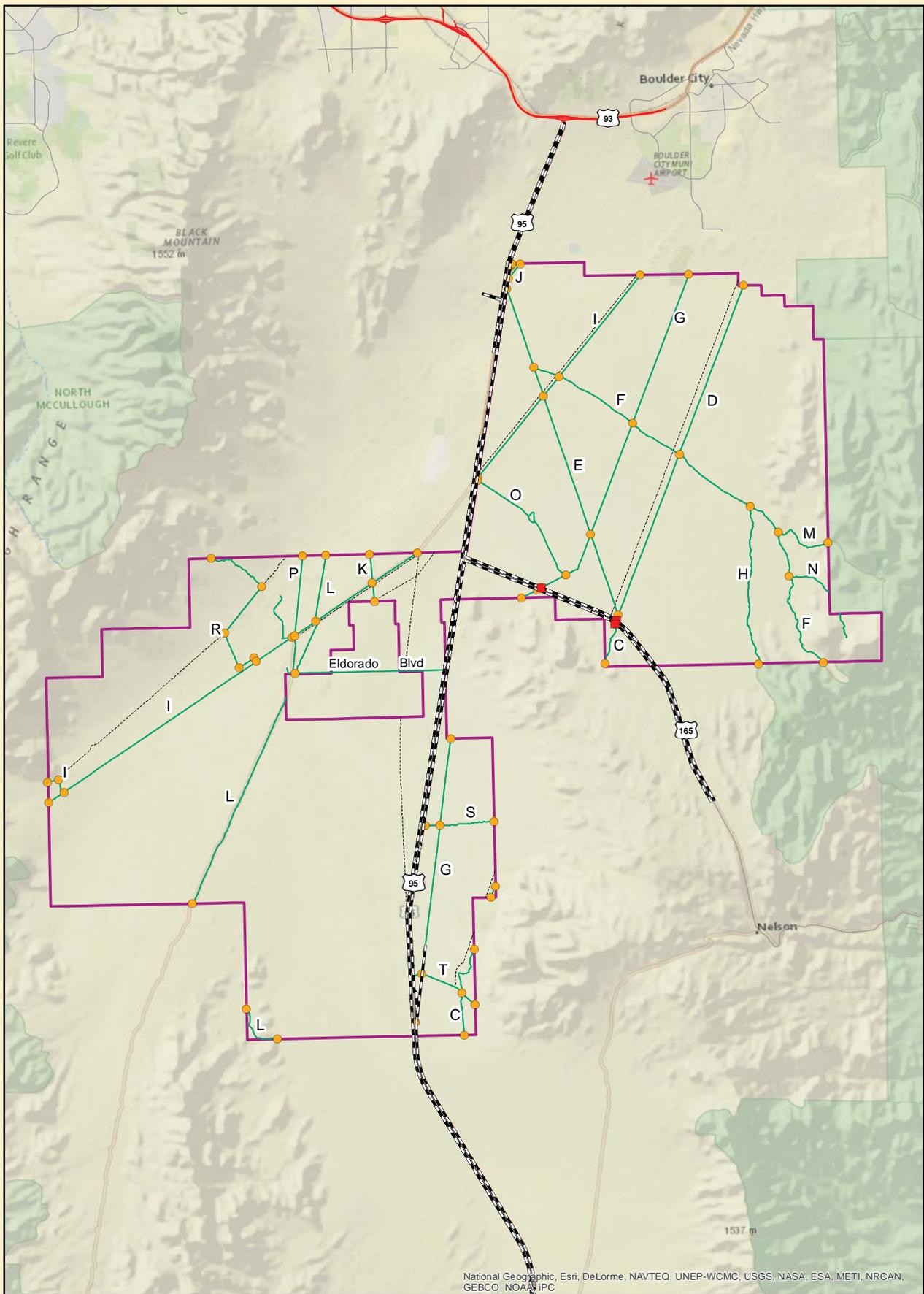
The City retained limited rights in the Grant to discharge treated effluent from the Wastewater Treatment Plant onto the North Section of the easement (Figure 4). The location allowed within the BCCE for the discharge was set forth in the 2010 Amendment as shown on Exhibit B of the Amendment (Appendix A). The City is authorized to discharge a 30-day average of 1.8 million gallons per day of secondarily treated effluent into two dry washes. Effluent flows in unlined channels in a southwesterly direction and enters the BCCE approximately 1.5 miles from the Wastewater Treatment Plant (Figure 4). Unlined channels and evidence of effluent on the surface dissipate after approximately 1.8 miles inside the BCCE boundary.

Adjacent Land Use

Land to the east, west, and south of the BCCE is primarily under federal ownership and land to the north is in Boulder City jurisdiction (Figure 3). The eastern edge of the North Section is adjacent to the Lake Mead National Recreation Area administered by the NPS. Managed by BLM, Sloan Canyon NCA is to the west of the BCCE and Piute-Eldorado ACEC is to the south. Management focus of the ACEC is protection of desert tortoise and desert tortoise habitat, and the NCA is for conservation, protection, and enhancement of cultural resources. Land within the City limits are managed according to the Boulder City Code and ordinances.

The Nevada Department of Transportation (NDOT) maintains US 95 and SR 165, both of which bisect the BCCE. Rights-of-way for these roads precede the establishment of the BCCE. NDOT maintains desert tortoise exclusion fencing and several cattle guards along these roads (Figure 5). The intent of this fencing is to halt desert tortoise movement into roadways, and in seven locations fencing allows passage by wildlife through storm water box culverts underneath NDOT roadways. It is not known if desert tortoises successfully traverse these culverts.

The Boulder City Energy Zone consists of three areas, which includes one that is surrounded by the BCCE consisting of approximately 3,064 acres (Figure 4). The area has been leased for energy production and research by Boulder City, and includes a natural gas fired power plant, a University of Nevada Las Vegas renewable energy production research facility, and solar energy production facilities using a variety of concentrated solar and photovoltaic technologies. In 2010, Boulder City expanded the Energy Zone by adding approximately 6,560 acres. Expansion areas cover the Eldorado Dry Lake adjacent to the northern boundary of the South Section of the BCCE, and a second expansion area between the North Section of the BCCE and the developed area of the City (Appendix A, 2010 Amendment, Exhibit C).



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

Legend

- Tortoise Guards
- Open Road Signage
- Designated Open Roads
- - - Private Roads
- Tortoise Fencing
- Boulder City Conservation Easement

Clark County

Designated Open Roads/Signage, Private Roads and Tortoise Guards

Figure 5



Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map5_kim



Certain rights-of-way transferred with the deed and have precedence over the easement agreement and grant between Boulder City and Clark County until they are abandoned or terminated. Other rights-of-way for federal purposes were excluded from the deed and reserved to the BLM for a variety of purposes. BLM claims utility and public transportation corridors (areas reserved for future right-of-way issuance) were designated in the patent document (deed) and that all use rights in these corridors were excluded and reserved from the transferred lands (Figure 4). A list of rights-of-way transecting the BCCE is included as Exhibit B to the 1995 Grant (Appendix A).

Future Adjacent Land Use

Future uses on lands adjacent to the BCCE are guided by the governing entities' management plans. Future use of adjacent City land is governed by the Boulder City Master Plan (Clark County 2013) and flood control master plan (Clark County Regional Flood Control District 2013). Boulder City provides infrastructure to the Energy Zone and could likely seek to establish new utility easements through the BCCE to the Energy Zone expansion areas, as allowed by Section 6(b)(3) of the Amendment.

Management and future uses of adjacent BLM lands are governed by the Las Vegas Resource Management Plan (RMP) (BLM 1998) that is being revised and updated, and the Sloan Canyon NCA RMP (BLM 2005). Proposed revisions and updates to the BLM Las Vegas RMP could change which areas have further restrictions on use west of the BCCE under an ACEC designation and expand the boundaries of the existing Piute-Eldorado ACEC. The Las Vegas RMP update is expected to be completed in 2015. NPS manages future use of the Lake Mead National Recreation Area in accordance with their Land Protection Plan (NPS 1987). There are no known proposed future changes to uses on the adjacent NPS land.

The Boulder City Bypass Highway (Interstate 11) is planned by NDOT. The proposed project limits are between a western boundary at the end of Interstate 515 on US 93/95 in Henderson near the Foothills grade separation approximately one mile north of the Railroad Pass Hotel and Casino and an eastern boundary on US 93, approximately 4.7 miles east of downtown Boulder City. The eastern boundary borders the western end of the US 93 Hoover Dam Bypass project (NDOT 2005). The planned route would travel south of Boulder City and come within one mile of the northern boundary of the North Section of the BCCE, creating a barrier between the City and the BCCE.

Energy transmission lines are proposed through the BCCE to the three substations listed in Table 1. The Transwest Express transmission line would also require construction of a new switching yard (Figure 4).

2.2.3 Land Use Permit Requests

The conservation easement is not exclusive. Section 6(a) of the Grant reserved the right for Boulder City to permit or invite others to engage in uses of the easement that are compatible with the purpose of the easement. Section 6(b) reserved limited rights for uses that must incorporate measures recommended by USFWS and DCP to minimize and mitigate adverse impacts to natural resources values.



Application Process

DCP developed a procedure by which third parties may request permission to participate in an allowable activity on the BCCE. In general, activities on the BCCE that disturb the soil outside of open roads and trails, remove vegetation or seeds, or require handling or removal of animals (including insects or spiders) require written permission from the City, DCP, and USFWS. Third parties may request permission for activities on the BCCE by following the permit request process included in Appendix C. Third-party project proponents must also submit an application for access to Boulder City for activities that result in disturbance of habitat and/or species on the BCCE. The City reviews the application to make an initial decision as to whether the proposed activities are consistent with the conservation easement.

Mitigation Requirements

The 2010 Amendment to the Grant incorporated procedures to implement best management practices to minimize impacts and restore disturbed habitat for construction and maintenance of infrastructure through the BCCE. Exhibit D to the Amendment (Appendix A) describes the review, minimization, restoration, bonding and monitoring requirements for certain permitted disturbances to the BCCE. Requirements of project proponents include:

- Submit a minimization, restoration, and monitoring plan to Boulder City and DCP for approval,
- Post a bond to Boulder City sufficient to fund the restoration component of the approved plan,
- Pay a monitoring fee to DCP sufficient to fund five years of monitoring post restoration, and
- Provide a written restoration report to Boulder City and DCP for approval and potential release of all or part of the restoration bond.

2.3 PHYSICAL SETTING

2.3.1 Climate

Climate for the project area is typical of the Mojave Desert – hot summers, mild winters, and very little rain. Temperatures usually exceed 100 degrees Fahrenheit (°F) in the summer with humidity normally less than 10 percent. Winters are typically mild with average highs near 60°F. The sky is sunny approximately 85 percent of the year. Annual precipitation averages less than 5 inches per year, with the majority of precipitation falling between January and March; however, monsoonal flows during July and August bring desert thunderstorms, flash floods, and strong winds. High wind events can generate widespread areas of blowing dust and sand. Average annual wind speed is about 9.3 miles per hour and is predominantly from the southwest (Stachelski and Gorelow 2014).

2.3.2 Geology and Soils

Soils within the BCCE are primarily young alluvial deposits derived from sedimentary and igneous sources (Heaton et al. 2011). These soils are characterized as gravelly and sandy with coarse texture, low organic matter content, and low carbon/nitrogen ratios (O'Farrell 2009), and developed under conditions of high temperatures and low rainfall, and display characteristics typical of desert



soils. These characteristics include coarse, sandy texture and an accumulation of carbonates within a few feet of the surface that contribute to the formation of a duripan layer. Rock outcrops occur within the BCCE at the foothills of the McCullough Range and Eldorado Mountains, and where there are basalt flows and intrusions.

The Natural Resources Conservation Service has mapped 19 soil types within the BCCE (Figure 6). A brief summary of key characteristics of soils within the BCCE is included in Table 2 below. Naturally occurring asbestos fibers have been detected in rock samples from exposed granite outcrops and in soil around Boulder City (Buck et al. 2013). The most common exposure of naturally occurring asbestos fibers is through airborne dust.

2.3.3 Topography

The BCCE is within a closed drainage basin in the Eldorado Valley at an elevation between 1,800 and 3,000 feet (O'Farrell 2009). The area is bordered by the McCullough Range to the west, River Mountains to the north, and Eldorado Mountains and Opal Mountains to the east. Topography of the easement is relatively level where it encompasses the alluvial fan, with rougher terrain as the elevation increases into the foothills of surrounding mountains.

2.3.4 Water Resources

Surface Water

There are no permanent natural surface waters within the BCCE. Runoff following large precipitation events drains onto a playa known as Eldorado Dry Lake, located at the lowest elevation of the Eldorado Valley. The playa is located just north of the South Section of the BCCE, west of US 95 (Figure 7). If there is sufficient runoff from storm events, the playa may be covered by a shallow layer of water for a few days to a few weeks (O'Farrell 2009).

Most of the larger washes that cross the BCCE are mapped by the Federal Emergency Management Agency as special flood hazard areas subject to inundation by the one percent annual chance flood event (100-year flood; Figure 7). Areas are designated as Zone A where no base flood elevation has been determined.

Construction of US 95 and State Route (SR) 165 (Nelson Road) formed barriers that altered runoff to the east and south sides of the roads, respectively (Clark County 2013). Runoff flows along drainage ditches to culverts that allow water to pass under highways. Since runoff is channeled into smaller areas it occasionally causes damage to roads, vegetation, and deposits soils and silt. However, alterations of the habitat, as well as existing and closed roads, and protective fencing due to periodic flooding are limited in extent and frequency.

Effluent from the Wastewater Treatment Plant is discharged into two unlined drainage channels that flow toward the North Section of the BCCE. Visible signs of the channels and surface water do not extend very far past the easement boundary (Figure 7).

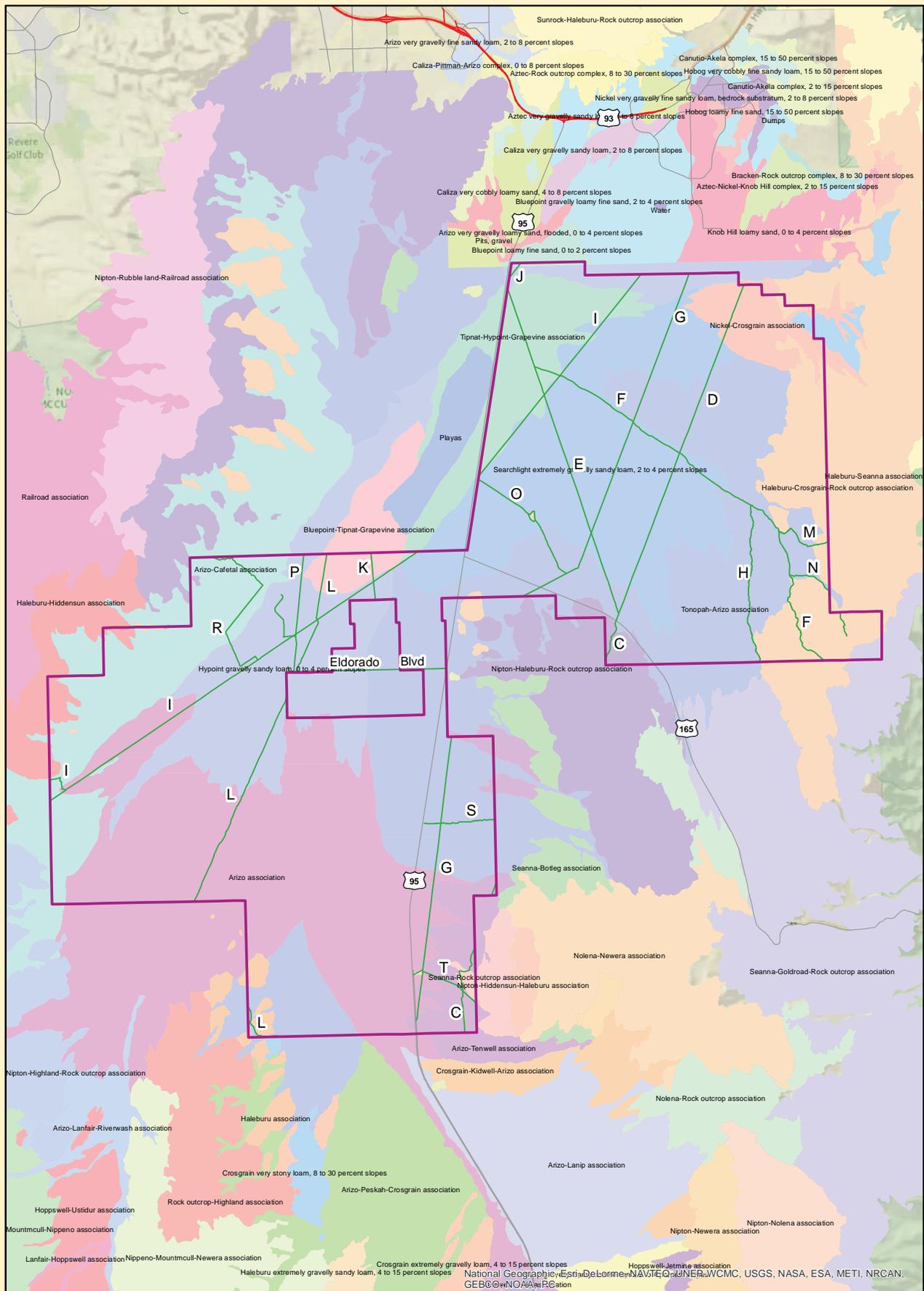


**Table 2.
BCCE Soil Types**

Soil Series Name	Total Acres in the BCCE	Percent of Total Area in the BCCE	Landscape	Landform	Parent Material	Runoff	Flooding	Drainage Class
Tonopah-Arizo association	21,299	24.6	Fan Piedmont	Fan Remnants	Alluvium Derived from Mixed Sources	Low	Very Rare	Excessively Drained
Arizo association	19,255	22.2	Fan Piedmont	Fan Aprons	Mixed Alluvium	Low	Very Rare	Excessively Drained
Searchlight extremely gravelly sandy loam, 2 to 4 percent slopes	14,528	16.8	Fan Piedmont	Fan Aprons over Fan Remnants	Mixed Alluvium	Very Low	Rare	Well Drained
Hypoint gravelly sandy loam, 0 to 4 percent slopes	8,911	10.3	Piedmont	Fan Skirts	Mixed Alluvium	Very Low	Rare	Somewhat Excessively Drained
Arizo-Cafetal association	6,683	7.7	Fan Piedmont	Inset Fans	Mixed Alluvium	Low	Very Rare	Excessively Drained
Haleburu-Crosgrain-Rock outcrop association	4,886	5.6	Mountains	Backslopes of Mountains	Colluvium and/or Residuum Weathered from Volcanic Rock	Very High	None	Well Drained
Tipnat-Hypoint-Grapevine association	3,855	4.5	Bolson	Alluvial Flats	Mixed Alluvium	Low	Rare	Well Drained
Arizo-Tenwell association	2,239	2.6	Fan Piedmont	Inset Fans	Mixed Alluvium	Low	Very Rare	Excessively Drained
Nickel-Crosgrain association	2,083	2.4	Fan Piedmont	Summits of Fan Remnants	Mixed Alluvium	Very Low	None	Well Drained
Bluepoint-Tipnat-Grapevine association	849	1.0	Bolson	Sand Sheets	Eolian Sands	Negligible	Rare	Somewhat Excessively Drained
Nipton-Haleburu-Rock outcrop association	605	0.7	Mountains	Northeast Facing	Colluvium and/or	Very High	None	Somewhat Excessively



Soil Series Name	Total Acres in the BCCE	Percent of Total Area in the BCCE	Landscape	Landform	Parent Material	Runoff	Flooding	Drainage Class
				Summits of Mountains	Residuum Weathered from Metavolcanics			Drained
Haleburu-Hiddensun association	496	0.6	Mountains	Backslopes of Mountains	Colluvium and/or Residuum Weathered from Volcanic Rock	Very High	None	Well Drained
Haleburu association	364	0.4	Hills	Backslopes of Hills	Colluvium and/or Residuum Weathered from Volcanic Rock	Very High	None	Well Drained
Seanna-Goldroad-Rock outcrop association	158	0.2	Mountains	Backslopes of Hills and Mountains	Residuum Weathered from Granite	Very High	None	Well Drained
Seanna-Rock outcrop association	138	0.2	Mountains	Backslopes of Hills and Mountains	Residuum Weathered from Granite	Very High	None	Well Drained
Crosgrain very stony loam, 8 to 30 percent slopes	93	0.1	Fan Piedmont	Backslopes of Partial Ballenas	Mixed Alluvium Derived from Metamorphic Rock	Very High	None	Well Drained
Bluepoint loamy fine sand, 0 to 2 percent slopes	75	0.1	Basin Floor	Sand Sheets	Eolian Sands	Very Low	None	Somewhat Excessively Drained
Playas	14	0.0	Bolson	Playas	N/A	Negligible	N/A	N/A
Pits, gravel	9	0.0	Fan Piedmont	Fan Piedmont	N/A	N/A	N/A	N/A



