General Biological Assessment and Protocol Surveys
Burrowing Owl, Desert Tortoise, and Western Joshua Tree
The Wine and Rock Shop Expansion

Town of Yucca Valley, San Bernardino County, CA

United States Geological Survey (USGS) 7.5-minute quadrangle Yucca Valley North, CA
Township 1 North, Range 6 East, Section 29

Assessor's Parcel Numbers:
Parcel A: APN 0601-123-14
Parcel B: APN 0601-123-13

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Executive Summary

The proponent, Loescher Meachem Architects, Inc., has requested a biological survey and associated report to submit in support of permitting to facilitate an expansion to the footprint of the Wine and Rock Shop. This business is located at 59006 Twentynine Palms Highway, in the Town of Yucca Valley, state of California. The project proposes to improve upon existing facilities located on 0.21 acres, and add a new parking area on an adjacent lot (0.21 acres), for a total development area of 0.42 acres. The existing structure and outdoor area are located on a completely developed commercial lot that does not represent viable habitat for most native species. The proposed new parking area would be built on a lot that has previously been cleared of most vegetation, and is currently fenced with chain link. The project is bordered on the west, north and east sides by residential development and associated surface streets that do not present viable habitat for wild native species. It is bounded on the south side by CA State Highway 62 (Twentynine Palms Highway), which is 4-lane paved route, with a speed limit of 55mph.

The properties are located within potential range of burrowing owl (*Athene cunicularia*) and desert tortoise (*Gopherus agassizii*), and there are two western Joshua trees (*Yucca brevifolia*) located near the footprint of the proposed parking area. Burrowing owl is listed as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW). Desert tortoise is listed as federally Threatened under the Endangered Species Act (ESA) and as Threatened by the state of California Endangered Species Act (CESA). Joshua trees are currently protected by the town of Yucca Valley, the county of San Bernardino, and the state of California. Focused surveys for burrowing owl, desert tortoise, and Joshua trees were conducted on October 15, 2022.

No burrowing owls or desert tortoises were observed during surveys, and no sign was noted. The biological surveys indicate that neither species are currently present on the site and there is no evidence of their recent occupation. The properties do not contain suitable habitat for desert tortoise or burrowing owl.

The results of the biological surveys for burrowing owl and desert tortoise are valid for the period of 1 year following the date of survey. It is extremely unlikely that these sensitive species would appear on the site during this timeframe, due to a lack of suitable habitat, the location within a developed residential neighborhood, and the significant barriers to animal movement presented by existing development and human disturbances. Therefore, no on-site mitigation is recommended for burrowing owl or desert tortoise at this time. However, if the initiation of construction activity is delayed beyond October 15, 2023, it is recommended that appropriate agencies be contacted to determine whether additional focal surveys for tortoise and owl should be conducted by a qualified biologist prior to the commencement of ground-disturbing activities (USFWS 2019, CDFG 2012).

A total of two Joshua trees were recorded as present on the site, and these plants are subject to state, county, and municipal desert plant protection ordinances. No other additional sensitive plants or animals, or their sign, were observed on-site. Current project development plans include the preservation of these existing Joshua trees, and there is ample space for the establishment of protective disturbance buffers during construction activities, to ensure their continued survival.

It is recommended that the existing Joshua trees on site be avoided and left in place. This protection would be accomplished by establishing a disturbance avoidance buffer of 10' radius, measured from the base of each plant. This buffer should be prominently marked and maintained during the entirety of the construction process. Current site plans, provided in this report, indicate that the nearest edge of the planned parking area falls approximately 15' from the nearest Joshua tree. Therefore, these plants and their root systems will remain undisturbed by the development of the property.

With the implementation of the mitigation measures outlined above, the proposed development will not have any negative ecological impact on the sensitive species described in this report.

1.0 Project Introduction

1.1 Project Location and Proposed Development

The Wine and Rock Shop is proposing to expand from its current footprint onto an adjacent parcel of similar size, yielding a total project area of approximately 0.42 acres (Table 1). Parcels under consideration have been labeled as "A" and "B" for purposes of mapping and reference in text (Table 1, Figure 1).

Table 1. Project Site Parcel Descriptions

Parcel	APN	Approximate Acreage	Current Use 10/15/2022
A	0601-123-14	0.21	Current business structure; very poor habitat for most native species
B	0601-123-13	0.21	Proposed parking area; cleared of most vegetation, but contains two healthy Joshua tree plants

Parcel A is the site of the current commercial building known as The Wine and Rock Shop; the street address of this establishment is 59006 Twentynine Palms Highway, Yucca Valley, CA. Parcel B is immediately adjacent to Parcel A, to the east. These parcels are in a strip of subdivided land that is bordered on the south side by California State Route 62 (Twentynine Palms Highway, 4 lanes); to the west by Linda Lee Drive and residential development; to the north by an alley and residential housing; and to the east by Ronald Drive, residential development, and associated surface streets (Figure 1).

The properties are located within the city limits of the Town of Yucca Valley. Yucca Valley is located on the Yucca Valley North, CA U.S. Geological Survey (USGS) 7.5 Minute Quadrangle Map in Township 1 North, Range 6 East, Section 29 at an elevation of 3,165 feet Mean Sea Level (Figure 2).

This report refers to the proponent's site plan, which includes the locations of the two Joshua trees present on the project. The proposed expansion would include construction of a paved parking lot, and any landscaping associated with this development (Figure 3). For the purposes of this report, the use of the terms "project area", "property", and "site" will refer to the two parcels together as a unit proposed for development.

