



Hernandez

Environmental
Services

**BIOLOGICAL RESOURCES STUDY
FOR THE
BURRTEC WASTE AND RECYCLING SERVICES
YUCCA VALLEY FACILITY**

**YUCCA VALLEY,
SAN BERNARDINO COUNTY,
CALIFORNIA**

Prepared By:

Hernandez Environmental Services
29376 North Lake Drive
Lake Elsinore, California 92530
(909) 772-9009

Prepared for:

Burrtec Waste and Recycling Services Waste & Recycling Services
9890 Cherry Avenue
Fontana, CA 92235

July 2015

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
EXECUTIVE SUMMARY.....	1
1.0 INTRODUCTION.....	2
1.1 Project Location.....	2
1.2 Project Description.....	2
1.3 Purpose of Biological Resources Study.....	2
2.0 METHODOLOGY.....	3
2.1 Biological Resources Study Scope of Work.....	3
2.2 Drainage Evaluations.....	3
3.0 RESULTS.....	3
3.1 ENVIRONMENTAL SETTING.....	3
3.2 HABITAT COMMUNITIES.....	3
3.2.1 Joshua Tree Woodland.....	3
3.2.2 Disturbed Habitat.....	4
3.2.3 Upland Vegetated Ephemeral Stream Habitat.....	4
3.3 THREATENED, ENDANGERED, AND SENSITIVE SPECIES.....	4
3.3.1 Threatened, Endangered, and Sensitive Plants.....	4
3.3.2 Threatened, Endangered, and Sensitive Wildlife.....	5
3.4 CRITICAL HABITATS.....	6
3.5 NESTING BIRDS.....	6
3.6 WILDLIFE MOVEMENT CORRIDORS.....	7
3.7 OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS.....	7
3.8 STATE AND FEDERAL JURISDICTIONAL STREAMS.....	7
4.0 IMPACTS.....	8
4.1 IMPACTS TO HABITAT TYPES.....	8
4.2 IMPACTS TO STATE OR FEDERALLY LISTED PLANT SPECIES OR CNPS LISTED PLANTS.....	8
4.4 IMPACTS TO CRITICAL HABITATS.....	9
4.5 IMPACTS TO NESTING BIRDS.....	10
4.6 IMPACTS TO OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS.....	10
4.7 IMPACTS TO STATE OR FEDERAL STREAMS.....	10
5.0 RECOMMENDATIONS.....	10
5.1 SENSITIVE PLANTS.....	10
5.2 STATE OR FEDERALLY LISTED AND SENSITIVE WILDLIFE.....	11
5.4 NESTING BIRDS.....	12
5.5 IMPACTS TO OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS.....	12
6.0 REFERENCES.....	13

FIGURES

Figure 1 – Vicinity Map

Figure 2 – Location Map

Figure 3 – Project Plans

Figure 4 – Habitat Types Map

Figure 5 – Impact Map

APPENDICES

Appendix A – Species List

Appendix B – Presence/Absence List

Appendix C – Photos

EXECUTIVE SUMMARY

Hernandez Environmental Services (HES) was retained by Burrtec Waste and Recycling Services to perform a Biological Resources Study (BRS) on a 36.7-acre property located in the town of Yucca Valley. Burrtec Waste and Recycling Services currently operates a truck terminal at an existing facility located at the northeast corner of Old Woman Springs Road and Buena Vista Road in the town of Yucca Valley. The proposed project would relocate the existing facility and all operations to the subject project site. Project development includes a truck terminal for Burrtec Waste and Recycling Services' collection fleet and an approximately 16,200 square foot solid waste transfer station. Additional improvements include landscape frontages on Indio Avenue and Sunnyslope Drive, a maintenance shop, a fueling station, an operations facility, in-ground truck scales, a stormwater detention basin, and associate parking.

On May 13, 2015, HES biologist Juan Hernandez conducted a field survey of the approximately 36.7-acre project site. The project site contains three habitat types, including 34.3 acres of Joshua tree woodland, 0.73 acres of disturbed habitat, and 1.65 acres of upland vegetated ephemeral stream. A total of ten sensitive species of plants and 12 sensitive species of animals have the potential to occur on or within the vicinity of the project location. The proposed project site does contain Joshua trees, and various shrubs that can be used by nesting birds. No wildlife movement corridors are present on the project site.

The development of the proposed project will impact 10.7 acres of the project site, including approximately 10.4 acres of Joshua tree woodland and 0.3 acres of disturbed habitat. One CNPS listed plant, Parish's club cholla (*Grusonia parishii*), and five state or federally listed or sensitive wildlife species, the pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), desert tortoise (*Gopherus agassizii*), hoary bat (*Lasiurus cinereus*), western yellow bat (*Lasiurus xanthinus*), and coast horned lizard (*Phrynosoma blainvillii*), have the potential to be impacted by the proposed project. Due to these impacts, mitigation measures have been recommended to be implemented as part of the project to avoid, minimize, or compensate for the anticipated impacts from project activities.

1.0 INTRODUCTION

Hernandez Environmental Services (HES) was retained by Burrtec Waste and Recycling Services to perform a Biological Resources Study (BRS) on a 36.7-acre property located in the town of Yucca Valley. Burrtec Waste and Recycling Services currently operates a truck terminal at an existing facility located at the northeast corner of Old Woman Springs Road and Buena Vista Road in the town of Yucca Valley. The proposed project would relocate the existing facility and all operations to the subject project site.

1.1 Project Location

The proposed project site is located in the town of Yucca Valley, near the southern boundary of the central portion of San Bernardino County (Figure 1, *Vicinity Map*). Yucca Valley is an unincorporated town in San Bernardino County near the City of Twentynine Palms and the unincorporated communities of Morongo Valley and Joshua Tree. The project site is located near the eastern town boundary, on the southeastern corner of Indio Avenue and Sunnyslope Drive (Figure 2, *Location Map*). The approximately 36.7 acre project site consists of Assessor's Parcel Numbers (APNs) 0601-551-09, 0601-551-10, and 0601-551-11. Specifically, the project site is located within Section 32, Township 1 North, Range 6 East, San Bernardino Base Meridian (SBBM), on the Joshua Tree North, Joshua Tree South, Yucca Valley North, and Yucca Valley South, United States Geological Survey (USGS) 7.5-minute topographic quadrangles.

1.2 Project Description

The proposed project involves the development of an approximately 10.7-acre portion on the northwest corner of the 36.7-acre site. Project development includes a truck terminal for Burrtec Waste and Recycling Services' collection fleet and an approximately 16,200 square foot solid waste transfer station. Additional improvements include landscape frontages on Indio Avenue and Sunnyslope Drive, a maintenance shop, a fueling station, an operations facility, in-ground truck scales, a stormwater detention basin, and associate parking (Figure 3, *Project Plans*).

1.3 Purpose of Biological Resources Study

The purpose of this BRS is to identify biological resources at the project site and within surrounding areas. This report includes discussions of the following:

- Vegetation habitat types
- Sensitive animal and plant species
- General animal species
- State and federally protected streams
- Wildlife corridors
- Surrounding park lands, BLM, and other state and federally protected areas

2.0 METHODOLOGY

2.1 Biological Resources Study Scope of Work

HES conducted a site survey on May 13, 2015, which consisted of walking transects 30 to 60 feet apart for 100 percent coverage of the proposed project area. All plant and animal species observed were identified and documented (Appendix A). Transects were planned using aerial and satellite imagery and waypoints were established using a GPS to position transects in the field.