Legend

- Designated Open Roads
- Boulder City Conservation Easement

Clark County

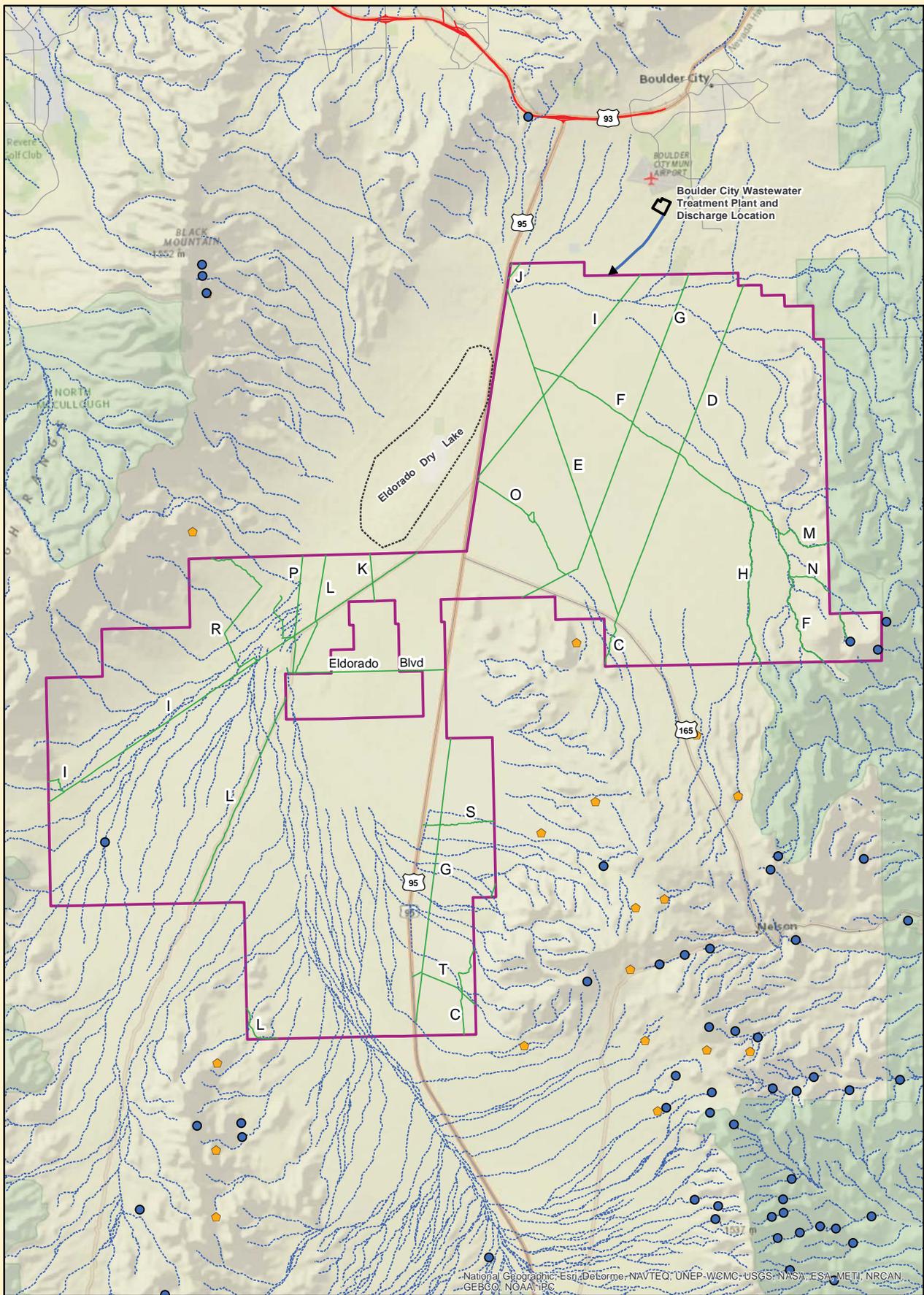
Designated Open Roads with Soils (Associations)

Figure 6

0 1 2 4 6
Miles

Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map6_kim

National Geographic, Esri, DeLorme, NAVTEQ, UNICOR, WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IGN, IGC



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

Legend

- Springs
- ⬠ Water Development Sites (NDOW/BLM)
- Intermittent Stream
- Designated Open Roads
- Boulder City Conservation Easement

Clark County

Designated Open Roads with Water Resources

Figure 7

0 1 2 4 6
Miles

Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map7_kim



There are wildlife guzzlers maintained by the Nevada Department of Wildlife (NDOW) that are located just outside of the BCCE. The guzzlers are accessed by NDOW officials and hunters using existing open roads on the BCCE (Clark County 2013).

Groundwater

There are two known springs or seeps within the BCCE (Figure 7). The first spring, referred to as Forlorn Hope Springs, is located in the southeastern corner of the North Section. The second spring is a seasonal seep located near one of the energy facilities in the north part of the South Section of the BCCE (L. Bice, personal communication). Groundwater in Eldorado Valley occurs at depths ranging from approximately 275 to 320 feet below the land surface in the north-central part of the basin (Buqo and Giampaoli 1988).

Water Rights

The BCCE falls within the Eldorado Valley Hydrographic Basin (167) and was ordered “designated” in 1988. The Nevada State Engineer’s Office estimates perennial yield of 500 acre-feet per year (AFY). The total committed groundwater permits/certificates in Eldorado Valley currently exceed the perennial yield by roughly 1,750 AFY. The State Engineer has not granted any new appropriations of groundwater in the Eldorado Valley Hydrographic Basin since 1993 and it is unlikely that additional groundwater rights would be permitted within the basin in the future. There are no known points of diversion (withdrawals of groundwater) within the BCCE (Clark County 2013).

2.3.5 Cultural Resources

Cultural resources in Eldorado Valley include properties ranging from early prehistoric period to historic mining and ranching sites. Prehistoric sites have been recorded around the perimeter of Eldorado Dry Lake, but none were determined eligible for listing on the National Register of Historic Places. Historic period sites in the vicinity of the BCCE are mostly isolated occurrences of cans, which may have been left behind by prospectors or by Hoover Dam construction workers passing through the area. General Land Office maps dated 1941 show the path of the old highway that predated US 95 passing through the BCCE. The principal highway from Las Vegas to Los Angeles passed through Searchlight and Eldorado Valley until the mid-1930s. The historic Boulder (Hoover) Dam transmission line constructed in 1930 through the valley is still in use by Southern California Edison (Knight & Leavitt Associates 2008; BLM 2012).

A Class II cultural resources inventory of the Eldorado Valley Transfer Area was completed by the BLM in 1994 prior to transferring land to the Colorado River Commission. That inventory consisted of a number of 160-acre blocks that represented an approximate 10 percent sample of the survey area. The BLM documented in Report 5-2244 that the inventory was sufficient to characterize cultural resources in the area designated for transfer. There were five prehistoric sites and two large diffuse prehistoric lithic scatters in 18 subsites recorded during the inventory, but none of the sites were determined eligible for the National Register of Historic Places (BLM 1994).

There are three locations (grave site, surveyor campsite, and air race course markers) on the BCCE that could be eligible but have not been evaluated for listing in the State Historic Marker Register (Clark County 2013). The State Register documents sites and objects of importance in Nevada history, architecture, archaeology and culture. A grave site along the former wagon trail between



Las Vegas and the mining town of Nelson is believed to be that of a wagon driver (Figure 8). In the 1920s, the U.S. Geological Survey had crews in the area surveying Black Canyon of the Colorado River and their campsite is located along the old Yucca Camp Road (Figure 8). In September 1965, the Las Vegas Air Race was held south of the original Boulder City airport and 12 of the pylons that aircrafts raced around are still standing, with 2 of them in the northwestern corner of the BCCE (Figure 8).

2.4 BIOLOGICAL RESOURCES

2.4.1 Vegetation

Ecosystems

Ecosystems within the BCCE include Mojave Desert scrub, mesquite/acacia, and salt desert scrub (Figure 9). Vegetation inventories will be conducted during 2015 to support other studies occurring within the BCCE. Once completed, a vegetation inventory will be included as an appendix to this management plan.

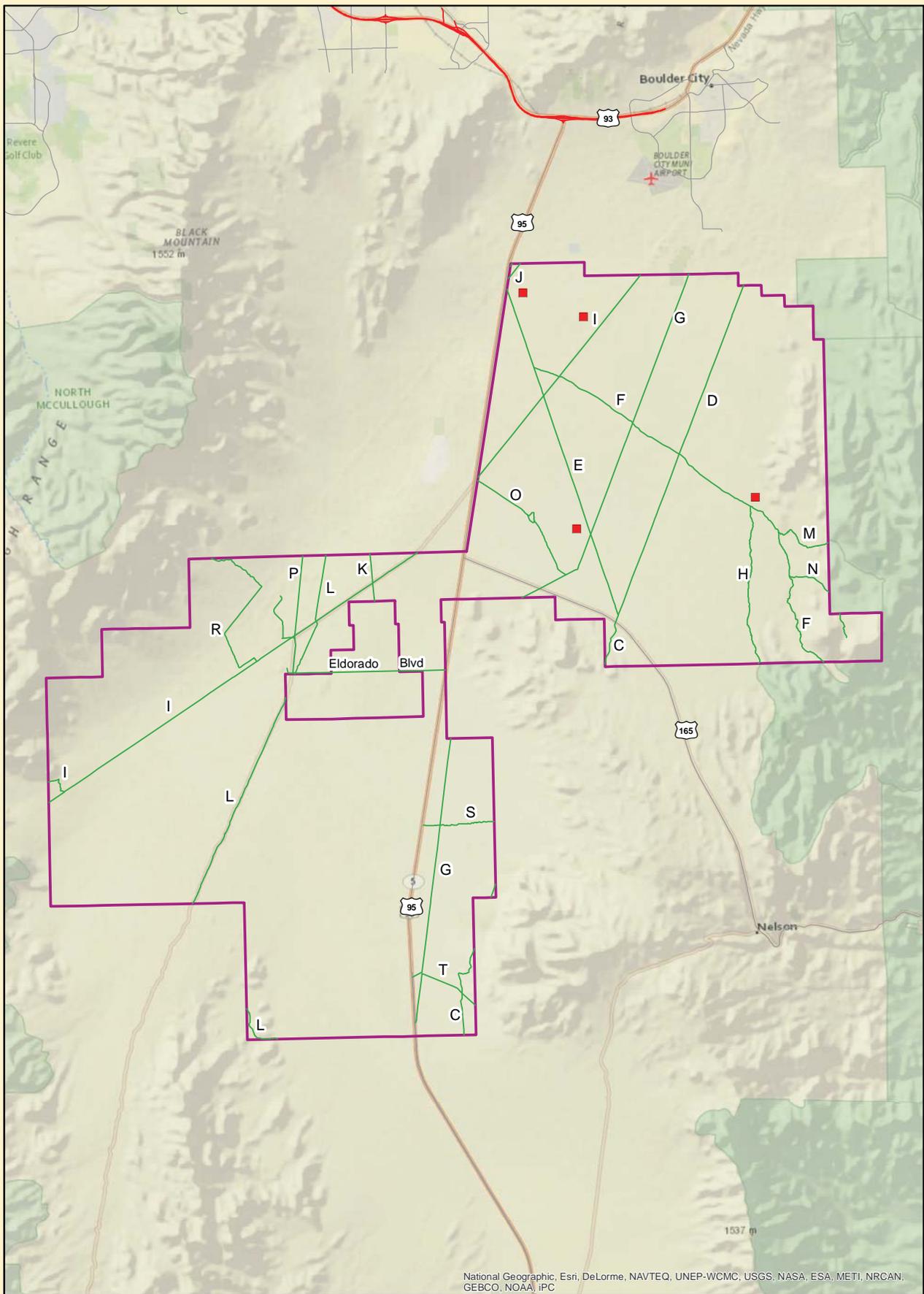
The Mojave Desert scrub ecosystem comprises approximately 97.2 percent (84,100 acres) of the land cover within the BCCE. This ecosystem type typically occurs on slopes, hillsides, and washes with alluvial soils from about sea level to 4,000 feet in elevation, but may occur 1,000 feet higher on south-facing slopes (Turner 1994). Within the BCCE, approximately 80 percent of this ecosystem type is located in the valley bottom in areas with deep sands, some of which have a near-surface duripan. Creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*) are the dominant vegetation (O'Farrell 2009). The remaining 20 percent of this ecosystem type occurs in areas characterized by rocky or gravelly soils, where the predominant vegetation consists of creosote bush, desert thorn (*Lycium andersonii*), and spiny hop-sage (*Grayia spinosa*) (O'Farrell 2009).

Salt desert scrub ecosystem comprises approximately 1.5 percent (1,277 acres) of the land cover within the BCCE. This ecosystem type typically occurs near localized depressions with poorly draining, alkaline, or saline silty loam soils. Dominant vegetation consists of salt bush (*Atriplex polycarpa*), creosote bush, and desert thorn (*Lycium* spp.). Salt desert scrub is found in the northwestern corner of the North Section. This ecosystem follows the lake bed outside the boundary and reappears within the boundary just north of the solar energy zones.

The mesquite/acacia ecosystem comprises approximately 0.9 percent (805 acres) of the land cover within the BCCE. This ecosystem type is generally biogeographically nested within the Mojave Desert scrub ecosystem, but for management purposes it is considered a distinct ecosystem.

Mesquite/acacia dominated communities typically occur at lower elevations in valley bottoms where deep alluvial and playa lake deposits cover basin floors. It also occurs along large watercourses such as rivers and perennial or ephemeral streams. Within the BCCE mesquite/acacia can be found along ephemeral streams and washes as they flow towards the dry lake bed. Both mesquite (*Prosopis glandulosa*) and acacia (*Acacia greggii*) are intermittently distributed and can be found with desert senna (*Senna armata*), cheesebush (*Hymenoclea salsola*), and brittlebush (*Encelia* spp.).

The remaining 0.4 percent (356 acres) of the land cover within the BCCE is comprised of disturbed land. These areas can be sources of non-natives and may include a variety of native species.



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, iPC

Legend

- Cultural Site
- Designated Open Roads
- Boulder City Conservation Easement

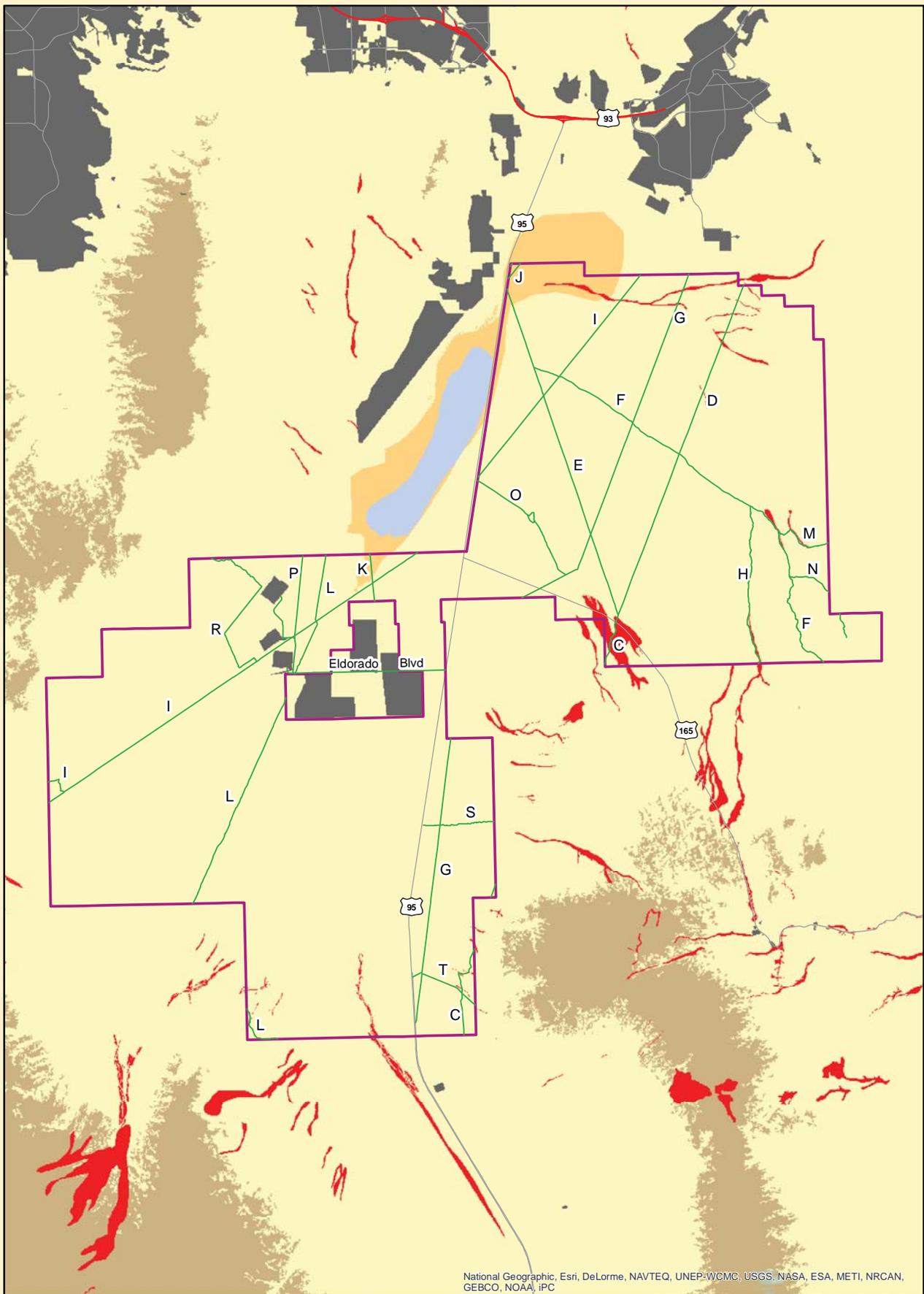
Clark County

Designated Open Roads with Cultural Resource Sites

Figure 8

0 1 2 4 6
Miles

Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map8_kim



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC



Clark County

Designated Open Roads with Ecosystems

Figure 9



Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map9_kim



Effluent discharge from the Boulder City Wastewater Treatment Plant creates a mesic environment that provides habitat for riparian vegetation that would not normally occur in a creosote-bursage scrub community. Visible signs of discharge dissipate after a short distance inside the BCCE boundary.

MSHCP Plant Species

There are no known occurrences of MSHCP covered plant species within the BCCE and suitable habitat to support MSHCP covered plant species is not known to occur. Barrel cactus (*Ferocactus cylindraceus*), an MSHCP watch list species, has been documented within the BCCE.

Noxious and Invasive Weeds

Noxious weeds are those weeds designated as a pest by state or federal law or regulation. The state of Nevada designates plants as noxious if the plant is found to be “detrimental or destructive and difficult to control or eradicate” (Nevada Revised Statute 555.005). Invasive weeds are non-native species whose introduction does or is likely to cause economic or environmental harm (The National Invasive Species Council 2006).

Surveys for noxious and invasive weeds along BCCE open and private roads have been conducted since winter 2014. These surveys are conducted semi-annually; once during winter and once during spring/summer. During surveys, noxious and invasive weeds are identified and the location and patch size of each species is documented. The BCCE currently has few or low levels of infestation of these species; however, restoration of these habitats is difficult. Areas where weeds have been located are near the City and around the Energy Zone. Incipient occurrences of noxious and invasive species are treated, if determined appropriate. Treatments methods may consist of herbicide application or hand-pulling, with the particular treatment method depending on the species being treated and the time of year that the treatment is applied. A list of noxious and invasive species that have been documented during these surveys is provided in Table 3 below.

**Table 3.
Noxious and Invasive Weeds**

Common Name	Scientific Name	State Listed Noxious ¹
Giant reed	<i>Arundo donax</i>	A
Sahara mustard	<i>Brassica tournefortii</i>	B
Black mustard	<i>Brassica nigra</i>	No
Chilean brome	<i>Bromus trinii</i>	No
Redstem filaree	<i>Erodium cicutarium</i>	No
Bigleaf mallow	<i>Malva sp.</i>	No
Russian thistle	<i>Salsola kali</i>	No
London rocket	<i>Sisymbrium irio</i>	No
Salt cedar	<i>Tamarix ramosissima</i>	C

¹ Nevada Department of Agriculture noxious weed categories:

- Category A weeds are generally not found or are limited in distribution throughout the state. These species are subject to active exclusion from the state, eradication where found, and eradication from nursery stock.
- Category B weeds are generally established in scattered populations in some counties of the state. These species are subject to active exclusion where possible and active eradication from nursery stock.
- Category C weeds are generally established and widespread in many counties of the state. These species are subject to active eradication from nursery stock.