1.2 Project Site Description and Context for Biological Surveys

Parcel A is a completely developed commercial establishment consisting of a building, some paved parking, and an outdoor patio area to the rear of the building. There is no undisturbed native plant habitat on this site. Parcel B can be characterized as a largely denuded remnant of Joshua tree woodland; there are two Joshua trees growing on site,

but the understory brush has been cleared. Site photos are included in Appendix A of this report.

The soil on the project site is a gravely sandy loam with no significant rocks or cobble; the topography is relatively flat. There are no natural above-ground water resources (ponds, streams, springs, etc.). There are no USGS designated blue-line drainages on the property, and therefore no Jurisdictional Waterways. The surrounding land is currently under use as residential and commercial buildings, a state highway (SR62), and neighborhood roads, and therefore does not represent habitat to support any native wildlife corridors (Figures 1 and 2).

The project area is located within a developed portion of the Town of Yucca Valley. However, it is located within the range of burrowing owl, and desert tortoise. Burrowing owl is listed as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW). The desert tortoise is listed as federally Threatened under the Endangered Species Act (ESA) and Threatened by the state of California Endangered Species Act (CESA). In addition, the property under development contains two western Joshua tree plants, which are protected by state, county, and municipal agencies.

In order to determine whether sensitive animal species were present on the site, focused surveys for burrowing owl and desert tortoise were conducted on October 15, 2022. The surveys were performed during the active season for burrowing owl and tortoise. Additionally, a general biological assessment of the site was also completed, which included an assessment of suitable habitat for nesting birds, an assessment for signs of protected fur-bearing native mammals (American badger and desert kit fox), and a general inventory of plants (including Joshua trees) and all animals observed on the properties.

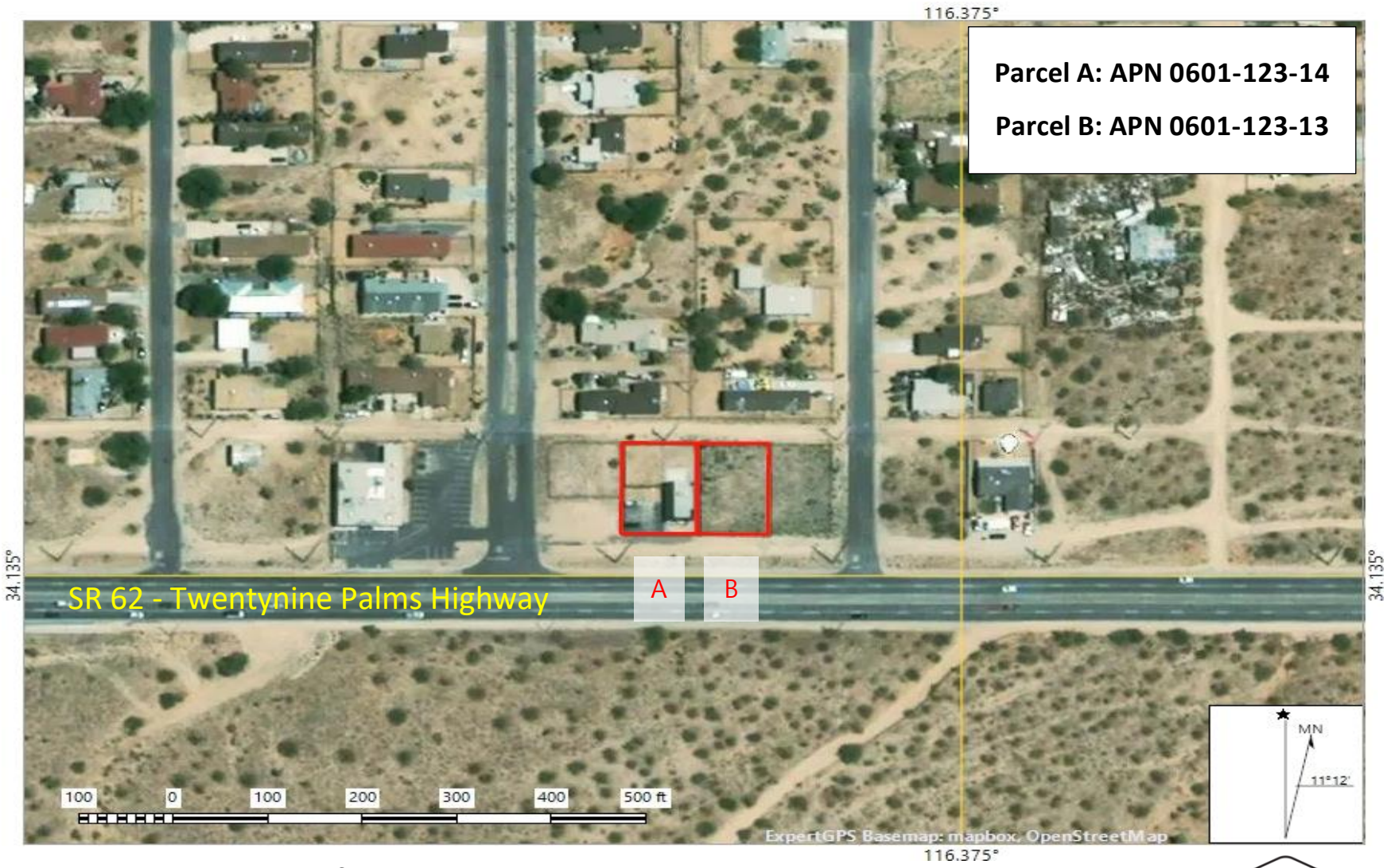

Figure 1. Aerial Map of Wine and Rock Shop Project Location

Parcels: A (commercial structure), and B (currently vacant lot)

