BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE TENTATIVE PARCEL MAP 20577 PROJECT IN UNINCORPORATED AREA OF JOSHUA TREE, CALIFORNIA

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SECTION 1.0 – INTRODUCTION

Jennings Environmental, LLC (Jennings) was retained by the Property Owner of Assessor Parcel Number (APN) 0600-111-04 to conduct a literature review and reconnaissance-level survey for the proposed Tentative Tract Map 20577(Project) in the unincorporated area of Joshua Tree, San Bernardino County, California. The survey identified vegetation communities, the potential for the occurrence of special status species, or habitats that could support special status wildlife species, and recorded all plants and animals observed or detected within the Project boundary. This biological resources assessment is designed to address the potential effects of the proposed project on designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of the United States Fish and Wildlife Service (USFWS) and (CDFW). Additionally, the site was surveyed for any drainage features that would meet the definition of the Waters of the US (WOUS), Waters of the State (WOS), or CDFW jurisdiction.

1.1 PROJECT LOCATION

The project is generally located in the northwest portion of Section 13, Township 1 North, Range 6 East, and is depicted on the *Joshua Tree North* U.S. Geological Survey's (USGS) 7.5-minute topographic map. More specifically the project is located within APN 0600-111-04, within the unincorporated area of Joshua Tree, San Bernardino County, California. The Project site is located on the northwest corner of the intersection of Dixie Lane and Sunburst Ave., in the unincorporated area of Joshua Tree, San Bernardino County, California (Figures 1 and 2 in Appendix A).

1.2 PROJECT DESCRIPTION

The Project proposes to subdivide the 20-acre parcel into 8 parcels ranging in size from 2.34 acres to 2.5 acres. Each lot proposes the construction of a single-family home with a septic system and a compacted native material driveway. Additional improvements include a 26-foot wide private road made of compacted native materials and a stormwater detention basin with each residence.

SECTION 2.0 – METHODOLOGY

2.1 LITERATURE REVIEW

Prior to performing the field survey, existing documentation relevant to the Project site was reviewed. The most recent records were reviewed for the following quadrangle containing and surrounding the Project site: *Joshua Tree North, Sunfair, Indian Cove,* and *Joshua Tree South,* USGS 7.5-minute quadrangles. The *Sunfair, Indian Cove,* and *Joshua Tree South* quads were included in this search due to the site's proximity to their borders. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site. These sources include:

- California Natural Diversity Database (CNDDB) managed by CDFW (CDFW 2023)

- USFWS Critical Habitat Mapper (USFWS 2023)
- California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023), issuer of the California Rare Plant Rank.
- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USGS National Map;
- Calwater Watershed Maps
- USFWS Designated Critical Habitat Maps
- San Bernardino County Development Code, 88.01.060 Desert Native Plant Protection
- San Bernardino County Biotic Resources Layer

2.2 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY

Jennings biologist, Gene Jennings, conducted the general reconnaissance survey within the Project site to identify the potential for the occurrence of special status species, vegetation communities, or habitats that could support special status wildlife species. The surveys were conducted on foot, throughout the Project site between 0800 and 1030 hours on March 25, 2023. Weather conditions during the survey included temperatures ranging from 42.6 to 48.6 degrees Fahrenheit, with clear skies, no precipitation, and 2.8 to 5.6 mile-per-hour winds. Photographs of the Project site were taken to document existing conditions (Appendix B).

2.3 JURISDICTIONAL FEATURES

A general assessment of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted for the proposed Project area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates the discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter- Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity. Additional discussion of the regulatory framework is provided in Appendix C.

2.4 VEGETATION

All plant species observed within the Project site were recorded. Vegetation communities within the Project site were identified and qualitatively described. Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012). A comprehensive list of the plant species observed during the survey is provided in Appendix D.

2.5 WILDLIFE

All wildlife and wildlife signs observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most

likely to be utilized by wildlife (native vegetation, wildlife trails, etc.) or in habitats with the potential to support state- and/or federally listed or otherwise special-status species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed during the survey is provided in Appendix D.

2.6 WILDLIFE CORRIDORS AND HABITAT CONSERVATION PLAN

According to the California Essential Habitat Connectivity Project, the Project Site is not mapped within an area for wildlife movement. However, the site is within a wildlife linkage as mapped by Mojave Desert Land Trust (Figure 3 in Appendix A). Although the site is within this linkage, the proposed Project will have minimal impacts on it as the remainder of the immediate vicinity of the linkage is largely undeveloped. As shown in Figure 3 wildlife will have the ability to go around the site to access the remainder of the linkage. Terrestrial animals are more likely to use the ephemeral wash for movement as that remains undeveloped upstream and downstream, and will not be affected by the proposed Project. The regional area around the Project site, while rural, is largely developed. Specifically, to the north, west, and south. The proposed Project is also not within a Habitat Conservation Plan. Therefore, the proposed Project will have a less than significant impact on any current wildlife corridors or habitat conservation plans.

SECTION 3.0 – RESULTS

3.1 LITERATURE REVIEW RESULTS

According to the CNDDB, CNPSEI, and other relevant literature and databases, 32 sensitive species, 4 of which are listed as threatened or endangered, have been documented in the *Joshua Tree North, Sunfair, Indian Cove,* and *Joshua Tree South* quads. This list of sensitive species and habitats includes any State and/or federally-listed threatened or endangered species, CDFW-designated Species of Special Concern (SSC), and otherwise Special Animals. “Special Animals” is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” The CDFW considers the taxa on this list to be those of greatest conservation need.

An analysis of the likelihood for the occurrence of all CNDDB-sensitive species documented in the *Joshua Tree North, Sunfair, Indian Cove,* and *Joshua Tree South* quads is provided in Table 2, in Appendix D. This analysis takes into account species range as well as documentation within the vicinity of the project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions. According to the databases, no sensitive habitat, including USFWS-designated critical habitat, occurs within or adjacent to the project site.

3.1.1 SPECIAL STATUS SPECIES BACKGROUND

Of the 32 species found within the *Joshua Tree North, Sunfair, Indian Cove,* and *Joshua Tree South* quads, four (4) have a special designation of either: federally listed, or state listed. The discussion below provides the background information on those species that have the potential to occur within the Project site.

Desert Tortoise (Gopherus agassizii)

The desert tortoise is a State and federally-listed threatened species. Throughout its range, it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise is typically found in creosote bush scrub. They are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, on the sides of washes and hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict the exact number of individuals on a site based on burrow numbers.

In 1992 the US Bureau of Land Management issued the *California Statewide Desert Tortoise Management Policy* which included categorizing habitats into three levels of classification. The management goal for Category I areas is to maintain stable, viable populations and to increase the population where possible. The management goal for Category II areas is to maintain stable, viable populations. The management goal for Category III areas is to limit population declines to the extent feasible. In April 1993, the BLM amended the CDCA plan to delineate these three categories of desert tortoise habitat on public lands. Although habitat categories apply only to public lands administered by the BLM, regulatory agencies typically determine habitat compensation ratios based on the nearest BLM habitat categories (Desert Tortoise Compensation Team 1991). With the adoption of the West Mojave Plan (U.S. Bureau of Land Management 2005), all lands that are outside Desert Wildlife Management Areas, including the subject parcel, are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the desert tortoise.

Desert Kit Fox (Vulpes macrotis)

The desert kit fox (*Vulpes macrotis*) is not federally- or state-listed, but is considered a species of local concern by the County of Los Angeles. It is uncommon to rare permanent residents in arid habitats within southern California (CDFW 2017b). Kit foxes are threatened by a number of human activities, including poaching, pesticide and rodenticide use, and direct poisoning, as well as heavy agricultural and urban development (Eder 2005). Desert kit foxes occur in the desert and other arid habitats, including sagebrush flats, creosote scrub, annual grassland habitats, and other areas with scattered brush, scrub, and shrubs. They are an important predator of small mammals, preying on black-tailed jackrabbits (*Lepus californicus*), desert cottontails (*Sylvilagus audubonii*), kangaroo rats, ground squirrels, and other rodents, insects, reptiles, birds, and bird eggs. Limited vegetation may be taken. Desert kit foxes excavate burrows in loose-textured sandy or loamy soils for shelter, pupping, and as an escape from extreme heat and cold (Eder 2005, CDFW B). Open, level areas are preferred for burrowing. Man-made structures and infrastructure, including culverts and pipes, also may be used for denning where suitable friable soils are not present (CDFW B).

American Badger (Taxidea taxus)

The American badger is a CDFW Species of Special Concern. Badgers are uncommon, permanent residents throughout California, and occur most commonly in open stages of shrub, woodland, and herbaceous habitats. They are tenacious diggers and occur where friable soils support denning and burrowing activities. They are active year-round, and most often nocturnal, although they may be active during the day. They prey upon fossorial rodents, especially California ground squirrels and pocket gophers; rats and mice, some reptiles, insects, eggs, birds, and carrion also may be taken. Breeding typically occurs in the

summer and early fall, with pups being born the following March or April in burrows dug in relatively dry, often sandy soil. American badgers are threatened primarily by indiscriminate trapping, agricultural conversion, and the eradication of ground squirrels and other fossorial rodents that comprise the majority of their prey base (CDFW B).

Burrowing Owl (Athene cunicularia)

The burrowing owl (BUOW) is a state and federal SSC. This owl is a mottled, brownish and sand-colored, dove-sized raptor, with large, yellow eyes, a rounded head lacking ear tufts, white eyebrows, and long legs compared to other owl species. It is a ground-dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW is heavily dependent upon the presence of mammal burrows, with ground squirrel burrows being a common choice, in its habitat to provide shelter from predators, inclement weather, and to provide a nesting place (Coulombe 1971). They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows.

BUOW spends a great deal of time standing on dirt mounds at the entrance to a burrow or perched on a fence post or other low to the ground perch from which they hunt for prey. BUOW frequently hunt by hovering in place above the ground and dropping on their prey from above. They feed primarily on insects such as grasshoppers, June beetles, and moths, but will also take small rodents, birds, and reptiles. They are active during the day and night but are considered a crepuscular owl; generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31. Up to 11, but typically 7 to 9, eggs are laid in a burrow, abandoned pipe, or other subterranean hollows where incubation is complete in 28-30 days. Young BUOW fledges in 44 days. The BUOW is considered a migratory species in portions of its range, which includes western North America from Canada to Mexico, and east to Texas and Louisiana. BUOW populations in California are considered to be sedentary or locally migratory.

Throughout its range, the BUOW is vulnerable to habitat loss, predation, vehicular collisions, and destruction of burrow sites and the poisoning of ground squirrels (Grinnell and Miller 1944, Zarn 1974, Remsen 1978). BUOW has disappeared from significant portions of their range in the last 15 years and, overall, nearly 60% of the breeding groups of owls known to have existed in California during the 1980s had disappeared by the early 1990s (Burrowing Owl Consortium 1993). The BUOW is not listed under the state or federal Endangered Species Act but is considered both a federal and state Species of Special Concern. The BUOW is a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5).