Source: Nevada Department of Agriculture (2014)



2.4.2 Wildlife

Desert Tortoise

Located within the Piute-Eldorado Valley Critical Habitat Unit, the BCCE was created in 1995 to be managed for the protection and benefit of the Mojave desert tortoise. Since its inception a number of projects have been implemented to help achieve that goal. Due to its location within a critical habitat unit, the USFWS has conducted line distance surveys between 2004 and 2012. Data from these surveys have been used in calculating density trends across the habitat unit. As of 2012 the density was estimated to be approximately 2.8 tortoises per square kilometer (USFWS unpublished data). In 2014, in conjunction with the USFWS, the DCP performed an intensive line distance sampling project across the northern section of the BCCE. This project was conducted to determine current densities specific to the BCCE North Section and to determine relative health of the population. These data were used to determine the viability for population augmentation in the area. In the fall of 2014, 98 adult desert tortoises were translocated to the North Section of the BCCE from the Desert Tortoise Conservation Center as part of a large-scale translocation project run by the San Diego Zoo and the USFWS. A subset of these animals will be followed (using radiotelemetry) for up to four years to determine the effectiveness of the project.

Beginning in 2013, the County has conducted a study to look at desert tortoise occupancy throughout the BCCE. Data from the occupancy sampling study will be used to create a fine-scale habitat model for the area. This model could be used to focus restoration and to enhance protection of tortoises on the BCCE. Currently, the data from this project is being analyzed and the project is scheduled to continue for up to two more years. Data obtained from successive years of this study may be used to inform future management decisions within the BCCE.

MSHCP Wildlife Species

No covered wildlife species have been documented within the BCCE; however, suitable habitat to support several covered species is present. Covered species have been documented in areas adjacent to the BCCE; these include desert iguana (*Dipsosaurus dorsalis*), phainopepla (*Phainopepla nitens*), Arizona bell's vireo (*Vireo bellii arizonae*), Mojave green rattlesnake (*Crotalus scutulatus scutulatus*), and speckled rattlesnake (*Crotalus mitchelli*) (Nevada Natural Heritage Program 2014). MSHCP evaluation species that have been documented in the BCCE include banded Gila monster (*Heloderma suspectum cinctum*), LeConte's thrasher (*Toxostoma lecontei*), and loggerhead shrike (*Lanius ludovicianus*). One MSHCP watch list species, the rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*) has also been documented in the BCCE (Nevada Department of Wildlife 2010, Nevada Natural Heritage Program 2014).

Other Wildlife Species

Other wildlife species that may be present on the BCCE include several species of lizards, snakes, small mammals, and birds (O'Farrell 2009). Most of the birds are transients that seasonally migrate through the area. Common resident species include black-throated sparrow (*Amphispiza bilineata*), raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), and mourning dove (*Zenaida macroura*). The more abundant small mammals include rodents, such as the white-tailed antelope squirrel (*Ammospermophilus leucurus*) and desert pocket mouse (*Chaetodipus penicillatus*), and the black-tailed jackrabbit (*Lepus californicus*) (O'Farrell 2009). Larger mammals that have been



observed in and around the BCCE include coyote (*Canis latrans*) and kit fox (*Vulpes macrotis*). Mule deer (*Odocoileus hemionus*) and desert bighorn sheep (*Ovis canadensis nelson*) are found in suitable habitats surrounding the BCCE and may occasionally transit the site. Wild horses (*Equus ferus*) or burros (*Equus africanus asinus*) are not known to occur in the vicinity of the BCCE.

2.4.3 Threats

Primary threats affecting the desert tortoise and other covered species and habitat on the BCCE are described in this section. These threats are summarized from several documents, including the MSHCP (Clark County 2000a) and a desert tortoise conceptual model (Clark County 2012).

Invasive Species

Mojave Desert ecosystems are highly threatened by the presence of many non-native invasive species, including red brome (*Bromus rubens*), Mediterranean grass (*Schismus barbatus*), and Sahara mustard (*Brassica tournefortii*). These species compete with and reduce abundance of native plants, primarily annuals and short-lived perennials, which can lead to extirpating populations. Invasive species can also alter ecological processes, such as increasing fire frequency and intensity and reducing soil moisture and altering soil nutrients. Increased levels of nitrogen deposition can increase abundance and vigor of invasive species.

Fire

Fire threat is the increase in fire frequency and intensity outside its historical range of occurrence. Mojave Desert ecosystems are not fire-adapted and fire causes a major shift in species composition. Some shrub species may be completely eliminated by fire and will rarely reestablish under natural conditions. With the lack of seed source and past and future climatic change, seedling establishment may not be possible. Herbaceous species are also impacted by having seeds killed in the soil, less appropriate soil conditions for germination and growth following fire, and competition from mostly non-native species that respond favorably to fire. Fire effects on vegetation and soils can reduce landscape connectivity for wildlife and fire can also kill or seriously injure many wildlife species, including desert tortoise. The extent of these impacts is influenced by the timing of fire and the activity of tortoises, depth of burrows, fire intensity, how quickly fire moves across an area, and the patchiness of fire (Esque et al. 2003). There have been no major fires in or around the BCCE and the fuel loading is currently low (O'Farrell 2009). Although this threat can be very severe, it is limited in scope and restoration is difficult.

Development

The types of development that pose the greatest threat to the management of the BCCE are the development of solar energy facilities and other utilities and supporting infrastructure (roads, transmission lines). The Mojave Desert has some of the highest potential for solar development; a recent study identified alternatives ranging from 285,000 to 98,774,342 acres available for solar development (Lovich and Ennen 2011). With the increase in renewable energy development and the need to provide better connectivity within the electrical grid, major transmission line projects are planned to connect with the existing substations inside the BCCE (Sue Wainscott, personal communication), along with possible upgrades and expansions to the existing substations. The development threat can cause direct loss of wildlife and habitat, increased habitat fragmentation, and indirect introduction of predators.



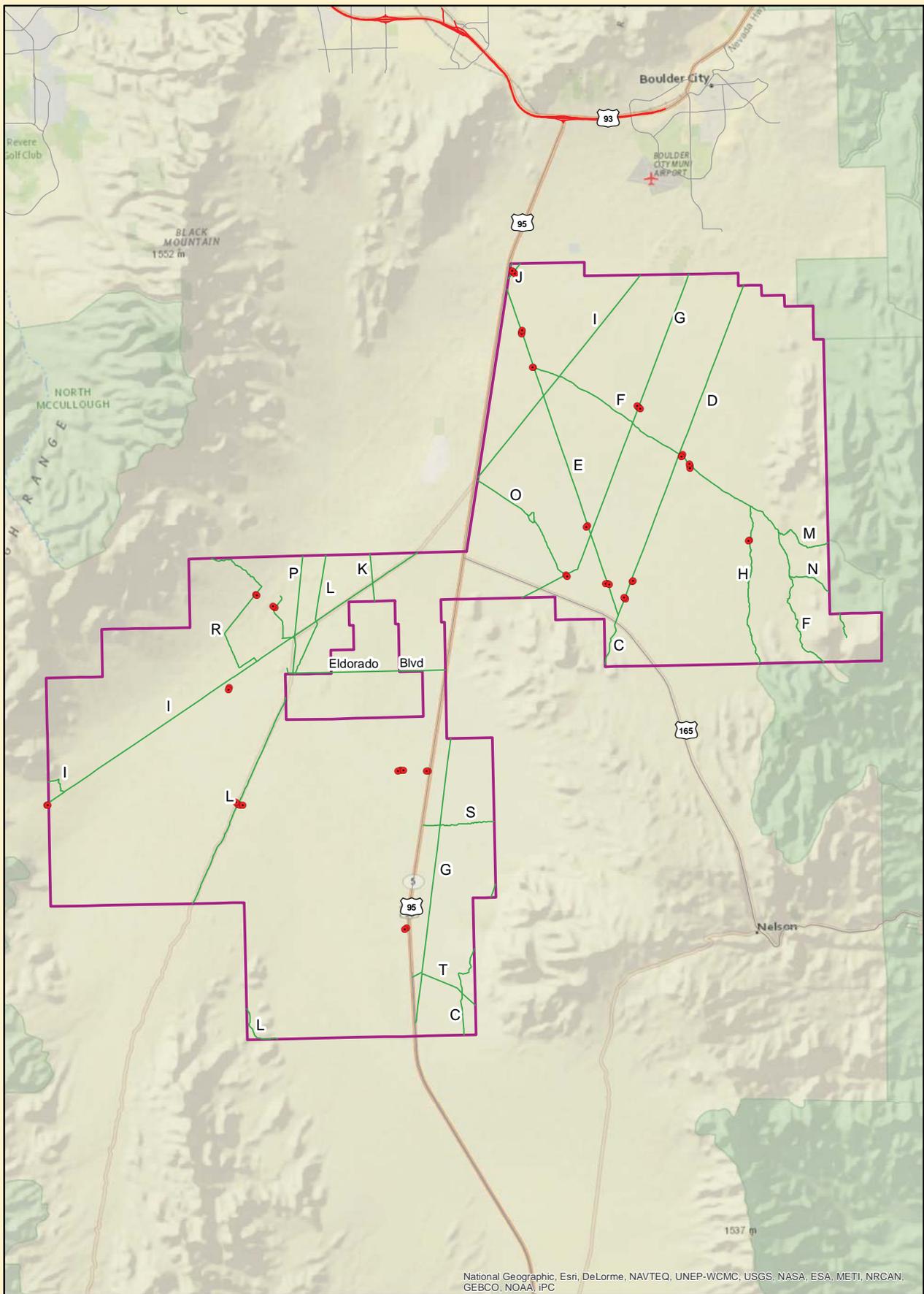
Transportation Infrastructure

Transportation infrastructure includes linear corridors consisting of paved and unpaved roads and trails. Transportation corridors affect desert tortoises and habitat by increasing mortality through collisions with vehicles, fragmenting habitat and reducing connectivity across habitat, and facilitating access by humans. The effect of transportation corridors varies by road type (high speed divided highways roads, paved secondary roads, unimproved roads) and by presence of tortoise exclusion fencing. Whether transportation corridors have an effect on the density of tortoise populations is unknown, but studies have shown that they do have an effect on abundance of tortoises within a quarter mile from high traffic roads (von Seckendorff Hoff and Marlow 2002, Boarman and Sazaki 2006). In contrast to these studies, increased sheet flow runoff from roads and stormwater drainage often results in more robust and diverse ground cover that may be an attractant to tortoises. Major paved roads that cross the BCCE have tortoise exclusion fences. Transportation corridors cause habitat alteration and fragmentation. These corridors are moderate in severity but low in areal extent across the BCCE.

Recreation

Motorized recreation includes various vehicle types, individuals or group participants, and travel on or off of paved and unimproved roads and trails. Motorized OHVs commonly use desert environments, including washes and playas for recreation purposes. While a quantitative relationship between motorized OHVs and reduced tortoise densities is lacking, qualitatively the likelihood of direct mortality, collapsed burrows, and reduced food resources (by direct elimination and by indirect changes in soil condition, such as compaction, soil moisture, and reduction in soil crusts) suggest that this threat has an impact on tortoise populations. Comparison of areas used for motorized OHVs and those that are unused provide support for this impact (Bury and Luckenbach 2002). To date, the DCP has closed 12 roads, totaling 30.67 miles, to help protect native species. Of the 30.67 miles of roads that have been closed, 13.42 miles have had some sort of restoration/barrier installation to restrict access and illegal use (Figure 10).

Non-motorized recreation includes hiking, biking, horseback riding, hunting, camping, and target shooting. These activities can directly damage soil by altering soil structure and disrupting soil crust, and damage and reduce vegetation. These activities are minimal across the Mojave Desert, but can be quite intense in certain places. Non-motorized recreation in the BCCE is not intense or extensive. No data exists correlating these activities with impacts to desert tortoise. Indirect impacts of non-motorized recreation create more of a threat, such as ignition of fire, introduction of invasive species, increased predators, and handling and collection of plants and/or wildlife.



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, iPC

Legend

- Restoration Sites
- Designated Open Roads
- Boulder City Conservation Easement

Clark County

Designated Open Roads with Restoration Sites

Figure 10



Projection: Transverse Mercator
 Coordinate System: UTM Zone 11
 Datum: NAD83
 Date: 12/31/2014
 Name: BCCE_Management_map10_kim



Predation

Predation is defined as the mortality of wildlife by species other than humans. Natural predation rates are not considered a threat; however, current predation has been enhanced by increased populations of predators through changes in trophic structure, increases in food and water sources and nesting substrates (billboards, utility towers, buildings), and introduction of non-native predators (Boarman et al. 2006). Subsidized predators include native species such as the common raven (*Corvus corax*), which is the most well-documented subsidized predator in the Mojave Desert, and the coyote (*Canis latrans*), as well as introduced species such as dogs and cats. Raven predation of juvenile desert tortoises has been well documented (USFWS 2011). The contribution of predation to the survivorship and demographic impacts of desert tortoises have not been quantified and is complicated by spatial and temporal variability and difficulty of monitoring juvenile tortoises (USFWS 2011). Predation is currently assumed to be a minimal threat in the BCCE.

Climate Change

Projections of climate change for the northeast Mojave Desert suggest that the changes will be profound by 2060 (Comer et al. 2013), including substantial changes in most monthly maximum temperatures, July maximum temperature, and August minimum temperature. Some of the potential effects of climate change include decrease in plant growth, expansion of invasive species distribution and density, increase in fire frequency, increase in wind erosion, reduction of groundwater recharge, and increase in flood events from higher precipitation levels at high elevations (Comer et al. 2013). Climate change can be a severe threat to these ecological systems and species over the next 50 years.

2.5 PUBLIC SERVICES AND SAFETY

Public services and safety address agencies responsible for utilities on and across the BCCE, emergency response within the BCCE and surrounding areas, and safety procedures followed by DCP and contractors that access the BCCE. Since the BCCE is located within the jurisdiction of Boulder City, public safety services are provided by the City agencies. Agency contacts and telephone numbers are listed in Appendix C.

2.5.1 Fire and Medical

Boulder City Fire Department provides fire protection and emergency medical response for the BCCE. The Department maintains mutual aid contracts with surrounding fire departments, including the County and Henderson, as well as with BLM and NPS. BLM and NPS law enforcement rangers and fire crews are responsible for fire and medical emergency response on BLM and NPS lands.

2.5.2 Law Enforcement

Boulder City Police Department is the agency providing police protection to the BCCE. Law enforcement on the BCCE is an important management objective addressed by the DCP, and it is required by both the Grant and the incidental take permit. The DCP has contracted for law enforcement on the BCCE since February 2000 to ensure that the public complies with the uses outlined in the Grant. As representatives of the DCP and the County, law enforcement personnel also serve a role in public relations and conservation education. As a result, emphasis is placed on



helping the public understand the purpose for the BCCE, its importance as a reserve for covered species, and uses that are allowed and prohibited.

Boulder City is responsible for enacting and enforcing codes and ordinances for public land uses that are necessary to permit allowable uses and enforce prohibited uses on the BCCE. The City allows peace officers provided by DCP to issue citations to BCCE users violating City Code 7-5-8, Prohibited Uses within the Eldorado Valley Transfer Area; however, citations are rarely issued and generally to flagrant or repeat offenders only. The City is also responsible for providing officers to monitor activities that it permits on the BCCE and to cite and prosecute violators of permits.

A summary of law enforcement activities that occur on the BCCE are submitted to DCP on a weekly basis. The summary report is reviewed to monitor the type, frequency, and location of violations, and integrate the findings to adaptively manage the BCCE. Since DCP is responsible for enforcing the terms of the Grant, the data help focus law enforcement efforts to the areas where most violations take place, and attempt to reduce infractions over time.

Nevada Highway Patrol enforces traffic regulations on US 95 and SR 165. BLM and NPS law enforcement rangers patrol federal lands and are responsible for protecting the resources, preventing illegal dumping, and enforcing traffic codes on BLM and NPS lands.

2.5.3 Utilities

There are no requirements for utilities to manage the BCCE for conservation purposes, although some public utilities are available in the area. Potable water service to the energy facilities in the Energy Zone and on the BCCE is provided by the City and it is distributed via an underground water main that parallels Eldorado Valley Drive. There is no municipal sanitary sewer collection service provided to the Eldorado Valley; facilities have septic tanks and drain (i.e., leach fields) for wastewater treatment and disposal needs. The energy facilities provide for their own electricity needs. An underground natural gas pipeline owned by Southwest Gas Corporation crosses the BCCE from south to north. Fiber optic cables and telecommunications are located underground and parallel Eldorado Valley Drive.

The Boulder City Wastewater Treatment Plant is located a little over a mile north of the North Section of the BCCE (Figure 4). The City retained limited rights in the Grant to allow treated effluent from the plant to discharge onto the BCCE.

2.5.4 Safety

The DCP follows standard health and safety procedures for working in the desert environment, including guidelines for weather related risks and biological hazards (snakes, insects). Emergency contact is provided through 911 service; non-emergency support is requested by dialing 311. Cell phone service is available on and near the BCCE through most telecommunication carriers. A list of contacts for management, safety, and services is provided in Appendix D.

The DCP has established procedures to minimize exposure to naturally occurring asbestos fibers that could be present in airborne dust. Procedures were developed with the assistance of the Clark County Department of Air Quality and with references from the Environmental Protection Agency



and the Agency for Toxic Substances and Disease Registry. The procedures address measures to minimize staff exposure and reduce the spread of fibers that may be on field clothes, equipment, and vehicles. The procedures described here are intended to reduce risk of exposure to naturally occurring asbestos fibers.

Procedures for digging or working in the ground:

- Always thoroughly wet the ground where working to prevent dust (a water can used for plants should be sufficient).
- When digging or pounding items into the ground always make sure the area is wet to prevent dust.



3.0 MANAGEMENT GOALS, OBJECTIVES, AND ACTIONS

The management goals for the BCCE are based on the Section 10 incidental take permit and the guiding documents for the easement.

3.1 GOALS AND OBJECTIVES

Goals are broad, general statements to establish the direction for the management of the easement. Objectives provide further explanation regarding the intent of the goals and are established to measure progress towards achieving management goals for the BCCE. Management goals and objectives are presented in Table 4.

Table 4.
BCCE Management Goals and Objectives

Goal	Protect and manage the BCCE for the desert tortoise and its habitat.
Objectives	Restore and enhance habitat for desert tortoise
	Install and maintain infrastructure that controls tortoise movement
	Manage direct threats to desert tortoise
Goal*	Protect and manage the BCCE for other MSHCP covered species.
Goal	Manage the property and public uses to meet conservation obligations and legal requirements.
Objectives	Manage road network to support conservation and provide appropriate access for management and public use
	Provide law enforcement
	Manage property to control invasive plant species and noxious weeds to reduce threat of fire
	Educate the public on allowable uses and current activities
	Manage allowable uses
	Manage prohibited uses (see Appendix B)
* There are no specific management objectives for this goal because it is assumed that if the BCCE is protected and managed for the desert tortoise, other MSHCP covered species will benefit.	

3.2 DISCUSSION OF OBJECTIVES AND LIST OF MANAGEMENT ACTIONS

Objectives are what guide identification and development of management actions and day-to-day activities. Management actions are defined as specific actions, methods, or tools by which objectives are met and goals are achieved. Actions make up the “how do we get there” part of the planning process and are linkages between the plan and implementation. This section provides a general discussion of each objective and lists management actions that would meet each objective. Appendix E contains the table of management actions with further details on what, where, when, and who implements each action, and how to measure effectiveness of implementation of the action.

Objective 1.0 - Restore and enhance habitat for desert tortoise

The primary purpose for establishing the easement was to manage and protect habitat for desert tortoise. The incidental take permit also states that connectivity for desert tortoise and other



covered species should be maintained within the easement. Restoring closed roads and trails and enhancing areas of degraded or marginal habitat provides additional habitat for covered species. Priority should be given to closed roads and degraded habitat in areas within the BCCE where desert tortoises have been recently documented.

Culverts and other drainage structures under roadways can provide an avenue for connectivity between different areas of the Eldorado Valley and sections of the BCCE that are separated by infrastructure and tortoise exclusion fences. Opportunities to reestablish connectivity should be explored.

Management actions that will restore and enhance desert tortoise habitat include:

- 1.1 Evaluate easement for the spatial extent and trends of tortoise occupancy
- 1.2 Assess environmental variables that influence the spatial extent and trends of tortoise occupancy
- 1.3 Identify and prioritize locations for habitat restoration and enhancement
- 1.4 Develop restoration/enhancement plans for priority locations
- 1.5 Implement restoration/enhancement plans
- 1.6 Monitor and adaptively manage restoration/enhancement
- 1.7 Evaluate locations and options to reconnect habitat separated by infrastructure

Objective 2.0 - Install and maintain infrastructure that controls tortoise movement

Fences, road crossing guards, and gates eliminate or minimize the mortality of tortoises by preventing access onto roadways and by keeping vehicles on roadways and off habitat. Construction and maintenance of tortoise exclusion fences along major roads is a non-discretionary requirement in managing the BCCE as a condition of the incidental take permit. Tortoise exclusion mesh was added to the NDOT fences that parallel US 95 and SR 165, and gates and/or crossing guards are installed at right-of-way access locations. NDOT and DCP is responsible for monitoring and maintaining these fences, crossing guards, gates, and the drainage culverts.

The exterior of the BCCE boundary is not fenced, and allows for tortoise passage and connectivity with adjacent lands. Unimproved roads within the BCCE do not experience sufficient traffic or speed to warrant tortoise protective barriers. Future expansion and increased development of the Energy Zone may warrant protective fences along Eldorado Valley Drive.