Commercial structure street address: 59006 Twentynine Palms Highway, Yucca Valley, CA, 92284

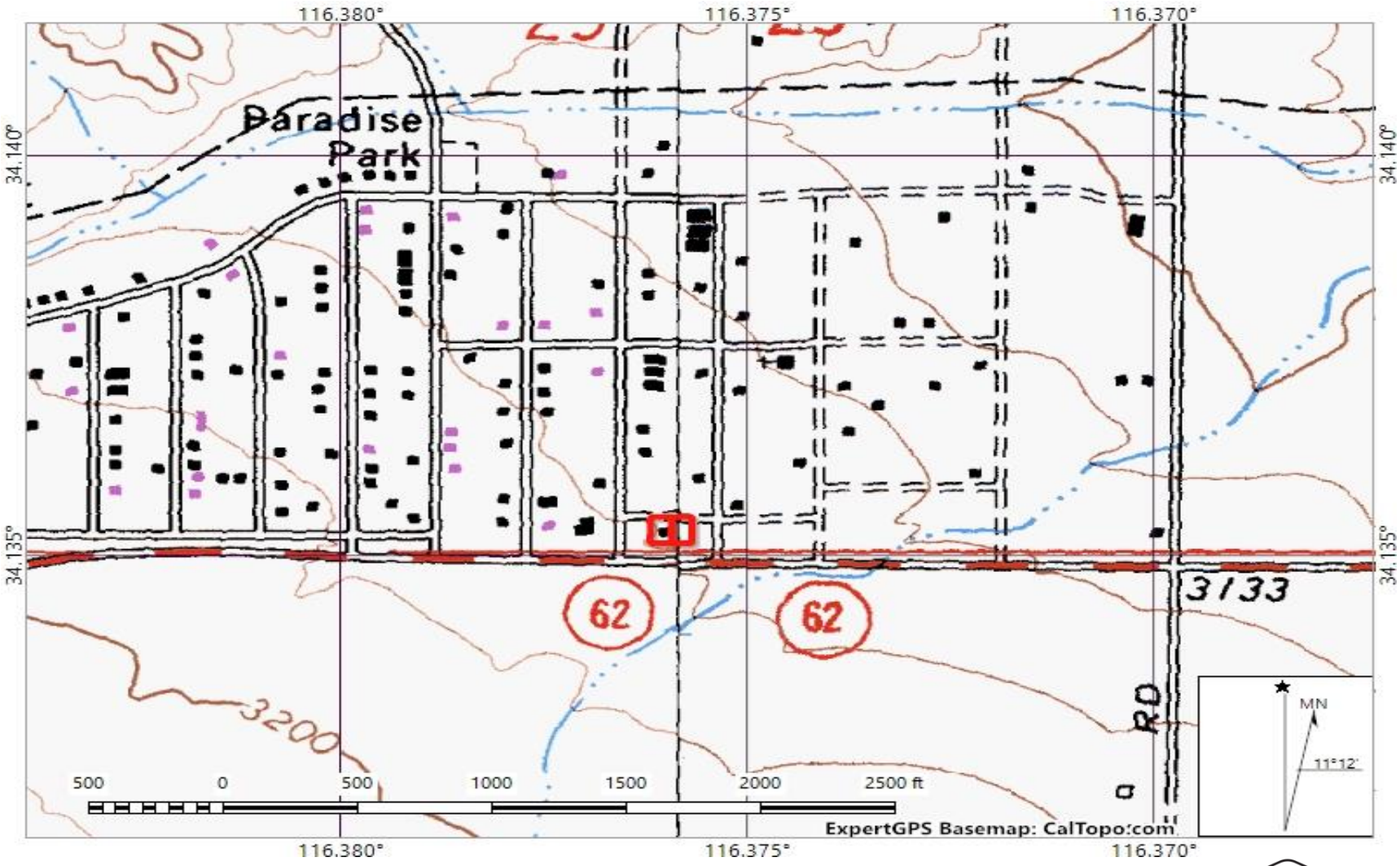

Figure 2. USGS Topographic Map (scale 1:9350)
Wine and Rock Shop Project Location
Commercial structure street address: 59006 Twentynine Palms Highway, Yucca Valley, CA, 92284