Western Joshua Tree (*Yucca brevifolia*)

Western Joshua trees occur throughout the Mojave Desert in Southern California and are typically found at an elevation of 400 to 1,800 meters (~1,200 to ~5,400 feet). Western Joshua trees within the western portion of the Mojave Desert typically receive more annual precipitation during "normal" years; consequently, cloning occurs more often resulting in numerous trunks sprouting from the same root system. Western Joshua tree habitats provide habitat for a variety of wildlife species including desert woodrats *(Neotoma* sp.) and night lizards *(Xantusia* sp.) both of which utilize the base of the trees. A variety of birds also utilize Western Joshua trees for nesting such as hawks, common ravens, and cactus wrens. CDFW consider Western Joshua tree woodlands as areas that support relatively high species

diversity and as such are considered to be a sensitive desert community. Western Joshua trees are also considered a significant resource under the California Environmental Quality Act (CEQA) and are included in the Desert Plant Protection Act, Food and Agricultural Code (80001 - 80006).

Additionally, pursuant to the provisions of Section 2074.2 of the Fish and Game Code, the California Fish and Game Commission (Commission), at its September 22, 2020, meeting, accepted for consideration the petition submitted to list the western Joshua tree (Yucca brevifolia) as threatened or endangered under the California Endangered Species Act. Based on that finding and the acceptance of the petition, the Commission also provided notice that the western Joshua tree is a candidate species as defined by Section 2068 of the Fish and Game Code. Figure 3 in Appendix A shows the location of the one Joshua tree on-site.

3.1.2 DESIGNATED CRITICAL HABITAT

The site is not located within or adjacent to any USFWS-designated Critical Habitat. No further action is required.

3.1.3 JURISDICTIONAL WATERS

Aerial imagery of the site was examined and compared with the surrounding USGS 7.5-minute topographic quadrangle maps to identify drainage features within the survey area as indicated by topographic changes, blue-line features, or visible drainage patterns. The U.S. Fish and Wildlife Service National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the Soil maps from the U.S. Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2022) were reviewed to identify the soil series on-site and to check if they have been identified regionally as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field, on aerial imagery, and topographic maps to determine jurisdictional status.

3.1.4 HYDROLOGY AND HYDROLOGIC CONNECTIVITY

Hydrologically, the project site is located within an undefined Hydrologic Sub-Area (HSA 708.10), as identified on the Calwater Watershed maps. This undefined area comprises a 129,902-acre drainage area within the larger Coyote Lake Watershed Area (Hydrologic Unit Code [HUC10] 1810010017, US Watershed Maps) (CalTrans, 2023). The Coyote Lake watershed in the Joshua Tree area is bordered to the north by the Surprise Springs-Deadman Lake watershed, to the east by the Mesquite Lake watershed, to the south by the Quail Wash and Black Rock Spring-Coyote Well watersheds, and to the west by Pipes Wash watersheds. (Figure 4 in Appendix A).

3.1.5 SAN BERNARDINO COUNTY DEVELOPMENT CODE

§ 88.01.060 Desert Native Plant Protection.

This Section provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. The provisions are intended to augment and coordinate with the

Desert Native Plants Act (Food and Agricultural Code §§ 80001 *et seq.*) and the efforts of the State Department of Food and Agriculture to implement and enforce the Act.

(a) *Definitions.* Terms and phrases used within this Section shall be defined in Division 10 (Definitions) and/or defined by the California Food and Agricultural Code. The California Food and Agricultural Code definition, if one exists, shall prevail over a conflicting definition in this Development Code.

(b) *Applicability.* The provisions of this Section shall apply to desert native plants specified in Subdivision (c) (Regulated Desert Native Plants) that are growing on any of the following lands, unless exempt in compliance with § 88.01.030 (Exempt Activities):

(1) Privately owned or publicly owned land in the Desert Region.

(2) Privately owned or publicly owned land in any parts of the Mountain Region in which desert native plants naturally grow in a transitional habitat.

(c) *Regulated Desert Native Plants.* The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance with § 88.01.050 (Tree or Plant Removal Permits). In all cases the botanical names shall govern the interpretation of this Section.

(1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:

(A) Dalea spinosa (smoketree).

(B) All species of the genus Prosopis (mesquites).

(2) All species of the family Agavaceae (century plants, nolinas, yuccas).

(3) Creosote Rings, ten feet or greater in diameter.

(4) All Western Joshua trees.

(5) Any part of any of the following species, whether living or dead:

(A) Olneya tesota (desert ironwood).

(B) All species of the genus Prosopis (mesquites).

(C) All species of the genus Cercidium (palos verdes).

(d) *Compliance with Desert Native Plants Act.* Removal actions of all plants protected or regulated by the Desert Native Plants Act (Food and Agricultural Code §§ 80001 *et seq.*) shall comply with the provisions of the Act before the issuance of a development permit or approval of a land use application.

3.2 FIELD STUDY RESULTS

3.2.1 VEGETATION

The vegetation on-site consists of *Larrea tridentata - Ambrosia dumosa Shrubland Alliance* (creosote bush - white bursage Scrub) and ruderal/non-native vegetation. The site is mostly undisturbed except for some vehicle tracks in portions of the site. A complete list of all plants observed is provided in Table 1 of Appendix D.

3.2.2 WILDLIFE

Several birds and animals were seen or heard during the survey. Species observed or otherwise detected on or in the vicinity of the project site during the surveys included; house finch (*Haemorhous mexicanus*), and cactus wren (*Campylorhynchus brunneicapillus*). A complete list of all species observed is provided in Table 1 of Appendix D.

The project site is located within a relatively developed area of Joshua Tree. The site is surrounded by vacant land to the north, east, south, and west, with one rural residence just beyond those vacant parcels.

3.2.3 SPECIAL STATUS SPECIES

No State and/or federally listed threatened or endangered species or other sensitive species were observed on-site during surveys.

Desert Tortoise

The habitat on site is marginally suitable for desert tortoise. Recent occurrences in the vicinity from 2008 are documented in the CNDDB Search. However, no sign of desert tortoise (i.e. burrows, tracks, or pellets) was observed during the survey. Additionally, no desert tortoise individuals were observed. Surveys for this species were conducted using the 2018 Survey Protocol from the USFWS. This consisted of walking transects spaced 10 meters (30 feet) apart.

> ***Findings***: No desert tortoise were observed and no sign of desert tortoise were observed. However, because the site is marginally suitable, it is recommended that pre-construction surveys be completed for this species. These surveys should be conducted by a qualified biologist and at an appropriate time of day/year to observe signs of desert tortoise using the 2018 Survey Protocol from the USFWS.

Desert Kit Fox

The site is not suitable for this species. This species was not observed during the survey. No burrows of suitable size or shape were observed, and no evidence of this species was observed either (scat, predation remains, tracks, etc.).

> ***Findings***: This species is considered absent from the project site and no further surveys are required.

American Badger

The site is not suitable for this species. This species was not observed during the survey. No burrows of suitable size or shape we observed and no evidence of this species were observed either (scat, predation remains, tracks, etc.).

> ***Findings***: This species is considered absent from the project site and no further surveys are required.

Burrowing owl

Based on the March 2023 field survey, the site does not contain suitable habitat for this species. No burrowing owls were observed during the site visit. No portion of the project site showed any evidence of past or present BUOW activity. No suitable burrows, feathers, whitewash, or castings were found. Additionally, the site does not contain a suitable burrow surrogate species (i.e., California ground squirrel (*Otospermophilus beecheyi*)).

> ***Findings***: This species is considered absent from the project site and no further surveys are required.

Western Joshua Tree

A western Joshua Tree Census was completed by Marinna Wagner, a Certified Arborist (Appendix E). There are currently 48 western Joshua trees on-site. The census survey recommends a 10-foot buffer is for all existing western Joshua trees on-site. The site plan currently has development taking place over 10 feet away from each tree. Figure 5 in Appendix A shows the location of the trees in relation to the proposed site plan. Therefore, no impacts are expected. If future development takes place within the parcels and impacts on western Joshua trees becomes unavoidable, further studies to determine the exact impacts on western Joshua tree will be required at that time and will likely require an Incidental Take Permit (ITP) from the California Department of Fish and Wildlife.

3.2.4 NESTING BIRDS

The Project site and immediate surrounding area do contain habitat suitable for nesting birds. As such the Project is subject to the following nesting bird regulations. Recommendations for avoidance and minimization are in section 4.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918. This Act implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The Act has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The Act prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service.

California Fish and Game Code

The Project site is also subject to Sections 3503 and 3503.5 of the Fish and Game Code. Section 3503 states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto". And Section 3503.5 states, "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto".

3.2.5 JURISDICTIONAL WATERS

Waters of the United States and Waters of the State

The USACE has the authority to permit the discharge of dredged or fill material in Waters of the U.S. under Section 404 CWA. While the Regional Water Quality Board has authority over the discharge of dredged or fill material in Waters of the State under Section 401 CWA as well as the Porter-Cologne Water Quality Control Act. The Project area was surveyed with 100 percent visual coverage and no drainage features were present on site. As such, the subject parcel does not contain any wetlands, Waters of the U.S., or Waters of the State.

Fish and Game Code Section 1602 - State Lake and/or Streambed

The CDFW asserts jurisdiction over any drainage feature that contains a definable bed and bank or associated riparian vegetation. The Project area was surveyed with 100 percent visual coverage and no definable bed or bank features exist on the project site. There is an outlet structure that deposits water onto the site from the surrounding parcels, however, it appears that the amount of water that is discharged does not stay within a defined location or channel. It is either absorbed into the soil or lost to sheet flow within the parcel. As such, the subject parcel does not contain any areas under CDFW jurisdiction.

3.2.6 SAN BERNARDINO COUNTY DEVELOPMENT CODE

The Proposed Project Site does contain beavertail cactus (*Opuntia basilaris*), pencil cholla (*Cylindropuntia ramosissima*), Mojave yucca (*Yucca schidigera*), hedgehog cactus (*Echinocereus engelmannii*), and Silver cholla (*Cylindropuntia echinocarpa*), which is a protected species under San Bernardino County Development Code § 88.01.060 and the California Desert Native Plant Act. See section 4 for recommendations on required permits for compliance.

Section 4.0 – CONCLUSIONS AND RECOMMENDATIONS

Based on the literature review and personal observations made in the immediate vicinity, no State and/or federally-listed threatened or endangered species are documented/or expected to occur within the Project site. Additionally, no plant species with the California Rare Plant Rank (CRPR) of 1 or 2 were observed on-site or documented to occur on-site in the relevant databases. No other sensitive species were observed within the project area or buffer area.