Literature was referenced, specifically a five-mile radius around the project site, using the California Natural Diversity Data Base (CNDDDB), to establish sensitive species which have been historically observed in the vicinity. Specific attention was paid to habitat types that are located on the project site that may have a potential for the presence of sensitive species.

2.2 Drainage Evaluations

The project site was evaluated for the presence of drainages (streams, arroyos, etc.) that may fall under federal or State protection. Drainages that have a bed, bank or channel, and evidence of flow were documented.

3.0 RESULTS

3.1 ENVIRONMENTAL SETTING

The project site is vacant and there are no improvements on the site. The project site slopes in a general south to north direction with an approximately four percent slope. All immediately surrounding properties are vacant. A continuation high school and a bush maintenance facility are located approximately 1,000 feet to the east and southeast. In addition, a business park that includes the Town of Yucca Valley Public Works Department is located approximately 1,000 feet to the south.

3.2 HABITAT COMMUNITIES

Three habitat types were observed to occur on the project site, including 34.3 acres of Joshua tree woodland, 0.73 acres of disturbed habitat, and 1.65 acres of upland vegetated ephemeral stream (Figure 4, *Habitat Map*).

3.2.1 Joshua Tree Woodland

This habitat type is characterized as an open woodland with *Yucca brevifolia* usually as the only arborescent species and numerous shrub species between 1 and 4 meters tall. There is little or no herbaceous understory during most of the year. This habitat type is typically found on sandy or loamy soils, with well-drained alluvial slopes. Common species associated with this habitat type

include creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), pencil cholla (*Opuntia* sp.), brittle bush (*Encelia farinosa*), box-thorn (*Lycium* sp.), Davidson buckwheat (*Erigonum davidsonii*), milkvetch (*Astragalus* sp.), desert tea (*Ephedra californica*), Nevada ephedra (*Ephedra nevadensis*), interior goldenbush (*Ericameria linearifolia*), sticky snakeweed (*Gutierrezia microcephala*), Mojave sage (*Salvia mohavensis*), and desert senna (*Senna armata*).

3.2.2 Disturbed Habitat

All access routes, road shoulders, and areas clear of vegetation showing anthropogenic disturbance have been classified as disturbed habitat. These areas have little to no vegetation. If vegetation is present, common species found include foxtail brome (*Bromus madritensis* ssp. *Rubens*), Burmuda grass (*Cynodon dactylon*), heron's bill (*Erodium cicutarium*), and Arabian schismus (*Schismus arabicus*).

3.2.3 Upland Vegetated Ephemeral Stream Habitat

One ephemeral desert stream runs south to north across the southeastern portion of the site. This ephemeral stream only receives water during high flow rain events. The ephemeral stream is mostly unvegetated with patches of cheese bush (*Ambrosia salsola*), white bursage, and Nevada ephedra.

3.3 THREATENED, ENDANGERED, AND SENSITIVE SPECIES

A total of ten sensitive species of plants and 12 sensitive species of animals have the potential to occur on or within the vicinity of the project location. These include those species listed or candidates for listing by the U. S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS) and Bureau of Land Management (BLM). All habitats utilized by these species was evaluated during the site visit and a determination has been made for the presence or probability of presence in this report. This section will address those species listed as candidate, rare, threatened, or endangered under the state and federal endangered species laws or directed to be evaluated under other state, county or municipal regulations. Other special status species will be reported in Appendix B.

3.3.1 Threatened, Endangered, and Sensitive Plants

A total of three plant species listed as state and/or federal threatened, endangered, candidate, or 1B.1 listed plants on the CNPS Rare Plan Inventory have a potential to exist on the project site. The following is a description of these three species:

Triple-ribbed Milkvetch

The triple-ribbed milk-vetch (*Astragalus tricarinatus*) is a federally endangered plant and a CNPS 1B.2 listed plant. It is found in habitat associated with rocky exposed slopes or desert washes. The project area was completely surveyed and no habitat for this species was found.

The species is not present.

Parish's Daisy

The Parish's daisy (*Erigeron parishii*) is a federally threatened plant and a CNPS 1B.1 listed plant. It is found in habitat associated with rocky substrates in backbrush, creosote bush scrub, or Pinyon-juniper woodlands. It is often found on limestone soils. The project area does not contain habitat for this species. **The species is not present.**

Parish's Club Cholla

Parish's club cholla (*Grusonia parishii*) is a CNPS 2B.2 listed plant. It is found on sandy, gravelly flats associated with creosote bush scrub or Joshua tree woodlands. It flowers from May through June. The project site did contain habitat for this species, though none were seen during the general biological survey. **The species has the potential to be present.**

3.3.2 Threatened, Endangered, and Sensitive Wildlife

A total of seven wildlife species are listed as state and/or federal threatened, endangered, or candidate species. Sensitive species which have a potential to occur will also be discussed in this section. All sensitive species within a 5-mile radius of project area were reviewed and a complete list of those species are discussed in Appendix B. The following is a description of the 7 species:

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a state species of special concern. It is found in different types of habitats where small mammal burrows are present. Usually it uses ground squirrel burrows to nest. The owl prefers open areas with no trees and short grass. The project site does not contain habitat for this species. **This species is not present.**

Pallid San Diego Pocket Mouse

The pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) is a state species of special concern. It is found in shrublands that vary from sparse desert shrublands to dense coastal shrubs. Tends to be more abundant where rocks or shrubs provide cover. The project site does contain habitat for this species. **This species has the potential to be present.**

Desert Tortoise

The desert tortoise (*Gopherus agassizii*) is a state and federal threatened species. It is found in different types of desert habitats from sandy flats to rocky foothills. It prefers alluvial fans, washes, and canyons with friable soils. No tortoise or burrows suitable for tortoise were seen during the general survey, but the project site does contain habitat for this species. **This species has the potential to be present.**

Hoary Bat

The hoary bat (*Lasiurus cinereus*) is a state species of special concern. It is found in different types of habitats where it roosts in trees. The project site does contain Joshua trees that can be suitable for roosting. **This species has the potential to be present.**

Western Yellow Bat

The western yellow bat (*Lasiurus xanthinus*) is a state species of special concern. It is found in different types of habitats where it roosts in trees. The project site does contain Joshua trees that can be suitable for roosting. **This species has the potential to be present.**

Coast Horned Lizard

The coast horned lizard (*Phrynosoma blainvillii*) is a state species of special concern. It is found in open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. The project site does contain habitat for this species. **This species has the potential to be present.**

Least Bell's Vireo

The least Bell's vireo (*Vireo bellii pusillus*) is a federally endangered and state endangered species. It is found in riparian habitat where it uses riparian shrub species such as willows (*Salix* sp.) and mulefat (*Baccharis salicifolia*) to build nests. The project site doesn't not contain any habitat for this species. **The species is not present.**

3.4 CRITICAL HABITATS

The proposed project site is not located within any designated federal critical habitat.

3.5 NESTING BIRDS

Migratory non-game native bird species are protected under the federal Migratory Bird Treaty Act. Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests. The proposed project site does contain Joshua trees and various shrubs that can be used by nesting birds.

3.6 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbances. The project site was evaluated

for its function as a wildlife corridor that species would use to move between wildlife habitat zones. Usually mountain canyons or riparian corridors are used by wildlife as corridors; the project site does not contain these features. No wildlife movement corridors were found to be present on the project site.

