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September 4, 2019

Ms. Trisha Osborne
Assistant Commission Secretary
Public Utilities Commission of Nevada
1150 East William Street
Carson City, Nevada 89701-3109

Re: Docket No. 12-07021; Filing of Environmental Statement

Dear Ms. Osborne:

Enclosed for filing in Docket No. 12-07021 please find an Environmental Statement for the Townsite Solar Project dated September 4, 2019 in support of the Amended Application of Townsite Solar, LLC filed in this docket on August 2, 2019.

If you have any questions about this filing, please do not hesitate to contact me at (702) 279-4040.

Best Regards,

/s/ Linda M. Bullen
Linda M. Bullen
Attorney for Skylar Townsite, LLC

ENVIRONMENTAL STATEMENT

Townsite Solar Project

September 4, 2019

Prepared for:

Townsite Solar, LLC
10 East 53rd Street, Floor 17
New York, NY 10022

Prepared by:



1041 Market Street #359
San Diego, California, 92101

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ACRONYMS AND ABBREVIATIONS

BCNV	City of Boulder City Nevada
BLM	Bureau of Land Management
BMP	Best management practices
BO	Biological Opinion
DAQ	Department of Air Quality
EA	Environmental Assessment
ES	Environmental Statement
GLO	General Land Office
IPaC	Information, Planning, and Consultation System
kV	Kilovolt
MW	Megawatt
NDOW	Nevada Department of Wildlife
NDEP	Nevada Division of Environmental Protection
NFPA	National Fire Protection Association
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Foundation
NVCRIS	Nevada Cultural Resources Information System
Project	Townsite Solar Project
PUCN	Public Utility Commission of Nevada
ROW	Right-of-way
UEPA	Utility Environmental Protection Act
USACE	U.S. Army Corps of Engineers
USGS	United States Geological Service
USFWS	United States Fish and Wildlife Service
USC	United States Code
WAPA	Western Area Power Administration

1.0 INTRODUCTION

This Environmental Statement (ES) analyzes the facilities proposed to be added to the Townsite Solar Project (the Project) after the issuance of the Environmental Assessment (EA) for the Project in 2013 (hereinafter referenced as the 2013 EA). Those facilities are as follows:

- 18 acres of additional solar panels;
- temporary water pipeline and permanent potable water pipeline;
- battery energy storage system (BESS); and
- 131-acre adjacent site containing solar panels and ancillary facilities

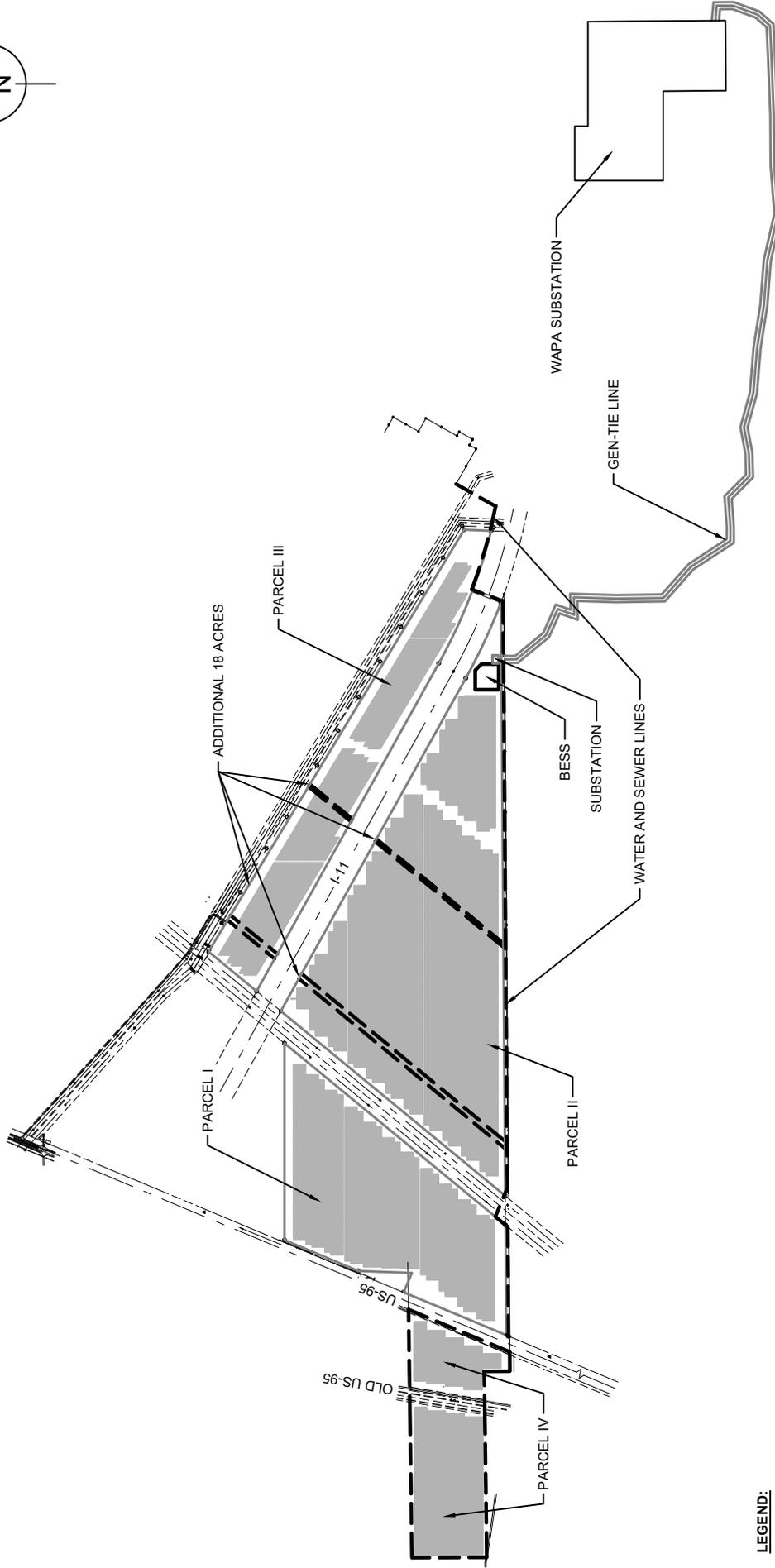
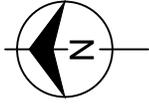
No other modifications have been made to the original solar project, transmission line (Gen Tie), megawatt (MW) output or interconnection; therefore, this ES addresses only the new project elements identified above. The EA for the Project was filed in Docket 12- 07021 on July 22, 2013 and will be referenced as appropriate within this ES.