4.1 JURISDICTIONAL AREAS

There are no streams, channels, washes, or swales that meet the definitions of Section 1600 of the State of California Fish and Game Code (FGC) under the jurisdiction of the CDFW, Section 401 ("Waters of the State") of the Clean Water Act (CWA) under the jurisdiction of the Regional Water Quality Control Board (RWQCB), or "Waters of the United States" (WoUS) as defined by Section 404 of the CWA under the jurisdiction of the U.S. Army Corps of Engineers (Corps) within the subject parcel. Therefore, no permit from any regulatory agency will be required.

4.2 SPECIAL STATUS SPECIES

Desert Tortoise

Because the site is marginally suitable, it is recommended that pre-construction surveys be completed for this species. These surveys should be conducted by a qualified biologist and at an appropriate time of day/year to observe signs of desert tortoise using the 2018 Desert Tortoise Survey Protocol from the USFWS.

western Joshua tree

The proposed Project does not propose any impacts on western Joshua trees. Should impacts on this species become unavoidable in the future, an incidental take permit (ITP) will be required from the CDFW. The ITP will need to detail all impacts on the species and what alternative mitigation measures are proposed.

Additionally, to protect the root system of each tree during construction, the following disturbance limits, as recommended in the western Joshua tree census, should be observed and delineated with highly visible construction fencing, when ground disturbance activities are proposed within 12 feet of any western Joshua tree:

- 10 feet for any western Joshua trees

4.3 SAN BERNARDINO COUNTY DEVELOPMENT CODE AND THE CALIFORNIA DESERT NATIVE PLANT ACT

As stated above, the Project is subject to compliance with the San Bernardino County Development Code § 88.01.060 and the California Desert Native Plant Act. Therefore, the following mitigation measure should be put in place:

> Jennings recommends flagging and relocation on-site, to a nursery, or suitable other entity prior to construction of any species that is protected by the California Desert Native Plant Act. Any construction that removes any protected plant species would require a permit from the agricultural commissioner or local sheriff in the county where protected plants will be removed.

4.4 NESTING BIRDS

Nesting Birds

Since there is some habitat within the Project site and adjacent area that is suitable for nesting birds in general, the following mitigation measure should be implemented.

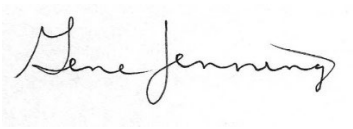
> Nesting bird nesting season generally extends from February 1 through September 15 in southern California and specifically, March 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage, and expected types, intensity, and duration of the disturbance. The nests and buffer zones shall be field-checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

4.4 CERTIFICATION

I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.

Please do not hesitate to contact me at 909-534-4547 should you have any questions or require further information.

Sincerely,



Gene Jennings

Principal/Regulatory Specialist

Appendices:

- Appendix A – Figures
- Appendix B – Site Photos
- Appendix C – Regulatory Framework
- Appendix D – Tables

Appendix E – Western Joshua Tree Census

Section 5.0 – REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, and D.H. Wilken (editors) 2012 *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley, CA.

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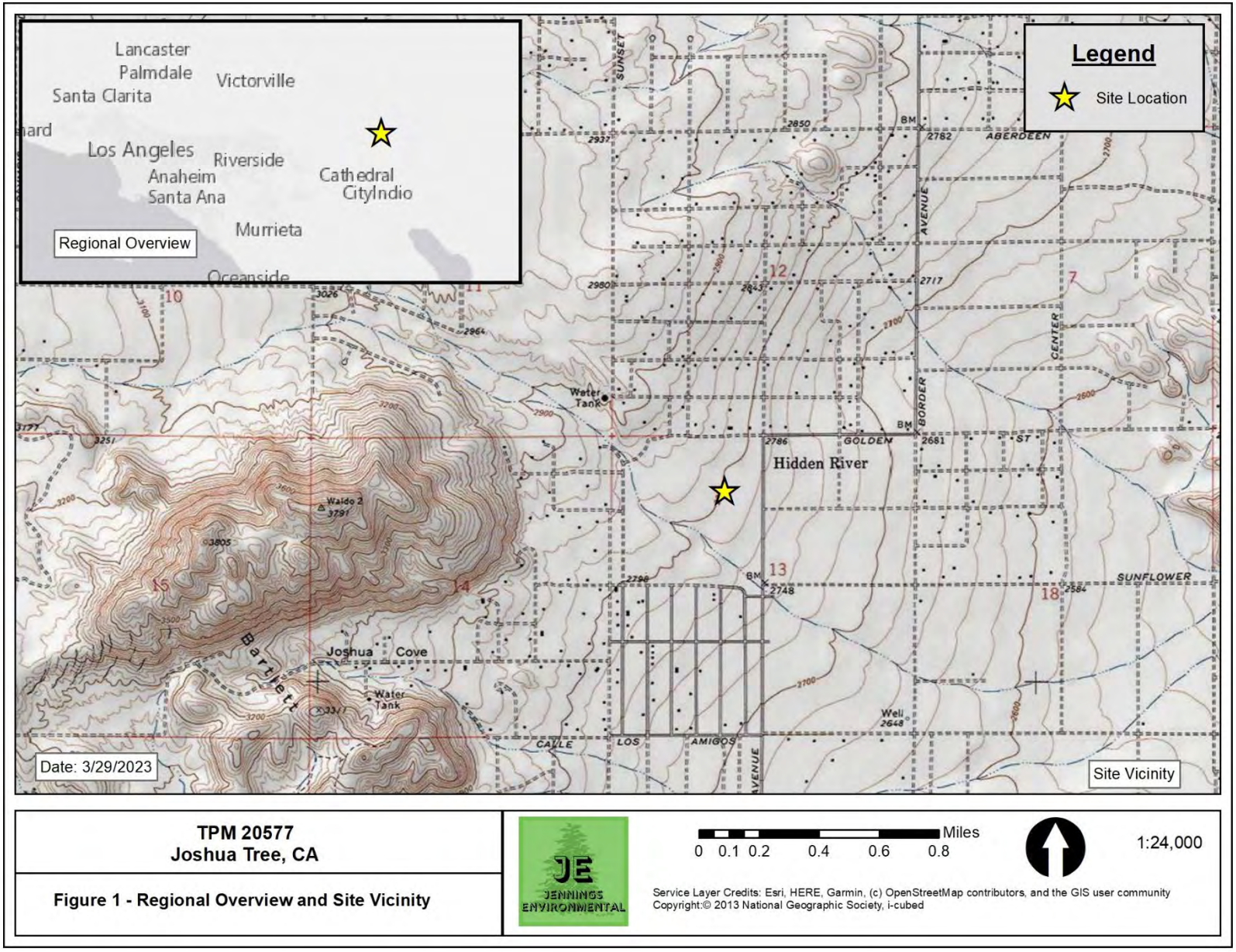
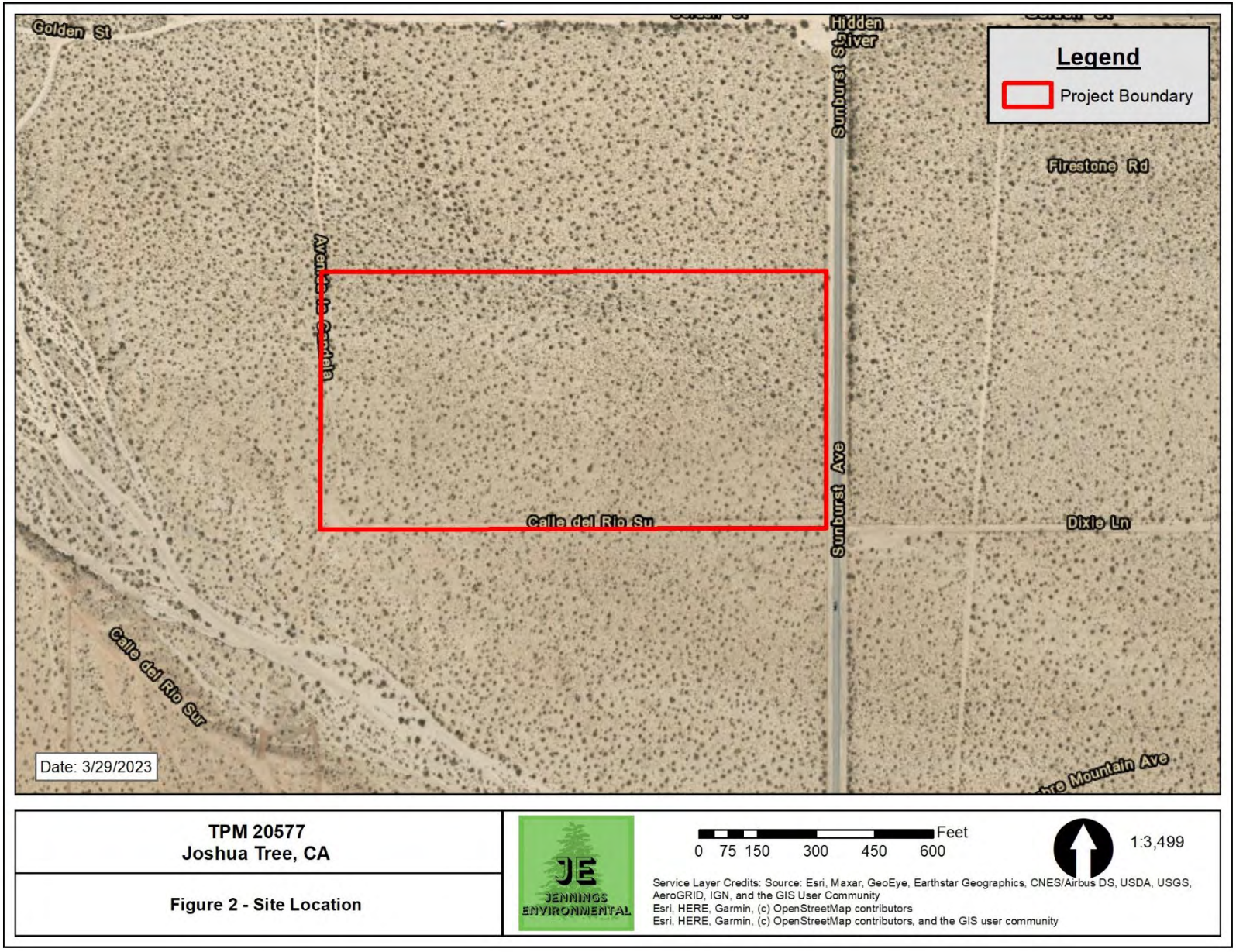
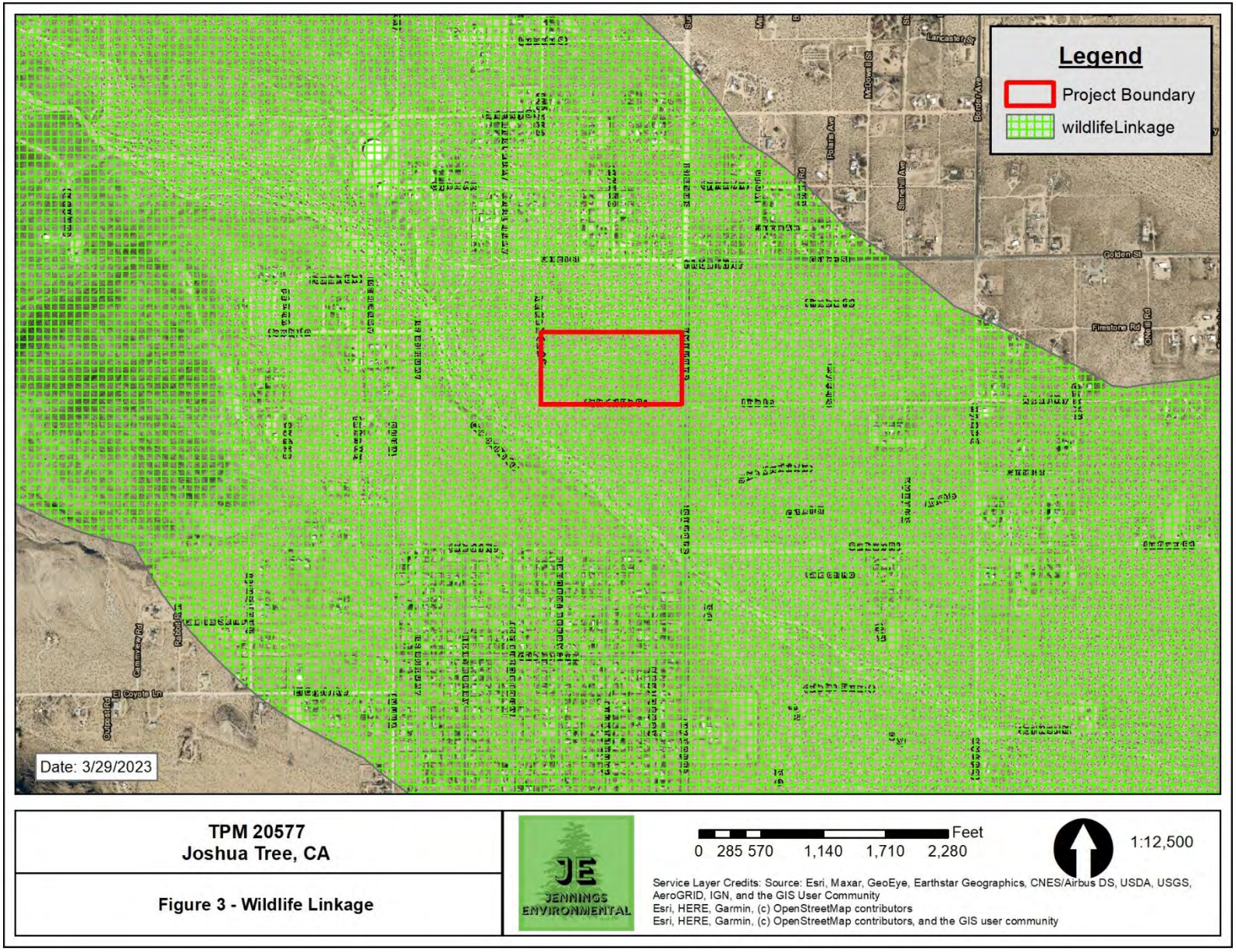
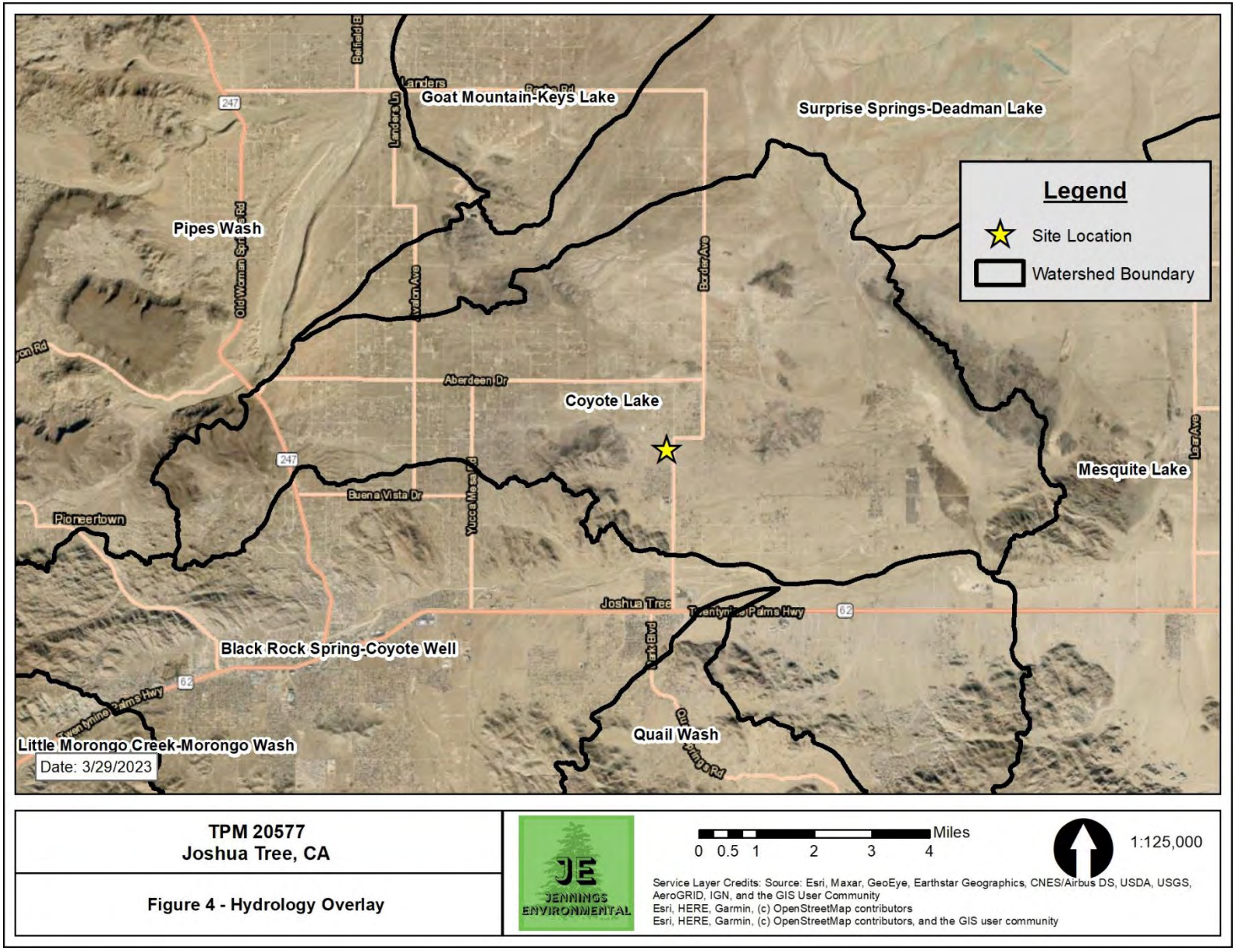
Appendix A – Figures