Management actions that will control tortoise movement include:

- 2.1 Inspect tortoise fences, road crossing guards, gates, and culverts for maintenance needs
- 2.2 Conduct emergency repairs and/or schedule maintenance repairs
- 2.3 Notify NDOT for highway fence repairs and culvert cleaning/maintenance
- 2.4 Identify locations for new or replacement tortoise fences, gates, and road crossing guards



- 2.5 Install new or replace tortoise fences, road crossing guards, and gates

Objective 3.0 - Manage direct threats to desert tortoise

There are a number of direct and indirect threats to the desert tortoise (Section 2.4.3) that affect management of the BCCE to various degrees. Some threats, such as recreation and development, are managed indirectly by addressing other objectives and management actions. Although future actions may be warranted to address other direct threats that may be increasing, potential harm from predation has generated interest.

Management actions that will address predation threats include:

- 3.1 Evaluate prevalence of predators to determine need for control
- 3.2 Evaluate effective predator control techniques
- 3.3 Develop plan to implement and monitor predator control techniques

Objective 4.0 - Manage road network to support conservation and provide appropriate access for management and public use

Travel on and maintenance of designated and signed roads and trails are allowed on the BCCE. While roads that experience reduced traffic flow and lower speeds are a minimal threat to desert tortoise, closing roads and reducing traffic speed further protects the species, provides additional habitat, and reduces habitat fragmentation. Additionally, it reduces public access to areas of the BCCE, thus reducing human threats to species and habitat.

DCP reviews the earlier interim road designations and makes adjustments to open and closed travel routes based on origins and destinations within the BCCE and on adjacent lands, usage, substrate (surface soils and desert washes) and physical condition, and existing right-of-ways.

DCP tracks and monitors the development of emerging technologies such as unmanned aerial vehicles and wildlife cameras. Use of unmanned aerial vehicle technology in the BCCE has been discussed and will continue if there is continued interest. Wildlife cameras could be used for monitoring wildlife movements in and around culverts, roads, and restoration areas.

Management actions that will manage the road network include:

- 4.1 Inventory and identify (name) open and closed roads
- 4.2 Determine travel patterns and usage
- 4.3 Identify and prioritize road closures
- 4.4 Post and maintain open road signs
- 4.5 Implement road closures
- 4.6 Develop restoration plans for closed roads
- 4.7 Implement and monitor restoration of closed roads



Objective 5.0 - Provide law enforcement

Providing law enforcement is a non-discretionary requirement of managing the BCCE as a condition of the incidental take permit. Law enforcement has two roles: to educate the public about the purpose of the easement and allowable uses, and to protect the easement from unauthorized uses. Boulder City Police Department provides peace officers to patrol the BCCE in close coordination with DCP to best address effectiveness of patrols in fulfilling conservation obligations of the easement.

Management actions that will address law enforcement include:

- 5.1 Maintain patrols by Boulder City peace officers
- 5.2 Monitor and adjust patrol schedule and locations
- 5.3 Monitor and enforce prohibited uses
- 5.4 Evaluate officer/public contacts for opportunities to improve patrols

Objective 6.0 - Manage property to control invasive plant species and noxious weeds to reduce fire threat

One of the most destructive threats to the Mojave Desert ecosystem is the occurrence of fire. Fires reduce or eliminate desert shrubs and herbaceous diversity and thus reduce structure and food resources. Frequency of fire in the Mojave Desert is related to the increase in fine fuels, the source of which is generally non-native invasive plant species. These invasive species also compete with native herbaceous species. The DCP, as a landowner, is required by the NRS to control the spread of noxious weeds. Most likely locations for invasive plant species and noxious weeds are along roadways, but systematic assessments of areas away from roads should be considered. While there is no evidence that invasive plant species and noxious weeds are degrading habitat or in densities that provide fuel for fire on the BCCE, it is important to be proactive in inventory and control.

Management actions that will control invasive plant species and noxious weeds include:

- 6.1 Identify locations infested or susceptible to invasive plant species and noxious weeds
- 6.2 Develop plan to eradicate or reduce invasive plant species and noxious weeds
- 6.3 Implement the plan to eradicate or reduce invasive plant species and noxious weeds
- 6.4 Monitor locations for recurrence of invasive plant species and noxious weeds

Objective 7.0 - Educate the public on allowable uses and current activities

It is important to achieving conservation obligations to ensure that the public and users of the BCCE understand the purpose of the easement, know allowable and prohibited uses on the property, and can locate the physical extent (boundaries) of the BCCE. Information can be provided through signage, interpretive materials, kiosks, and the DCP webpage.

Management actions that will educate the public on allowable uses and current activities include:

- 7.1 Establish a consistent brand and design for signs, kiosks, interpretive materials, and webpage
- 7.2 Identify locations and maintain database for signs and kiosks



- 7.3 Post easement boundary signs
- 7.4 Post "Limited Use Area" signs
- 7.5 Develop content, purchase, and install interpretive signs and kiosks
- 7.6 Monitor and maintain condition of all posted signs and kiosks
- 7.7 Develop content, print, and distribute interpretive brochure(s)
- 7.8 Update information on BCCE webpage

Objective 8.0 - Manage allowable uses

Section 2 of the Grant states that use of the property is allowed for only such activities which do not impair the conservation, protection, restoration, and enhancement of the natural resource values of the property. Allowable uses include reserved rights (Section 6 of the Grant) that are compatible with the purpose of the Grant, such as non-consumptive recreational activities, maintenance and construction of utilities and ancillary structures, and discharge of treated wastewater effluent. Other allowable uses with permission from the City, DCP, and/or USFWS include exemptions to prohibited uses.

Management actions that will ensure DCP identifies and manages allowable uses of the BCCE include:

- 8.1 Monitor condition of three historic sites located on the BCCE
- 8.2 Maintain relationships and coordinate with adjacent landowners to protect conservation values of the BCCE
- 8.3 Monitor and coordinate with utility companies to minimize impacts from existing and proposed transmission corridors and facilities
- 8.4 Review exceptions to prohibited uses (discharge of firearms) for conflicts with Boulder City Code and Ordinances and Nevada hunting regulations
- 8.5 Monitor location and effects of treated effluent discharge

Objective 9.0 - Manage prohibited uses

Section 4 of the Grant states that any activity that is incompatible with the purpose of the easement is prohibited and lists a number of activities on and uses of the property that are not allowed. Prohibited uses include, with limited exceptions, surface disturbances, motorized vehicle use off designated roads, grazing, commercial or non-commercial collection of flora and fauna, dumping and littering, application of herbicides or biocides, release of captive or displaced tortoises, uncontrolled dogs outside of vehicles, and discharge of firearms. Continued use of the pet cemetery is no longer allowed. Many of these prohibited uses are curtailed by the presence of law enforcement and through monitoring by DCP staff.

The management actions that will manage prohibited uses of the BCCE include:

- 9.1 Review and revise easement documents for conflicting uses and restrictions with Boulder City Code



- 9.2 Maintain fence and gate installed around pet cemetery
- 9.3 Monitor for burials of animal remains outside the fenced pet cemetery area
- 9.4 Monitor known and potential locations of illegal dumping activity
- 9.5 Remove trash and debris from illegal dump sites
- 9.6 Monitor for other prohibited uses



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Appendix A

Interlocal Agreement, Conservation Easement Grant, and Amendment



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**INTERLOCAL AGREEMENT
FOR SALE AND GRANT OF A CONSERVATION EASEMENT**

19

THIS INTERLOCAL AGREEMENT ("Agreement") is made this 18th day of July, 1994, by and between the CITY OF BOULDER CITY, NEVADA ("Boulder City"), and the COUNTY OF CLARK, NEVADA ("Clark County").

WITNESSETH

1. **WHEREAS, Boulder City is a municipal corporation established pursuant to the laws of the State of Nevada; and,**
2. **WHEREAS, Clark County is a county created under the laws of the State of Nevada; and,**
3. **WHEREAS, Boulder City and Clark County may enter into Agreements for the sale, exchange or conveyance of real property pursuant to Chapter 277 of Nevada Revised Statutes; and,**
4. **WHEREAS, Boulder City anticipates purchasing a fee simple interest in approximately one hundred and seven thousand five hundred (107,500) acres of real property ("Acquired Land") located in Clark County from the Colorado River Commission of Nevada; and,**
5. **WHEREAS, Clark County, in conjunction with Boulder City and other cities within Clark County, ("Participants") have formulated and submitted to the United States Fish and Wildlife Service ("Service") the Desert Conservation Plan, a**

habitat conservation plan, prepared to fulfill the requirements of Section 10(a) of the Federal Endangered Species Act ("FESA") which may enable the Participants to qualify for and receive a permit issued by the Service which permit will allow the incidental take of the desert tortoise, a threatened species; and,

6. **WHEREAS**, the research conducted in connection with the Desert Conservation Plan has determined that a portion of the Acquired Land is habitat for the desert tortoise and other flora and fauna indigenous to the desert areas of Clark County, and has other natural resource values which should be preserved and protected; and,

7. **WHEREAS**, the portion of the Acquired Lands which the Desert Conservation Plan has determined should be preserved and protected consists of approximately eighty-five (85,000) thousand acres, and is more particularly described in Exhibit A, attached hereto and by this reference made a part hereof (the "Property"); and,

8. **WHEREAS**, the Desert Conservation Plan provides that Clark County shall purchase a conservation easement to preserve and protect the Property as partial mitigation for the incidental take of desert tortoise and the disturbance of its habitat in other areas of Clark County; and,

9. **WHEREAS**, Boulder City desires to sell and convey to Clark County a conservation easement affecting the Property, and Clark County desires to receive and purchase the conservation easement, the form and terms of which are included in Exhibit A, subject only to the completion of the purchase of the Acquired Land by Boulder City and the issuance of the Section 10(a) permit by the Service.

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NOW, THEREFORE, in consideration of the foregoing, and the mutual covenants, terms, conditions and restrictions contained herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, Boulder City and Clark County agree as follows:

1. **Grant and Sale of Easement.** Boulder City agrees that it shall grant and convey to Clark County a conservation easement to preserve and protect the Property containing those terms and conditions set forth in Exhibit A.

2. **Purchase Price.** Clark County agrees to pay to Boulder City the total sum of Three Hundred Thousand (\$300,000) Dollars in consideration of the grant and conveyance of the conservation easement described in Section 1 hereof.

3. **Closing of the Transaction.** The grant and conveyance of the conservation easement to Clark County and the payment of the purchase price to Boulder City shall occur, if at all possible, contemporaneously with the closing of the transaction by which the Acquired Land is conveyed and sold to Boulder City by the Colorado River Commission created pursuant to Chapter 538 of the Nevada Revised Statutes ("Underlying Transaction"), but in no event later than five (5) working days after each of the following events have occurred:

- A. The closing of the Underlying Transaction.
- B. The approval of this Agreement by the Boulder City Council and the Clark County Board of Commissioners.

4. **Right to Rescind.** In the event the Service has not issued the incidental take permit sought by the Participants as more particularly set forth in the Desert Conservation Plan on or before January 1, 1996, then and in that event, Clark County may, at its option, rescind this transaction upon sixty (60) days written notice to Boulder City, in which case, Clark County shall reconvey the conservation easement to Boulder City and Boulder City shall repay the Purchase Price to the County. This Right to Rescind shall survive the Closing of the Transaction, notwithstanding any other provision of law.

5. **Applicable Law.** The interpretation and performance of this Agreement shall be governed by the laws of the State of Nevada.

6. **Entire Agreement.** This Agreement and its attached exhibit sets forth the entire agreement of the parties with respect to the easement and supersedes all prior discussions, negotiations, understandings or agreements relating to the easement, all of which are merged herein.

7. **Recordation.** Clark County shall promptly record this instrument in the official records of Clark County and may be re-recorded at any time as may be required to preserve its rights in the easement.

8. **Counterparts.** This Agreement may be executed in two or more counterparts, which shall, in the aggregate, be signed by both parties, and each counterpart shall be deemed an original instrument as against any party who has signed it, and in the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

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IN WITNESS WHEREOF, Boulder City and Clark County have entered into this Agreement effective as of the day and year first above written.

CITY OF BOULDER CITY, NEVADA

ATTEST:

Vicki Bergdale
Vicki Bergdale, City Clerk

By: Robert S. Canaro
Its Assistant Mayor

CLARK COUNTY, NEVADA

By: Vivonne Atkinson Gates
Its VIVONNE ATKINSON GATES, CHAIR

ATTEST:

Loretta Bowman
LORETTA BOWMAN, COUNTY CLERK

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EXHIBIT "A"

(Conservation Easement)

EXHIBIT "A"

RECORDING REQUESTED BY:
MAIL TO:
Clark County
225 Bridger Avenue
Las Vegas, NV 89155
Attn: _____

Above Space for Recorder's Use

CONSERVATION EASEMENT GRANT

THIS CONSERVATION EASEMENT GRANT ("Easement") is made this 18th day of July, 1995, by the CITY OF BOULDER CITY, NEVADA ("Grantor"), in favor of CLARK COUNTY, NEVADA ("Grantee").

WITNESSETH:

WHEREAS, Grantor is the sole owner in fee simple of approximately eighty-five thousand (85,000) acres of real property located in Clark County, Nevada, more particularly described in Exhibit "A" attached hereto and by this reference made a part hereof (the "Property"); and,

WHEREAS, the Grantee is a governmental entity formed under the laws of the State of Nevada and is authorized to hold conservation easements for the conservation and protection of natural resources; and,

WHEREAS, the Property contains significant natural resource, ecological and native habitat values as well as various flora and fauna indigenous to the Property (collectively, the "Natural Resource Values") of great importance to Grantor and Grantee; and,

WHEREAS, significant portions of the Property provide habitat for the desert tortoise (*Gopherus agassizii*), a federally listed threatened species as well as habitat for other flora and fauna, indigenous to the Property which Grantor and Grantee desire to preserve, protect, maintain and enhance; and,

WHEREAS, the purchase of this Easement has been offered as a mitigation measure to induce the United States Fish and Wildlife Service ("Service") to issue a permit to allow Desert tortoises to be incidentally taken within Clark County pursuant to the provisions of the federal Endangered Species Act; and,

WHEREAS, by execution of this easement, Grantor covenants and agrees that it shall manage the Property in a manner which will assure that the Natural Resource Values will be preserved, protected, maintained and enhanced; and,

WHEREAS, in consideration of the payment of the purchase price and in order to assure that the Natural Resource Values of the Property are preserved, protected, maintained and enhanced during the entire term of this Easement, Grantor is willing to convey this Easement to Grantee.

NOW, THEREFORE, in consideration of the foregoing, and the mutual covenants, terms, conditions, and restrictions contained herein, and for other good and valuable consideration, receipt of which is hereby acknowledged:

1. **GRANT OF EASEMENT.**

Grantor hereby voluntarily grants and conveys this Easement to Grantee for the purposes and on the terms and conditions hereinafter set forth.

2. **PURPOSE.**

It is the purpose of this Easement to assure that the Property will be retained in a natural condition and to prevent any use of the Property that will impair or interfere with its Natural Resource Values. Grantor covenants and agrees that it shall manage, use and allow the use of the Property for only such activities which do not impair the conservation, protection, restoration and enhancement of the Natural Resource Values, including, without limitation, those involving the preservation and enhancement of the habitat of the Desert tortoise and other flora and fauna indigenous to the Property.

3. **RIGHTS OF GRANTEE.**

To accomplish the purpose of this Easement the following rights are conveyed to Grantee by this Easement:

(a) To enforce the terms of this Easement, and to the extent it deems advisable, to institute measures to preserve, protect, manage and study the Natural Resource Values of the Property, and in particular the habitat of the desert tortoise, in a manner consistent with any habitat conservation plan for the Desert tortoise affecting the Property to which Grantee is a party and which has been executed or approved by the Service.

(b) To enter upon and traverse all portions of the Property other than improved structures at all times in order to monitor Grantor's compliance with and otherwise enforce the terms of this Easement; provided that such entry shall not unreasonably impair or interfere with Grantor's use and quiet enjoyment of the Property or unreasonably disturb other natural resources existing on the Property.

(c) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Easement and to require the restoration of such areas or features of the Property that may be materially damaged by any inconsistent activity or use.

(d) Notwithstanding the foregoing, Grantee shall not construct any trails or other access facilities, or any other improvements on the Property without the prior written approval of Grantor and the Service.

4. PROHIBITED USES.

Any activity on or use of the Property inconsistent or incompatible with the purposes of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities shall be prohibited, except with the express written consent of the Grantee and the Service:

(a) All motorized vehicle activity, including all competitive and organized events, except on designated roads and trails, which designated roads and events have been approved by the Service in cooperation and consultation with the Clark County Desert Tortoise Implementation and Monitoring Committee or any successor Committee or entity formed or established by Clark County in connection with any Habitat Conservation Plan to benefit the Desert tortoise. ("Monitoring Committee");

(b) All military maneuvers, clearing for agriculture, land fills, and any other surface disturbance that diminishes the capacity of the land to support Desert tortoises and other native flora and fauna;

(c) Grazing by cattle, burros, horses, and domestic sheep;

(d) Commercial flora harvest and fauna collection;

(e) Non-commercial vegetation harvest, except by permit issued by Grantor and relevant State and Federal agencies;

(f) Non-commercial collection of biological specimens, except by permit issued by Grantor and relevant state and federal agencies;

(g) Dumping, refuse disposal, littering and use of herbicides or biocides;

(h) Depositing of captive or displaced desert tortoises or other animals, except pursuant to translocation research projects authorized by the Service;

(i) Uncontrolled dogs out of vehicles;

(j) Except as provided in Section 6 hereof, the construction of any physical improvement without the written consent of the Grantor and the Service; and,

(k) Discharge of firearms, except in connection with hunting or trapping from September through March.

5. LAW ENFORCEMENT.

(a) Grantor shall enact, and at all times keep in full force and effect, all such ordinances, resolutions, orders or regulations as are necessary or convenient to restrict the use of the Property as herein provided, and to allow peace officers as defined in Nevada Revised Statutes, provided by Grantee to cite those violating such ordinances, resolutions, orders or regulations.

(b) Grantor shall allow Grantee to post sufficient signs on and about the Property to adequately inform the public of those uses which are prohibited and permitted on the Property.

(c) Grantee shall contract with state and/or federal land managers or resource agencies to provide peace officers to patrol the Property on a regular basis in order to enforce applicable ordinances, resolutions, orders or regulations adopted pursuant hereto, and, at its discretion, shall cite and prosecute those that engage in such prohibited uses or activities. Grantor shall provide peace officers to monitor activities which it specifically permits to occur on the Property, such as organized off highway vehicle events on designated roads and trails, and at its discretion, shall cite and prosecute those that violate any term or condition of such permitted use.

6. RESERVED RIGHTS.

(a) Grantor reserves to itself, and to its successors, assigns, agents and lessees all rights accruing from its ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent or incompatible with the purpose of this Easement. Without in any way limiting the foregoing, Grantor reserves the right to permit the following activities on the Property:

(1) Non-intrusive monitoring of Desert tortoise population dynamics and habitats;

(2) Travel on and maintenance of designated and signed roads and trails;

(3) Non-consumptive recreation activities including, without limitation, hiking, bird watching, casual bicycling, casual horseback riding, and photography;

(4) Parking and camping in designated areas approved by the Service in consultation with the Monitoring Committee;

(5) Fire suppression;

(6) Permitted or otherwise controlled maintenance of utilities and ancillary structures;

(7) Surface disturbances that enhance the quality of habitat for wildlife, enhance watershed protection, or improve opportunities for non-motorized recreation including, without limitation, construction of visitors centers, wildlife water projects, and camping facilities;

(8) Population enhancement of native species; and,

(9) Non-manipulative and non-intrusive biological or geological research, by permit.

(b) In addition to the foregoing, Grantor reserves the following limited rights to use the Property which may have adverse impacts upon the Natural Resource Values; provided, however, that any of the following uses shall be allowed only after it has informed the Service of the proposed use and its location and have incorporated such reasonable measures as may be recommended by the Service to minimize and mitigate any adverse impacts on the Natural Resource Values to the greatest extent practicable:

(1) Grantor may discharge effluent onto the Property from its existing waste water treatment plant or any expansion thereof.

(2) Grantor may construct electrical, water, sewer, gas, drainage and other utilities necessary to service that site described on Exhibit B, attached hereto and by this reference made a part hereof; provided, however, that to the greatest extent practicable, it shall utilize existing rights of way and roads for such purposes.

(c) Commencing fifty years from the date hereof, Grantor may petition the Grantee and the United States Fish and Wildlife Service to remove this Easement from the Property. Grantee and the Service may, but need not, agree to remove the Easement from the Property, but only if they each make the following factual findings after a noticed public hearing:

(1) The Property is no longer required for the survival and recovery of the desert tortoise or any other species located on the Property; and,

(2) Development of the Property will not have a substantial adverse impact upon the Natural Resource Values; and,

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(3) Development of the Property will not have a significant adverse effect upon air and water quality in the El Dorado and Piute Valleys; and,

(4) Development of the Property will not have a substantial adverse impact upon the open space and recreational uses allowed on the Property pursuant to the terms of this easement.