3.7 OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS

The Town of Yucca Valley's Development Code contains specific regulations with respect to desert native plant protection. The following native plants are regulated:

- All Species of genus *Prosopis* (mesquite): stems 2" & greater in diameter or 6' or greater in height
- Creosote Rings (10' or greater in diameter)
- All species of yuccas
- All Joshua Trees
- California juniper (*Juniperus californica*)
- Desert Willow (*Chilopsis linearis*)
- Pinon Pine (*Pinus monophylla*)
- Palo Verde (*Cercidium* sp)
- Manzanita (*Arctostaphylos* sp)
- Additional plants protected or regulated by the California Desert Native Plants Act

Prior to the removal, relocation, or trimming of the native plants listed above, a Native Plant Permit is required. However, trimming of leaf (needle) points to avoid injury does not require a permit.

3.8 STATE AND FEDERAL JURISDICTIONAL STREAMS

The proposed project site contains approximately 1.65 acres of upland vegetated ephemeral stream. Impacts to this stream may be regulated by the California Department of Fish and Wildlife (CDFW) Streambed Alteration Program (1602) and under the Regional Water Quality Control Board (RWQCB) Porter-Cologne Act. The stream appears not to be under the jurisdiction of the federal Clean Water Act (CWA); however, a formal jurisdictional delineation was not performed as part of the field survey.

4.0 IMPACTS

The proposed Burrtec Waste and Recycling Services Yucca Valley Facility will impact a total of 10.7 acres of habitat due to the construction of a truck terminal for Burrtec Waste and Recycling Services' collection fleet and an approximately 16,200 square foot solid waste transfer station. Additional improvements include landscape frontages on Indio Avenue and Sunnyslope Drive, a maintenance shop, a fueling station, an operations facility, in-ground truck scales, a stormwater detention basin, and associate parking.

4.1 IMPACTS TO HABITAT TYPES

The 10.7-acre Burrtec Waste and Recycling Services Yucca Valley Facility will impact approximately 10.4 acres of Joshua tree woodland and 0.3 acres of disturbed habitat (Figure 5, *Habitat Impact Map*).

4.2 IMPACTS TO STATE OR FEDERALLY LISTED PLANT SPECIES OR CNPS LISTED PLANTS

Parish's Club Cholla

Parish's club cholla is a CNPS 2B.2 listed plant. It is found on sandy, gravelly flats associated with creosote bush scrub or Joshua tree woodlands. It flowers from May through June. This plant species was not observed during the general biological survey; however, the project site does contain habitat for this species. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

4.3 IMPACTS TO STATE OR FEDERALLY LISTED AND SENSITIVE WILDLIFE

Pallid San Diego Pocket Mouse

The pallid San Diego pocket mouse is a state species of special concern. It is found in shrublands that vary from sparse desert shrublands to dense coastal shrubs. The species tends to be more abundant where rocks or shrubs provide cover. This species was not observed during the general biological survey; however, the project site does contain habitat for this species. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

Desert Tortoise

The desert tortoise is a state and federal threatened species. It is found in different types of desert habitats from sandy flats to rocky foothills. It prefers alluvial fans, washes, and canyons with friable soils. No tortoise or burrows suitable for tortoise were observed during the general survey; however, the project site does contain habitat for this species. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

Hoary Bat

The hoary bat is a state species of special concern. It is found in different types of habitats where it roosts in trees. This species was not observed during the general biological survey; however, the project site does contain habitat for this species. The project site does contain Joshua trees that may be suitable for roosting. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

Western Yellow Bat

The western yellow bat is a state species of special concern. It is found in different types of habitats where it roosts in trees. This species was not observed during the general biological survey; however, the project site does contain habitat for this species. The project site does contain Joshua trees that may be suitable for roosting. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

Coast Horned Lizard

The coast horned lizard is a state species of special concern. It is found in open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. The species is found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. It is also often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. This species was not observed during the general biological survey; however, the project site does contain habitat for this species. Therefore, this species has the potential to be present and the 10.4 acres of impacts to Joshua tree woodland could potentially impact this species.

4.4 IMPACTS TO CRITICAL HABITATS

No impacts to federally listed critical habitat are expected.

4.5 IMPACTS TO NESTING BIRDS

Migratory nongame native bird species are protected under the federal Migratory Bird Treaty Act. Additionally, Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests. If vegetation removal and other ground disturbance activities can be conducted outside of the recognized nesting bird season (February 15 through September 15), compliance with these regulations is not an issue.

If work cannot be avoided during the nesting bird season, prior to initiation of project activities that would remove vegetation or otherwise disturb nesting activity (for instance, mobilization of heavy equipment), impacts to the 10.4 acres of Joshua tree woodlands has the potential to impact nesting birds.

4.6 IMPACTS TO OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS

The Town of Yucca Valley's Development Code contains specific regulations with respect to desert native plant protection. Project activities have the potential to impact Joshua trees, creosote rings, and palo verde. Prior to the removal, relocation, or trimming of these native plants, a Native Plant Permit is required.

4.7 IMPACTS TO STATE OR FEDERAL STREAMS

The proposed project site contains approximately 1.65 acres of upland vegetated ephemeral stream. Impacts to this stream may be regulated by the CDFW Streambed Alteration Program (1602) and under the RWQCB Porter-Cologne Act. The streams appear to not be under the CWA. Current project plans indicate that all project activities will avoid the dryland stream area. No impacts are expected. However, should project plans change and result in potential impacts to the ephemeral stream, a jurisdictional delineation should be performed to determine whether this feature falls under the jurisdiction of state and/or federal regulations.

5.0 RECOMMENDATIONS

Based upon the findings of this report, it is recommended that the measures be implemented as part of the project to avoid, minimize, or compensate for the anticipated impacts from project activities:

5.1 SENSITIVE PLANTS

Parish's Club Cholla

- Surveys for this plant species should be performed prior to ground disturbing activities.

Surveys do not have to be during flowering periods as the plant is readily identifiable when not flowering.

- If the plant species is found within the project 10.4 acre impact area, the plant shall be relocated to other areas of the property that will not be impacted by project activities. Relocation should be performed by a qualified biologist.

5.2 STATE OR FEDERALLY LISTED AND SENSITIVE WILDLIFE

Pallid San Diego Pocket Mouse

- Conduct small mammal surveys during the appropriate season prior to construction. If individuals are not found, no impacts to this species would occur as a result of the proposed project; therefore, no further action would necessary.
- If individual species are found, feasible measures should be implemented to minimize impacts. Feasible measures may include, but are not limited to, having a qualified biologist monitor construction during clearing, grading and/or trenching activities for any occurrence of the species.

Desert Tortoise and Desert Tortoise Critical Habitat

- Perform a protocol desert tortoise presence/absence survey of the project site to determine the presence of desert tortoise. If no tortoise or tortoise sign are found, no further mitigation measures are necessary.
- If tortoise or tortoise sign are found, the project should be designed to avoid all state and federal take of desert tortoise.
- If tortoise or tortoise sign are found, consultation with the CDFW and USFWS will be required to ensure adherence to the state and federal endangered species laws.

Hoary Bat

- Prior to construction activities, a qualified biologist shall conduct a survey of Joshua trees on the project site for hoary bats.
- If bat species are identified as roosting in areas that will be impacted, prior to construction, the applicant shall prepare a plan to exclude bat species from impact area. If bats cannot be excluded from bat roosts, work activities will be avoided within 100 feet of active maternity roosts until bat pups have been weaned and are deemed independent by a qualified biologist.
- CDFW must be contacted if roosting bats are observed within the project area during construction.