Lancaster
Palmdale
Victorville
Santa Clarita
Los Angeles
Riverside
Anaheim
Santa Ana
Cathedral City
Indio
Murrieta
Oceanside
Regional Overview
Legend
Site Location
Hidden River
Joshua Cove
Bartlett
Water Tank
Waldo 2
3791
ABERDEEN
AVENUE
CENTER
BORDER
GOLDEN
SUNFLOWER
CALLE
LOS
AMIGOS
Date: 3/29/2023
Site Vicinity
TPM 20577
Joshua Tree, CA
Figure 1 - Regional Overview and Site Vicinity
JE
JENNINGS ENVIRONMENTAL
Miles
0 0.1 0.2 0.4 0.6 0.8
1:24,000
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Copyright:© 2013 National Geographic Society, i-cubed


Golden St
Hidden River
Sunburst St
Legend
Project Boundary
Firestone Rd
Avenida la Cantela
Calle del Rio Su
Sunburst Ave
Dixie Ln
Calle del Rio Sur
Date: 3/29/2023
TPM 20577
Joshua Tree, CA
Figure 2 - Site Location
JE
JENNINGS ENVIRONMENTAL
Feet
0 75 150 300 450 600
1:3,499
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community


Legend
Project Boundary
wildlifeLinkage
Lancaster St
McDowell St
Border Ave
Polaris Ave
Stonehill Ave
Golden St
Firestone Rd
Commerce Rd
Rabbit Ln
El Coyote Ln
Outpost Rd
Date: 3/29/2023
TPM 20577
Joshua Tree, CA
Figure 3 - Wildlife Linkage
JE
JENNINGS ENVIRONMENTAL
Feet
0 285 570 1,140 1,710 2,280
1:12,500
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community