In the event Grantee and the Service make each of the foregoing findings, Grantee shall, no sooner than three months after the date of making such findings reconvey the Easement to Grantor. During such three month period, any Nevada state, federal or local governmental entity, or any charitable corporation, charitable association or charitable trust which would be qualified to be a holder of the easement pursuant to the provisions of NRS 111.410, et. seq. may challenge such findings and the intention to reconvey the Easement in any state and/or federal court of competent jurisdiction.

7. **REMEDIES.**

(a) In the event of a dispute regarding whether or not any activity or use is inconsistent with the purposes of this Easement, the parties, or either of them, may submit the question to the Service for a determination; provided, however, that the determination of the Service shall not bind either party. It is the intention of the parties that the final arbiter of consistency with the purposes of this Easement shall lie with the court having jurisdiction over the matter.

(b) If either party determines that the other party is in violation of the terms of this Easement or that a violation is threatened, such party shall give written notice to the other party of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purposes of this Easement, to restore the portion of the Property so injured. If a party fails to cure a violation within sixty (60) days after receipt of notice thereof from the other party, or under circumstances where the violation cannot reasonably be cured within a sixty (60) day period, fails to begin curing such violation within the sixty (60) day period, or fails to continue diligently to cure such violation until finally cured, the aggrieved party may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement or injury to any Natural Resource Values protected by this Easement, and to require the restoration of the Property to the condition that existed prior to any such injury. Without limiting Grantor's liability therefor, Grantee, in its sole discretion, may apply any damages recovered from Grantor to the

cost of undertaking any necessary corrective action on the Property. If a party, in its good faith and reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Natural Resource Values of the Property, such party may pursue its remedies under this paragraph without prior notice to the other party or without waiting for the period provided for the cure to expire. Each party's rights under this paragraph apply equally in the event of either actual or threatened violations of the terms of this Easement, and each party agrees that the other party's remedies at law for any violation of the terms of this Easement are inadequate and that such party shall be entitled to the injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which such party may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Each party's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

(c) Any costs incurred by either party in enforcing the terms of this Easement against the other, including, without limitation, costs of suit and attorneys' fees, and any costs of restoration necessitated by a violation of the terms of this Easement shall be borne by the breaching party. If a party prevails in any action to enforce the terms of this Easement, such party's costs of suit including, without limitation, attorneys' fees, shall be borne by the other party.

(d) Any forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

(e) Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

8. ACCESS.

Grantee, its successors, assigns, agents, invitees and licensees shall have the right of access to the Property at all times as provided in Section 2 (b) hereof. No right of access by

the general public to any portion of the Property is conveyed by this Easement.

9. COSTS AND LIABILITIES.

Except as set forth in this Easement or as otherwise agreed in writing between the parties hereto, Grantor retains all responsibilities related to the ownership, management, operation, upkeep, and maintenance of the Property, and shall hold Grantee free and harmless from and against any and all claims, demands, lawsuits, damages or liability arising out of or in any way connected to the Property, except for those claims, demands, lawsuits, damages or liabilities caused by the negligent or malicious actions or inaction of Grantee or its agents. Grantee shall hold Grantor free and harmless from and against any and all claims, demand, lawsuits, damages or liability arising out of or in any way connected to negligent or malicious actions or inactions of Grantee or its agents in connection with this Easement.

10. ASSIGNMENT.

This Easement is transferable, but only with the written consent of the Grantor and the Service, which consents shall not be unreasonably withheld. Grantee may transfer this easement only to entities authorized to acquire and hold conservation easements under the laws of the state of Nevada. As a condition of such transfer, the transferee shall agree to enforce the terms of the easement and to commit itself to assuring that the conservation purposes that this grant is intended to advance are carried out.

11. SUBSEQUENT TRANSFERS.

Grantor agrees to incorporate the terms of this Easement in any deed of other legal instrument by which Grantor divests itself of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee and the Service of the transfer of any interest at least fifteen (15) days prior to the date of such transfer. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

12. ESTOPPEL CERTIFICATES.

Upon request by Grantor, Grantee shall within fifteen (15) days execute and deliver to Grantor any document, including an estoppel certificate, which certifies Grantor's compliance with any obligation of Grantor contained in this Easement and otherwise evidences the status of this Easement as may be requested by Grantor.

13. NOTICES.

Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor: City of Boulder City
900 Arizona Street
Boulder City, NV 89005
Attn: City Manager

To Grantee: Clark County
225 Bridger Avenue
Las Vegas, NV 89155
Attn: County Manager

To Service: United States Fish and Wildlife Service
4600 Kietzke Lane, Building C-125
Reno, NV 89502-5093
Attn: Field Supervisor

or to such other address as either party from time to time shall designate by written notice to the other.

14. RECORDATION.

Grantee shall promptly record this instrument in the official records of Clark County, Nevada and may re-record it at any time as may be required to preserve its rights in this Easement.

15. GENERAL PROVISIONS.

(a) The interpretation and performance of this Easement shall be governed by the laws of the State of Nevada.

(b) Any general rule of construction to the contrary notwithstanding, this Easement shall be construed in favor of the grant to effect the purpose of this Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) If any provision of this Easement, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to

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which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

(e) Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors, and assigns and shall run in perpetuity with the Property, unless terminated pursuant to Section 6(c) hereof.

(g) The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

(h) The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF, Grantor and Grantee have entered into this Easement effective as of the day and year first above written.

Sworn and Subscribed before me

GRANTOR:

~~GRANTOR:~~

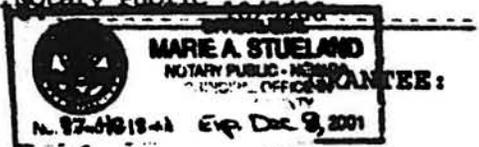
CITY OF BOULDER CITY

By: Marie A. Stueland

By: [Signature]

Da Notary Public

Attest: [Signature]



CLARK COUNTY

By: B. L. Woodbury
Bruce L. Woodbury, Chairman

By: [Signature]
YVONNE ATKINSON GATES, CHAIR

Date: Oct. 4, 2000

ATTEST:



[Signature]
LORETTA BOWMAN, COUNTY CLERK

EXHIBIT A

DESCRIPTION OF THE DESERT TORTOISE CONSERVATION EASEMENT

In T.23 S., R. 63 E.

The South half, and the South half of the North half of
Section 25.

Section 36.

Those portions of Section 35 southeast of the right-of-way of
US 95.

The South half of Section 26 southeast of the right-of-way of
US 95, and the South half of the Northeast quarter, and
the South half of the Northwest quarter southeast of the
right-of-way of US 95.

In T. 23 S., R. 64 E.

The South half, and the South half of the North half of
Sections 31 and 32.

The South half, and the Southwest quarter of the Northeast
quarter, and the South half of the Northwest quarter of
Section 33.

The Southwest quarter of the Southeast quarter, the South half
of the Southwest quarter, and the Northwest quarter of
the Southwest quarter of Section 34.

In T. 23 1/2 E., R. 64 E.

Fractional Sections 31, 32, 33, 34, and 35.

In T. 24 S., R. 62 E.

Sections 34, 35, and 36.

The South half of Sections 25, 26, and 27.

In T. 24 S., R. 63 E.

Sections 1, 11, 12, 13, 14, 23, 24, 25, 26, 28, and 36.

That portion of Section 2 southeast of the right-of-way of US 95.

The East half of Sections 15 and 22.

That portion of the east half of Section 27 east of the right-of-way of US 95.

The South half of Sections 29 and 30.

The North half and the Southwest quarter of Section 31.

The North half and the Southeast quarter of Section 32.

The Southwest quarter and the North half of Section 33.

The North half of Section 34.

The North half of Section 35.

In T. 23 S., R. 63 1/2 E.

The South half, and the South half of the North half of Fractional Section 36.

In T. 24 S., R. 64 E.

Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35.

In T. 25 S., R. 62 E.

Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, and 36.

In T. 25, S., R. 63 E.

Sections 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, and 33.

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The West half of Sections 4 and 9.

The East half of Section 5.

The Northwest Quarter of Section 6.

The South half and the Northwest quarter of Section 16.

The Southwest quarter of Section 15.

The West half of Sections 22 and 27.

The West half of Section 34.

In T. 25 S., R 64 E.

Sections 1, 2, 3, 4, 5, and 6.

In T. 26 E., R. 62. E.

Sections 1, 2, 11, 12, 13, and 14.

In T. 26 S., R. 63 E.

Sections 4, 5, 6, 7, 8, 9, 16, 17, and 18.

All in the State of Nevada. Range references above are with respect to Mount Diablo Base and Meridian.

RETURN TO:

MSHCP-COMP PLANNING
3rd floor

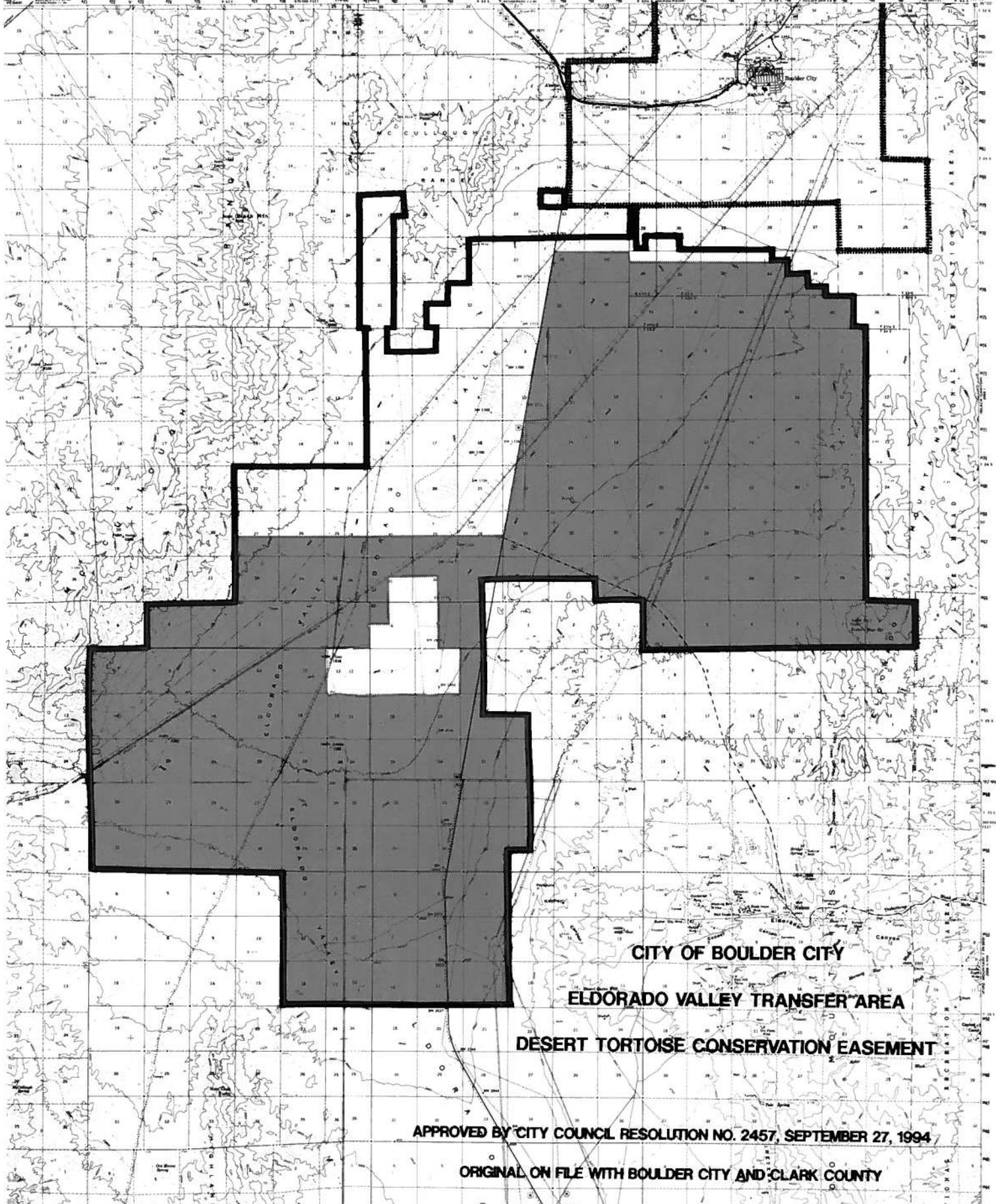
CLARK COUNTY, NEVADA
JUDITH A. VANDEVER, RECORDER
RECORDED AT REQUEST OF:

COMP PLANNING CLARK COUNTY

10-09-2000 16:17 ARD

BOOK: 20001009 INST: 01362

FEE: .00 RPTT: .00



CITY OF BOULDER CITY
ELDORADO VALLEY TRANSFER AREA
DESERT TORTOISE CONSERVATION EASEMENT

APPROVED BY CITY COUNCIL RESOLUTION NO. 2457, SEPTEMBER 27, 1994

ORIGINAL ON FILE WITH BOULDER CITY AND CLARK COUNTY

Exhibit B

Nev-048100

The deed shall be subject to any valid existing rights as provided in Section 5 of the Eldorado Valley Act, P.L. 85-339, March 6, 1958, as amended. In addition, there shall be by federal patent excepted and reserved to the United States:

1. A right-of-way thereon for ditches or canals constructed by the authority of the United States. Act of August 30, 1890 (43 U.S.C. 945).
2. Certain right-of-way corridors for transportation and public utilities as designated in Exhibit C attached hereto and made a part hereof.
3. Those rights for power transmission line purposes granted to the Bureau of Reclamation, its successors or assigns, by right-of-way No. CC-024550, pursuant to the Act of December 5, 1924 (43 Stat. 672).
4. Those rights for road purposes granted to the Bureau of Reclamation, its successors or assigns, by right-of-way No. Nev-046127, pursuant to the Act of December 5, 1924 (43 Stat. 672).
5. Those rights for power transmission line and road purposes granted to the Bureau of Reclamation, the City of Los Angeles and Nevada Power Company, their successors or assigns, by right-of-way No. N-4790, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
6. Those rights for power transmission line purposes granted to the Bureau of Reclamation, its successors or assigns, by right-of-way No. N-29605, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
7. Those rights for material site purposes granted to the Federal Highway Administration, its successors or assigns, by right-of-way No. N-38190, pursuant to the Act of August 27, 1958 (23 U.S.C. 317(A)).
8. Those rights for power transmission line purposes granted to the Department of Energy, its successors or assigns, by right-of-way No. N-56872, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
9. Those rights for highway purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. CC-019651, pursuant to the Act of November 9, 1921 (42 Stat. 216).
10. Those rights for highway purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. CC-020655, pursuant to the Act of August 27, 1959 (23 U.S.C. 317(A)).
11. Those rights for highway purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. CC-020733, pursuant to the Act of November 9, 1921 (42 Stat. 216).

.....

12. Those rights for material site purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. CC-020962, pursuant to the Act of November 9, 1921 (42 Stat. 216)
13. Those rights for highway purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. CC-020965, pursuant to the Act of November 9, 1921 (42 Stat. 216).
14. Those rights for highway purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. N-13085, pursuant to the Act of August 27, 1958 (23 U.S.C. 317(A)).
15. Those rights for material site and road purposes granted to Nevada Department of Transportation, its successors or assigns, by right-of-way No. N-33203, pursuant to the Act of August 27, 1958 (23 U.S.C. 317(A)).

SUBJECT TO:

1. Those rights for power transmission line, telephone line, and road purposes granted to Southern California Metropolitan Water District, its successors or assigns, by right-of-way No. CC-018307, pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).
2. Those rights for power transmission line purposes granted to the City of Los Angeles, its successors or assigns, by right-of-way No. CC-018367, pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).
3. Those rights for power transmission line and road purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. CC-018486, pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).
4. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. CC-020736, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
5. Those rights for power transmission line purposes granted to the City of Los Angeles, its successors or assigns, by right-of-way No. CC-020824, pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).
6. Those rights for power transmission line, telephone line, and road purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. CC-020959, pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).
7. Those rights for gas pipeline purposes granted to Southwest Gas Corporation, its successors or assigns, by right-of-way No. Nev-015814, pursuant to the Act of February 25, 1920 (30 USC 185 Sec. 28).
8. Those rights for power transmission line and telephone line purposes granted to Southern California Edison Company and Nevada-California Electric Corporation, their successors or assigns, by rights-of-way No. Nev-043265 and Nev-043265 (01), pursuant to the Act of December 21, 1928 (43 U.S.C. 617D).

9. Those rights for gas pipeline purposes granted to Southwest Gas Corporation, its successors or assigns, by right-of-way No. Nev-043646, pursuant to the Act of February 25, 1920 (30 U.S.C. 185 Sec. 28).
10. Those rights for power transmission line, power generation station, road and drainage area purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. Nev-066156, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
11. Those rights for power transmission line and road purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. N-869, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
12. Those rights for power transmission line purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. N-1127, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
13. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-1909, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
14. Those rights for communication site purposes granted to Central Telephone Company, its successors or assigns, by right-of-way No. N-2217, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
15. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-2557, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
16. Those rights for power substation, road and drainage area purposes granted to Nevada Power Company, Salt River Project and Southern California Edison Company, their successors or assigns, by right-of-way No. N-2655, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
17. Those rights for telemetry and telephone line purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. N-2629, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
18. Those rights for power switching station and road purposes granted to the City of Los Angeles, its successors or assigns, by right-of-way No. N-2763, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
19. Those rights for power transmission line purposes granted to Nevada Power Company, Salt River Project and Southern California Edison Company, their successors or assigns, by right-of-way No. N-2795, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).
20. Those rights for power transmission line purposes granted to Nevada Power Company, Salt River Project, Los Angeles Department of Water and Power and Southern California Edison Company, their successors or assigns, by right-of-way No. N-3827, pursuant to the Act of March 4, 1911 (43 U.S.C. 961).

21. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-7299, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
22. Those rights for gas pipeline purposes granted to Southwest Gas Corporation, its successors or assigns, by right-of-way No. N-7841, pursuant to the Act of February 25, 1920 (30 U.S.C. 185 Sec. 28).
23. Those rights for power transmission line purposes granted to Intermountain Power, its successors or assigns, by right-of-way No. N-10683, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
24. Those rights for power transmission substation purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-11629, pursuant to the Act of February 15, 1901 (43 U.S.C. 959).
25. Those rights for road and water pipeline purposes granted to Gornowich Sand and Gravel, its successors or assigns, by right-of-way No. N-15857, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
26. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-17394, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
27. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-33006, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
28. Those rights for road purposes granted to Pan Metal Corporation, its successors or assigns, by right-of-way No. N-35549, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
29. Those rights for power transmission line purposes granted to the City of Los Angeles, its successors or assigns, by right-of-way No. N-39980, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
30. Those rights for power switching station, power transmission line and road purposes granted to Los Angeles Department of Water and Power, its successors or assigns, by right-of-way No. N-46054, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
31. Those rights for power transmission line and road purposes granted to Southern California Edison Company, its successors or assigns, by right-of-way No. N-47835, pursuant to the Act of October 1, 1976 (43 U.S.C. 1761).
32. Those rights for fiber optic telephone line and regeneration facilities purposes granted to American Telephone & Telegraph Company, its successors or assigns, by right-of-way No. N-52050, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
33. Those rights for fiber optic telephone line purposes granted to Central Telephone Company, its successors or assigns, by right-of-way No. N-52985, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).

34. Those rights for gas pipeline purposes granted to Southwest Gas Corporation, its successors or assigns, by right-of-way No. N-53117, pursuant to the Act of February 25, 1920 (30 U.S.C. 185 Sec. 28).
35. Those rights for power transmission line purposes granted to Nevada Power Company, its successors or assigns, by right-of-way No. N-53121, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
36. Those rights for gas pipeline purposes granted to Southwest Gas Corporation, its successors or assigns, by right-of-way No. N-54045, pursuant to the Act of February 25, 1920 (30 U.S.C. 185 Sec. 28).
37. Those rights for telephone line purposes granted to Sprint/Central Telephone-Nevada, its successors or assigns, by right-of-way No. N-57817, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
38. Those rights for fiber optic line and regeneration site purposes granted to Citizens Communications Services, its successors or assigns, by right-of-way No. N-58566, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
39. Those rights for road purposes granted to Henderson City, its successors or assigns, by right-of-way No. N-58592, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
40. An easement 50 feet in width along the north boundary of lot 2 and the N $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 23, Township 23 South, Range 63 East, west of Highway 95, in favor of Clark County, to insure continued ingress and egress to adjacent lands.
41. An easement 50 feet in width along the north boundary, and 30 feet in width along the south boundary of the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 26, Township 23 South, Range 63 East, west of Highway 95, in favor of Clark County, to insure continued ingress and egress to adjacent lands.
42. An easement 50 feet in width along the west boundary of the N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, Township 23 South, Range 63 East, in favor of Clark County, to insure continued ingress and egress to adjacent lands.
43. An easement 30 feet in width along the north boundary of the SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, Township 23 South, Range 63 East, in favor of Clark County, to insure continued ingress and egress to adjacent lands.