2.0 PROJECT LOCATION

The complete Townsite Solar Project encompasses a total of 1083 acres including 1,033 acres of municipally-owned land for solar panels and ancillary equipment plus approximately 50 acres of land managed by the Western Area Power Administration for the right of way required for the 230-kV GenTie (Figure 1).

The additional solar facilities, BESS systems, and waterlines are primarily located on the 3 large tracks of land owned and leased by the City of Boulder City, the eastern edge of which is approximately 500 feet west of the Boulder City Wastewater Treatment Plant. The study area for the 2013 EA included approximately 902 acres within parcels I, II, III, and approximately 50 acres for the GenTie, these areas are outlined in solid gray on Figure 1.

The additional 131-acre expansion area is located on the west side of U.S. Highway 95 immediately to the west of the original project site. This area was not included in the June 2013 EA; therefore, it is addressed in this Environmental Statement.



LEGEND:

PREVIOUS SCOPE ———

ADDED SCOPE - - - - -

NOTE:

1. DRAWING CREATED WITH SURVEY INFORMATION PROVIDED BY:
E.G. RADIG, INC.
155 Foothill Dr., Suite 1
Boulder City, NV 89005
(702) 293-3330.

TOWNSITE
SOLAR, LLC



ENVIRONMENTAL
STATEMENT PROJECT
DESCRIPTION FIGURE 1

3.0 PROJECT DESCRIPTION

Each section below describes the additional project details; location; construction details; and operation details.

3.1 18-ACRES ADDITIONAL SOLAR PANELS

This 18-acres is located on City of Boulder City land within parcel number 186-19-000-002, which was evaluated in the 2013 EA. With the addition of these 18 acres, this portion of the project will now encompass 902 acres. These 18 acres were within the study area for the 2013 EA and therefore were previously evaluated in that document.

Construction will begin after obtaining all relevant permits. Construction is anticipated to begin in the third quarter of 2020 and continue for approximately 12-15 months with anticipated completion date by the end of December 2021. Construction will consist of clearing and grading the sites; and installing solar panels and ancillary facilities.

3.2 TEMPORARY AND PERMANENT WATER PIPELINES

Townsite Solar is proposing two water pipelines located on land owned by the City of Boulder City. These water lines are described below as follows:

3.2.1 Temporary Water Pipeline

A temporary water pipeline from the Boulder City Wastewater treatment plant will deliver wastewater to the Project during construction. This pipeline will be a temporary 8-inch above-ground effluent line made of C900 Poly Vinyl Chloride, with mechanical restraining joints which will extend from the Boulder City Wastewater Treatment Facility to the Project. The total length of the temporary pipeline will be approximately 15,000 linear feet (3 miles), most of the pipe will be within the footprint of the solar facility or along previously disturbed rights-of-way. The water pipeline will be above ground except where it crosses underneath the I-11 and a newly constructed utility corridor underneath I-95.

Construction of the temporary pipeline is anticipated to begin after all relevant permits are obtained, tentatively anticipated in the third quarter of 2020 and continue for approximately 3-6 weeks.

Ground disturbance for the pipe installation will be limited because the pipe will be laid on the existing surface grades. The Boulder City Wastewater Treatment Plant is about 500 feet east of the Townsite Solar Project, and construction access will be from the solar facility and/or existing roads surrounding the water treatment plant.

The proposed temporary water pipeline will provide up to 400 acre-feet of water for dust control and other construction activities for the Townsite Solar Project during the approximately 12-15 months of construction.

Once the temporary water pipeline is no longer needed to support Townsite's construction activities, the pipe will be removed. The removal process will consist of disassembling the pipe and loading the pipe onto trucks for re-use or recycling.

3.2.2 Permanent Water Pipeline

A second permanent 6-inch pipeline will be installed below ground to deliver potable water to the Project from an existing potable waterline on the northeast side of the Boulder City Wastewater Treatment Facility. This permanent pipeline will be an approximately 4,000 feet long. The pipeline will remain in place for the duration of the project.

Construction is anticipated to begin after all relevant permits are obtained, anticipated in third quarter of 2020 and continue for approximately 4-6 weeks.

During operations, it is anticipated that up to 5 (five) acre-feet (af) will be used each year for panel washing and domestic use in the operations and maintenance building. If the project is decommissioned, the pipeline will be removed in accordance with the terms of the lease agreement with the City of Boulder City.

3.3 BATTERY ENERGY STORAGE SYSTEM

The Townsite Solar BESS system will consist of a 90 MW (360 MW hour) battery energy storage system connected to the 230-kilovolt (kV) Gen Tie system. The BESS systems will be comprised of 3 major components including the battery (contains energy), the power conversion system (interfaces DC battery system to the AC power system), and the power plant control (monitors and executes functions of the BESS). This particular BESS will include at least 30 separate steel equipment containers, each housing a 3MW – 12MW hour lithium ion battery energy storage system with space to accommodate future storage. The BESS will be located on approximately 4 acres of land next to the proposed Townsite Solar Substation within the study area for the original EA, on parcel 186-19-000-002.

Construction of the BESS system will commence after all relevant permits are obtained, which is anticipated to be the third quarter of 2020, and will continue in conjunction with the construction of the 902-acre solar facility. After the site is cleared and graded, the components for the BESS will be delivered and assembled on-site.

During operation of the solar facility, the BESS system will be used to store surplus energy to bridge intermittency gaps by discharging the stored electricity into the grid when electricity demand is high. This helps to maintain grid balance to meet electricity demand. The BESS storage system allows Townsite to store energy generated during the day for use later when solar is not available or when demand for electricity is higher. The power plant control system will have safety mechanisms in place to ensure that a maximum of 180MW is delivered at the point of delivery at the Mead 230 kV substation pursuant to the interconnection agreement with Western Area Power Administration (WAPA).

The BESS will be constructed and operated in accordance with all applicable guidelines, including the National Fire Protection Association (NFPA) guidelines NFPA 1 Fire Code and NFPA 70 National Electrical Code.