Goat Mountain-Keys Lake
Surprise Springs-Deadman Lake
Pipes Wash
Coyote Lake
Mesquite Lake
Pioneertown
Black Rock Spring-Coyote Well
Quail Wash
Little Morongo Creek-Morongo Wash
Landers
Joshua Tree
Aberdeen Dr
Buena Vista Dr
Old Woman Springs Rd
Yucca Mesa Rd
Border Ave
Lear Ave
Park Blvd
Old Woods Rd
247
62
Legend
Site Location
Watershed Boundary
Date: 3/29/2023
TPM 20577
Joshua Tree, CA
Figure 4 - Hydrology Overlay
JE
JENNINGS ENVIRONMENTAL
Miles
0 0.5 1 2 3 4
1:125,000
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
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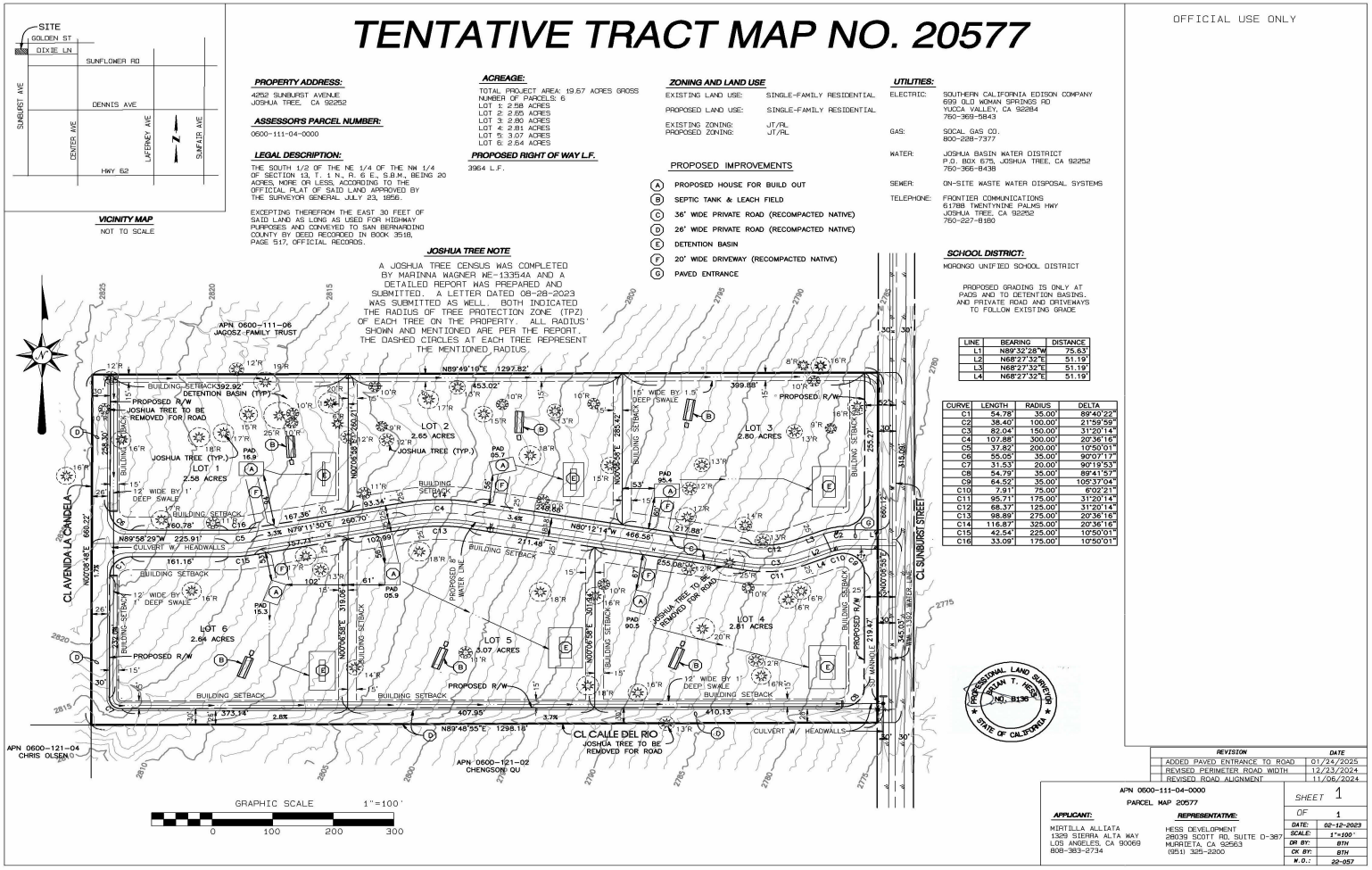
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community


TENTATIVE TRACT MAP NO. 20577
OFFICIAL USE ONLY
PROPERTY ADDRESS:
4252 SUNBURST AVENUE
JOSHUA TREE, CA 92252
ASSESSOR'S PARCEL NUMBER:
0600-111-04-0000
LEGAL DESCRIPTION:
ACREAGE:
TOTAL PROJECT AREA: 19.67 ACRES GROSS
NUMBER OF PARCELS: 6
LOT 1: 2.58 ACRES
LOT 2: 2.65 ACRES
LOT 3: 2.80 ACRES
LOT 4: 2.81 ACRES
LOT 5: 3.07 ACRES
LOT 6: 2.64 ACRES
PROPOSED RIGHT OF WAY L.F.
3964 L.F.
ZONING AND LAND USE
EXISTING LAND USE: SINGLE-FAMILY RESIDENTIAL
PROPOSED LAND USE: SINGLE-FAMILY RESIDENTIAL
EXISTING ZONING: JT/RL
PROPOSED ZONING: JT/RL
UTILITIES:
ELECTRIC: SOUTHERN CALIFORNIA EDISON COMPANY
699 OLD WOMAN SPRINGS RD
YUCCA VALLEY, CA 92284
760-369-5843
GAS: SOCAL GAS CO.
800-228-7377
WATER: JOSHUA BASIN WATER DISTRICT
P.O. BOX 675, JOSHUA TREE, CA 92252
760-366-8438
SEWER: ON-SITE WASTE WATER DISPOSAL SYSTEMS
TELEPHONE: FRONTIER COMMUNICATIONS
61788 TWENTYNINE PALMS HWY
JOSHUA TREE, CA 92252
760-227-8180
PROPOSED IMPROVEMENTS
A PROPOSED HOUSE FOR BUILD OUT
B SEPTIC TANK & LEACH FIELD
C 36' WIDE PRIVATE ROAD (RECOMPACTED NATIVE)
D 26' WIDE PRIVATE ROAD (RECOMPACTED NATIVE)
E DETENTION BASIN
F 20' WIDE DRIVEWAY (RECOMPACTED NATIVE)
G PAVED ENTRANCE
SCHOOL DISTRICT:
MORONGO UNIFIED SCHOOL DISTRICT
PROPOSED GRADING IS ONLY AT PADS AND TO DETENTION BASINS, AND PRIVATE ROAD AND DRIVEWAYS TO FOLLOW EXISTING GRADE
VICINITY MAP
NOT TO SCALE
SITE
GOLDEN ST
DIXIE LN
SUNFLOWER RD
DENNIS AVE
HWY 62
SUNBURST AVE
CENTER AVE
LAFENEY AVE
SUNFAIR AVE
JOSHUA TREE NOTE
A JOSHUA TREE CENSUS WAS COMPLETED BY MARINNA WAGNER NE-13354A AND A DETAILED REPORT WAS PREPARED AND SUBMITTED. A LETTER DATED 08-28-2023 WAS SUBMITTED AS WELL. BOTH INDICATED THE RADIUS OF TREE PROTECTION ZONE (TPZ) OF EACH TREE ON THE PROPERTY. ALL RADIUS SHOWN AND MENTIONED ARE PER THE REPORT. THE DASHED CIRCLES AT EACH TREE REPRESENT THE MENTIONED RADIUS.
APN 0600-111-06
JAGOSZ FAMILY TRUST
APN 0600-121-04
CHRIS OLSEN
APN 0600-121-02
CHENGSON QU
CL AVENIDA LA CANDELA
CL SUNBURST STREET
CL CALLE DEL RIO
JOSHUA TREE TO BE REMOVED FOR ROAD
LOT 1 2.58 ACRES
LOT 2 2.65 ACRES
LOT 3 2.80 ACRES
LOT 4 2.81 ACRES
LOT 5 3.07 ACRES
LOT 6 2.64 ACRES
DETENTION BASIN (TYP)
PROPOSED R/W
BUILDING SETBACK
12' WIDE BY 1' DEEP SWALE
15' WIDE BY 1.5' DEEP SWALE
CULVERT W/ HEADWALLS
PROFESSIONAL LAND SURVEYOR BRIAN T. HESS NO. 8135 STATE OF CALIFORNIA
GRAPHIC SCALE 1"=100'
0 100 200 300
LINE BEARING DISTANCE
L1 N89°33'28"W 75.63'
L2 N68°27'32"E 51.19'
L3 N68°27'32"E 51.19'
L4 N68°27'32"E 51.19'
CURVE LENGTH RADIUS DELTA
C1 54.78' 35.00' 89°40'22"
C2 38.40' 100.00' 21°59'59"
C3 82.04' 150.00' 31°20'14"
C4 107.88' 300.00' 20°36'16"
C5 37.82' 200.00' 10°50'01"
C6 55.05' 35.00' 90°07'17"
C7 31.53' 20.00' 90°19'53"
C8 54.79' 35.00' 89°41'57"
C9 64.52' 35.00' 105°37'04"
C10 7.91' 75.00' 6°02'21"
C11 95.71' 175.00' 31°20'14"
C12 68.37' 125.00' 31°20'14"
C13 98.89' 275.00' 20°36'16"
C14 116.87' 325.00' 20°36'16"
C15 42.54' 225.00' 10°50'01"
C16 33.09' 175.00' 10°50'01"
REVISION DATE
ADDED PAVED ENTRANCE TO ROAD 01/24/2025
REVISED PERIMETER ROAD WIDTH 12/23/2024
REVISED ROAD ALIGNMENT 11/06/2024
APN 0600-111-04-0000
PARCEL MAP 20577
SHEET 1 OF 1
APPLICANT:
MIRTILLA ALLIATA
1329 SIERRA ALTA WAY
LOS ANGELES, CA 90069
808-383-2734
REPRESENTATIVE:
HESS DEVELOPMENT
28039 SCOTT RD, SUITE D-387
MURRIETA, CA 92563
(951) 325-2200
DATE: 02-12-2025
SCALE: 1"=100'
DR BY: BTH
CK BY: BTH
W.O.: 22-057


TPM 20577
Joshua Tree, CA
Figure 5 - TPM Site Plan
JE
JENNINGS ENVIRONMENTAL
Miles
0 0.475 0.95 1.9 2.85 3.8
Service Layer Credits:
1:113,053

Appendix B – Photos

	Photo 1 – Southeast corner of Project site, facing northwest.
	Photo 2 – Southwest corner of Project site, facing northeast.

	Photo 3 – Northeast corner of Project site, facing southwest.
	Photo 4 – Northwest corner of Project site, facing southeast.

Appendix C – Regulatory Framework

1.1 FEDERAL JURISDICTION

1.1.1 United States Army Corps of Engineers

Activities within inland streams, wetlands, and riparian areas in California are regulated by agencies at the federal, state, and regional levels. At the federal level, the U.S. Army Corps of Engineers (USACE) Regulatory Program regulates activities within wetlands and waters of the US pursuant to Section 404 of the Federal Clean Water Act (CWA).

At the state level, the California Department of Fish and Wildlife (CDFW) regulates activities within the bed, bank, and associated habitat of a stream under the Fish and Game Code §§ 1600–1616. The California State Water Resources Board (SWRB) delegates authority at the regional level to Regional Water Quality Control Boards (RWQCB) that are responsible for regulating discharge into waters of the US under Section 401 of the federal CWA and waters of the State under the California Porter-Cologne Water Quality Act.