P17

Inst #: 201010080002490
Fees: \$0.00
N/C Fee: \$0.00
10/08/2010 02:53:42 PM
Receipt #: 533909
Requestor:
AIR QUALITY AND
ENVIRONMENT
Recorded By: STN Pgs: 17
DEBBIE CONWAY
CLARK COUNTY RECORDER

AMENDMENT (AGREEMENT NO. 94-A313A) TO THE CONSERVATION
EASEMENT GRANT (AGREEMENT NO. 94-A313) BY AND BETWEEN THE CITY
OF BOULDER CITY AND THE COUNTY OF CLARK, NEVADA ALSO KNOWN
AS THE BOULDER CITY CONSERVATION EASEMENT

Agreement No. 94-A313A

Recording requested by:

Clark County Department of Air Quality and Environmental Management

Return documents to:

Attn: Marci Henson, HCP Plan Administrator

333 North Rancho, Suite 625

Las Vegas, NV 89106



Aptitude
 Clark County, NV Transaction #: **605061**
 Receipt #: **533909**
 Cashier Date: **10/08/2010 2:53:47 PM**
 (STN)

Print Date:
 10/08/2010 2:53:53
 PM

Debbie Conway
 Clark County Recorder
 (702) 455-4336

Customer Information	Transaction Information	Payment Summary
AIR QUALITY AND ENVIRONMENT () 500 S GRAND CENTRAL PKWY LAS VEGAS, NV 89106	Received: FRONT COUNTER Returned: INTER OFFICE Type: Recording Track #: Bin #:	Total Fees \$.00 Total Payments \$.00

1 Payments
 NOCHARGE

1 Recorded Items
 (AGREE) AGREEMENT AMEND <i>Instrument #: 201010080002490 BK/PG: 0/0</i> <i>Date: 10/08/2010 2:53:42 PM</i>

0 Search Items

0 Miscellaneous Items

AMENDMENT (AGREEMENT NO. 94-A313A) TO THE CONSERVATION EASEMENT GRANT (AGREEMENT NO. 94-A313) BY AND BETWEEN THE CITY OF BOULDER CITY AND THE COUNTY OF CLARK, NEVADA ALSO KNOWN AS THE BOULDER CITY CONSERVATION EASEMENT

This Amendment is made this 3rd day of August, 2010, by and between the City of Boulder City, Nevada ("CITY") and the County of Clark, Nevada ("COUNTY").

RECITALS:

WHEREAS, the CITY and COUNTY executed an agreement, the Conservation Easement Grant, that created a conservation easement known as the Boulder City Conservation Easement ("Easement") on July 18, 1995, to provide for, among other things, habitat preservation for the Desert Tortoise and other species within the Eldorado Valley; and

WHEREAS, the CITY and COUNTY desire to amend the Conservation Easement Grant to clarify meaning and more properly address the management of the Easement; and

NOW, THEREFORE, the CITY and COUNTY agree to amend the Conservation Easement Grant as follows:

1. Page 3, Section 4. PROHIBITED USES, subsection (a) – delete in its entirety and replace with the following:

"All motorized vehicle activity, including all competitive and organized events, except on designated roads and trails, which designated roads and events have been approved by the Service in cooperation and consultation with Grantee or any Committee or entity formed or established by Grantee in connection with any Habitat Conservation Plan to benefit the Desert tortoise."

2. Page 4, Section 5. LAW ENFORCEMENT, subsection (c) – delete in its entirety and replace with the following:

"Grantee shall provide for peace officers with authority to patrol the Property on a regular basis and enforce applicable ordinances, resolutions, orders or regulations. In addition, Grantor shall provide for peace officers with authority to patrol the Property on a regular basis and enforce applicable ordinances, resolutions, orders or regulations to cover events permitted under subsection 4(a)."

3. Page 5, Section 6. RESERVED RIGHTS, subsection (a)(4) – delete in its entirety and replace with the following:

"Parking and camping in designated areas approved by the Service in consultation with the Grantee."

4. Page 5, Section 6. RESERVED RIGHTS, subsection (b)(1) – delete in its entirety and replace with the following:

“Grantor may discharge treated effluent from its existing waste water treatment plant or any expansion thereof onto that limited portion of the Property set forth in Exhibit B, attached hereto and by this reference made a part hereof.”

5. Page 5, Section 6. RESERVED RIGHTS, subsection (b)(2) – delete in its entirety and replace with the following:

“Grantor may construct or cause to be constructed electrical, water, sewer, gas, drainage and other utilities to support the maintenance and operation of power generating facilities at those sites known as the Energy Zone described in Exhibit C, attached hereto and by this reference made a part hereof. To the greatest extent practicable, Grantor shall use existing rights of way and roads and use Best Practices described in Exhibit D, attached hereto and by this reference made a part hereof, to all construction, maintenance and operational activities.”

6. Page 5 Section 6. RESERVED RIGHTS – add a new subsection (b)(3) to read as follows:

“Grantor may permit construction of utility transmission lines within the easement to connect transmission lines between two federal utility corridors or from a federal utility corridor to one of the three existing electrical substations described in the Eldorado Valley Transfer Act deed from the Colorado River Commission to Grantor dated July 9, 1995 (“deed”). Grantor may also permit modifications to all those rights of way listed in the deed. To the greatest extent practicable, Grantor shall require the use of existing rights of way and roads for such purposes, use the smallest length and width of disturbance, and require the use of Best Practices described in Exhibit D to all construction, maintenance and operation of those utility transmission lines.”

7. Page 8, Section 9. COSTS AND LIABILITIES – delete the title and its contents in their entirety and replace with the following:

“Reserved”

8. Page 9, Section 13. NOTICES – delete in its entirety and replace with the following:

“Any notice, demand, request, consent, approval or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor: City of Boulder City
401 California Street
P.O. Box 61350
Boulder City, NV 89006-1350
Attn: City Manager

To Grantee: Clark County
500 S. Grand Central Parkway
Las Vegas, NV 89155
Attn: County Manager
cc: HCP Plan Administrator

To Service: United States Fish and Wildlife Service
1340 Financial Blvd., Suite 234
Reno, Nevada 89502
Attn: Field Supervisor

or to such other address as either party from time to time shall designate by written notice to the other.”

9. Exhibit B, referenced on Page 5, Section 6. RESERVED RIGHTS, subsection (b)(2) – delete in its entirety and replace with “EXHIBIT B – Limit of Boulder City Wastewater Treatment Plant - Treated Effluent Discharge Area,” a copy of which is attached to this Amendment.

10. Add a new exhibit entitled “Exhibit C – Energy Zone Map,” a copy of which is attached to this Amendment.

11. Add a new exhibit entitled “Exhibit D – BEST PRACTICES TO BE USED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF INFRASTRUCTURE TO PASS THROUGH AND WITHIN THE EASEMENT,” a copy of which is attached to this Amendment.

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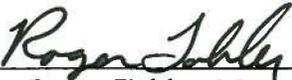
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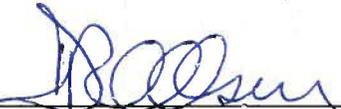
Except as expressly modified in this Amendment, all other provisions of the Conservation Easement Grant, dated July 18, 1995, shall remain in full force and effect as set forth therein.

IN WITNESS WHEREOF, the CITY and COUNTY have caused this Amendment to become effective on the effective date of the Boulder City ordinance approving this Amendment or the date the Clark County Board of Commissioners approves, authorizes, and executes this Amendment, whichever date occurs last..

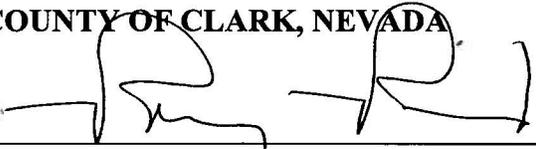
CITY OF BOULDER CITY, NEVADA


By: Roger Tobler, Mayor

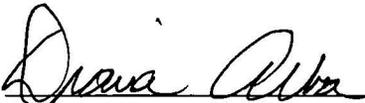

Attest: Lorene Krumm, City Clerk


Approved as to form: David Olsen, City Attorney

COUNTY OF CLARK, NEVADA


By: Rory Reid, Chairman, Board of County Commissioners

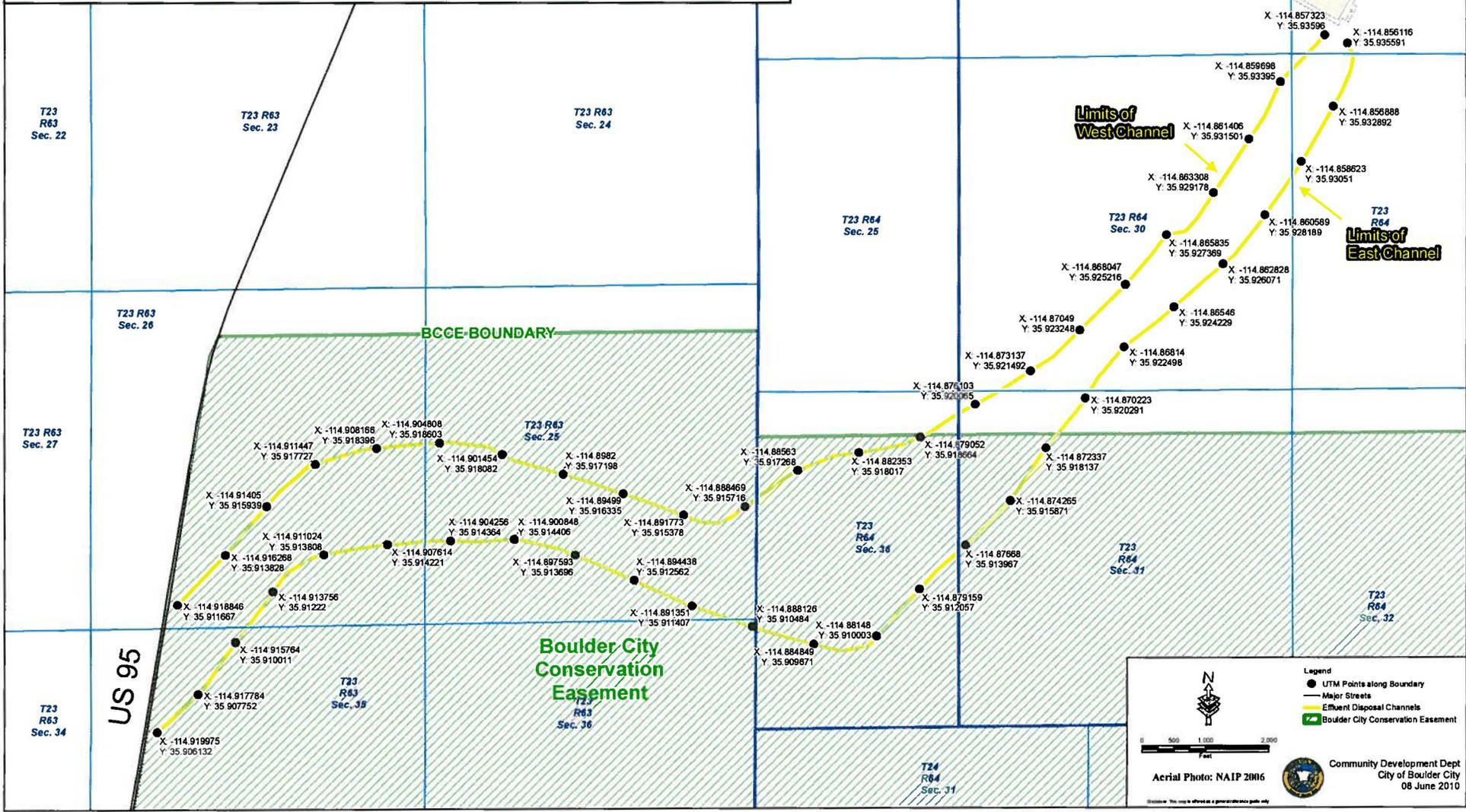
August 3, 2010
Date:


Attest: Diana Alba, County Clerk


Approved as to form:

Exhibit B - Limit of Boulder City Wastewater Treatment Plant - Treated Effluent Discharge Area -

Waste Water Treatment Plant
Sec. 19



Legend

- UTM Points along Boundary
- Major Streets
- Effluent Disposal Channels
- ▨ Boulder City Conservation Easement

0 500 1,000 2,000
Feet

Aerial Photo: NAIP 2006

Community Development Dept
City of Boulder City
08 June 2010

EXHIBIT "C"

Energy Zone Map

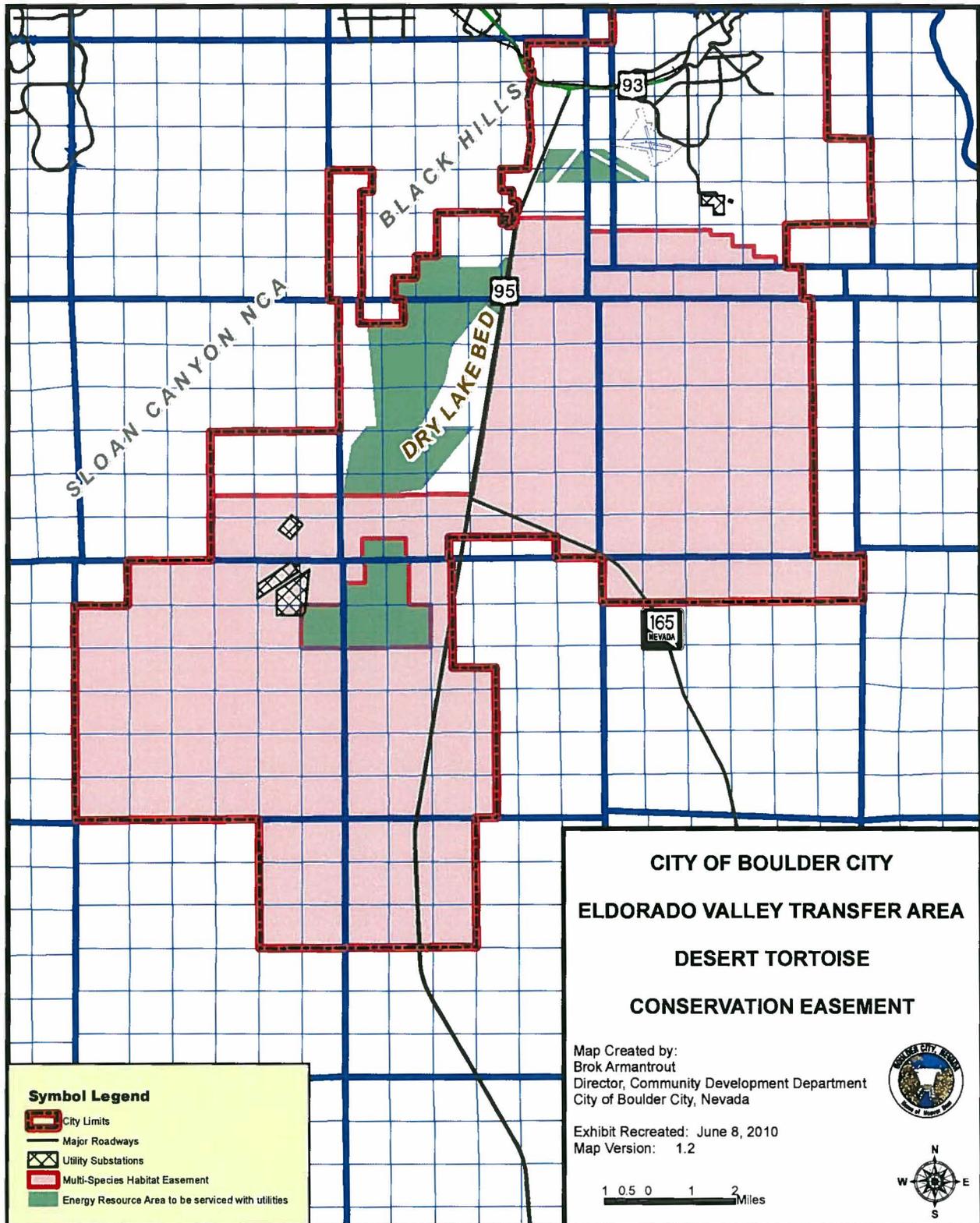


EXHIBIT D

BEST PRACTICES TO BE USED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF INFRASTRUCTURE TO PASS THROUGH AND WITHIN THE EASEMENT

The sections below describe the requirements for minimization and restoration on the BCCE, an explanation of the categories of disturbance that may be permitted on the BCCE, the parameters of success for restoration activities, and best practices for restoration. These best practices shall be used as part of the evaluation of BCCE special use permit requests.

Goal

The goal for activities that may temporarily or permanently disturb the BCCE is to minimize impacts to the greatest extent practicable. For those areas that are disturbed, the goal for restoration on the BCCE is to restore 100% of the structure and function of areas that have been disturbed.

Standards

In general, minimizing the aerial extent (aka footprint) of disturbed areas for all three categories of disturbance is strongly recommended. In those instances where disturbance is not avoided, restoration shall be required. The objective of restoration is the replacement of 100% of the cover and structure of living and dead native shrubs and perennial grasses. Dead vegetation provides shelter for wildlife and vertical structure (known as "vertical mulch") that traps and shelters seeds of native species, thus allowing for increased germination rates compared to sites with less overall cover. Restoration will be considered successful when plant cover, density, and species richness of native perennial shrubs and grasses is equal to or 100% of the pre-disturbance values for these measurements, or where pre-disturbance values are not available, equal to or 100% of those values in undisturbed reference areas to be selected by the County.

Site Release / Bond

A bond of sufficient size to fund restoration of the entire area permitted for disturbance shall be posted by the project proponent. Additionally, a fee shall be paid to County to fund long term monitoring of restoration success. Upon City and County review of and acceptance of a project completion report, the City will release 90% of the total bond amount. The project completion report shall document all reclamation activities and include pre and post construction photopoint, qualitative and quantitative monitoring data described above. One year after project completion an additional review of restoration task success will be conducted by City and County to determine if any portion of the remaining 10% of the bond is needed for additional remediation, or if any portion of the remaining 10% can be released to the project proponent.

Categories of Disturbance

Three categories of disturbance are described below : D-1, Overland Drive and Crush; D-2, Clear and Cut; and D-3, Clear and Cut with Soil Removal. Category D-2, Clear and Cut is strongly discouraged and existing access roads shall instead be used to access work areas.

Each category is described in more detail below.

D-1. Overland Drive and Crush.

Disturbance caused by accessing a site without significantly modifying the landscape. Vegetation is crushed but not cropped. Soil is compacted, but no surface soil is removed. Examples include utility line tensioning and pulling areas, tower pad sites, overland access to fiber optic meter sites, salvaged soil or rocks stockpiling areas, and spur roads to electrical distribution line structures. Even though vegetation may be damaged and even destroyed, the surface soil and seed bank remains in place. Some crushed vegetation will likely resprout after disturbance ceases. These activities would result in minimal to moderate disturbance.

D-2. Clear and Cut.

Disturbance caused by accessing the project site, but having to clear all vegetation in order to improve or provide suitable access for other equipment. All vegetation is removed, soils are compacted, but no surface soil is removed. Examples include temporary access roads where the road is improved for access and could include some examples from D-1 above. Clear and cut activities would result in moderate disturbance.

D-3. Clear and Cut with Soil Removal.

Disturbance caused by removing all vegetation in the impact zone, the soils are compacted and the surface soil is displaced and (for projects requiring underground installation) the subsurface soils also are displaced. These activities result in heavy disturbance. Examples include pipelines, buried fiber optic lines, access roads that require grading and filling.

D-1 Overland Drive and Crush Restoration Requirements

Maintenance of transmission lines /Temporary use areas

Disturbance caused by accessing a site without significantly modifying the landscape. Vegetation is crushed but not cropped. Soil is compacted, but no surface soil is removed. Examples include utility line pulling and tension areas, tower pad sites, overland access to fiber optic meter sites, and spur roads to

towers. Even though vegetation may be damaged and even destroyed, the surface soil and seed bank remains in place. Some crushed vegetation will likely resprout after disturbance ceases. General restoration actions include:

Pre-construction:

- 1 Conduct pre-construction monitoring
- 2 Seed collection
- 3 Cactus, yucca and agave salvage and temporarily relocate outside of disturbance area and within the ROW

Post-construction:

- 1 Earthworks: selectively decompact terrain, if required by County, or erase tracks
- 2 Replace salvaged cactus, yucca and agave within areas unlikely to be redisturbed within the ROW
- 3 Reseed
- 4 Install restoration signs
- 5 Monitor

D-2 Clear and Cut Restoration Requirements

Access Roads

Disturbance is caused by removing or cropping all vegetation in the impact zone, the soils are compacted and the surface soil may be displaced. This type of disturbance is caused by creation of new or expanded temporary access roads, and is strongly discouraged. This type of disturbance causes moderate disturbances. Existing access roads shall instead be used to access work areas.