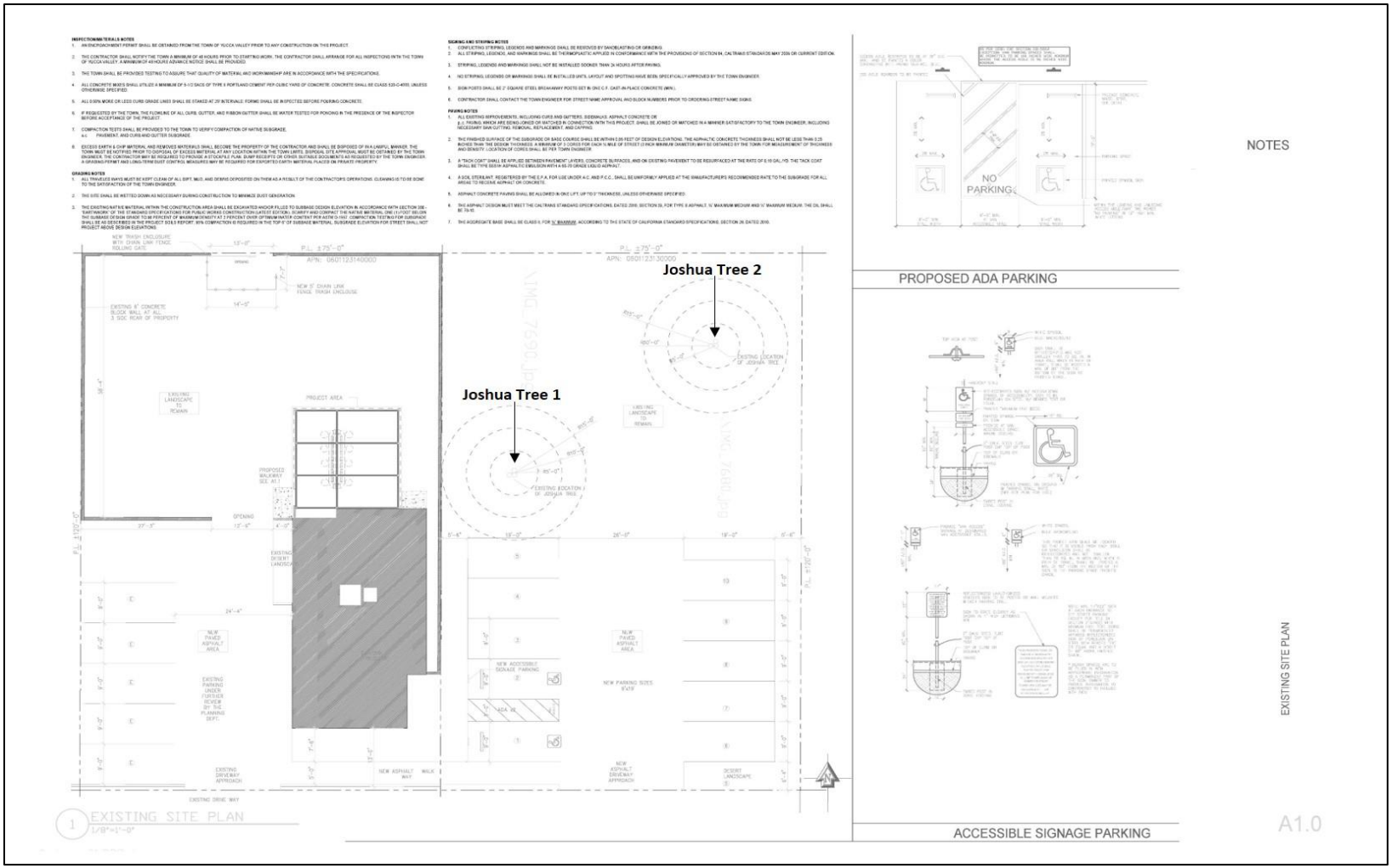

Figure 3. Site Plans for The Wine and Rock Shop Project

Street address: 59006 Twentynine Palms Highway, Yucca Valley, CA

Source: Loescher Meachem Architects

See also: Appendix B, photos of Joshua tree plants

2.0 Literature Review

2.1 Burrowing Owl

The burrowing owl is a ground-dwelling, diurnally active owl found primarily in arid habitats with open ground and few shrubs (Plumpton and Lutz 1993, Rosenburg et al. 2007). During the breeding season, it makes use of abandoned mammal and tortoise burrows to nest and raise its young (Gervais et al. 2008). Its diet consists of insects and small mammals, and it nests during the spring months in the Mojave Desert region (Rosenburg et al. 2007). In the past half century, burrowing owl populations have declined sharply across much of their range, and although it is not afforded protected status under federal laws, it is listed for special status in 9 of the 18 western states in which in it occurs (Poulin et al. 2020).

In California, the burrowing owl is considered a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW). Biological surveys for owl presence are recommended before potential habitat is disturbed or developed (CDFG 2012). The nearest burrowing owl sighting in the CNDDB system is approximately 8km from the site, to the northeast. In addition, burrowing owls have been noted during biological assessment surveys of parcels within 4km to the northwest (APNs 0601-041-01 and 0601-021-04, -05, -18, and -19; Circle Mountain Biological Consultants, 2008).

2.2 Desert Tortoise

The Mojave desert tortoise is an herbivorous reptile with a historic range north and west of the Colorado River drainage, throughout the Mojave Desert in portions of Arizona, Utah, Nevada and southeast California. It is considered a separate species from desert tortoises native to the deserts elsewhere in Arizona and northern Mexico (Murphy et al. 2011). The tortoise has been recorded in a range of habitats, spanning saltbush (*Atriplex* spp.) communities along dry lake beds at elevations near mean sea level, to gravel and rocky uplands characterized by Joshua trees and junipers. However, the highest densities of Mojave desert tortoise are associated with creosote (*Larrea tridentata*) bush scrub communities between elevations of approximately 1,000-4,000 feet above mean sea level. In these areas, tortoises are typically found to be most abundant on gently sloping alluvial fans of cobble, gravel, and sandy loam, and washes of sandy-gravelly soils (Germano et al. 1994, USFWS 2011).