Western Yellow Bat

- Prior to construction activities, a qualified biologist shall conduct a survey of Joshua trees on the project site for western yellow bats.
- If bat species are identified as roosting in areas that will be impacted, prior to construction, the applicant shall prepare a plan to exclude bat species from impact area. If bats cannot be excluded from bat roosts, work activities will be avoided within 100 feet of active maternity roosts until bat pups have been weaned and are deemed independent by a qualified biologist.
- CDFW must be contacted if roosting bats are observed within the project area during construction.

Coast Horned Lizard

- A qualified biologist monitor should be present during clearing, grading and/or trenching activities. Any individual species found onsite during construction activities must be relocated outside of the project impact areas.

5.4 NESTING BIRDS

- If construction activities cannot be avoided during the nesting bird season (February 15 through September 15), a qualified biologist should conduct a pre-construction nesting bird survey within all areas of breeding/nesting habitat within and adjacent to the project site prior to initiation of project activities that would remove vegetation or otherwise disturb nesting activity (for instance, mobilization of heavy equipment). Surveys should be conducted not more than 7 days prior to initiation of activities.
- If nesting birds are encountered, a qualified biologist will flag an avoidance buffer zone around the nest (buffer zones vary according to species involved and shall be determined by the qualified biologist). No activities that would adversely affect the nest shall occur within the buffer zone until the qualified biologist has determined the nest is no longer active and the young are no longer dependent on the nest.

5.5 IMPACTS TO OTHER CITY, COUNTY, REGIONAL, STATE, OR FEDERAL CONSERVATION PLANS

- A Native Plant Permit will need to be obtained for the proposed project.

6.0 REFERENCES

American Ornithologists' Union. 1983 (and supplements 1985, 1987, 1989, 1991, 1993, and 1995). *The A.O.U. Check-List of North American Birds*. 6th ed. Allen Press. Lawrence, Kansas.

Burt, W.H., and Grossenheider, R.P., 1980. *Peterson Field Guides, Mammals*. Houghton Mifflin Company. New York, New York.

CDFG (California Department of Fish and Game). 1988a. *California's wildlife, Volume I: Amphibians and Reptiles*. State of California Resources Agency. Sacramento, California.

CDFG (California Department of Fish and Game). 1988b. *California's Wildlife, Volume II: Birds*. State of California's Resource Agency. Sacramento, California.

CDFG (California Department of Fish and Game). 1988c. *California's Wildlife, Volume III: Mammals*. State of California Resources Agency. Sacramento, California.

CDFG (California Department of Fish and Game). 2014 (October). *Natural Communities List*. The Resources Agency of California, Department of Fish and Game, Natural Diversity Data Base. Sacramento, California.

CDFG (California Department of Fish and Game). 2014 (October). *Endangered and Threatened Animals List*. The Resources Agency of California, Department of Fish and Game, Natural Diversity Data Base. Sacramento, California.

CDFG (California Department of Fish and Game). 2014 (October). *Endangered Threatened and Rare Plants*. The Resources Agency of California, Department of Fish and Game, Natural Diversity Data Base. Sacramento, California.

CDFG (California Department of Fish and Game). 2014 (October). *Special Animals List*. The Resources Agency of California, Department of Fish and Game, Natural Diversity Data Base. Sacramento, California.

CDFG (California Department of Fish and Game). 2015. RareFind On-line program. Data Base Record Search for Information on Threatened, Endangered, Rare, or Otherwise Sensitive Species California Department of Fish and Game, State of California Resources Agency. Sacramento, California.

California Department of Transportation 2004. California Bat Mitigation Techniques, Solutions, and Effectiveness. Sacramento, California.

Department of the Army. 1986 (Nov 13). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register 51(219):41206-41206.

Department of the Army. 2000 (Mar 9). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register 65(47):12818-12899.

Department of the Army. 2002 (Jan 15). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register 67(10):20020-2095.

Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.

Holland, R.F. 1986 (updated 1996). *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Non-game Heritage Program. California Department of Fish and Game. Sacramento, California.

Munz, P.A. 1974. *A Flora of Southern California*. University of California Press. Berkeley, California.

Newton, G. 2000. *Castle Mountain Mine Vegetation Analysis*. California Department of Conservation Office of Mine Reclamation.

Reed, P.B. 1988. *National List of Plant Species That Occur in Wetlands: California (Region 0)*. National wetlands Inventory, U.S. Fish and Wildlife Biological Report 88 (26.9).

Sawyer, J.O. and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society. Sacramento, California.

Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. 2nd ed. Houghton Mifflin Company. Boston, Massachusetts.

Tibor, D.P. 2001. *California Native Plant Society's Inventory of Rare and Endangered Plants of California*. California Native Plant Society. Special Publication, No. 1, 6th ed.

Udvardy, M.D. 1994. *National Audubon Society Field Guide to North American Birds*. Alfred A. Knopf, Inc. New York, New York.

USACE (United States Army Corps of Engineers).1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, Mississippi.

USACE (United States Army Corps of Engineers). 2006. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Ed, J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR. U.S. Army Engineer Research and Development Center. Vicksburg, Mississippi.

USFWS (United States Fish and Wildlife Service). 2008. *Draft revised recovery plan for the Mojave population of the desert tortoise (Gopherus agassizii)*. U.S. Fish and Wildlife Service, California and Nevada Region, Sacramento, California. 209 pp.

USFWS (United States Fish and Wildlife Service). 1993 (Sep 30). *Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review*. Federal Register 50 CFR Part 17. U.S. Department of the Interior. Washington, D.C.

USFWS (United States Fish and Wildlife Service). 1994 (Nov 15). *Endangered or Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species*. Federal Register 50 CFR Part 17. U.S. Department of the Interior. Washington, D.C.

USFWS (United States Fish and Wildlife Service). 1997c (Oct. 31). *Endangered or Threatened Wildlife and Plants*. Federal Register 50 CFR Part 17. U.S. Department of the Interior. Washington, D.C.