Typically, BESS batteries have a lifecycle of 7,300 charges, or about 20 years if discharged once per day during peak demand. It is anticipated that batteries will be added and/or replaced as needed to maintain the BESS capacity at 90 MW/ 360 MWh. Old batteries will be recycled or disposed of in accordance with relevant federal, state, and local guidelines.

If the project is decommissioned, the BESS will be removed in accordance with the terms of the lease agreement with the City of Boulder City. Batteries will be recycled or disposed of in accordance with relevant federal, state, and local guidelines.

3.4 131-ACRES EXPANSION AREA

Townsite Solar LLC is proposing to add 131 acres of solar panels and ancillary facilities to the Townsite Solar site in order to achieve an energy output of 180 MWs. This area of the solar plant and BESS is located on land owned by the City of Boulder City and leased to Townsite Solar LLC on Accessors Parcel numbers 189-23-101-001 and 189-23-501-001. As depicted on Figure 1, the approximate 265-foot-wide area running from north to south within parcel IV within the 131 acres will not be developed to avoid a gas line and the old abandoned US highway 95. This area was not included in the original study area for the 2013 EA.

Construction will begin after obtaining all relevant permits. Construction is anticipated to begin in the third quarter of 2020 and continue for approximately 12-15 months with an anticipated completion date by the end of December 2021. Construction activities will consist of clearing existing vegetation; grading the site; installing foundations and solar panels; fencing the site perimeter; and connecting the power to the main solar facility through the new utility's corridor underneath U.S. Highway 95.

If the project is decommissioned, the solar facility will be removed in accordance with the terms on the lease agreement with the City of Boulder City.

4.0 ENVIRONMENTAL RESOURCES

This chapter discloses the environmental baseline in the project area, the potential project-related impacts to each resource, and the mitigation measures that will reduce project-related impacts on each resource. As set forth above, the 18-acres of additional solar panels, BESS system, and the water pipelines are in the original project study area; therefore, in many cases the baseline data, project-related impacts, and mitigation measures will be the same as denoted in the original EA, as such these will be summarized and incorporated by reference.

4.1 AIR QUALITY

The following sections describe the existing air quality in the project area, potential project-related impacts to air quality; and mitigation measures to reduce project-related impacts.

4.1.1 Existing Environment

The Federal Clean Air Act and subsequent amendments have provided the authority and framework for U.S. Environmental Protection Agency (EPA) regulation of air emission sources. The EPA regulations serve to establish requirements for the monitoring, control, and documentation of activities that affect ambient concentrations of certain pollutants that may endanger public health or welfare. Geographic areas are designated as attainment, non-attainment, or unclassified for each of the National Ambient Air Quality Standards (NAAQS) six criteria pollutants including carbon monoxide (CO), lead (pb), nitrogen dioxide (NO₂), particulate matter 10 (PM₁₀), fine particulate matter 2.5 (PM_{2.5}), ozone (O₃), and sulfur dioxide (SO₂). If sufficient monitoring data are available and air quality is shown to meet the NAAQS, the USEPA may designate an area as an attainment area. Areas in which air pollutant concentrations exceed the NAAQS are designated as non-attainment for specific pollutants and averaging times. Typically, non-attainment areas are urban regions and/or areas with higher-density industrial development. Because an area's status is designated separately for each criteria pollutant, one geographic area may have more than one classification. The Clark County Department of Air Quality (DAQ) has been delegated the authority under the provisions of Nevada Revised Statute 445B.5000 and by direction of the Clark County Board of County Commissioners to implement and enforce an air pollution control program in Clark County NV.

Currently, Clark County meets the PM_{2.5}, NO₂, and CO NAAQS, and is unclassifiable for lead and sulfur dioxide. The County is developing a maintenance plan for PM₁₀. Clark County was re-designated to attainment for carbon monoxide in 2010 (Federal Register Vol. 75, No. 145, July 29, 2010), was re-designated to attainment for PM₁₀ in 2010 (Federal Register Vol. 75, No. 148, August 3, 2010), and was re-designated to attainment for ozone in 2011 (Federal Register Vol. 76, No. 60, March 29, 2011).

Existing sources of criteria pollutants in the vicinity of the project area include the Boulder City Municipal Airport, the Eldorado Energy power plant and associated helipad, windblown dust, fugitive dust from off-road vehicle use, and emissions and fugitive dust from vehicles traveling on Eldorado Valley Drive, US 95 and US 93/US I-11.

Ambient air quality monitoring stations do not exist within the project area. The nearest station, which monitors ozone and PM₁₀ is located directly about 3 miles to the northeast of the project area.

4.1.2 Environmental Consequences

Air emissions for the project modifications within the original study area are expected to be consistent with the original analysis in the 2013 EA. To reiterate, construction of the project will result in localized, short-term increases in fugitive dust (PM₁₀) emissions. This increase will be as a result of soil disturbance, primarily grading and grubbing activities. Some criterial pollutant

emissions during construction will result from employee and construction vehicles and heavy equipment. Operation of the solar facility is not expected to affect air quality.

Air emissions for the 131-acre expansion area are expected to be consistent with those summarized above from the EA. Mainly effects to air quality will be minor and short term only during construction and chiefly associated with fugitive dust during site grading activities.

4.1.3 Mitigation Measures

To reduce the impacts to air quality the following mitigation measures and best management practices (BMP) will be implemented as part of the project:

- The applicant will obtain the proper air quality permits from the Clark County DAQ for projects that disturb over 0.5 acre of land. The air quality permit may require submittal of a dust control plan, which will include appropriate mitigation measures as dictated by the Clark County DAQ.
- Prior to construction activities, all construction areas will be staked and flagged. Disturbance areas will be limited to only the necessary areas.

4.2 GEOLOGICAL RESOURCES

The following sections discuss the existing environmental condition for geological resources; potential project impacts to geological resources; and mitigation measures to reduce impacts to these resources.