The desert tortoise was listed under the California Endangered Species Act (CESA) as Threatened by the California Fish and Game Commission (CFGC) in 1989, in response to population declines and trends in habitat degradation throughout the Mojave Desert. In 1990, the desert tortoise was also listed as Threatened under the Endangered Species Act (ESA) by the U.S. Fish and Wildlife Service (USFWS). The ESA prohibits the “take” of a listed species, wherein “take” is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 U.S.C. § 1532(19)).

The project site is within the range for desert tortoise, however it presents as poor in USFWS habitat potential index (Nussear et al. 2009, USFWS 2011). There have been many recently recorded desert tortoise observations on undeveloped and rural properties to the south of the project at distances of 1+ kilometers away (CNDDB 2020). The northern boundary of Joshua Tree National Park, which contains extensive high quality, protected habitat, lies approximately 6.5 km to the south. In addition, consulting biologists conducting protocol surveys have recorded live desert tortoise and their sign during biological assessments of parcels within 4 km of the project to the northwest (APNs 0601-041-01 and 0601-021-04, -05, -18, and -19; Circle Mountain Biological Consultants, 2008) and to the southeast (APNs 0601-022-33 & -41; Circle Mountain Biological Consultants, 2008).

2.3 Western Joshua tree

The western Joshua tree (*Yucca brevifolia*) is a woody, evergreen monocot that can grow to heights of 30' or more, during a lifespan of many decades. These large, iconic desert plants have distinctive leaf clusters and a branching growth pattern that function ecologically as a tree-like overstory in Mojave Desert plant communities where they occur. Joshua tree woodland habitat can be found spanning elevations between approximately 2,000-7,000', and yet the range is limited to the western Mojave Desert (Lenz 2007). On a range-wide basis, the western Joshua tree is undergoing stresses and reductions due to human development, and recently there has been concern that this species may be threatened by ongoing drought, and a corresponding increase in the prevalence and geographic extent of wildfires (DeFalco et al. 2010, Esque et al. 2015).

In 2018 the USFWS conducted a species status assessment of the western Joshua tree, and the state of California completed a similar assessment in 2022 (USFWS 2018, CDFW 2022). Currently, the western Joshua tree is under consideration for listing status at the state level (CDFW Game Commission Meeting 12 October, 2022; pursuant to CESA §2075, 2075.5). In addition, the western Joshua tree is afforded protection at the state (California Food and Agriculture Code, Regulated Native Plants Section 80073), the county (San Bernardino County Development Code, Desert Native Plant Protection Section 88.01.060), and the municipal levels (Yucca Valley Town Ordinance 291, Section 9.56.090).

The project site is known to contain at least two healthy, mature Joshua tree plants, and the Town of Yucca Valley is located within what has historically been Joshua tree woodland habitat; many of the properties in the area support dense stands of mature Joshua trees.

2.4 Additional Species

In a review of other sensitive species, none appeared to be at all likely to occur on the project site. Some special status birds such as prairie falcons (*Falco mexicanus*) and golden eagles (*Aquila chrysaetos*) could be observed passing through the area, but would not nest or otherwise linger on the project site due to unsuitable nesting substrate and proximity to human activity. The sensitive bird species that might nest on-site would be the loggerhead shrike

(Lanius ludovicianus) or Le Conte's thrasher (*Toxostoma lecontei)*. However, neither of these species is tolerant of human activity, and therefore it would be unlikely to encounter them on the project site.

Agency data repositories and pertinent literature were reviewed to generate a list of sensitive species with the potential to occur on or near the project site. The following sources were consulted and queried:

- CDFW Biogeographic Information System (BIOS)
- California Natural Diversity Database (CNDDB)
- USFWS Environmental Conservation Online System (ECOS)
- California Native Plant Society Inventory of Rare and Endangered Plants
- Publicly available reports and biological assessments generated by consulting biologists

The results of the literature search are detailed in Table 2 below.

Table 2. Sensitive Species with Potential to Occur in Project Area

Scientific Name	Common Name	Status	Habitat	Likelihood of Occurrence
PLANTS				
Astragalus bernardinus	San Bernardino milk-vetch	CNPS List 1B.2 BLM S USFS S	Pinyon juniper, Joshua tree woodland; rocky granitic or carbonate substrate	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Berberis fremontii	Fremont barberry	CNPS List 2B.3	Pinyon juniper, Joshua tree woodland; rocky or sometimes granitic substrate	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Boechera dispar	pinyon rockcress	CNPS List 2B.3	Pinyon juniper woodland, Joshua tree woodland, Mojave Desert scrub; granitic, gravelly slopes & mesas	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Erigeron parishii	Parish's daisy	Fed threatened CNPS List 1B.1	Pinyon juniper woodland, Mojave Desert scrub; often on carbonate, limestone mountain slopes, often associated with drainages, sometimes on granite	Unlikely due to substrate preference. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Grusonia parishii	Parish’s club cholla	CNPS List 2B2.2	Sand and gravel substrate in Mojave Desert scrub and Joshua tree woodland	Possible. However, the highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Linanthus bernardinus	Pioneertown linanthus	CNPS List 1B.2	Pinyon juniper woodland, Joshua tree woodland, mixed scrub; in gravelly granitic soils; most observances noted in Sawtooth Mountain range	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Linanthus maculatus ssp. maculatus	Little San Bernardino Mtns. linanthus	CNPS List 1B.2 BLM S	Joshua tree woodland, Mojave Desert scrub, desert dunes, Sonoran desert scrub; sandy substrate- often in wash or bajada	Possible. However, the highly disturbed habitat afforded 100% visual coverage of site and this species was not present