FIGURES

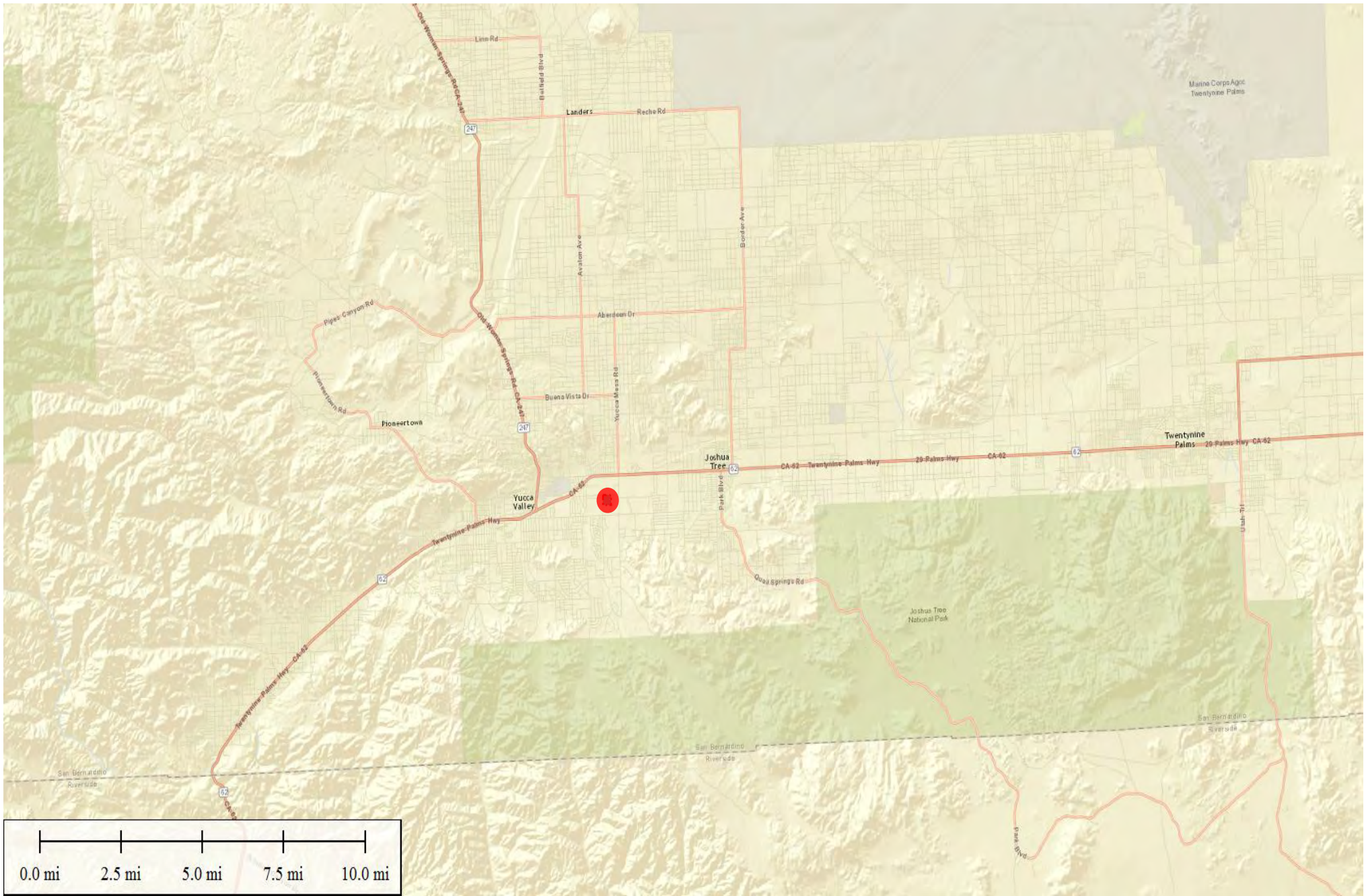


Figure 1
 Vicinity Map
 Biological Resources Study
 Burrtec Yucca Valley Facility
 Yucca Valley, San Bernardino County, CA

Legend

 Project Location



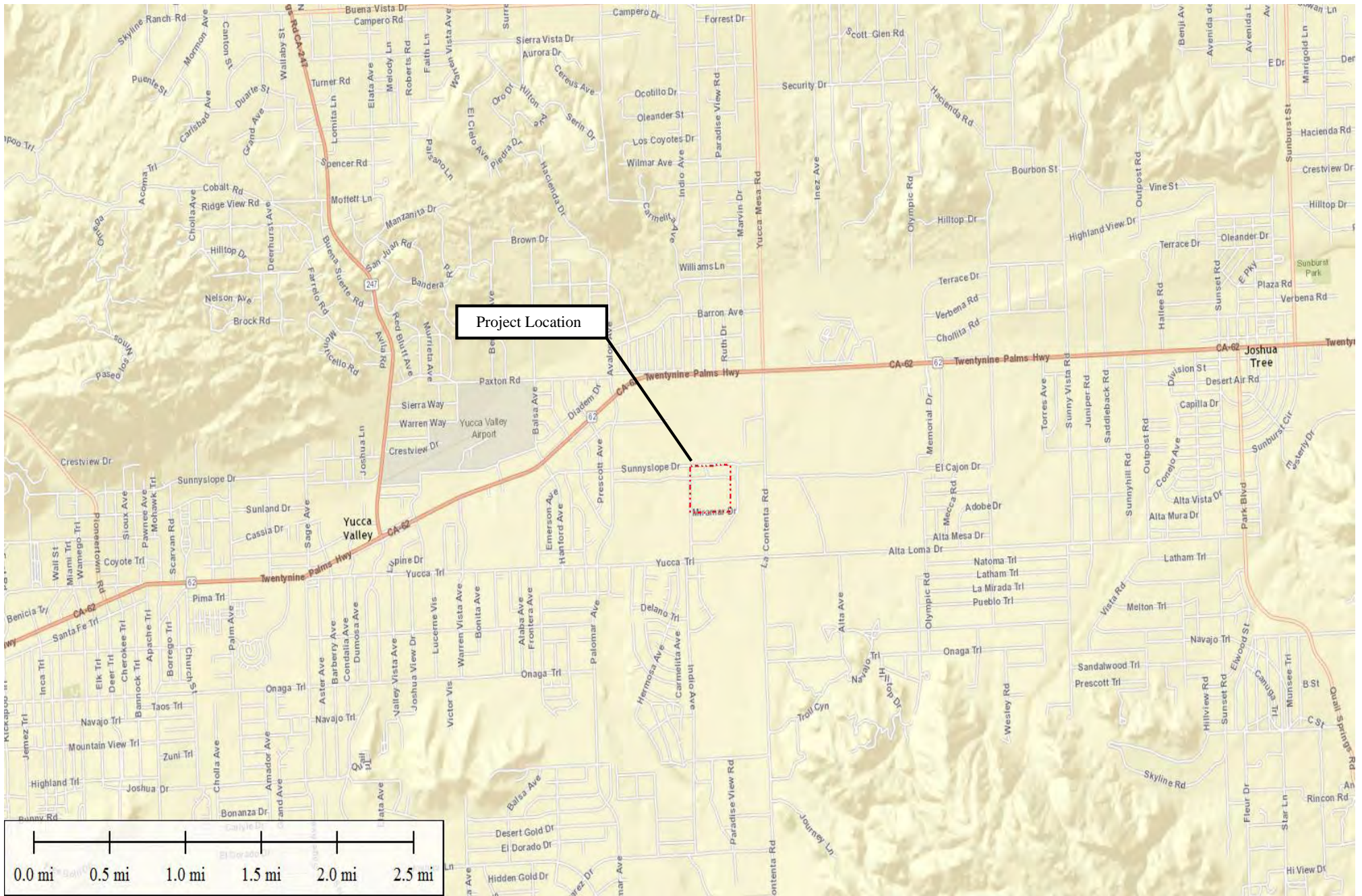


Figure 2
 Location Map
 Biological Resources Study
 Burrtec Yucca Valley Facility
 Yucca Valley, San Bernardino County, CA