Pre-construction:

- 1 Conduct pre-construction monitoring
- 2 Seed collection
- 3 Cactus, yucca and agave salvage and temporarily relocate outside of disturbance area and within ROW
- 4 Scrape and separate to the side of disturbance surface vegetation (i.e. vertical mulch), surface rocks, and surface soil. In other words, three passes are required – one to collect the vertical mulch and a second pass to collect surface rocks, and a third to collect the surface layer of soil.

Post-construction:

- 1 Earthworks: Replace surface soil, decompact terrain, recontour, replace vertical mulch and rocks
- 2 Process, remove, or color caliche
- 3 Replant cactus, yucca and agave within areas unlikely to be redisturbed within the ROW
- 4 Reseed
- 5 Application of County-approved simulated landscape patina colorant to rocks and/or newly exposed caliche to camouflage the restoration area
- 6 Installation of restoration signs
- 7 Monitor

D-3 Clear and Cut with Soil Removal

Underground Utilities

Disturbance is caused by removing all vegetation in the impact zone, the soils are compacted and the surface soil is displaced, and for project requiring underground installation the subsurface soils are displaced as well. These activities result in heavy disturbance. Examples include pipelines, buried fiber optic lines, and access roads that require grading and filling.

Pre-construction:

- 1 Conduct pre-construction monitoring
- 2 Seed collection
- 3 Cactus, yucca and agave salvage and temporarily relocate outside of disturbance area and within ROW
- 4 Scrape and separate to the side of disturbance surface vegetation (i.e. vertical mulch) and surface rocks, surface soil, and subsurface soil. In other words, three to four passes are required - one to collect the vertical mulch, a second to collect surface rocks, and a third and possible fourth pass to collect each layer of soil depending on depth of disturbance.

Post-construction:

- 1 Earthworks: Replace soils (in proper order), decompact terrain, recontour, replace vertical mulch and rocks
- 2 Process, remove, or color caliche
- 3 Replant cactus, yucca and agave within areas unlikely to be redisturbed within the ROW
- 4 Reseed
- 5 Application of County-approved simulated landscape patina colorant to rocks and/or newly exposed caliche to camouflage the restoration area

- 6 Installation of restoration signs
- 7 Monitor

Detailed Descriptions of Restoration Requirements

The restoration plan shall be divided into four sections: 1) Survey and Planning Activities, 2) Pre-construction Actions, 3) Post-construction Actions, 4) Monitoring. These sections shall describe sequential actions for a project, and each is described in more detail below.

Survey and Planning Activities

The following is a description of survey and planning activities required of proponents prior to the start of pre-construction actions. This includes 1) project area survey, 2) identification of disturbance levels, 3) seed collection, 4) special status plant inventories, 5) determination of restoration actions, and 6) report to City and County.

1. Project Area Survey. All aspects of the project shall be surveyed including but not limited to permanent facility locations, permanent access roads, temporary use areas, stockpiling areas, pulling and tensioning sites, tower locations, spur roads, and temporary access roads. Surveys shall be recorded as GPS point features and delivered to the City and the County as ArcView shapefiles or ArcInfo export files. Baseline pre-construction qualitative and quantitative monitoring of vegetation shall be performed by the project proponent to document the pre-construction conditions.
2. Identification of Disturbance Levels. Disturbance levels will be identified for each portion of the project area, and depicted on a map at a scale of no greater than 1:2,400.
3. Seed Collection. An appropriate seed mix for the project area shall be developed and approved by the City and the County as part of the project application process. If the project area includes more than one habitat type, the restoration plan may be divided into 2 or more zones with different seed mixes required for each zone. Seed collection activities may occur when seeds are available. Seed collection may be conducted on public lands (not on the BCCE) or acquired through an approved seed company and be conducted by an approved/qualified seed company. Only mature seed shall be collected. Pounds of seed will be calculated based upon approved seed mixture and seeding rate.

If collecting seed, no more than 50 percent of seed shall be collected from any one population. After collection, the seeds shall be cleaned, tested for pounds live seed, certified weed free, and stored. All seeds shall be stored dry in a dry insect/rodent proof container that is labeled with location and date of collection and collectors name. A summary of seed collected or procured shall be provided.

4. Special Status Plant Inventories. If requested by County, special status plant inventory surveys consisting of transect lines that cover 100% of potential habitat shall be conducted. Transect lines walked and encountered plant individuals shall be recorded as GPS point features and delivered to the City and the County as ArcView shapefiles or ArcInfo export files). A summary of findings shall be provided.
5. Determination of Restoration Actions. Determination of proposed restoration activities shall be provided. Restoration actions shall be depicted on maps at the same scale as those provided for disturbance levels.
6. Report to City and County. A report shall be provided to and approved by the City and the County prior to the start of pre-construction activities that includes all information identified above.

Pre-construction Actions

The following is a description of restoration actions that shall be performed prior to the construction of the project. This includes 1) pre-construction monitoring; 2) salvage of cactus, yucca and agave; 3) salvage of vertical mulch and surface rocks; and 4) salvage of surface and subsurface soils.

1. Pre-construction Monitoring. The project proponent shall conduct monitoring as described below to establish the baseline conditions in the area to be disturbed. The photos, field data sheets, data tables and summary information shall be reported and provided to County prior to the start of salvage activities, with the exception of cactus, yucca and agave flagging.
2. Salvage of Cactus, Yucca and Agave: The project applicant shall identify on site with flagging tape all cacti, yucca and agave that are present within the construction area and will mark the north orientation for all cacti. During survey all yucca clusters shall be counted as separate plants. This flagging and survey may be conducted during pre-construction monitoring. A list describing quantity and species will be forwarded to the City and the County upon completion of task.

Project proponent shall obtain any necessary permits to handle cactus, yucca and agave from the Nevada Division of Forestry. All cacti, yucca, and agave under 8 feet (2.4384 m) in height will be salvaged, except for cylindropuntia cacti (aka cholla), including *Opuntia echinocarpa*, *O. acanthocarpa*, and *O. ramosissima* over 3 feet (0.9144m) tall. Any individuals over the heights noted above are not required to be salvaged and will instead become a part of the salvaged "vertical mulch". All live

cactus to be salvaged will be tagged in such a way to note the north-facing side of each individual prior to removal from the soil.

Salvaged live cactus, yucca and agave shall be removed with no less than 2 inches (5.08 cm) of the root structure intact. Salvaged live material shall be shaded until moved to the temporary storage area, stored on site within the right of way, and heeled-in (temporarily planted) to a depth of no more than original depth of soil cover, with all cactus heeled-in with their original north-south orientation. All salvaged live material shall be irrigated once after heeling-in.

3. **Salvage of Vertical Mulch and Surface Rocks.** After completion of cactus, yucca and agave salvage and storage, remaining live and dead above ground vegetation materials shall be removed and stored within ROW for future restoration use as vertical mulch. Other perennial native vegetation is not salvaged live due to low rates of success compared with other restoration methods and higher costs associated with live salvage, as described in S. R. Abella and A.C. Newton's 2009 publication in the *Arid Environments and Wind Erosion* journal.

Rocks no larger than 12 inches (30.48 cm) in diameter, gravel and cobble on the surface shall be removed and stored in small piles or windrows within the ROW for later replacement in area of salvage. Larger rocks and boulders that must be removed for construction should also be salvaged. Under no circumstances shall cactus, yucca or agave be buried by the salvaged rock or vertical mulch piles.

4. **Salvage of Surface and Subsurface Soils.** The top 4 inches (10.16 cm) of soil shall be scraped and stored in uncompacted piles no more than 4 feet (1.219 2 m) high within the ROW. The salvaged top soil shall not be mixed with deeper soils, as this decreases the viability of seeds found in the topsoil, as described in S. J. Scoles-Sciulla and L. A. DeFalco's 2009 publication in the *Arid Land Research and Management* journal.

To the extent practical, root crowns and roots of perennial vegetation shall be left in place to assist recovery of the area post-construction. Subsurface soils that must be removed for construction purposes shall also be salvaged and stored in piles separate from the salvaged top soil within the ROW. Under no circumstances shall cactus, yucca or agave be buried by the salvaged soil piles.

Post construction activities

The following is a description of the actions that may take place after the end of construction. This includes 1) earthworks, 2) decompact terrain and recontour drainage, 3) process, remove, or color caliche, 4) erase equipment tracks, 5)

replace vertical mulch and surface rocks, 6) replant cactus, yucca and agave 7) reseed, 8) install restoration signs and 9) post-construction monitoring.

1. Earthworks. Replace salvaged soils in proper order, mixing each layer slightly with the top 1 inch (2.54 cm) of the lower layer. Once all soils are replaced, rake or harrow to create microtopographic features that will greatly enhance restoration success as described in Abella and Newton's above 2009 publication.
2. Decompress Terrain and Recontour Drainage. Decompress soils by ripping and/or harrowing soils in areas that were impacted and/or compacted by the project, unless that compaction is part of the approved project design. Recontour soils to restore natural drainage patterns, or recontour to conform to approved project design.
3. Process, Remove, or Color Caliche. Any cut rocks or newly exposed caliche shall be recolored with a County-approved permanent, non-toxic, landscape colorant, such as Permeon ©.
4. Erase Equipment Tracks. Remove tracks made by equipment by manual raking or other means that will not compact the soils. Rake or harrow as above to create microtopographic features that greatly enhance restoration success as described in the above 2009 publication by Abella and Newton.
5. Replace Vertical Mulch and Surface Rocks. Replace surface rocks by partially burying any large boulders or rocks and placing salvaged cobble and gravel to mimic surrounding, undisturbed areas. This camouflages site and reduces likelihood of vandalism or illegal vehicular use that might jeopardize restoration success. Position vertical mulch to mimic the density and vertical structure of vegetation prior to construction, burying each dead shrub or cactus partially to reduce loss to wind.
6. Replant Cactus, Yucca and Agave. Salvaged cactus, yucca and agave shall be replanted in restored areas not likely to be redisturbed in the next 10 years. Cactus will be replanted so that marked North indicator again faces north. All salvaged cactus, yucca and agave will be planted to mimic the pre-construction distribution of each species, and in densities similar to pre-construction density.
7. Reseed. During the months of September – December, the County-approved, certified weed-free seed mix shall be applied to the entire prescribed disturbed area at a rate of no less than 125 live seeds per square yard (150 live seeds per square meter). If different zones were prescribed by the County, seed mixes shall only be used in the

appropriate zones. Seeded areas should be raked or dragged to cover the seeds with approximately 1 inch (2.54 cm) of surface soil material.

8. Install Restoration Signs. Where restoration areas abut or intersect permanent utility roads or other roads that are designated "open" by the land manager, or other public roads, signs shall be posted within the project ROW, oriented so the sign surface is visible to those roads, and shall identify the area as a restoration area that should not be disturbed. The sign shall also identify the project proponent. If the restoration is adjacent and parallel to such a road described above, signs shall be posted every 500 feet (152.4 m). Signs shall be maintained by project proponent for a period of 5 years after restoration project is declared complete by County and City.
9. Post-construction Monitoring. As further described below, the project proponent is responsible for a monitoring event post construction, and the first year of monitoring after project completion has been accepted by the City and County. Project proponent is also responsible for funding the 5 years of post-restoration monitoring that will be conducted by County to determine the effectiveness of restoration techniques.
- 10.

Monitoring

The following are the types of monitoring required before construction, during the construction and restoration activities, and after restoration activities have been completed.

Baseline pre-construction monitoring. Baseline pre-construction qualitative and quantitative monitoring shall be performed by the project proponent to document the pre-construction conditions.

Post-construction monitoring. A minimum of 6 years of post-construction qualitative and quantitative monitoring will take place for each project. Project proponent shall conduct year one of six, and shall provide funds to the City and County for County to conduct monitoring in years two through six.

Compliance monitoring

Compliance monitoring by the City and/or the County may take place throughout the term of the project. The goal of compliance monitoring is to determine if the activity (including minimization and restoration actions) is progressing as approved by the City and the County.

Qualitative monitoring

The goal of qualitative monitoring is to document site conditions and evaluate the need for remediation to ensure that sites are progressing toward the success standard. *Photo points* will be established to document the pre-construction and post-construction restoration state of the vegetation and soil in each year of

monitoring (a total of at least 7 years of photos.) Photo monitoring methods are described in a technical report produced for the US Forest Service by F. Hall in 2002. The title of the technical report is General Technical Report PNW-GTR-526 and it is available here: <http://www.fs.fed.us/pnw/pubs/gtr526/>

Quantitative monitoring

Special Status Plant Species Monitoring, if requested by County, will be conducted using transects that cover 100% of potential habitat. Inventory efforts must be recorded as GPS line features and all species status species encountered must be recorded as GPS point features and delivered to the City and the County as ArcView shapefiles or ArcInfo export files.

Weed Species Richness is measured by counting the number of weed (non-native) plant species present within a sample unit. A list of all non-native plant species observed during the project will also be provided.

Native Plant Species Richness is measured by counting the number of native plant species present within a sample unit. A list of native plant species encountered within the sample units or observed during the project will be provided.

Native Perennial and Grasses Cover is measured by estimating the percentage of ground covered by living and dead native perennial and native grass species within a sampling unit

Native Perennial and Grasses Density is measured by counting the number of individuals of each native species within a sampling unit and dividing by the area of that sampling unit.



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Appendix B

Restricted Activities and Required Approvals



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Grant Section	Restricted Activity or Use	Requires Approval From
3(d)	Construction of trails, access facilities, or improvements	Boulder City, USFWS
4(a)	All motorized vehicle activities off designated roads and trails	Prohibited
4(a)	Competitive and organized motorized vehicle events on designated roads and trails	DCP, USFWS
4(b)	Military maneuvers, clearing for agriculture, landfills, and any other surface disturbance that diminish habitat values	Prohibited
4(c)	Grazing by cattle, horses, burros, and domestic sheep	Prohibited
4(d)	Commercial collection of flora and fauna	Prohibited
4(e)	Non-commercial collecting of flora	DCP, USFWS, Boulder City, relevant state/federal agencies
4(f)	Non-commercial collecting of fauna	DCP, USFWS, Boulder City, relevant state/federal agencies
4(g)	Dumping, disposal of refuse, littering	Prohibited
4(g)	Application of herbicides or biocides	Prohibited
4(h)	Release of captive or displaced desert tortoises or other animals, except as part of an authorized translocation program.	DCP, USFWS
4(i)	Uncontrolled dogs out of vehicles.	Prohibited
4(j)	Construction of any physical improvement	DCP, USFWS, Boulder City
4(k)	Discharge of firearms, except in conjunction with hunting or trapping from September to March	Prohibited
5(b)	Post signs on or about the BCCE for prohibited and permitted uses	DCP, Boulder City
6(a)(1)	Non-intrusive monitoring of desert tortoise populations and habitat	Boulder City
6(a)(2)	Travel on and maintain designated and signed roads and trails	Boulder City
6(a)(3)	Non-consumptive recreation including hiking, bird watching, bicycling, horseback riding, and photography	Boulder City
6(a)(4)	Parking and camping in designated areas	Boulder City, DCP, USFWS
6(a)(5)	Fire suppression	Boulder City
6(a)(6)	Approved or controlled maintenance of utilities and ancillary structures.	Boulder City
6(a)(7)	Surface disturbances that enhance quality of wildlife habitat, watershed protection, or improve opportunities for non-motorized recreation	Boulder City
6(a)(7)	Construction of visitor centers, wildlife water projects, and camping facilities.	Boulder City
6(a)(8)	Population enhancement of native species	Boulder City
6(a)(9)	Non-manipulative and non-intrusive biological or geological research (by written permit).	Boulder City
6(b)(1)	Discharge of treated wastewater effluent onto an area defined in Exhibit B to the 2010 Amendment	Boulder City, USFWS
6(b)(2)	Construction of electrical, water, sewer, gas, drainage and other utilities to support the maintenance and operation of	Boulder City, USFWS



Grant Section	Restricted Activity or Use	Requires Approval From
	power generating facilities at sites within the energy zone	
6(b)(2)	Implement best practices for construction, maintenance, and operation of infrastructure within the BCCE in accordance with Exhibit D to the 2010 Amendment	Boulder City, USFWS, DCP
6(b)(3)	Construction of utility transmission lines to connect federal utility corridors or a federal utility corridor to an existing electrical substation	Boulder City, USFWS
6(b)(3)	Implement best practices for construction, maintenance, and operation of infrastructure within BCCE in accordance with Exhibit D to the 2010 Amendment	Boulder City, USFWS, DCP

Appendix C

Permit Request Process



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Requests for Third Party Activities on the Reserve Units

(Version 1_4, December 2012)

While the primary purpose of the Desert Conservation Program (DCP) reserve system properties is to provide mitigation for loss of covered species and their habitat, there are a variety of other allowable activities in the reserve system. The types of allowable uses vary among the reserve system properties as do requirements for formal, written permission for certain activities. Some reserve properties require written concurrence from landowners and/or the U.S. Fish and Wildlife Service. The below process will ensure that all requests for permission are properly evaluated, notifications are made, and request responses are tracked.

In general, activities on DCP reserve properties that disturb the soil outside of open roads and trails, remove rocks, vegetation, seeds or require handling or removal of animals (including insects or spiders) require written permission from the County. Hunting is one exception – the DCP does not process hunting requests but defers to Nevada Department of Wildlife permits, rules, and regulations. Hunting is allowed in the reserve system where allowable by state law and local ordinances.

Request requirements

All requests must be made in writing or by email. Minimum request details include:

- Requestor name and contact info
- Location of the activity
- Date of the activity (range of dates is acceptable)
- Description and purpose of the activity
- Description of any ground or species disturbance
- Description of collection of plant/animal/mineral or other materials

Request review

The DCP and permittee staff will route all requests to the Adaptive Management Coordinator. The Coordinator will review the request, seek additional details from the requestor, and seek comments from DCP staff and other experts as necessary. The Coordinator will enter the request info in a central tracking sheet and will be responsible for filing information in the appropriate reserve management network drive folder. <P:\DCP\Program Elements\Reserve Management\permission requests for use of reserves>

Before granting or declining any request, the Coordinator will consult the reserve unit management plan(s) for the affected area(s) and assess any existing approved activities. Coordination with other agencies and/or their written concurrence may be required before final decision is made on each request, and it is the responsibility of the Coordinator to seek and obtain required written concurrences.

Request status notification

Approval or rejection of each request, along with any conditions on the request, will be provided to the requestor in writing and filed in the appropriate network drive folder and a notation made on the tracking sheet. At a minimum the Adaptive Management Coordinator will notify all DCP staff assigned to work in the affected reserve system unit and/or manage contracts affected by approved



activities. Rejection of a request may be conveyed via email. Approval of a request should be made on the following form, and is not complete until the requestor returns a copy of the form with their signature and date.

**Request for Reserve Disturbance Permission**

Clark County Desert Conservation Program
PO Box 551741
Las Vegas, NV 89155-1741

dcp@ClarkCountyNV.gov
Phone: (702) 455-3536
Fax: (702) 382-4593

Requestor's name, email, phone number(s) and mailing address:

Permission is sought to conduct the following activities (describe or attach summary of methods description).

Activities:

Dates Requested:

Name of Desert Conservation Program Reserve:

This permission is not valid until a countersigned and dated copy of this form is received from the Clark County Desert Conservation Program. The undersigned shall indemnify, defend and hold harmless Clark County, Nevada and its officers, agents, and employees against any and all damages, claims, or causes of action arising from or in connection with the activities described on this form. The undersigned is responsible for compliance with all federal, state, and local laws, rules, and regulations. A copy of the final form must be with the undersigned at all times while conducting these activities on the reserve property.

Requestor's Signature

Date

Clark County Desert Conservation Program Signature

Date



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Appendix D

Contact Information for Management, Safety, and Services



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**Contacts****Property Management, Safety, and Services**

Agency	Phone Number	Purpose
Desert Conservation Program	702-455-3536	Property and Easement – Management
Boulder City Community Development Department	702-293-9282	Property and Easement – Management
Bureau of Land Management	702-515-5000	Utility Corridors – Management
Boulder City Fire Department	911	Fire – Emergency
		Medical – Emergency
	702-293-9228	Fire Station
Boulder City Police Department	911	Law Enforcement – Emergency
	311	Law Enforcement – Non-emergency
	702-293-9224	Police Station
Nevada Highway Patrol	911	Traffic – Emergency
	702-486-4100	Southern Command
Nevada Department of Transportation	775-888-7689	Highway Tortoise Fences – Maintenance
Bureau of Land Management / National Park Service	702-631-2350	Wildland Fire – Emergency
	702-515-5300	Interagency Communications Center – Non-emergency
	702-293-8932	Law Enforcement – Emergency
	702-293-8998	Law Enforcement – Non-emergency



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Appendix E

Management Actiona and Effectiveness Measures



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MANAGEMENT ACTIONS AND EFFECTIVENESS MEASURES

The primary purpose of a management plan is to provide guidance for selecting management actions that support or meet management objectives, and ultimately achieve management goals. The management actions for the BCCE have been identified from day-to-day management operations, as well as other actions necessary to meet the objectives and goals for managing the BCCE.