Monardella robisonii	Robison's monardella	CNPS List 1B.3 BLM S	Pinyon juniper woodland; rocky desert slopes, often among granitic boulders	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Saltugilia latimeri	Latimer's woodland-gilia	CNPS List 1B.2 BLM S USFS S	Pinyon juniper woodland, Mojave Desert scrub, chaparral; rocky or sandy substrate, sometimes in washes or limestone	Extremely unlikely due to lack of preferred substrate. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
INSECTS				
Bombus crotchii	Crotch's bumblebee	CDFW Listing pending	Open grassland and dry scrub	Extremely unlikely due to lack of habitat on site
BIRDS				
Athene cunicularia	burrowing owl	CDFW SSC BLM S USFWS BCC	Open grasslands, deserts, and scrublands characterized by low-growing vegetation	Very unlikely due to lack of habitat and lack of suitable burrows; see details in this report
Lanius ludovicianus	loggerhead shrike	CDFW SSC USFWS BCC	Open areas with perches	Extremely unlikely to nest on site due to proximity of human activity; none were observed
Toxostoma lecontei	Le Conte's thrasher	CDFW SSC BLM S USFWS BCC	Open desert scrub, including Joshua tree scrub	Extremely unlikely to nest or forage on site due to lack of habitat and proximity of human activity; none were observed
REPTILES				
Gopherus agassizii	Mojave Desert tortoise	Fed threatened CA threatened	Most Mojave Desert habitats below 5,000 ft.	Very unlikely due to fragmented habitat and human impacts surrounding the site; nearest CNDDB occurrence approximately 2km away (2018) on south side of SR 62 on undeveloped parcels near boundary of Joshua Tree National Park
Phrynosoma blainvillii	coast horned lizard	CDFW SSC BLM S	Pinyon juniper woodland, desert chaparral, occasionally Joshua tree up to 8,000 ft.	Extremely Unlikely, site near edge of range with a single CNDDB record from the 1890's. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present

Anniella stebbensi	Southern California legless lizard	CDFW SSC USFS S	Dry scrub brush from coastal chapparal to high desert habitats, including Joshua tree woodland	Extremely Unlikely due to fragmented habitat, human impacts, and lack of suitable brush cover
MAMMALS				
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	CDFW SSC	Pinyon juniper, desert wash, desert scrub; sandy, herbaceous areas, usually in association with rocks or coarse gravel	Unlikely; no individuals observed during survey and no suitable borrows or sign present on site. No natural foraging habitat available on site
Lasiurus xanthinus	western yellow bat	CDFW SSC	Valley foothill riparian, desert riparian, desert wash, palm oasis habitats; roosts in trees, particularly palms; forages over water and among trees	Very unlikely, no suitable habitat present on site
Taxidea taxus	American badger	CDFW SSC	Most shrub, forest, and herbaceous habitats; needs sufficient food, friable soils and open, uncultivated ground	Extremely unlikely due to proximity to human activity. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present
Vulpes macrotis	desert kit fox	Protected furbearer	Open desert scrub	Possible; unlikely to settle on site due to lack of suitable burrows and proximity to humans. The highly disturbed habitat afforded 100% visual coverage of site and this species was not present

Data retrieved from:

California Department of Fish and Wildlife (CDFW). 2022. *California Natural Diversity Database (CNDDB) RareFind*– version 5.2.14 https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx

California Native Plant Society, Rare Plant Program. 2022. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). http://www.rareplants.cnps.org

U.S. Fish and Wildlife Service (USFWS). 2022. *USFWS Environmental Conservation Online System (ECOS).* https://ecos.fws.gov/ecp/

Definition of Status from CNDDB web site (2022):

CDFW Status

WL Watch List: This classification is for taxa that were previously SSCs but no longer merit SSC status or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify status.

SSC Species of Special Concern: This classification is for a species, subspecies, or distinct population of an animal native to California that is extirpated from the State, or is listed as Federally-, but not State-, threatened or endangered, or meets the State definition of threatened or endangered but has not formally been listed, or is experiencing serious (noncyclical) population declines or range retractions, or has naturally small populations exhibiting high susceptibility to risk from any factor(s) that could lead to declines that would qualify it for State threatened or endangered status.

FP Fully Protected: This classification 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. Please note that most Fully Protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

OTHER Status

BLM	Bureau of Land Management (S = Sensitive)
USFS	United States Forest Service (S = Sensitive)
USFWS	United States Fish and Wildlife Service (BCC = Bird of Conservation Concern)

California Native Plant Society (CNPS), Rare Plant Rank

4.2 Plants of limited distribution; fairly threatened in California

3.2 Plants about which we need more information; fairly threatened in California

4.3 Plants of limited distribution; not very threatened in California

3.1 Plants about which we need more information; seriously threatened in California

2B.1 Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California

1B.1 Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California

1A Plants presumed extinct in California and rare/extinct elsewhere

1B.2 Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California

2A Plants presumed extirpated in California, but more common elsewhere

2B.2 Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

4.1 Plants of limited distribution; seriously threatened in California

1B.3 Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California

2B.3 Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California

3.3 Plants about which we need more information; not very threatened in California

3.0 Field Survey Methods

3.1 Biological Surveys

All surveys for this report were conducted by Wilder Ecological biologist Nate Jones, a consulting biologist with over 15 years of experience in Mojave and Great Basin Desert habitats, and extensive direct experience conducting agency protocol surveys for sensitive species in the local area. After an initial site assessment, conducted visually from a public right-of-way (SR 62), biological surveys were conducted on October 15, 2022 Surveys were timed to occur during the hours, temperatures and weather conditions that characterize a seasonal active period for the focal species in the existing habitat (Conway et al. 2008, Nussear et al. 2007, Agha et al. 2015).