Legend



Project Location



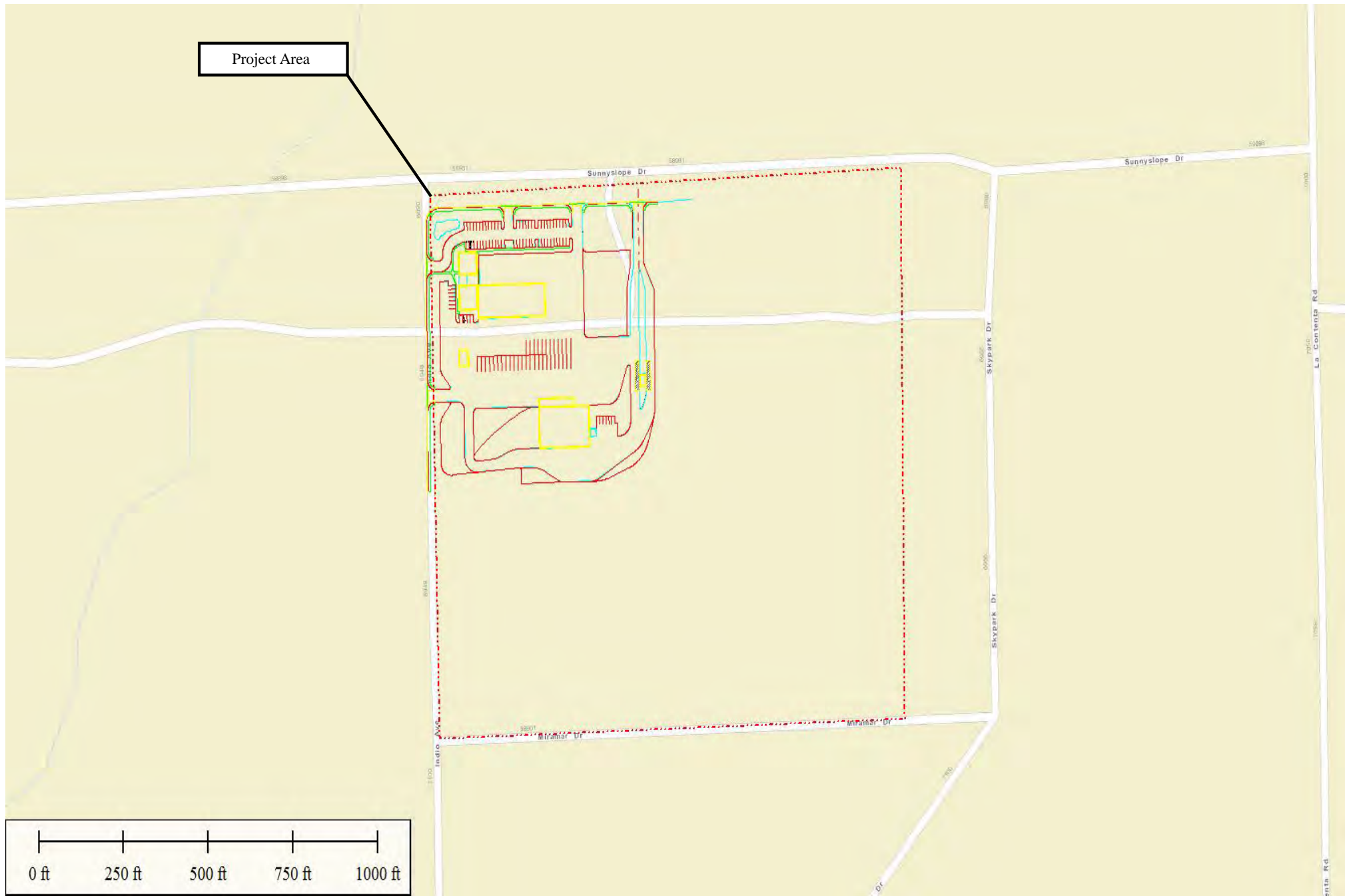



Figure 3
 Project Plans
 Biological Resources Study
 Burrtec Yucca Valley Facility
 Yucca Valley, San Bernardino County, CA

Legend

-  Property Boundary



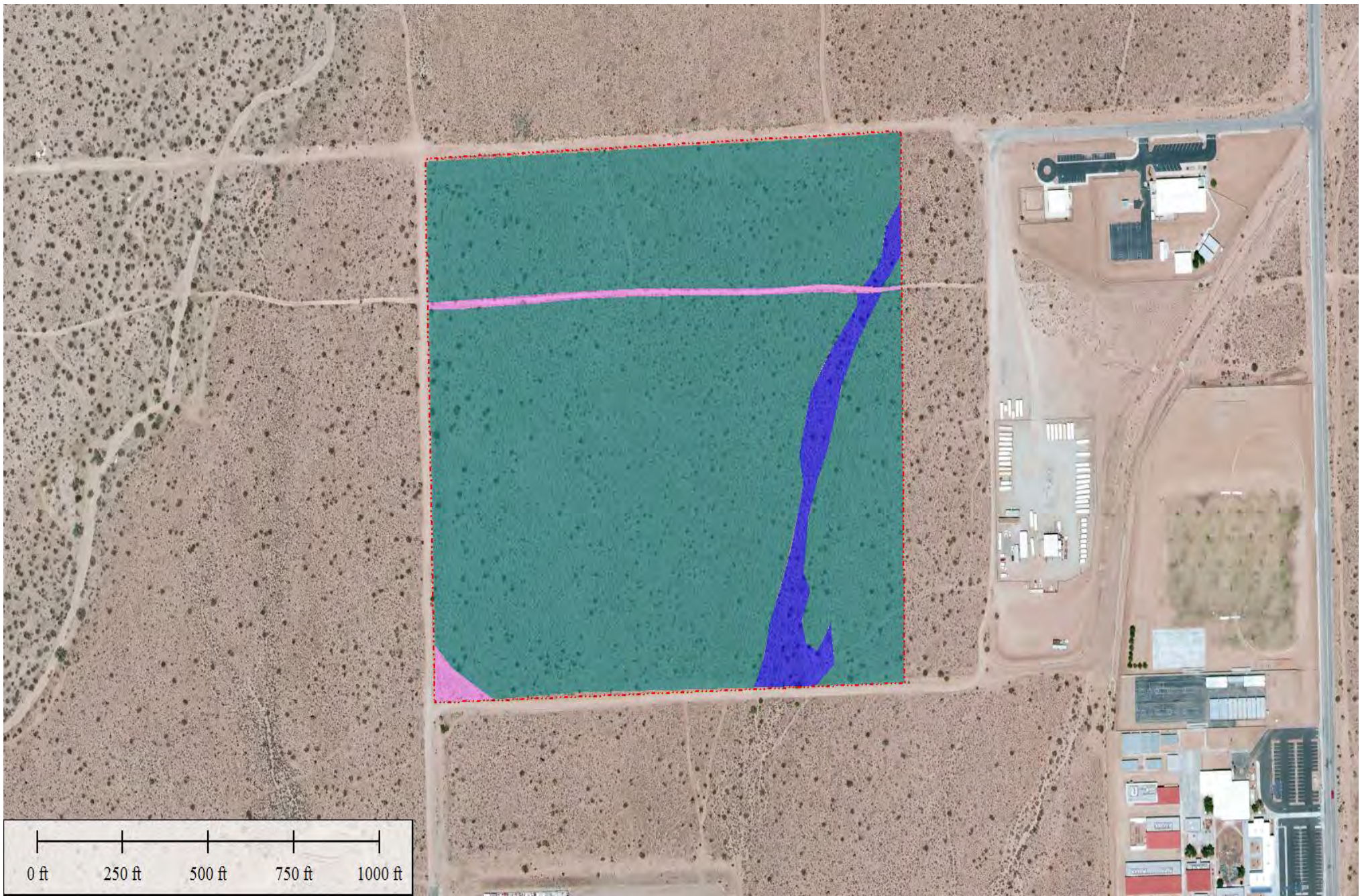


Figure 4
 Habitat Map
 Biological Resources Study
 Burrtec Yucca Valley Facility
 Yucca Valley, San Bernardino County, CA