The CWA was implemented to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (33 Code of Federal Regulations [CFR] Part 328 Section 328.3). "Waters of the US" are defined as follows:

> **§ 328.3 Definitions.**
> For the purpose of this regulation these terms are defined as follows:
> (a) *Waters of the United States* means:
> (1) Waters which are:
> (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
> (ii) The territorial seas; or
> (iii) Interstate waters, including interstate wetlands;
> (2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
> (3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section:
> (i) That are relatively permanent, standing or continuously flowing bodies of water; or
> (ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;
> (4) Wetlands adjacent to the following waters:
> (i) Waters identified in paragraph (a)(1) of this section; or
> (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3)(i) of this section and with a continuous surface connection to those waters; or

(iii) Waters identified in paragraph (a)(2) or (3) of this section when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:

(i) That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or

(ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section.

(b) The following are not ''waters of the United States'' even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (*e.g.,* gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

(1) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically
adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
(2) *Adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are ''adjacent wetlands.''
(3) *High tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such at those accompanying a hurricane or other intense storm.
(4) *Ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
(5) *Tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.
(6) *Significantly affect* means a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section. To determine whether waters, either alone or in combination with similarly situated waters in the region, have a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section, the
functions identified in paragraph (c)(6)(i) of this section will be assessed and the factors identified in paragraph (c)(6)(ii) of this section will be considered:

(i) Functions to be assessed:

(A) Contribution of flow;

(B) Trapping, transformation, filtering, and transport of materials (including nutrients, sediment, and other pollutants);

(C) Retention and attenuation of floodwaters and runoff;

(D) Modulation of temperature in waters identified in paragraph (a)(1) of this section; or

(E) Provision of habitat and food resources for aquatic species located in waters identified in paragraph (a)(1) of this section;

(ii) Factors to be considered:

(A) The distance from a water identified in paragraph (a)(1) of this section;

(B) Hydrologic factors, such as the frequency, duration, magnitude, timing, and rate of hydrologic connections, including shallow subsurface flow;

(C) The size, density, or number of waters that have been determined to be similarly situated;

(D) Landscape position and geomorphology; an

(E) Climatological variables such as temperature, rainfall, and snowpack.

1.2 STATE JURISDICTION

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050(e)). Waters of the State broadly includes all waters within the State's boundaries (public or private), including waters in both natural and artificial channels.

1.2.1 Regional Water Quality Control Board

Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) regulate the discharge of waste into waters of the State. Discharges of waste include "fill, any material resulting from human activity, or any other 'discharge' that may directly or indirectly impact 'waters of the state.'" Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

1.2.2 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural waterways, the limit of CDFW jurisdiction of

artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS accepted definition of a wetland:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated withwater or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

Appendix D – Tables

Table 1. Species Observed On-Site

Common Name	Scientific Name
Plants	
Silver cholla	*Cylindropuntia echinocarpa*
White bursage	*Ambrosia Dumosa*
Creosote bush	*Larrea tridentata*
beavertail cactus	*Opuntia basilaris*
Hedgehog cactus	*Echinocereus engelmannii*
Pencil cholla	*Cylindropuntia leptocaulis*
Schismus grass	*Schismus spp.*
Western Joshua tree	*Yucca brevifolia*
Mojave yucca	*Yucca schidigera*
Short-pod mustard	*Hirschfeldia incana*
Nevada ephedra	*Ephedra nevadensis*
Common stork's bill	*Erodium cicutarium*
Common fiddleneck	*Amsinckia intermedia*
Heliotrope phacelia	*Phacelia crenulate*
Harem cactus	*Echinocactus polycephalus*
Chia sage	*Salvia columbariae*
Birds	
House finch	*Haemorhous mexicanus*
Mourning dove	*Zenaida macroura*
Cactus wren	*Campylorhynchus brunneicapillus*
Gamble's quail	*Callipepla gambelii*
Common raven	*Corvus corax*
Black-throated sparrow	*Amphispiza bilineata*
Verdin	*Auriparus flaviceps*

Table 2 – CNDDB Potential to Occur for the *Joshua Tree North, Sunfair, Indian Cove,* and *Joshua Tree South* USGS 7.5 minute Quadrangle

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Anniella stebbinsi	Southern California legless lizard	None, None	G3, S3, CDFW-SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Antrozous pallidus	pallid bat	None, None	G4, S3, CDFW-SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Aquila chrysaetos	golden eagle	None, None	G5, S3, CDFW-FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Astragalus bernardinus	San Bernardino milk-vetch	None, None	G3, S3, 1B.2	Joshua tree woodland, pinyon and juniper woodland. Granitic or carbonate substrates. 290-2290 m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Astragalus tricarinatus	triple-ribbed milk-vetch	Endangered, None	G2, S2, 1B.2	Joshua tree woodland, Sonoran desert scrub. Hot, rocky slopes in canyons and along edge of boulder-strewn desert washes, with Larrea and Encelia. 455-1585 m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Athene cunicularia	burrowing owl	None, None	G4, S3, CDFW-SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Boechera dispar	pinyon rockcress	None, None	G3, S3, 2B.3	Joshua tree woodland, pinyon and juniper woodland, Mojavean desert scrub. Granitic, gravelly slopes and mesas. Often under desert shrubs which support it as it grows. 1005-2805 m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Calochortus striatus	alkali mariposa-lily	None, None	G3, S2S3, 1B.2	Chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps. Alkaline meadows and ephemeral washes. 70-1600m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None, None	G5T3T4, S3S4, CDFW-SSC	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Cymopterus multinervatus	purple-nerve cymopterus	None, None	G4G5, S2, 2B.2	Mojavean desert scrub, pinyon and juniper woodland. Sandy or gravelly places. 765-2195 m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Erigeron parishii	Parish's daisy	Threatened, None	G2, S2, 1B.1	Mojavean desert scrub, pinyon and juniper woodland. Often on carbonate; limestone mountain slopes; often associated with drainages. Sometimes on grainite. 1050-2245 m.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Eumops perotis californicus	western mastiff bat	None, None	G4G5T4, S3S4, CDFW-SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Falco mexicanus	prairie falcon	None, None	G5, S4, CDFW-WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Suitable habitat for this species does not occur on-site. Therefore, this species is considered **absent** for the project site.
Gopherus agassizii	desert tortoise	Threatened, Threatened	G3, S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Grusonia parishii	Parish's club-cholla	None, None	G3G4, S2, 2B.2	Mojavean desert scrub, Sonoran desert scrub, Joshua tree woodland. Sandy or rocky sites. 840-1600 m.	Suitable habitat for this species does occur on-site. However, this species is **absent** from the Proejct site.
Jaffueliobryum raui	Rau's jaffueliobryum moss	None, None	G4, S2, 2B.3	Alpine dwarf scrub, chaparral, Mojavean desert scrub, Sonoran desert scrub. Dry openings, rock crevices. On dry sandstone or limestone. 425-2015 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Lasiurus cinereus	hoary bat	None, None	G3G4, S4	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Linanthus maculatus ssp. maculatus	Little San Bernardino Mtns. linanthus	None, None	G2T2, S2, 1B.2	Desert dunes, Sonoran desert scrub, Mojavean desert scrub, Joshua tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 135-1220 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Matelea parvifolia	spear-leaf matelea	None, None	G5, S3, 2B.3	Mojavean desert scrub, Sonoran desert scrub. Dry rocky ledges and slopes. 360-1440 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Monardella robisonii	Robison's monardella	None, None	G3, S3, 1B.3	Pinyon and juniper woodland. Rocky desert slopes, often among granitic boulders. 610-1615 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Muhlenbergia appressa	appressed muhly	None, None	G4, S3, 2B.2	Coastal scrub, Mojavean desert scrub, valley and foothill grassland. Rocky slopes, canyon bottoms. 20-1600 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Myotis thysanodes	fringed myotis	None, None	G4, S3	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Nyctinomops femorosaccus	pocketed free-tailed bat	None, None	G5, S3, CDFW-SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Nyctinomops macrotis	big free-tailed bat	None, None	G5, S3, CDFW-SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Ovis canadensis nelsoni	desert bighorn sheep	None, None	G4T4, S3, CDFW-FP	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Penstemon clevelandii var. mohavensis	Mojave beardtongue	None, None	G5T3?, S2, 1B.2	Mojavean desert scrub, pinyon and juniper woodland. Rocky, granitic (often). 925-1620 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Saltugilia latimeri	Latimer's woodland-gilia	None, None	G3, S3, 1B.2	Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Rocky or sandy substrate; sometimes in washes, sometimes limestone. 120-2200 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Sphaeralcea rusbyi var. eremicola	Rusby's desert-mallow	None, None	G4T2, S2, 1B.2	Mojavean desert scrub, Joshua tree woodland. In creosote bush scrub, blackbush scrub, Joshua tree woodland; sometimes on carbonate; sometimes in washes. 425-1645 m.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Taxidea taxus	American badger	None, None	G5, S3, CDFW-SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Toxostoma bendirei	Bendire's thrasher	None, None	G4, S3, CDFW-SSC	Migratory; local spring/summer resident in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Potential to Occur
Toxostoma lecontei	Le Conte's thrasher	None, None	G4, S3, CDFW-SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.
Vireo bellii pusillus	least Bell's vireo	Endangered, Endangered	G5T2, S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat for this species does occur on-site. Protocol surveys were completed and this species is **absent**. Pre-Construction surveys are required.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected WL = Watch List SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.
? = Uncertainty in the exact status of an element (could move up or down one direction from current rank)

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank**)** attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa*. The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