Surveys were accomplished using protocol belt transects, walking in north-south and east-west directions, to gain 100% visual coverage of the landscape. Relevant observations and features were recorded on paper data sheets and locations were marked using a Garmin™ 66i handheld GPS unit, capable of 3-meter accuracy. Climatological data were measured for each individual survey, and photos were taken of any relevant sign, as well as overviews of general habitat and landscape characteristics.

Buffer areas surrounding the properties were not surveyed, because access was restricted due to private ownership characterized by residential and commercial development, as well as the right-of-way for State Route 62. Properties to the east, north and west are characterized by residential dwellings, associated outbuildings, parking areas, and residential streets. Land on the south side of the parcels is within the right-of-way for SR 62, which is characterized by moderate to heavy traffic moving at speeds of 50-60mph. Across the pavement to the south of SR 62 there are large (30+ acre) undeveloped parcels that sustain Joshua trees and native understory vegetation that has been fragmented through off-highway vehicle use. These properties are part of a larger patchwork of undeveloped private properties that together form fragmented open space that connects ultimately to extensive protected areas owned by a Desert Land Conservancy and Joshua Tree National Park. These parcels immediately south of SR 62 could be considered moderate to good quality potential desert tortoise habitat.

3.2 Focused Survey for Burrowing Owl

Surveys for burrowing owl were conducted in alignment with CDFW guidance (2012), which is based on the Burrowing Owl Consortium Survey Protocols (California Burrowing Owl Consortium 1993). Following a literature review, Phase I (site assessment) and protocol surveys (Phase II) for live owls and their sign were conducted during the crepuscular hours of 0600-0630 on October 15, 2022. Weather was 19° Celsius, 20% cloud cover, and 0-2 mph winds at the beginning of the survey, and 20° Celsius, 30% cloud cover, and 0-2 mph winds at the end of the survey. Surveys were walked north-south on contiguous belt transects at intervals of 20m to achieve 100% visual coverage of the site. In addition, during the surveys, the two Joshua trees were carefully inspected for evidence of prior nesting bird activity.

3.3 Focused Survey for Desert Tortoise

Surveys were conducted for Mojave Desert tortoise in accordance with USFWS published protocol (USFWS 2019). Contiguous belt transects were walked east-west and north-south at intervals of 10m to achieve 100% visual coverage of the site to document any live tortoises or their sign (burrows, scat, tracks, carcasses). Tortoise surveys occurred during the hours of 0700-0730 Weather was 20° Celsius, 30% cloud cover, and 0-2 mph winds at the beginning of the survey, and 20° Celsius, 30% cloud cover, and 0-2 mph winds at the end of the survey.

3.4 Vegetation Survey and Community Assessment

Special status plant surveys were not necessary for this report, due to the lack of suitable habitat. However, following the focused burrowing owl and desert tortoise surveys, all plant species were inventoried on the site. This general assessment of the plant community did not occur during the reproductive season for annual plants; however, the property had been previously cleared of nearly all vegetation, and it is therefore unlikely that the site would present as favorable substrate for a native seed bank (see photos in Appendix A).

Special attention was taken to note any prominent, perennial desert plants specifically subject to protection by the state (California Food and Agriculture Code, Regulated Native Plants Section 80073) and county (San Bernardino County Development Code, Desert Native Plant Protection Section 88.01.060). On the Wine and Rock Shop site, such species included only the western Joshua tree.

4.0 RESULTS

4.1 Burrowing Owl

No live burrowing owls or their sign (pellets, whitewash, feathers, or tracks) were observed in the project area. There were no burrows of any sort noted on the properties. In addition, there were no stacked materials, piled rubble, or open culverts or drain pipes that could present potential habitat for burrowing owls.

4.2 Desert Tortoise

No live tortoises or sign (burrows, scat, tracks, or carcasses) were observed during focused desert tortoise surveys. There were no burrows of any sort recorded during surveys.

4.3 Nesting Birds

A formal nesting bird survey was not called for due to the seasonal timing of the surveys, and no signs (old nesting material, deteriorated nests, droppings, eggshells, etc.) of previous nesting activity were recorded during the burrowing owl surveys.

The only native bird species recorded by sight or sound during the survey period was a single common raven (*Corvus corax*) that flew overhead.

4.4 Plants

The biologist walked meandering pedestrian transects throughout the site to identify the plant species present on the property. Apart from the prominent Joshua trees, no additional sensitive plant species were observed in the project area, which is concurrent with the results of the literature review and queries of agency data on sensitive plants in the area. There were only three plant species noted on the undeveloped lot. These were western Joshua tree (*Yucca brevifolia*), ephedra (*Ephedra californica*), and the non-native, invasive Russian thistle (*Salsola* spp.). Additionally, dried remnants of non-native, invasive Sahara mustard (*Brassica tournefortii*) were noted in the alley to the north of the properties.