4.2.1 Existing Environment

Geological Resources for the modifications of the project in/adjacent to the original study area are the same as those disclosed in the Townsite EA submitted in June 2013. Generally, the Eldorado Valley is within the southern portion of the Basin and Range Province characterized by north-south trending valleys, bounded by normal faults, with alluvial fill underlain by older bedrock units. The proposed facility will be located on alluvial soils in the Eldorado Valley. The Valley is situated on an alluvial fan and consists of alluvial, aeolian, and playa deposits which are surrounded by steeply sloping alluvial aprons of gravel and sand deposits (US Department of Agriculture, Natural Resources Conservation Service 2006). According to the Supplemental Environmental Impact Statement for the Clark County Regional Flood Control District (Clark County Regional Flood Control District, 2004), the Quaternary alluvial deposits that cover most of the valley floors (Las Vegas Valley and Eldorado Valley), including the Project site, have little or no paleontological potential.

4.2.2 Environmental Consequences

Consistent with the analysis in the 2013 EA, project modifications and the 131-acre expansion area will disturb approximately 1,100 acres of soil, which will cause a higher potential for erosion by wind and water.

4.2.3 Mitigation Measures

To reduce impacts to soils, project area will be staked and flagged prior to construction. Surface disturbance will be limited to the minimum area necessary for construction.

4.3 HAZARDOUS MATERIALS

The following section discuss the existing environment for hazardous materials; potential project impacts; and mitigation measures that will be required to reduce project-related impacts to hazardous materials.

4.3.1 Existing Environment

Two Phase I Environmental Site Assessments were conducted for the project site in, one in 2012 for the original site area as disclosed in the EA and one completed in April 2019, which accessed the entire original project plus the proposed modifications subject to this ES. Parcels have not been previously developed with structures. No on-site recognized environmental conditions (RECs) or off-site RECs were identified (Ninyo and Moore 2012, 2019). Small amounts of solid waste and stained soil were found throughout the Project Site but are considered *de minimis* (Ninyo and Moore 2019). Review of environmental databases and files from Nevada Department of Environmental Protection (NDEP) indicated that 4 facilities in the vicinity (the closest of which is ~ 1 mile) have handled hazardous materials or petroleum products and/or have been listed as having reported releases these substances; however, based on distance, gradient, and regulatory closure of these facilities and/or assumed groundwater flow direction, it is not likely that any of the listed facilities represent an environmental concern.

4.3.2 Environmental Impacts

Consistent with the analysis in the 2013 EA, project modifications and the 131-acre expansion area will generate solid waste in the form of soil and brush from clearing, grubbing, and grading and excess building materials associated with installation of the solar generating facilities and Gen Tie.

4.3.3 Mitigation Measures

Solid waste generated during construction will be transported for disposal at a licensed waste management facility.

4.4 WATER RESOURCES

The following sections discuss the existing environmental condition for ground and surface water resources; potential project impacts to water resources; and mitigation measures to reduce impacts to water resources.

4.4.1 Existing Environment

Water Resources for the modifications of the project in/adjacent to the original study area are the same as those disclose in the Townsite EA submitted in June 2013. To reiterate, the Eldorado Valley is a designed groundwater basin 167. NDEP (<http://water.nv.gov>) on-line records list a borehole, Well Driller's Report Number 62794, approximately 2 miles south of the site, adjacent to the U.S. Highway 95. The depth to static groundwater in the borehole was measured at 230 feet below land surface in January 1997. In October and November of 2012, Ninyo & Moore advanced soil borings to 25 feet below land surface during preliminary geotechnical studies near the original project site for construction of I-11. No perched groundwater was encountered. No registered groundwater wells are located within the proposed project area. An updated search of NDEP records disclose that well sites in the vicinity had reported static water level readings in excess of 300 feet below grade (Ninyo and Moore 2019).

Regarding surface water, the U.S. Army Corps of Engineers consider Eldorado Valley is a closed basin; surface water runoff flows to the Eldorado Dry Lake. No permanent water sources are present in the original project study area (Ninyo and Moore 2019). No wetlands exist within the study area.

Water Resources in the 131-acre expansion area are similar to those described above as this area is also located in the Eldorado Valley basin and water runoff flows to the Eldorado Dry Lake. No permanent water or wetlands are present in the expansion site. Groundwater depth is expected to be similar as the above-referenced borehole is closer to this area.

4.4.2 Environmental Consequences

As disclosed in the 2013 EA, project modifications within the original study area are expected to be the same; however, the projected water use has been refined since the 2013 EA. It was estimated in the EA that 1,000-acre feet of water will be used during construction of project facilities; however, that estimate has been refined to 400-acre feet. Water will mainly be used for dust control. Excavations during construction are not expected to be deep enough to intercept groundwater.

Environmental impacts for the 131-acre expansion area will be the same as those disclosed above.

4.4.3 Mitigation Measures

Mitigation measures are not warranted because no impacts to ground or regulated surface waters will occur.

4.5 VEGETATION

The following sections discuss the existing environmental condition for plant species; potential project impacts to plants, and mitigation measures designed to reduce impacts to plants.

4.5.1 Existing Environment

Vegetation for the modifications of the project in/adjacent to the original study area are the same as disclosed in the EA submitted to the PUCN in June of 2013. To reiterate, vegetation in area is Mojave Creosote Bush Scrub dominated by bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*) with some other species such as four-winged salt brush (*Atriplex canescens*), cheesebush (*Hymenoclea salsola*), and broom snakeweed (*Gutierrezia sarothrae*). Very few cactus were found in the survey area.

For the 131-acre expansion area, an experienced botanist surveyed the entire expansion site by pedestrian surveys in June 2019 and identified two ecological sites (classified as LIMY3-5" P.A. and Valley Wash), which had similar vegetation. The most common species were creosote bush, white bursage, beavertail cactus (*Opuntia basaiaris*), red brome (*Bromus rubens*), and littleleaf ratany (*Krameria erecta*). In the Valley Wash ecological site catclaw acacia (*Acacia greggii*). Specifically, the project area had a total of 51 plant species, including 8 cactus species. No federal- or state-sensitive plants were identified within the site. No unique habitat was identified. Invasive weeds observed included red brome and Sahara mustard. Sahara mustard is the only Nevada-listed noxious weed in the area and densities were very low, accounting for approximately 1% of cover.

4.5.2 Environmental Consequences

Construction of the additional solar panels on additional 18 acres the BESS system, waterlines s will occur within the original project study area. Impacts to vegetation will be the same as denoted in the 2013 including adjacent habitat modification and the potential spread of noxious weeds.

Construction of the additional expansion area will remove an additional 131-acres of Mojave Desert habitat that include areas of catclaw acacia trees and cactus.