The following table includes the management objectives (noted as 1.0, 2.0, etc.) and the management actions (1.1, 1.2, 2.1, 2.2, etc.) related to each objective. Some management actions can fulfill more than one objective, and are noted in parentheses after the management action title. Management actions can be separate individual activities or be interrelated with other actions and sequential in implementation.

Each management action is presented in the following table by the columns that include:

- **Management Action Description:** a brief description of what the action entails and why it is important.
- **Reserve Parcel or Location:** the location in the BCCE or the particular reserve unit and reserve parcel(s) where the management action will take place.
- **Timeframe:** the year or time period in which the action will take place, such as weekly, quarterly, 2015, or one year after a previous management action is complete.
- **Lead:** the agency or entity that is responsible for implementing the management action.
- **Permit(s):** the approvals, written permissions, or permits required to initiate the management action.
- **Priority:** the importance of the action in meeting the management objectives and determines the priority for resources.
 - VH (very high): an action that is essential for meeting the management objective and requires immediate implementation to protect the resource.
 - H (high): an action that is essential for meeting the management objective and requires implementation in the near future to protect the resource.
 - M (medium): an action that is important but not essential for meeting the management objective or protecting the resource, and does not require implementation in the near future.
 - L (low): an action that is not essential to meeting the management objective or protecting the resource, and can be delayed until funding is available.
- **Cost:** an estimate of the financial cost (DCP labor, contractor labor) to complete the management action, and generally coincides with Clark County contracting and acquisition limits.
 - L (low): < \$25,000



- M (medium): \$25,000 to \$50,000
- H (high): \$50,000 to \$100,000
- VH (very high): > \$100,000
- **Effectiveness Measures:** a listing of metrics to be measured to assess the effectiveness (success) of the management action.
- **Frequency (of Effectiveness Measures):** when the effectiveness measures are reviewed, ranging from monthly to the end of a specific project.
- **Status:** current status and tracking of the management action.

The management action table is a tool to guide day-to-day management activities and is intended as a working document for the DCP to update, add to, and/or change actions as conditions warrant. Each update to the table should be tracked by entering a current date in the footer of the table.



Management Action Description	Location	Timeframe	Lead	Permit(s)	Priority	Cost	Effectiveness Measures	Frequency	Status
1.0 Restore and enhance habitat for desert tortoise									
1.1 Evaluate easement for the spatial extent and trends of desert tortoise occupancy									
Occupancy sampling pilot study determines spatial extent of desert tortoises and provides a baseline to detect changes in spatial extent and numbers of tortoises by which to identify and prioritize areas for habitat restoration/ enhancement.	BCCE; north and south study area plots	Multi-year study, as needed; 2013-2017	DCP, contractor	Boulder City, USFWS	H	VH	No effectiveness measures needed; quality assurance is part of pilot study data collection and management		Year 2 completed; beginning Year 3
1.2 Assess environmental variables that influence the spatial extent and trends of desert tortoise occupancy									
Covariates monitoring project assesses the relationship of desert tortoise occupancy with multiple environmental covariates (vegetation, substrate, topographic features, precipitation, distance to disturbances and habitat alteration, and management actions). The data will be used to develop a predictive model of where tortoises are and could be in the BCCE.	BCCE; north and south study area plots	Multi-year study; 2013-2015	DCP, contractors	Boulder City, USFWS	H	VH	No effectiveness measures needed; quality assurance is part of data collection and management		Soils, vegetation, and remote sensing contracts are ongoing
1.3 Identify and prioritize locations for habitat restoration and enhancement									
Statistically analyze data from occupancy sampling and covariates monitoring projects using PRESENCE model to prioritize areas for habitat restoration/enhancement.	BCCE; DCP office	After 1.1 and 1.2 are completed	DCP, contractor		H	L-M	Map of priority areas for habitat restoration	Upon completion of analysis	Not started
1.4 Develop restoration/enhancement plans for priority locations									
Use results from 1.3 to plan location, type, and extent of restoration/enhancement; determine if plans are prepared by DCP staff or by contract	BCCE; locations identified in 1.3	After 1.3 is completed	DCP, contractor(s)		M	M	Plans meet restoration goals and objectives, contract requirements, and are ready for implementation	Upon completion of each plan	Not started
1.5 Implement restoration/enhancement plans									
Prepare contract(s), schedule and implement plans	BCCE; locations selected from 1.4	After 1.4 is completed	DCP, contractor(s)	Boulder City, USFWS	M	H	Implementation meets restoration goals and objectives, contract requirements	Upon completion of each restoration project	Not started
1.6 Monitor and adaptively manage restoration/enhancement									
Establish success criteria and monitoring schedule; assess success of restoration/enhancement against criteria; continue/augment restoration actions to maintain investment	BCCE; locations selected from 1.5	After each restoration/ enhancement project is completed	DCP		VH	L	Restoration/enhancement plantings and topographic modifications meet success criteria	2-3 weeks after initial planting; according to monitoring schedule	Not started
1.7 Evaluate locations and options to reconnect habitat separated by infrastructure									
Incidental take permit and ecological theory state that tortoise populations should have internal connectivity. Connectivity is considered important within BCCE across major roadways (through culverts) and north to south on the east side of US 95.	BCCE	2015-2017 IPB	DCP, USFWS		M	L	Culvert connectivity study.	Upon completion of evaluation	Not started
2.0 Install and maintain infrastructure that controls tortoise movement									
2.1 Inspect tortoise fences, road crossing guards, gates, and culverts for maintenance needs									
Schedule and conduct periodic inspections of infrastructure; conduct inspections when opportunities arise or in conjunction with other activities	Along US 95, SR 165; BCCE perimeter	Prior to spring (March) and fall (September) tortoise seasons, after storm events	DCP, contractor/NDF, NDOT		VH	L	Location, length, and percent of tortoise fencing, road crossing guards, gates, and culverts inspected. Number, length, and percent of fencing, protective gates, and culverts needing repair	Yearly	Ongoing
2.2 Conduct emergency repairs and/or schedule maintenance repairs									
DCP staff can repair minor fence damage; contact NDF to schedule maintenance/repairs	Along US 95, SR 165; BCCE perimeter	As needed	DCP, contractor/NDF		VH	L	Completion of repairs, time period between notification and repair	After inspections, when needed	Ongoing



Management Action Description	Location	Timeframe	Lead	Permit(s)	Priority	Cost	Effectiveness Measures	Frequency	Status
2.3 Notify NDOT for highway fence repairs and culvert cleaning/maintenance									
Call NDOT point of contact to request maintenance crew; provide location and type of repair/maintenance needed	Along US 95, SR 165	Notify within 24 hours of observed damage	DCP (notify); NDOT (repairs)		VH	L	Completion of repairs, time period between notification and repair	After inspections, when needed	Ongoing
2.4 Identify locations for new or replacement tortoise fences, gates, and road crossing guards									
Use results from 2.1, 4.2, and 5.3 and from general observations of user activities and adjacent development to determine need to install new or replace infrastructure	Along US 95, SR 165, Eldorado Valley Drive, BCCE perimeter	Ongoing	DCP, NDOT		M	M	Locations identified	Ongoing	Not started
2.5 Install new or replace tortoise fences, road crossing guards, and gates									
Use results from 2.4; prepare scope of work and contract, complete installation	Where identified in 2.4	Within 1 year after 2.4 or identified need	DCP or NDOT	Boulder City, USFWS	M	M-H	Completion of installation, time period between notification and installation	Whenever installations are done	Not started
3.0 Manage direct threats to desert tortoise									
3.1 Evaluate prevalence of predators to determine need for control									
Begin a study that assessed abundance of predators (coyotes, ravens) and predation rates on desert tortoises	BCCE	2015	DCP, contractor	Boulder City	H	H	Study results meet goals and objectives and contract requirements, peer review of results		Not started
3.2 Evaluate effective predator control techniques									
Review outcomes of 3.1 predator assessment; evaluate recommendations, determine short- and long-term costs/benefits (effectiveness)	BCCE, where identified in 3.1	Within 1 year after 3.1	DCP		H	M-H	Techniques are practicable and feasible with measurable benefits.	After evaluation is completed	Not started
3.3 Develop plan to implement and monitor predator control techniques									
Based on results of 3.2, develop goals and objectives for predator reduction/control, prepare and implement plan; monitor status of meeting goals and objectives.	BCCE, where identified in 3.1	Within 1 year after 3.2, as needed	DCP, contractor	Boulder City, USFWS	H	M-VH	Predator reduction/control techniques meet goals and objectives and contract requirements are met	Incremental based on implementation schedule	Not started
4.0 Manage road network to support conservation and provide appropriate access for management and public use									
4.1 Inventory and identify (name) open and closed roads									
Named roads are useful for implementing management actions, public use, law enforcement, and safety; roads are inventoried and assigned a name/letter designation	BCCE	2013	DCP		H	L	Complete naming of roads, information available to public, staff, and law enforcement	Once	Completed
4.2 Determine travel patterns and usage									
Install traffic counters at different locations and at different times to evaluate travel patterns and frequency of use; use data for 5.2 law enforcement patrols	BCCE	Annually, seasonally, or as needed	DCP		H	M	Completed assessment of travel patterns and usage	After data is compiled from counters	Ongoing
4.3 Identify and prioritize road closures									
Use results from 4.2, 5.3, and other criteria to identify roads for closure	BCCE	Ongoing	DCP	Boulder City	H	L	Prioritized road closures	Once	Ongoing
4.4 Post and maintain open road signs									
Review open road network, post open road markers, replace damaged or faded markers	BCCE	Quarterly	DCP	Boulder City	VH	M	Monitor to ensure all open roads are posted and in good condition	Quarterly or as needed	Ongoing
4.5 Implement road closures									
Notify law enforcement, update maps/public information showing closed roads; install barriers (post and cable, boulders)	BCCE	Within 1 year of 4.3	DCP, contractor/NDF	Boulder City	H	L	Roads are designated as closed, closed roads are no longer used	Continually	Ongoing



Management Action Description	Location	Timeframe	Lead	Permit(s)	Priority	Cost	Effectiveness Measures	Frequency	Status
4.6 Develop restoration plans for closed roads									
Based on results of 4.5, prepare plan(s) to restore road to native habitat or hide/mask road presence; determine length of road to restore using data from 4.2 and 5.3; establish success criteria	BCCE	Within 1 year after road is closed	DCP		H	M	Plans are completed with goals and objectives for restoration and with all components needed for implementation	When restoration plans are completed	Not Started
4.7 Implement and monitor restoration of closed roads									
Implement plan(s) prepared for 4.6; prepare scope of work/contract; establish monitoring schedule; assess success of restoration against criteria; continue/augment restoration actions to maintain investment	BCCE	Within 1 year of 4.6	DCP, contractor	Boulder City	H	M	Restoration is completed and meets goals and objectives or plan and contract requirements; restoration success includes survival of planted material, permanence of topographic modifications, and non-use by vehicles	2-3 weeks after initial planting; according to monitoring schedule	Not Started
5.0 Provide law enforcement									
5.1 Maintain patrols by Boulder City peace officers									
Maintain and renew contract in accordance with Section 5(c) of 2010 grant amendment	BCCE	2015-2017 IPB	DCP	Boulder City	VH	VH	Funding for law enforcement included in biennial budgets	Biennially	2015-2017 IPB pending
5.2 Monitor and adjust patrol schedule and locations									
Review patrol reports from peace officers; adjust patrols based on season, public contacts, infractions, and discussions with officers	BCCE	Monthly, as needed	DCP	Boulder City	H	L	Assess hours, locations, and contacts; compare to public usage	As needed	Ongoing
5.3 Monitor and enforce prohibited uses									
Review patrol reports from peace officers for number, frequency, and type of prohibited use	BCCE	Ongoing	Boulder City Police, DCP		H	L	Number and trend of prohibited uses addressed by law enforcement	Monthly	Ongoing
5.4 Evaluate officer/public contacts for opportunities to improve patrols									
Review patrol reports and discuss the type, frequency, and location of public contacts with officers; update officers on DCP ongoing activities and public outreach/education initiatives	BCCE	Monthly	DCP	Boulder City	H	L	Measures of more effective patrols: contacts, elimination or reduction of problems/issues	As needed	Ongoing
6.0 Manage property to control invasive plant species and noxious weeds to reduce threat of fire									
6.1 Identify locations infested or susceptible to invasive plant species and noxious weeds									
Determine type of assessment (focused observations, comprehensive survey); record locations, identify species of concern	Primarily along roads, disturbed areas	In conjunction with 2.1, 4.5, 4.7, or 2015-2017 IPB	DCP, contractor/NPS		H	L-M	Assess areas surveyed and areas where invasive plant species and noxious weeds were found	Completion of assessment	started
6.2 Develop plan to eradicate or reduce invasive plant species and noxious weeds									
Use results from 6.1 to prepare treatment plan(s); prioritize treatment locations; establish success criteria	As identified in 6.1	Within 1 year of 6.1	DCP, contractor/NPS		H	L	Plan(s) is completed with goals and objectives for treatment and with all components needed for implementation	When plan(s) is completed	started
6.3 Implement the plan to eradicate or reduce invasive plant species and noxious weeds									
Implement plan(s) prepared in 6.2; prepare scope of work/contract	As identified in 6.1	Within in 1 year of 6.2	DCP, contractor/NPS	Boulder City, USFWS	H	L-M	Treatment/eradication is completed and meets goals and objectives or plan and contract requirements	After treatment is completed	started
6.4 Monitor locations for recurrence of invasive plant species and noxious weeds									
Establish monitoring schedule; assess success of treatment/eradication against criteria; schedule additional treatments as needed	As identified in 6.1	After each location is treated; seasonally	DCP, contractor/NPS		H	L-M	Monitor to area and/or numbers to assess eradication or reduction; eradication success is no or minimal recurrence of species	Seasonally	started



Management Action Description	Location	Timeframe	Lead	Permit(s)	Priority	Cost	Effectiveness Measures	Frequency	Status
7.0 Educate the public on allowable uses and current activities									
7.1 Establish a consistent brand and design for signs, kiosks, interpretive materials, and webpage									
Review recommendations of branding/interpretive planning master plan report (2011-LGA-910C); select a DCP brand and designs for signs, kiosks, and interpretive materials; pursue approval of brand and designs	BCCE	2014	DCP		H	H	Approved brand and design for signs, kiosks, interpretive materials, and webpage	Within 1 year of project completion	Branding contract completed; selection pending
7.2 Identify locations and maintain database for signs and kiosks									
Create/update inventory/database of locations of existing signs and markers; review recommendations of branding/interpretive planning master plan report (2011-LGA-910C); select preferred locations for interpretive signs/kiosks	Existing and selected locations	2014	DCP	Boulder City, BLM (as needed)	H	L	Locations for signage identified and approved; inventory/database updated	Within 1 year of project completion	Started
7.3 Post easement boundary signs									
Install signs to identify BCCE boundary; select appropriate locations for posting; review existing signs to determine if text adequately identifies boundary; determine need for contracted installation	BCCE perimeter	2014, 2015-2017 IPB	DCP	Boulder City	H	L-H	Appropriate locations of easement boundary are identified by signs	After signs are posted	Ongoing
7.4 Post "Limited Use Area" signs									
Install signs to identify limited use areas; select appropriate locations for posting; review existing signs to determine if text adequately defines and identifies limited use; determine need for contracted installation	BCCE	2014, 2015-2017 IPB	DCP	Boulder City	H	L-M	Appropriate locations of "Limited Use Area" are identified by signs	After signs are posted	Ongoing
7.5 Develop content, purchase, and install interpretive signs and kiosks									
Prepare scope of work and contract; based on results of 7.2, request right-of-way if selected location(s) is on BLM land	As identified in 7.2	2015-2017 IPB	DCP, contractor	Boulder City, BLM (as needed)	H	H-VH	Number and location, content, and installation of interpretive signs/kiosks selected. Interpretive signs/kiosks installed meeting contract requirements	At end of project	Not started
7.6 Monitor and maintain condition of all posted signs and kiosks									
Establish monitoring schedule, document condition of signs and kiosks, schedule maintenance/replacements as necessary	As identified in 7.2	Within 6 months of 7.3, 7.4, 7.5; quarterly thereafter	DCP, contractor		H	L-M	Signs and kiosks monitored on a selected schedule, damaged signs repaired or replaced within two weeks of discovery; damaged kiosks repaired within 3 months of discovery	Upon completion of monitoring	Started
7.7 Develop content, print, and distribute interpretive brochure(s)									
Prepare scope of work and contract; identify locations to distribute brochures; provide brochures to Boulder City peace officers	DCP, Boulder City, BCCE (by peace officers)	2015-2017 IPB	DCP, contractor		M	M-H	Brochures printed and meet the contract requirements, maintain distribution to users, assess where and who uses brochures	After brochures printed and distributed	Not started
7.8 Update information on BCCE webpage									
Use results of 7.1 to update look of webpage; use results from 9.1 to review, confirm accuracy, and update information on Boulder City code/ordinances, use results from 4.1 and 4.4 to update road information and map	BCCE	2014-2015	DCP		H	L	Information is accurate and updated	Upon completion of action	Not started
8.0 Manage allowable uses									
8.1 Monitor condition of three historic sites located on the BCCE									
Photo document condition of sites; establish schedule to monitor condition; develop plan of action if sites degrade or are vandalized	BCCE, north section	2014-2015; ongoing thereafter	DCP		M	L	Develop metrics to measure condition of historic sites	Based on monitoring schedule	Not started
8.2 Maintain relationships and coordinate with adjacent landowners to protect conservation values of the BCCE									
Establish schedule to communicate (formal and/or informal, as appropriate) with landowners on BCCE management actions, issues, and ongoing and pending projects	BCCE	As scheduled, as needed	DCP		H	L	Relationships with adjacent landowners is reviewed annually	Annually, at year end	Pending
8.3 Monitor and coordinate with utility companies to minimize impacts from existing and proposed transmission corridors and facilities									
Identify representatives for utility companies on, adjacent, or crossing BCCE (request assistance from Boulder City and/or BLM, if necessary); establish schedule to communicate (formal and/or informal, as appropriate) with representatives to exchange information	BCCE	As scheduled, as needed	DCP		H	L	Coordination and success of minimizing impacts is reviewed annually	Annually, at year end	Pending



Management Action Description	Location	Timeframe	Lead	Permit(s)	Priority	Cost	Effectiveness Measures	Frequency	Status
8.4 Review exceptions to prohibited uses (discharge of firearms) for conflicts with Boulder City Code and Ordinances and Nevada hunting regulations									
Review seasonal exception for discharge of firearms for hunting/trapping against seasonal NV hunting regulations for possible conflicts, and against Boulder City Code 7-1-3 for restricted distances; determine corrective action if conflicts exist	BCCE	2014-2015	DCP, NDOW	Boulder City	M	L	Possible conflict confirmed and resolved	After action is completed	Not started
8.5 Monitor location and effects of treated effluent discharge									
Establish schedule to monitor condition and location of discharge; photo document condition of discharge channel; develop plan of action if discharge channel creates nuisance and/or undesirable habitat	BCCE, north section	Quarterly, after storm event	DCP		H	L	Develop metrics to measure change in topography and vegetation	Quarterly	Not started
9.0 Manage prohibited uses									
9.1 Review and revise easement documents for conflicting uses and restrictions with Boulder City Code									
Review sections 4-Prohibited Uses and 5-Reserved Rights for possible conflicts with Boulder City codes/ordinances and future management of BCCE; for example, camping on BCCE and public parks/undeveloped land	BCCE	2014-2015	DCP	Boulder City	H	L	Possible conflict confirmed and resolved	After action is completed	Not started
9.2 Maintain fence and gate installed around pet cemetery									
Schedule inspections to monitor and maintain condition of fence and gate; repair and/or schedule repairs when damage is observed	BCCE, north section	Quarterly	DCP		H	L	Fence and gate maintained and repaired within a week of discovered damage	Quarterly	Ongoing
9.3 Monitor for and remove burials of animal remains outside the fenced pet cemetery area									
In conjunction with 9.2, monitor for burial activity outside fenced area; identify options to safely remove and location(s) for disposal of buried remains	BCCE, north section	Quarterly	DCP	Boulder City	H	L	Remove all burials outside of fenced pet cemetery within a week of discovery	Quarterly	Not started
9.4 Monitor known and potential locations of illegal dumping activity									
Establish schedule to regularly monitor locations of past dumping activities	BCCE	Quarterly	DCP		M	L	Location of trash and debris is known, leading to 9.5	Quarterly, as observed	Ongoing
9.5 Remove trash and debris from illegal dump sites									
Establish procedure and/or contract to safely remove materials from dump sites for disposal at appropriate landfill (construction debris, household trash, hazardous waste)	BCCE	Within 1-3 months of observation	DCP, contractor		M	L-M	Trend toward less trash and debris in the BCCE	Quarterly, after inspections	Ongoing/pending
9.6 Monitor for other prohibited uses									
In conjunction with inspections/monitoring of other actions, monitor site conditions and user activities for prohibited conduct; coordinate with Boulder City peace officers on observations and findings	BCCE	Ongoing	DCP		M	L	Trend toward less prohibited actions in the BCCE	Annually, at year end	Ongoing