Legend



34.3 Acres Joshua Tree Woodland



1.65 Acres Upland Dryland Stream



0.73 Acres Disturbed Habitat



36.7 Acre Property Boundary



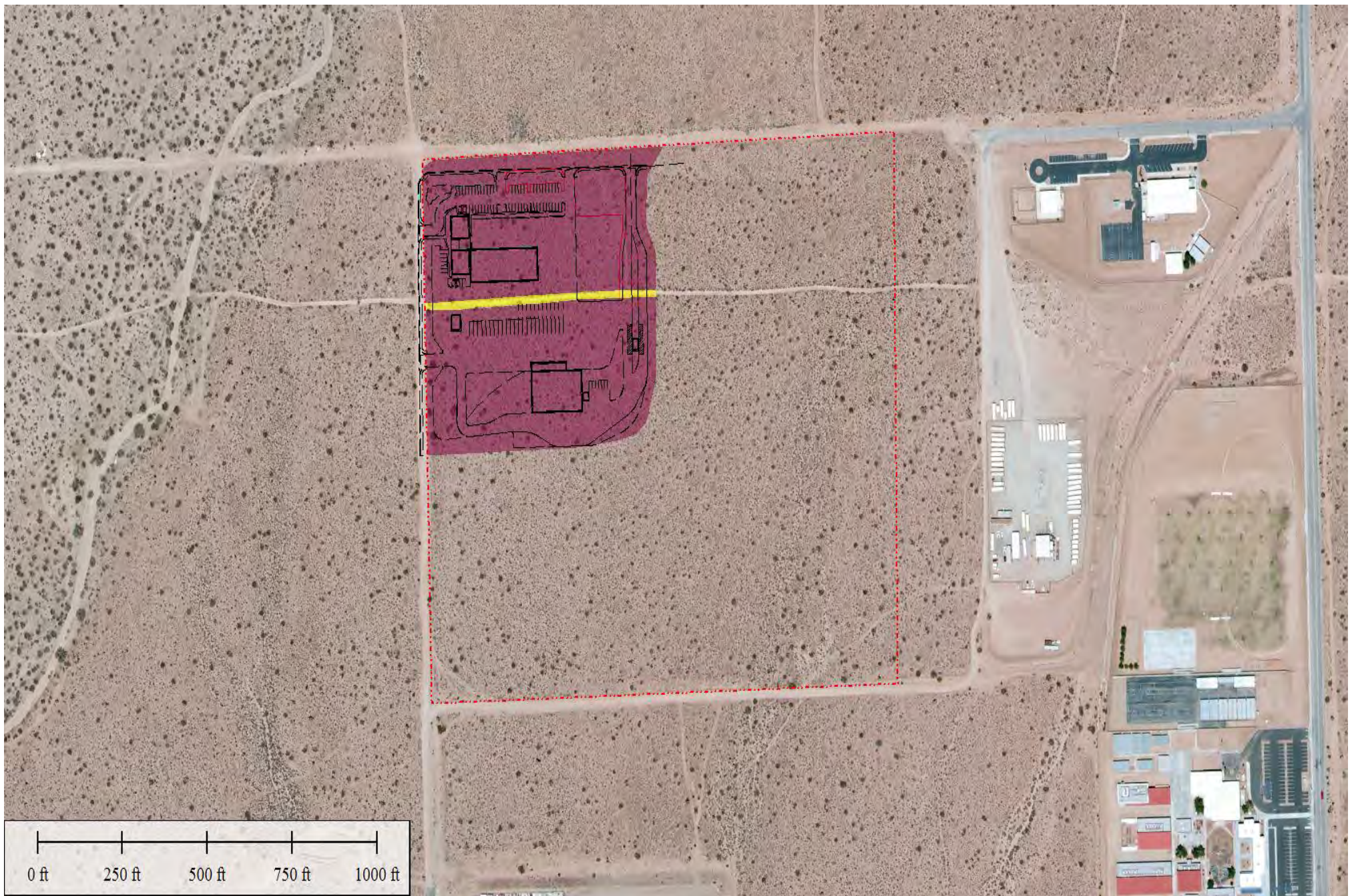




Figure 5
 Habitat Impact Map
 Biological Resources Study
 Burrtec Yucca Valley Facility
 Yucca Valley, San Bernardino County, CA

Legend

-  Impacts to 10.4 Acres of Joshua Tree Woodland
-  Impacts to 0.30 Acres of Disturbed Habitat

-  36.7 Acre Property Boundary



APPENDIX A

Burrtecc Yucca Valley
Vascular Plant Species Observed

	Scientific Name	Common Name
Ephedraceae (Mormon-tea family)		
	<i>Ephedra californica</i>	Desert tea
	<i>Ephedra nevadensis</i>	Nevada jointfir
Eudicots		
Amaranthaceae (Amaranth family)		
	<i>Amaranthus fimbriatus</i>	Fringed amaranth
Apocynaceae (Dogbane family)		
	<i>Asclepias erosa</i>	Desert milkweed
Asteraceae (Aster family)		
	<i>Ambrosia dumosa</i>	White bursage
	<i>Baileya multiradiata</i>	Desert marigold
	<i>Brickellia incana</i>	Woolly brickellbush
	<i>Encelia farinosa</i>	Brittlebush
	<i>Ericameria paniculata</i>	Mojave rabbitbush
	<i>Erigeron</i> sp.	Fleabane
	<i>Pectis papposa</i> var. <i>papposa</i>	Manybristle chinchweed
	<i>Stephanomeria pauciflora</i>	Wire-lettuce
	<i>Xylorhiza tortifolia</i> var. <i>tortifolia</i>	Mojave woodyaster
Boraginaceae (Borage family)		
	<i>Tiquilia plicata</i>	Plicate coldenia
Cactaceae (Cactus family)		
	<i>Cylindropuntia echinocarpa</i>	Wiggins' cholla
	<i>Cylindropuntia ramosissima</i>	Branched pencil cholla
	<i>Opuntia basilaris</i> var. <i>basilaris</i>	Beavertail pricklypear
Chenopodiaceae (Goosefoot family)		
	<i>Atriplex canescens</i>	Fourwing saltbush
	<i>Krascheninnikovia lanata</i>	Winterfat
	<i>Salsola</i>	Russian thistle
Cucurbitaceae (Cucumber family)		
	<i>Cucurbita palmata</i>	Coyote gourd
Euphorbiaceae (Spurge family)		
	<i>Euphorbia schizoloba</i>	Mojave spurge
Fabaceae (Pea family)		
	<i>Astragalus lentiginosus</i>	Freckeled milk vetch
	<i>Senna armata</i>	Desert senna

	Scientific Name	Common Name
Geraniaceae (Geranium family)		
	<i>Erodium cicutarium</i>	Redstem stork's bill
Malvaceae (Mallow family)		
	<i>Sphaeralcea ambigua</i>	Desert globemallow
Orobanchaceae (Broom-rape family)		
	<i>Castilleja chromosa</i>	Northwestern Indian paintbrush
Polygonaceae (Buckwheat family)		
	<i>Eriogonum deflexum var. deflexum</i>	Flatcrown buckwheat
	<i>Eriogonum fasciculatum</i>	California buckwheat
	<i>Eriogonum inflatum</i>	Desert trumpet
	<i>Eriogonum nidularium</i>	Birdnest buckwheat
Rosaceae (Rose family)		
	<i>Prunus fasciculata</i>	Desert almond
Solanaceae (Potato family)		
	<i>Datura wrightii</i>	Jimsonweed
	<i>Lycium andersonii</i>	Anderson's box thorn
	<i>Lycium cooperi</i>	Cooper's box thorn
Zygophyllaceae (Creosote-bush family)		
	<i>Larrea tridentata</i>	Creosote bush
Monocots		
Agavaceae (Century-plant family)		
	<i>Yucca brevifolia</i>	Joshua tree
	<i>Yucca schidigera</i>	Mojave yucca
Poaceae (Grass family)		
	<i>Bouteloua aristidoides var. aristidoides</i>	Needle grama
	<i>Bouteloua barbata var. barbata</i>	Sixweeks grama
	<i>Hilaria rigida</i>	Big galleta
	<i>Sporobolus flexuosus</i>	Mesa dropseed
	<i>Stipa hymenoides</i>	Indian ricegrass
	<i>Stipa speciosa</i>	Desert needlegrass