4.5.3 Mitigation Measures

To reduce the impacts to vegetation and prevent the spread of noxious weeds, the following mitigation measures and BMPs will be implements as part of the proposed project:

- Prior to construction activities, the project elements will be staked and flagged. Surface disturbance will be limited to the minimum area necessary for installation of the water. The applicant will make every effort to avoid vegetation disturbance, and where disturbance is necessary, to minimize vegetation removal and permanent vegetation loss at construction sites.

- No overland vehicle travel will occur outside the project site or areas not already in use as roads.
- The applicant shall clean vehicles before arriving on the project site. Soil and plant parts will be removed from vehicles including tires and undercarriages to prevent the introduction and spread of non-native weed species and/or noxious weed species.

4.6 WILDLIFE

The following sections discuss the existing environment for wildlife species including federally protected and state-protected wildlife; potential project impacts to wildlife; and mitigation measures designed to reduce impacts to wildlife.

4.6.1 Existing Environment

This subsection summarizes the existing environment for general wildlife, desert tortoise, other state protected reptiles, and migratory birds.

General Wildlife

Wildlife in the original project in/adjacent to the original study area the same as disclosed in the EA submitted to the PUCN in June of 2013. To reiterate, several reptile species were observed during the 2011 desert tortoise field surveys including the Great Basin whiptail (*Cnemidophorus tigris*), and desert horned lizard (*Phrynosoma platyrhinos*). The only mammal species observed was the black-tailed jack rabbit (*Lepus californicus*), but evidence of kit fox (*Vulpes macrotis*), coyote (*Canis latrans*) and various rodents were observed. The presence of burrows and droppings suggests the presence of common Mojave Desert rodent inhabitants such as cactus mice (*Peromyscus* spp.), and kangaroo rats (*Dipodomys* spp.).

The additional 131-acre project expansion area supports the same wildlife characteristic of the Mojave Desert as disclosed in the 2013 EA. Additionally, Allied Pacific Partner's biologists have monitored other nearby projects in 2018 and observed species such as desert iguana (*Dipsosaurus dorsalis*), whiptail lizard (*Aspidoscelis* sp.), desert horned lizard (*Phrynosoma platyrhinos*), desert glossy snake (*Arizona elegans*), Mojave rattlesnake, and sidewinders (*Crotalus cerates*).

Desert Tortoise

If basic habitat requirements are met, the desert tortoise can survive and reproduce within the varied vegetation communities of the Mojave region (USFWS 1994). These requirements include sufficient suitable plants for forage and cover, suitable substrates for burrow and nest sites, and freedom from disturbance. Throughout most of the Mojave region, the desert tortoise occur primarily on flats and bajadas with soils ranging from sand to sandy-gravel characterized by scattered shrubs and abundant inter-shrub space for herbaceous plant growth. They are also found on rocky terrain and slopes. As

disclosed in the Townsite EA (June 2013), desert tortoise surveys were completed for the original project area. No tortoise were observed, but tortoise sign including active burrows were observed in the area. Biologists also conducted desert tortoise surveys in the area in April 2012 and May 2013 to determine tortoise density in the area. No tortoise was found so tortoise population could not be estimated. Some active burrows were observed.

Similarly, the 131-acre expansion area, Tortoise surveys were conducted in October 2018 in compliance with U.S. Fish and Wildlife Services (USFWS) Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (*Gopherus agassizii*), version August 31, 2017. All biologist had extensive local experience surveying for desert tortoise in the Eldorado Valley. No tortoise or tortoise sign were observed and tortoise density in the action area could not be estimated.

Other State Protected Reptile

The Gila monster is classified as a State sensitive reptile (Nevada Administrative Code [NAC] 503.080) and is protected under Nevada state law (NAC 503.090 and NAC 503.093). The geographic range and habitat of the Gila monster overlaps with that of the desert tortoise. This venomous lizard is found below 5,000 feet elevation on rocky slopes and landscapes of upland desert scrub interspersed with desert washes (NDOW 2012). Both the original project area and the 131-acre expansion area contain habitat suitable for Gila monster.

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act of 1918 and subsequent amendments, which state that it is unlawful to take, kill, or possess migratory birds. Additionally, numerous bird species travel through Nevada during spring and fall migrations. A complete list of protected birds is found in 50 Code of Federal Regulations 10.13 and published in the Federal Register Vol.78 No. 212, November 1, 2013. The list of birds protected under this regulation is extensive and the project area has potential to support many of these species. A particular species of concern is the Western burrowing owl. During the breeding season (from February through July) is when these species are most sensitive to disturbance.

4.6.2 Environmental Consequences

The following sections disclose the potential impacts to wildlife species including desert tortoise, other state-sensitive reptiles, and migratory birds.

General Wildlife

Construction of the project modifications (including solar panels, BESS system, and water pipelines) will remove approximately 902 acres of wildlife habitat within or

directly adjacent to the original project study area, for a total of 902 acres. Wildlife may be displaced, injured, or killed during construction activities.

For the expansion area, an additional 131 acres of habitat will be removed. Impacts to wildlife will be the same for those disclosed in the original EA and summarized above.

Desert Tortoise

Impacts for the project modifications will be the same as disclosed in the 2013 EA. Tortoise may be killed or injured during construction activities. During construction, operation, maintenance, and decommissioning activities (if the project is decommissioned), increased human activity and construction vehicle traffic may also result in tortoise/vehicle collisions that result in tortoise injury or death. Tortoise may take shelter under parked vehicles and be killed, injured, or harassed.

Predators such as ravens, coyotes, or other raptors may be attracted to the construction site due to an increase in food and water opportunities including construction site litter and voluntary feeding from construction staff, or other opportunities. An increased presence of predators could lead to a predation increase on smaller, more vulnerable tortoises.

Ground disturbing activities during construction may result in an increase of noxious and invasive plant species in the area. Construction machinery may facilitate the spread of existing noxious or invasive species throughout the site or may facilitate the introduction of new noxious weeds or invasive species. Noxious and invasive plants may displace native species that provide forage for tortoises.

Impacts to tortoise in the expansion area will be similar to those disclosed above and remove an additional 131-acres of desert tortoise habitat.