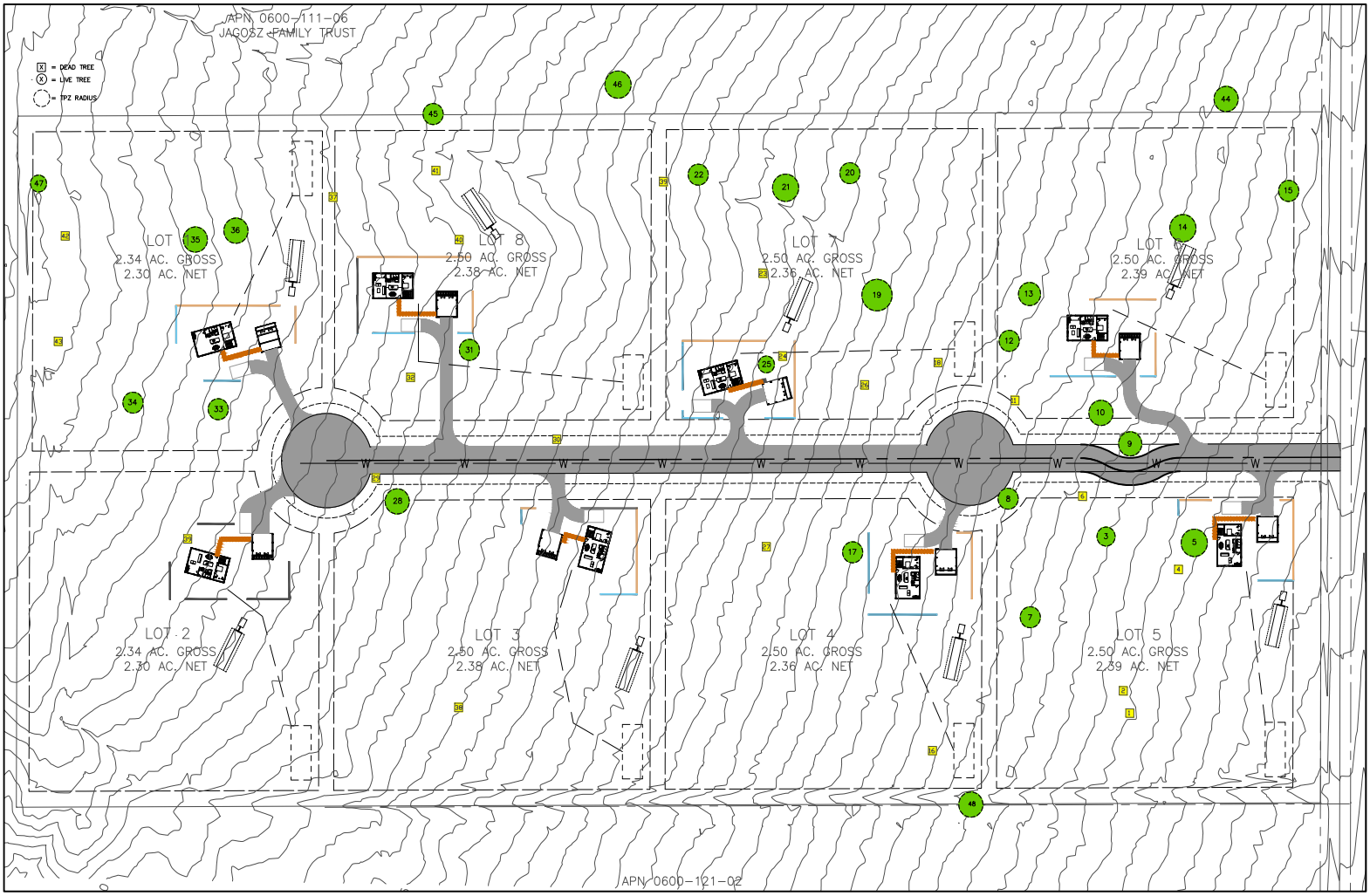
Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Appendix E – Western Joshua Tree Census

JOSHUA TREE CENSUS

SITE MAP WITH PHOTOGRAPHIC CENSUS



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This report is for 4252 Sunburst St. in Joshua Tree, California. A field census and native plant inventory was performed on November 5, 2022 of the selected Joshua Trees (*Yucca brevifolia* ssp. *brevifolia*), a candidate species under the California Endangered Species Act (CESA), effective October 9, 2020.

This project site is vacant rural residential. Soil conditions appear mostly sandy. The property in general slopes to the south, but there are several small washes and drainage patterns that alter the localized slopes. The existing Joshua Trees are of moderate size and mostly health, yet show some signs of recent weevil damage to branches. There are several large dead trees that appear to have been dead for many years.

The native plant census map is created by overlaying architectural plans with google earth maps, high quality imagery, and some on the ground measurements. All tree locations are approximate. The digital survey may not exactly align with current ground conditions. If precise locations of the trees are required please contact the surveyor.

The primarily goal is to avoid the take of western Joshua Trees on the project site. It is our recommendation that site work be modified to protect the trees wherever feasible. The following notes apply:

1. Trees 3, 5, 7-10, 12-15, 17, 19-22, 25, 28, 31, 33-36, and 44-48 are alive and if TPZ distances and best practices are maintained during construction there should be no impact. All trees to be protected.
2. Trees 1, 2, 4, 6, 11, 16, 18, 23, 24, 26, 27, 29, 30, and 32, 37-43 are dead. The majority of these trees have been dead for a very long time and are in advanced stages of decay. These tree locations are approximate and based on aerial imagery and ground measurements. They were not surveyed by the surveyor. All trees should be left in place.
3. Trees 44 and 46 are just outside of the property lines and 45 and 48 are on the property line. There is no impact.
4. Take extra caution with Trees 5, 8, 9, 14, and 31 to make sure that no grading overage encroaches on the TPZ.

GENERAL NOTES:

Currently western Joshua tree (WJT) is a candidate species under the California Endangered Species Act (CESA) and is fully protected under CESA. To transplant or relocate, remove or trim a western Joshua tree, including dead trees, branches or seed bank, would require an Incidental Take Permit from the California Department of Fish and Wildlife (CDFW). Details of the application process and requirements, including fees, to obtain a California Endangered Species Act (CESA) ITP from CDFW are described here: https://wildlife.ca.gov/Conservation/CESA/Permitting.

BEST PRACTICES:

Tree Protection Zones (TPZ) are recommended during construction for this project site. TPZ for standard trees is an area equivalent to a circle with a radius that is 12 times the trunk diameter (DBH) measured at 1.5 meters above ground. Heritage trees can be equivalent to up to 15 times the DBH. Since the Western Joshua Tree is a *Yucca* species, does not produce annual tree rings like other trees, and is widely and shallowly rooted, radius delineations based on the width of the tree are also considered. The Desert Native Plant Act states that “No grade alterations shall bury any portion of a regulated tree or plant or significantly undercut the root system within the dripline” (per 88.01.050 Native Tree or Plant Removal Permits in the County of San Bernardino). In under no circumstance is it allowed to bury the root flare of the tree during or after grading.

A 10 ft radius was recommended per Section 749.12 Title 14, CCR and sometimes larger for trees noted with larger drip line radius. For any trees that are within 40 ft of work, a clear and marked TPZ radius measured from the center of the tree is required on the ground so that contractors can avoid enroaching o the tree. A conservative estimate for a TPZ for a average sized Joshua Tree can be at least double the drip line radius

and this is recommended in most situations. It is our recommendation that at a minimum the TPZ should be protected with clear markers, tape, cones, and/or some form of fencing.

We recommend avoiding cutting roots larger than 1.5-2 inch in diameter whenever feasible. Consideration should be taken to how these roots are supporting the overall plant stability and nutrient uptake. Given the various small-scale drainage patterns on site, tree roots are likely to follow existing patterns, caution should be taken when grading to not disturb such patterns as much as possible. Joshua Tree roots are very fragile especially when environmental conditions have been dry for several months. Sometimes, depending on the type of work, it is possible to dig around large roots by hand and leave the roots in place. Sulfur should be applied on cut roots to prevent the introduction of bacteria or other infections.

Contractors are required to be cautious around the TPZ and are never to store tools or materials under or against the trees. All concrete, plaster, or other fine particle clean out and tool washing areas are never to be located near the TPZ. To avoid unnecessary compaction resulting from vehicles and heavy equipment, boards or steel plates can be utilized to distribute the load if access or work needs to occur near the TPZ. If field conditions differ from surveyed conditions, TPZ must be maintained on the ground and it is the contractor's responsiblity to not encroach on the trees. These areas must be defined and agreed upon in advance and in writing between the Client and the General Contractor. It is either the Client or the General Contractor's responsibility, depending on the situation, to communicate these notes to their workers and subcontractors.

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CONDUCTED BY: MARINNA WAGNER
WE-13354A
ISA CERTIFIED ARBORIST
2/8/23

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 1 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): NA (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in a state of decay. Much of the thatch has fallen off and decayed. Death is likely not recent.
ROOT FLARE CONDITION: Decayed, no roots exposed and base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: Tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 2 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.5 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Unknown
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in a state of decay. This death may have been recent within the last 2-5 years as the thatch on the trunk has not decayed fully.
ROOT FLARE CONDITION: Decayed. Base not located.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: It should be protected in place as habitat for critters. It is not impossible this tree's root system could still be healthy since the tree likely died within the last 5 years and it could maybe produce pups, please don't disturb for now.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 3

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.5 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and slightly south facing.
LEAN: NE VIGOR: Normal FOLIAGE: Ok, short CROWN DENSITY: Sparse
NUMBER OF LIVE BRANCHES: 2 MAX BRANCH DIAMETER: 35 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 3
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Recent weevil damage to spent flower.
ROOT FLARE CONDITION: Ok
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due to recent pest damage and stress.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 9 ft to the edge of the grading construction zone is recommended.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 4 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown likely C
SIZE (HEIGHT X WIDTH): NA (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: 3
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay. Thatch has come off of the trunk and the tree is in decay. Death is likely not recent.
ROOT FLARE CONDITION: Decayed.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 5

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 6 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy, localized slope north facing
LEAN: SE VIGOR: High FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 20 MAX BRANCH DIAMETER: 40 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some bark is peeling off the trunk.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 2 m (6.5 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due to
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 13 ft to the edge of the grading construction zone is recommended.

DETAILS: Bark peeling off trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 6 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown likely C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base not found, likely in the center.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 7

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.45 m x .80 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: Many, the main trunk has died and this pup lives on to be the main leader.
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: Several pups dead too MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Main has died and leading pup is healthy.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due to the fact that this pup is now the leader. It likely depends on a larger root system established by the mother tree and caution should be taken.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 8

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.5 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 2 MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some recent weevil damage.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due to the recent weevil damage and potential stress.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended.

DETAILS: Possible bud forming?

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 9

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 5 m x 1.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 8 MAX BRANCH DIAMETER: 55 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some bark is beginning to separate from the trunk.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Feasible given minimal wide branching, however the plant is quite tall and may need some bracing. Pruning is not recommended unless absolutely necessary.
RECOMMENDATIONS: A Tree Protection Zone (TPZ) radius of 11.5 ft to the edge of the grading construction zone is recommended.

DETAILS: Some bark peeling away from the trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 10

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 2 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Thin, dull, skinny CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 16 MAX BRANCH DIAMETER: 55 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 2 MAX HEIGHT OF TALLEST PUP: 1.3 m
DECAY OR DAMAGE: Recent weevil damage to spent flower branches
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 10”
TRANSPLANT FEASIBILITY NOTES: Not recommended due to weevil damage, pup, and wide branching form.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 12 ft to the edge of the grading construction zone is recommended.