Burrtec Yucca Valley
Animal Species Observed

Common Name	Scientific Name
Black-tailed Gnatcatcher	<i>Polioptila melanura</i>
Black-throated Sparrow	<i>Amphispiza bilineata</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
Cactus Wren	<i>Campylorhynchus brunneicapillus</i>
Common Raven	<i>Corvus corax</i>
European Starling	<i>Sturnus vulgaris</i>
Gambel's Quail	<i>Callipepla gambelii</i>
Greater Roadrunner	<i>Geococcyx californianus</i>
House Finch	<i>Haemorhous mexicanus</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Verdin	<i>Auriparus flaviceps</i>
Western Meadowlark	<i>Sturnella neglecta</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
black-tailed jackrabbit	<i>Lepus californicus</i>
coyote	<i>Canis latrans</i>
desert cottontail	<i>Sylvilagus audubonii</i>
white-tailed antelope squirrel	<i>Ammospermophilus leucurus</i>
desert woodrat	<i>Neotoma lepida</i>
Botta's pocket gopher	<i>Thomomys bottae</i>

APPENDIX B

Plants

Scientific Name	Common Name	Taxon Group, C, 2	Federal Listing	State Listing	CNPS Listing	Other Listings	Habitat Association	Presence/Absence
Astragalus bernardinus	San Bernardino milk-vetch	Dicots	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Rocky habitats in Joshua tree woodlands, pinyon-juniper woodlands	No rocky habitat Not present
Astragalus tricarinatus	triple-ribbed milk-vetch	Dicots	Endangered	None	1B.2	SB_RSA BG-Rancho Santa Ana Botanic Garden	Exposed rocky slopes, canyon walls along desert washes. Creosote bush scrub, Joshua tree woodland	No exposed rocky slopes or washes. Not present
Berberis fremontii	Fremont barberry	Dicots	None	None	2B.3	SB_RSA BG-Rancho Santa Ana Botanic Garden	Rocky habitats in pinyon-juniper woodlands	No habitat present. Not present
Boechera dispar	pinyon rockcress	Dicots	None	None	2B.3	SB_RSA BG-Rancho Santa Ana Botanic Garden	Rocky habitats in pinyon-juniper woodlands	No habitat present. Not present
Erigeron parishii	Parish's daisy	Dicots	Threatened	None	1B.1	SB_RSA BG-Rancho Santa Ana Botanic Garden	Rocky blackbush or creosote-bush scrub to pinyon/juniper woodland, often on limestone	No habitat present. Not present
Grusonia parishii	Parish's club-cholla	Dicots	None	None	2B.2		Sandy, gravelly flats generally in creosote-bush/bur-sage scrub; Elevation: 300-1200 m. Flowering Time: May--Jun	Potentially present

Plants

Linanthus bernardinus	Pioneertown linanthus	Dicots	None	None	1B.2	BLM_S-Sensitive BLM_S-Sensitive SB_RSA BG-Rancho Santa Ana Botanic Garden	small depressions, gentle slopes, or on hillocks surrounded by large granite boulders in decomposed granite sand (No exposed rocky slopes or washes. Not present
Linanthus maculatus	Little San Bernardino Mtns. linanthus	Dicots	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Sandy washed and flats, Flowering Time: Apr--May	No sandy washes are present. Not present
Monardella robisonii	Robison's monardella	Dicots	None	None	1B.3	BLM_S-Sensitive BLM_S-Sensitive USFS_S-Sensitive	Desert scrub, pinyon/juniper woodland, among granite boulders	No habitat present. Not present
Saltugilia latimeri	Latimer's woodland-gilia	Dicots	None	None	1B.2	USFS_S-Sensitive	Dry desert slopes, coarse sand to rocky soils	Not present

Animals

Scientific Name	Common Name	Federal Listing	State Listing	Other Listings	Habitat Association	Presence/Absence
Athene cunicularia	burrowing owl	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Lives in dry, open areas with no trees and short grass.	No owl were seen during general biological assessment, or burrows that could be used by species. Habitat has too many trees and tall shrubs for this species. Not present
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Occupies shrublands that vary from sparse desert shrublands to dense coastal scrub. Tends to be more abundant where rocks or shrubs provide cover. Lives in a variety of habitats: desert slopes, agave, rocky areas, and coastal sage scrub.	Potentially present

Animals

Crotalus ruber	red-diamond rattlesnake	None	None	CDFW_SSC- Species of Special Concern USFS_S- Sensitive	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas. On the desert slopes of the mountains, it ranges into rocky desert flats.	No habitat for this species. Not present
Gopherus agassizii	desert tortoise	Threatened	Threatened	IUCN_VU- Vulnerable IUCN_LC- Least Concern WBWG_M- Medium Priority	found in arid sandy or gravelly locations along riverbanks, washes, sandy dunes, alluvial fans, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides.	No burrows seen for this species during general biological survey, but potentially present
Lasiurus cinereus	hoary bat	None	None		solitary and roost in trees. Found in variety of habitats	Potentially present

Animals

Species	Common Name	Conservation Status	Special Concern	Special Concern	Habitat	Assessment
Lasiurus xanthinus	western yellow bat	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	Found in various kinds of habitats. They often roost in trees, usually with only one bat occupying a tree.	Potentially present
Ovis canadensis nelsoni	desert bighorn sheep	None	None	BLM_S-Sensitive CDFW_FP-Fully Protected USFS_S-Sensitive	Rocky desert mountain habitat	No habitat for this species. Not present
Paranomada californica	California cuckoo bee	None	None		It is a nest parasite of other solitary, ground nesting bees.	No ground nesting bees were seen during general biological assessment. Not present

Animals

Phrynosoma blainvillii	coast horned lizard	None	None	BLM_S- Sensitive CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern CDFW_SSC- Species of Special Concern USFWS_BCC- Birds of Conservation Concern	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills.	Potentially present
Setophaga petechia	yellow warbler	None	None		Riparian Habitat	Not present

Animals

<p>Toxostoma lecontei</p>	<p>Le Conte's thrasher</p>	<p>None</p>	<p>None</p>	<p>CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern NABCI_RWL- Red Watch List USFWS_BCC- Birds of Conservation Concern IUCN_NT-Near Threatened NABCI_YWL- Yellow Watch List</p>	<p>HABITAT CONSISTS OF FAIRLY OPEN, MICROPHYLL WOODLAND WASH; DOMINANTS INCLUDE ACACIA GREGGII, YUCCA BREVIFOLIA, AND OPUNTIA ECHINOCARPA.</p>	<p>Riparian Habitat</p>	<p>Not present</p>
<p>Vireo bellii pusillus</p>	<p>least Bell's vireo</p>	<p>Endangered</p>	<p>Endangered</p>	<p></p>	<p></p>	<p></p>	<p></p>

APPENDIX C

Burrtec Yucca Valley Facility Biological Resources Study



Image of the Joshua tree woodland present on the property.



Image of disturbed habitat present on the property.

Burrtec Yucca Valley Facility Biological Resources Study



Image of dryland ephemeral stream on property. This feature will be avoided by project activities.