Other State Sensitive Reptiles

Impacts to the Gila monster during construction of the project modifications will be the same as disclosed in the 2013 EA. In summary, Gila monsters could be injured or killed during construction, operation, maintenance, or decommissioning (if the project is decommissioned) activities. Indirect effects may include habitat fragmentation and disruption of normal activity patterns. Gila monsters also may be disturbed by noise from construction.

Impacts to the expansion area will be similar to those disclosed above and an additional 131-acres of habitat will be removed.

Migratory Birds

Impacts to migratory birds for project modification elements will be the same as disclosed in the 2013 EA. Migratory birds could be injured or killed during construction activities such as vegetation removal and grading activities. Adult birds may be able to flee the area; however, during migratory bird nesting season, eggs and juvenile birds that are confined to nests may be killed. During operation of the facility birds may be injured, electrocuted, or killed from collisions with power lines or construction vehicles.

For the expansion area, an additional 131-acres of bird habitat will be removed. Impacts to migratory will be the same as those discussed above.

4.6.3 Mitigation Measures

The following discusses the mitigation measures to be implemented for general wildlife, desert tortoise, other state-protect reptile species, and migratory birds.

General Wildlife

The following mitigation measures will be implemented as part of the proposed project to reduce impacts to general wildlife and sensitive species in the area:

- Prior to surface disturbing activities, the project areas will be staked and flagged. Surface disturbance will be limited to the minimum area necessary for construction and installation of the water pipelines.
- Vehicles will be limited to the project area and identified access routes. Overland travel will not be permitted outside the project area, unless such travel occurs over existing roads.
- Vehicle speeds will not exceed 25 miles per hour (mph) on unpaved roads or 10 mph during overland travel or those speed limits as outlined in the dust control plan, whichever is more stringent.
- All trash as food items will be disposed of in proper containers. No food or liter will be left in the project areas.

Desert Tortoise

The project modifications and the 131 acres expansion area occur on private land and impacts to desert tortoise are authorized under Section 10 of the Endangered Species Act and the Clark County Multiple-Species Habitat Conservation Plan (MSHCP). Under this permit, Townsite Solar will have to pay desert tortoise mitigation fees for disturbance of desert tortoise habitat. Under the MSHCP, no other mitigation is required; however, Townsite Solar will implement the following mitigation measures:

- The Worker's Environmental Awareness Plan (WEAP) that will be implemented on federal land (for construction of the GenTie in the WAPA corridor) will be

presented to construction workers with some modifications. Mainly, if a tortoise is observed on private land, all construction works will stop in the immediate area, and the supervisor will call the Clark County Desert Conservation Program's Wild Desert Tortoise Assistance Line at 702-593-9027.

- The temporary waterline will be monitored regularly to check for leaks and ponding water that may attract tortoises. Leaks will be fixed within a reasonable period of time.

Other Reptile Species

In addition to the mitigation measures and BMPs to protect general wildlife, construction staff will follow the NDOW's Identification and Reporting Protocols to reduce impacts to Gila monsters (Appendix A). Additionally, identification and handling of Gila monsters are discussed in the WEAP that will be developed for the project.

Migratory Birds

The applicant will follow the guidelines denoted in the USFWS's *Protecting Burrowing Owl at Construction Sites* pamphlet (Appendix B).

4.7 CULTURAL RESOURCES

The following sections discuss the existing environment for cultural resources in the area; potential project-related impacts; and mitigation measures designed to reduce impacts to cultural resources.

4.7.1 Existing Environment

Section 106 of the National Historic Preservation Act (NHPA), as amended (16 United States Code 470 et seq.), requires federal agencies to take into account the effects of their actions on properties listed or eligible for listing on the National Register of Historic Places (NRHP). The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- D. That have yielded, or may be likely to yield, information important in prehistory or history.

The portion of the Project that is on WAPA land is subject to compliance with Section 106 of the National Historic Preservation Act as it is considered a federal undertaking. Section 106 requires federal agencies to consider the effects of their actions on historic properties and to consult with SHPO. A Class III Cultural Report previously was completed for the portion of the project on federal land and within the area of the project that was considered a non-federal connected action (i.e. the original Townsite Solar Facility study area). No sites were found that were eligible for listing on the National Register of Historic Places (NHRP) (NewFields 2013).

On July 10 through 12, 2019, EnviroSystems Management, Inc. (EnviroSystems or ESM) conducted a cultural resources inventory on 131 acres in Eldorado Valley on behalf of Allied Pacific Partners, Inc. All 131 acres are within a single trapezoidal-shaped polygon on the western margin of Eldorado Valley, near the modern alignment of US Highway 95. The entire project area was surveyed at a 30-m transect interval and at a Class III level of intensity. Importantly, EnviroSystems holds a Nevada Antiquities Permit through the Nevada State Museum (Permit No. 510) and a Bureau of Land Management Cultural Resources Use Permit (Permit No. N-84082). The only previously recorded site present in the project area is the old alignment of US Highway 95 (26CK6246) and it has already been determined eligible to the NRHP. This particular site has also been recorded as an architectural resource (State Historic Preservation Office/SHPO Nos. S222 & S1487). It is still used for local traffic, but no longer maintained by the Nevada Department of Transportation or any other entity. Although the highway can still be used as a travel corridor, any future undertaking should not disturb it in any other way.

All eight of the newly documented archaeological sites found in the polygon are Euroamerican artifact scatters that date from the 1930s and into the modern period. Five of them are secondary refuse dumps of various sizes (26CK10754, 26CK10755, 26CK10756, 26CK10757, 26CK10758); whereas three others are food and beverage consumption stations (26CK10760) and/or some other kind of limited activity stations (26CK10759, 26CK10761). None of these sites can be associated with any events that have made a significant contribution to the broad patterns of history (Criterion A); nor can they be associated with any historic person(s) (Criterion B); their assemblages do not reflect the characteristics of a type, period, or method of construction (Criterion C); finally, none of them can address any research domains or related questions about the historic occupation of Eldorado Valley or southern Nevada (Criterion D). Therefore, EnviroSystems recommends that these eight sites are “not eligible” to the NRHP under any criteria. In addition, all of the available information for the two isolates were collected during the inventory and they, too, are recommended “not eligible” to the National Register under any criteria.

4.7.2 Environmental Consequences

Because no sites eligible for listing under the NRHP were found in the original Townsite Solar Project study area, no impacts to cultural resources will occur as a result of constructing the project modifications, including the additional solar panels, waterlines, and BESS system.