DETAILS: Pup is connected to the main & recent weevil damage.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 11 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown likely C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 12

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 3.8 m x 1.3 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: S VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 12 MAX BRANCH DIAMETER: 30 cm
NUMBER OF DEAD BRANCHES: 3
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: Possible this tree was a pup of a previous main tree MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Weevil damage on several branches. Dead branch to the west may have been part of this tree, but it is unknown.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the wide branching and weevil damage that is causing stress.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 13

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4 m x 1.2 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Long, skinny, & dull CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 5 MAX BRANCH DIAMETER: 65 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 1 dead pup MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some minor bark loss at the base.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 10”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the poor condition of the leaves.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 11 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 14

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 15 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Old weevil damage.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 2 m (6.5 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the wide branching habit and past weevil damage.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 13 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 15 (not located precisely)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.18 m x 0.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: Straight VIGOR: Normal FOLIAGE: Poor CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: Many
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: It is most likely that this is a pup from a larger plant. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Previous main is heavily decayed. Yellow center of the crown of the live portion.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended given that this is likely a pup from a larger plant and it may be relying on a much larger root system.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, if this continues, plant may not survive.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 16 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Death was not recent of the large supine trunk, but more recent of the tree on the left. It is difficult to find the base of the fallen tree and it is unknown if these two trees were part of the same tree or separate given that the one to the right is in an advanced stage of decay and has likely shifted on site over the years. It is possible that the one to the left may have been a pup of the previous tree and has recently died.
ROOT FLARE CONDITION: Decayed.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters. The rootzone of the portion of the tree that still is upright should be protected.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 17

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 5 m x 1.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and localized slope north facing
LEAN: Straight VIGOR: High FOLIAGE: Ok, short CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 26 MAX BRANCH DIAMETER: 45 cm
NUMBER OF DEAD BRANCHES: 3
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 5 MAX HEIGHT OF TALLEST PUP: 1 m
DECAY OR DAMAGE: The pups are in good condition, however it appears that main trunk is in poor condition and will likely die.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 7”
TRANSPLANT FEASIBILITY NOTES: Not recommended given that the mother trunk is in poor condition and there are quite a few pups that will be difficult to keep all together.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Poor condition of leaves on mother plant and several dead branches.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 18 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) Moderate sized tree
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: This tree snapped somewhat recently and still maintains some bark on the trunk. It's possible th tree died in the last 3-5 years.
ROOT FLARE CONDITION: Decayed. Base intact.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: If this tree is not in the way of construction, it should be protected in place as habitat for critters. Since this is a slightly more recent death, it is recommended to leave in place. The tree appears rotted so it is likely not going to produce pups, but that is unknown at this time.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 19

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 6 m x 5.6 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and localized slope slightly north facing
LEAN: S VIGOR: Normal FOLIAGE: Poor CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 22 MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 4
MAJOR BRANCH FAILURES: None yet, but several are weak
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 2 live and 1 dead MAX HEIGHT OF TALLEST PUP: 4.5 m
DECAY OR DAMAGE: Some yellowing of leaves, but centers remain in good condition.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 3 m (9.8 ft)
DBH @ 1.5 METER: 10”
TRANSPLANT FEASIBILITY NOTES: Not recommended given size and pups.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 15-20 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 20

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.8 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and east facing
LEAN: Straight VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 55 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some leaves are bleached or lack
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. Trees 20-22 are likely relying on localized washes in this area, caution should be exercised to not alter drainage patterns. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 21

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 6 m x 3.6 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 13 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Long leaves.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 3 m (9.8 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Not recommended given size.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 13 ft to the edge of the grading construction zone is recommended. Trees 20-22 are likely relying on localized washes in this area, caution should be exercised to not alter drainage patterns.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 22

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.2 m x 0.8 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: Straight VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 70 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some bleached leaves
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. Trees 20-22 are likely relying on localized washes in this area, caution should be exercised to not alter drainage patterns. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 23 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown likely B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 24 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is no thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 25

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: A
SIZE (HEIGHT X WIDTH): 1 m x 0.7 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: S VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 70 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 8 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 26 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect - not located precisely
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a large tree with a thick trunk.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is no thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 27 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Branches are crumbling. Death was not recent, but also not possible to determine.
ROOT FLARE CONDITION: Decayed. Base location may be in the center.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 28

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4.2 m x 3 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and localized slope west facing
LEAN: S VIGOR: Normal FOLIAGE: Ok, thin CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 10 MAX BRANCH DIAMETER: 55 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 3
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some recent weevil damage, may still be active.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 2.5 m (8.2 ft)
DBH @ 1.5 METER: 10”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due to weevil damages and stress.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 12 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 29 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown likely B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in decay and there is still some thatch or bark on the trunk or branches. Death may have been in the last 5 years.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: IThis tree should be protected in place as habitat for critters. Since this may be a slightly more recent death, it is recommended to leave in place and exercise caution.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 30 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown C or B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 31

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.8 m x 1.8 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and localized slope north facing
LEAN: S VIGOR: Normal FOLIAGE: Ok, thin CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 3-4 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: Several
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 3
NUMBER OF PUPS: 3 pups, new main was a pup of previous main MAX HEIGHT OF TALLEST PUP: 1 m
DECAY OR DAMAGE: One of the pups is very weak and not rooted. Root system may not be in good condition.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended given that this is likely a pup from a larger plant and it may be relying on a much larger root system.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 32 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is no thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 33

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.2 m x 1.2 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 2 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 1; new main was a pup of previous main MAX HEIGHT OF TALLEST PUP: 30 cm
DECAY OR DAMAGE: Main is dead and pups live on
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 3/4 m (2.5 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended given that this is likely a pup from a larger plant and it may be relying on a much larger root system.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 34

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1.5 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Ok CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 5 MAX BRANCH DIAMETER: 45 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 3; new main was a pup of previous main MAX HEIGHT OF TALLEST PUP: 1.2 m
DECAY OR DAMAGE: Main is dead and pups live on.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 3/4 m (2.4 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended given that this is likely a pup from a larger plant and it may be relying on a much larger root system.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 35

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 1 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: Straight VIGOR: Normal FOLIAGE: Poor CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 4 MAX BRANCH DIAMETER: 55 cm
NUMBER OF DEAD BRANCHES: Many
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 3; new main was likely a pup MAX HEIGHT OF TALLEST PUP: 80 cm
DECAY OR DAMAGE: Yellow center of the crown
ROOT FLARE CONDITION: Ok, exposed. Base of main trunk is visible and decayed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended given that this is likely a pup from a larger plant and it may be relying on a much larger root system.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 12 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Lack of chlorophyll in leaves, could be pest or sunburn and all pups within 1 meter.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 36

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4.5 m x 1.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 7 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 1 MAX HEIGHT OF TALLEST PUP: 1.1 m
DECAY OR DAMAGE: Old weevil damage.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 8.5”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the branching habit and past weevil damage.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 12 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 37 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 38 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree with pups.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: At least 1 if not more. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the branches. Death was not recent.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 39 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: This tree still has some bark and thatch on the branches, the roots and base have decayed. It's possible that it died in the last 3-5 years.
ROOT FLARE CONDITION: Decayed. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters. Since this is possibly a somewhat recent death it is recommended to leave in place and exercise caution.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 40 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect

CLASS SIZE: C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in a very advanced state of decay and there is no thatch or bark on the trunk or branches. Death was not recent.
ROOT FLARE CONDITION: Decayed and hollow. Base location not found.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 41 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: Unknown B or C
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a very large tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in an advanced state of decay and there is very minimal thatch or bark on the branches. Death was not recent.
ROOT FLARE CONDITION: Intact and decayed.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 42 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a moderate sized tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is in decay and there is some thatch or bark on the trunk or branches. It is possible that death was in the last 3-5 years, but it is not possible to determine.
ROOT FLARE CONDITION: Decayed and base not located.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 43 (location approximate)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): NA (POLE 2M) This was a moderate sized tree.
SITE CONDITIONS & ASPECT: Mostly sandy and south facing.
FOLIAGE: No green leaves present.
NUMBER OF LIVE BRANCHES: 0
NUMBER OF DEAD BRANCHES: Indeterminate
MAJOR BRANCH FAILURES: Various
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
NUMBER OF PUPS: Not possible to determine. MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The trunk is decayed and hollowed out. There is minimal thatch or bark on the trunk or branches. Death may have been in the last 4-7 years, but is not possible to determine.
ROOT FLARE CONDITION: Decayed and not located.
DRIP LINE RADIUS: NA
TRANSPLANT FEASIBILITY NOTES: This plant is dead.

RECOMMENDATIONS: This tree should be protected in place as habitat for critters.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 44 (just outside of property line)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 5 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 26 MAX BRANCH DIAMETER: cm
NUMBER OF DEAD BRANCHES: 4
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 1 dead pup MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Old past weevil damage on spent flower branch
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 2 m (6.5 ft)
DBH @ 1.5 METER: 10”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the wide branching habit, weak branch connections, and past weevil damage.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 13 ft to the edge of the grading construction zone is recommended.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 45 (on property line)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 3.3 m x 1.2 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: E VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 3 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1 m (3.2 ft)
DBH @ 1.5 METER: 8”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 10 ft to the edge of the grading construction zone is recommended. Tree relies on localized drainage, caution to not alter drainage patterns significantly.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 46 (outside of property line)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4.2 m x 1.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 6 MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 1 MAX HEIGHT OF TALLEST PUP: 70 cm
DECAY OR DAMAGE: None.
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 2 m (6.5 ft)
DBH @ 1.5 METER: 9”
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 13 ft to the edge of the grading construction zone is recommended. Tree relies on localized drainage, caution to not alter drainage patterns significantly. No work may occur within the drip line radius. This tree is outside of the property and there is no impact.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 47

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: A
SIZE (HEIGHT X WIDTH): 20 cm x 20 cm (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SE VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: cm
NUMBER OF DEAD BRANCHES: 5-6
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 3
NUMBER OF PUPS: Live portion is a pup of the main MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: The main trunk is dead, appears to have some recent weevil damage on 2 branches
ROOT FLARE CONDITION: Ok, exposed.
DRIP LINE RADIUS: 1/2 m (1.6 ft)
DBH @ 1.5 METER: NA
TRANSPLANT FEASIBILITY NOTES: Feasible given size, however not recommended due the fact that the remaining portion is a pup of the larger dead tree and it may struggle survive if the root connection is damaged.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 8 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Main trunk of this tree has died, possibly this year, but the pup remains healthy and alive.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 48 (on property line near dirt road)

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 4.2 m x 2.8 m (POLE 2M)
SITE CONDITIONS & ASPECT: Mostly sandy and southeast facing
LEAN: SW VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 7 MAX BRANCH DIAMETER: 70 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 2
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 1 MAX HEIGHT OF TALLEST PUP: 50 cm
DECAY OR DAMAGE: 2 branches with weevil damage, but the branch doesn't appear to have fully died.
ROOT FLARE CONDITION: Ok, within creosote bush and close to dirt road.
DRIP LINE RADIUS: 2 m (6.5 ft)
DBH @ 1.5 METER: 10"
TRANSPLANT FEASIBILITY NOTES: Feasible given width, however not recommended due damages.
RECOMMENDATIONS: This tree should be protected in place. A Tree Protection Zone (TPZ) radius of 12 ft to the edge of the grading construction zone is recommended. No work may occur within the drip line radius.

DETAILS: Pup here near road and hidden under creosote bush