131-acre Expansion

One site listed as eligible for listing under the NRHP was found within the 131-acre site; however, no project-related impacts are anticipated as the project design will avoid the old US Highway 95.

4.7.3 Mitigation Measures

No cultural resources eligible for listing under the NRHP were found within the federal land and the one site eligible for NRHP listing in the 131 acres footprint would be avoided; therefore, no mitigation measures are required.

5.0 CONCLUSION

Construction of the Townsite Solar Project modifications and 131-acre expansion area has the potential to impact various environmental resources; however, these impacts will be reduced by obtaining all required permitting and implementing the mitigation measures disclosed throughout this document and/or associated with the required permits.

5.1 REFERENCES

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Nevada Department of Wildlife (NDOW). 2012. Gila monster status, identification and reporting protocol for observations. NDOW Southern Region. September 7.

US Fish and Wildlife Service (USFWS). 2017. Preparing for any action that may occur within the range of the Mojave Desert tortoise (*Gopherus agassizii*)

6.0 PREPARED BY

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APPENDIX A: GILA MONSTER STATUS, IDENTIFICATION AND REPORTING PROTOCOL FOR OBSERVATIONS



NEVADA DEPARTMENT OF WILDLIFE

Southern Region

4747 W. Vegas Drive, Las Vegas, Nevada 89108

Phone: 702-486-5127, Fax: 702-486-5133



7 September 2012

GILA MONSTER STATUS, IDENTIFICATION AND REPORTING PROTOCOL FOR OBSERVATIONS

Gila Monster Status

- Per Nevada Administrative Code 503.080, the Gila monster (*Heloderma suspectum*) is classified as a Protected reptile.
- Per Nevada Administrative Codes 503.090, and 503.093, no person shall capture, kill, or possess any part thereof of Protected wildlife without the prior written permission by the Nevada Department of Wildlife (NDOW).

This species is rarely observed relative to other species which is the primary reason for its Protected classification by the State of Nevada. The USDI Bureau of Land Management has recognized this lizard as a sensitive species since 1978. Most recently, the Gila monster was designated as an *Evaluation* species under Clark County's Multiple Species Habitat Conservation Plan (MSHCP). The evaluation designation was warranted because inadequate information exists to determine if mitigation facilitated by the MSHCP would demonstrably cover conservation actions necessary to insure the species' persistence without protective intervention as provided under the federal Endangered Species Act.

The banded Gila monster (*H.s. cinctum*) is the subspecies that occurs in Clark, Lincoln, and Nye counties of Nevada. Found mainly below 5,000 feet elevation, its geographic range approximates that of the desert tortoise (*Gopherus agasizii*) and is coincident to the Colorado River drainage. Gila monster habitat requirements center on desert wash, spring and riparian habitats that inter-digitate primarily with complex rocky landscapes of upland desert scrub. They will use and are occasionally encountered out in gentler terrain of alluvial fans (bajadas). Hence, Gila monster habitat bridges and overlaps that of both the desert tortoise and chuckwalla (*Sauromalus ater*). Gila monsters are secretive and difficult to locate, spending >95% of their lives underground.

The Gila monster is the only venomous lizard endemic to the United States. Its behavioral disposition is somewhat docile and avoids confrontation. But it will readily defend itself if threatened. Most bites are considered illegitimate and consequential to harassment or careless handling. These lizards are not dangerous unless molested or handled and should not be killed.

Scant information exists on detailed distribution and relative abundance in Nevada. The Nevada Department of Wildlife (NDOW) has ongoing management investigations addressing the Gila monster's status and distribution, hence additional distribution, habitat, and biological

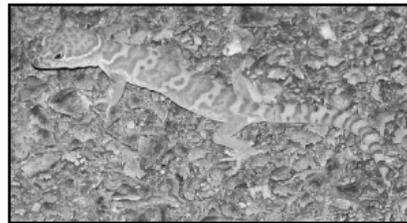
information is of utmost interest. In assistance to gathering additional information about Gila monsters in Nevada, NDOW will be notified whenever a Gila monster is encountered or observed, and under what circumstances (see Reporting Protocol below).

Identification



The Gila monster is recognizable by its striking black and orange-pink coloration and bumpy, or beaded, skin. In keeping with its namesake, the banded Gila monster retains a black chain-link, banded appearance into adulthood. Other lizard species are often mistaken for the Gila monster. Of these, the non-venomous western banded gecko (*Coleonyx variegatus*) and non-venomous chuckwalla are most frequently confused with the Gila monster. All three species share the same habitats.

The western banded gecko is often mistakenly identified as a baby or juvenile Gila monster. Western banded geckos do have a finely granular skin and pattern that can be suggestive of the Gila monster to the untrained eye. However, western banded gecko heads are somewhat pointed at the snout and the relatively large eyes have vertical pupils. Snouts of Gila monsters are bluntly rounded and the smallish eyes have round pupils. Newly hatched Gila monsters are about 5-6 inches long with a vivid orange and black, banded pattern. Adult western banded geckos are at best cream to yellow and brown in pattern and do not exceed 5 inches.



Both juvenile and adult chuckwallas are commonly confused with the Gila monster. Juvenile chuckwallas have an orange and black, banded tail. Although banding of the tail fades as chuckwallas mature, their large adult size (up to 17 inches) rivals that of the Gila monster. Adult chuckwallas have a body shape somewhat suggestive of the Gila monster, but they lack the coarsely beaded skin and black and orange body pattern of the Gila monster.

Reporting Protocol for Gila Monster Observations

Field workers and personnel in southern Nevada should at least know how to: (1) identify Gila monsters and be able to distinguish it from other lizards such as chuckwallas and western banded geckos (see Identification section above); (2) report any observations of Gila monsters to the Nevada Department of Wildlife (NDOW); (3) be alerted to the consequences of a Gila monster bite resulting from carelessness or unnecessary harassment; and (4) be aware of protective measures provided under state law.

- 1) Live Gila monsters found in harms way on the construction site will be captured and then

detained in a cool, shaded environment ($\leq 85^{\circ}\text{F}$) by the project biologist or equivalent personnel until a NDOW biologist can arrive for documentation, marking and obtaining biological measurements and samples prior to releasing. Despite that a Gila monster is venomous and can deliver a serious bite, its relatively slow gate allows for it to be easily coaxed or lifted into an open bucket or box carefully using a long handled instrument such as a shovel or snake hook (*Note: it is not the intent of NDOW to request unreasonable action to facilitate captures; additional coordination with NDOW will clarify logistical points*). A clean 5-gallon plastic bucket with a secure, vented lid; an 18"x 18"x 4" plastic sweater box with a secure, vented lid; or, a tape-sealed cardboard box of similar dimension may be used for safe containment. Additionally, written information identifying the mapped capture location, Global Positioning System (GPS) coordinates in Universal Transverse Mercator (UTM) using the North American Datum (NAD) 83 zone 11. Date, time, and circumstances (e.g. biological survey or construction) and habitat description (vegetation, slope, aspect, substrate) will also be provided to NDOW.

- 2) Injuries to Gila monsters may occur during excavation, blasting, road grading, or other construction activities. In the event a Gila monster is injured, it should be transferred to a veterinarian proficient in reptile medicine for evaluation of appropriate treatment. Rehabilitation or euthanasia expenses will not be covered by NDOW. However, NDOW will be immediately notified of any injury to a Gila monster and which veterinarian is providing care for the animal. If an animal is killed or found dead, the carcass will be immediately frozen and transferred to NDOW with a complete written description of the discovery and circumstances, date, time, habitat, and mapped location (GPS coordinates in UTM using NAD 83 Z 11).
- 3) Should NDOW's assistance be delayed, biological or equivalent acting personnel on site should detain the Gila monster out of harms way until NDOW personnel can respond. **The Gila monster should be detained until NDOW biologists have responded.** Should NDOW not be immediately available to respond for photo-documentation, a digital (5 megapixel or higher) or 35mm camera will be used to take good quality images of the Gila monster in situ at the location of live encounter or dead salvage. The pictures will be provided to NDOW at the address above or the email address below along with specific location information including GPS coordinates in UTM using NAD 83 Z 11, date, time and habitat description. Pictures will show the following information: (1) Encounter location (landscape with Gila monster in clear view); (2) a clear overhead shot of the entire body with a ruler next to it for scale (Gila monster should fill camera's field of view and be in sharp focus); (3) a clear, overhead close-up of the head (head should fill camera's field of view and be in sharp focus).

Please contact NDOW Biologist Jason L. Jones at 702-486-5127 x3718
or by e-mail at jljones@ndow.org for additional information regarding these protocols.

APPENDIX B: PROTECTING BURROWING OWLS AT CONSTRUCTION SITE

U. S. Fish & Wildlife Service

Protecting Burrowing Owls At Construction Sites *Nevada's Mojave Desert Region*

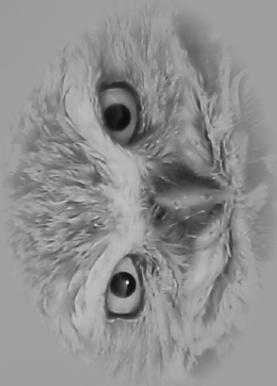
Nevada Fish and Wildlife Office
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<http://www.fws.gov/nevada>
<http://www.facebook.com/usfwpacificsouthwest>
http://www.flickr.com/photos/usfws_pacificsw/
<http://twitter.com/USFWSPacSWest>



January 2013



Burrowing Owls (*Athene cunicularia*) are one of the smallest owls in North America. Although these small owls can dig their own burrows for shelter and nesting, they often use burrows that have been created by small mammals such as ground squirrels, prairie dogs, and desert tortoises and even adopt pipes or culverts.

These small owls are between 7.5 to 10 inches tall with a wingspan of 21 to 24 inches. They weigh between 4.5 to 9 ounces. Unlike most owls, burrowing owl males are slightly heavier than females and have a longer wingspan.

Burrowing owls feed primarily on insects and small mammals but will also eat reptiles and amphibians. They hunt while walking or running across the ground, by swooping down from a perch, or hover and catch insects in the air.

Burrowing owls were once widely distributed across western North America. Although burrowing owls are protected by the Migratory Bird Treaty Act, their numbers are declining.



Photo by Stephen Ting

Are burrowing owls using your construction site?

Observing burrowing owl behavior will help you determine if owls are using your construction site as habitat or if they are nesting in the area. Burrowing owls are often active during the day; however, you should check crevices, cracks, and burrows at your construction site for owls before beginning construction. Use of a fiber-optic scope or mini camera may help you look into a burrow to determine the presence of owls or nests.

If you discover an active nest, the site must be avoided until the chicks have fledged (able to fly). No construction should occur within a 250 foot radius around the nest. The nesting cycle takes a minimum of 74 days.



Burrowing owls are protected by the Migratory Bird Treaty Act. Killing or possessing burrowing owls or destruction of their eggs or nest is prohibited by law.

Nesting behavior

Burrowing owls breed from mid-March through August in southern Nevada. If owls are nesting, the site must be avoided until the chicks have fledged or it has been determined the nest has failed. The following are some behaviors that may help identify and determine if there is an active nest in the area:

- A burrow that is occupied by burrowing owls will have debris such as twigs or feathers at the entrance.
- Two owls at the entrance to a burrow is a good indication that the burrow is a nest site. One owl may disappear or reappear over a period of time. This is usually the female. She may have gone below to lay eggs or may be emerging to assist the male in hunting for food for the chicks.
- An owl observed carrying food to a burrow is a very good sign there is an active nest. The owl is most likely the male providing food for the female while she is incubating eggs.
- Chicks may appear at the burrow entrance when they are about ten days old.

Clark County projects

*The following **only** applies to construction projects in Clark County.*

Clark County holds a permit from the U. S. Fish & Wildlife Service authorizing "take" of desert tortoises during the course of otherwise legal activities on non-federal lands. Discouraging burrowing owls from breeding in construction sites on private land in Clark County is allowed. Desert tortoise burrows in Clark County can be collapsed from September through February if they do not contain protected wildlife. Contact the Nevada Department of Wildlife at 702-486-5127 if you find State protected wildlife such as Gila monsters.



CERTIFICATE OF SERVICE

It is hereby certified that on September 4, 2019 a true and correct copy of the attached Docket No. 12-07021; Filing of Environmental Statement was served via electronic mail on the following parties:

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DATED: September 4, 2019

/s/ Linda M. Bullen
An Employee of Bullen Law, LLC