Joshua trees can at times grow clonal shoots that appear as if they are multiple smaller individuals growing beneath a larger tree (Esque et al. 2015, Sweet et al. 2019). Consequently, for this survey, any clusters within a 5-foot radius were counted as a single plant. Both Joshua trees on site had clonal shoots originating from the base of the main plant (see photos, Appendix B). Under these criteria, there were two mature Joshua trees recorded.

4.5 Additional Animal Species

There were no signs of American badger (*Taxidea taxus*) or desert kit fox (*Vulpes macrotis*) on site. No additional animal species were noted during surveys.

5.0 Impacts and Recommendations

5.1 General Impacts

The proposed Wine and Rock Shop expansion outlined in this report would permanently alter approximately 0.21 acres of a degraded and fragmented Joshua tree woodland habitat (parcel B). However, the biological impacts of this project to native species will be inconsequential; the vacant land to be developed has previously been cleared of vegetation, is less than 0.20 acres, and is already surrounded by extensive human disturbance on all adjacent land.

The two existing Joshua trees would be preserved in place (see section 5.6, below).

5.2 Burrowing Owl

No further surveys, nor mitigation for burrowing owl are recommended at this time because no owl sign was observed, and there were no burrows or shelter sites noted (CDFG 2012). Burrowing owls are highly mobile animals and could possibly occur in the action area of the project in the future (Gervais et al. 2003, Rosier et al. 2006, Catlin et al. 2005). However, such occurrence would be extremely unlikely due to a lack of suitable burrows, and because the high pedestrian and vehicular traffic that characterize the area are a significant deterrent to owls. Burrowing owls sometimes nest in isolated anthropogenic structures such as pipe culverts, piles of rubble, or stacked materials, but there were no such features noted on the properties in this survey (Rosenburg et al. 2007).

5.3 Desert Tortoise

No further mitigation measures for desert tortoise are recommended. Surveys yielded no sign (burrows, scat, tracks, carcasses) that desert tortoise have recently been present in the area. The landscape proposed for development represents extremely low predicted habitat potential for tortoise, considering its degraded plant community structure, fragmented habitat, proximity to human disturbance, and surrounding human activities (Nussear et al. 2009, USFWS 2011).

It is extremely unlikely desert tortoises would colonize and establish burrows on the site in the future due to proximity to human development, the significant barriers to movement presented by the chain link fencing, the traffic of state route 62, and the developed nature of the surrounding landscape of residential homes and streets. A loss of this property as potential tortoise habitat does not present a measurable impact to the overall range of the species.

Although the site itself is unlikely to support resident desert tortoises, it is possible that a tortoise could travel onto the site from the open habitat to the south of SR 62. In the unlikely event that a desert tortoise is observed during construction, all activities that would adversely affect the animal should cease immediately. Agency personnel should be contacted to initiate a consultation regarding appropriate mitigation measures that may be implemented prior to resumption of further activities in the action area. The results of this survey are not an authorization for “take” of desert tortoise. The California Department of Fish and Wildlife and U.S. Fish and Wildlife Service are the only entities with agency to authorize the “take” of a desert tortoise.

Focused desert tortoise surveys were conducted on October 15, 2022 and results presented in this report are deemed valid for a period of 12 months from date of survey. If construction commences after October 15, 2023, and a biological report is still recommended, then an additional survey should be conducted to ensure compliance with USFWS guidance (USFWS 2019).

5.4 Additional Bird Species

Nesting birds are protected under the Migratory Bird Treaty Act (MBTA), although some non-native species such as starlings (*Sturnus vulgaris*) and house sparrows (*Passer domesticus*) are not subject to MBTA protections. There were no native birds noted on site during the biological assessment surveys, and the landscape presents extremely poor habitat for native bird species. Nonetheless, if construction activities commence during the active nesting season, it is recommended that the Joshua trees be inspected for bird nests.

In the very unlikely event that an active nest is discovered, a buffer area of appropriate size should be maintained to exclude construction activities from the area until a qualified biologist has determined the nesting cycle is completed and ascertained the nest fate (fledging or failure). Nesting season in the Mojave Desert region of Southern California is often considered to be February 01– August 31, but is sometimes more abbreviated or runs later into September at higher elevations. It would be appropriate to contact government agency representatives for current guidance for this specific project site.

Some raptor species such as red-tailed hawks (*Buteo jamaicensis*) nest in Joshua trees, however the growth patterns (branching, limb orientations) in the Joshua trees present on site do not represent suitable nesting substrate for raptor species. Additional avian Species of Special Concern (CDFW) that frequently nest in Joshua tree woodlands include: Le Conte's Thrasher, loggerhead shrike, and long-eared owl (*Asio otus*). It is extremely unlikely that any of these species would nest on the proposed project site, given the lack of suitable habitat and surrounding human activities.

No additional specific mitigation for sensitive avian species is recommended at this time for the development of the Wine and Rock Shop project.

5.5. Mammals

Sensitive mammal species with the potential to occur on-site are the western yellow bat (*Lasiurus xanthinus*), desert kit fox, American badger, and pallid San Diego pocket mouse (*Chaetodipus fallax pallidus).* The project site contains very little native plant habitat, and is nearly cleared of all vegetation. Surveys found no sign (tracks, scat, fur, burrows) of any of these species, and therefore no mitigation is recommended at this time. Kit fox and badger are extremely unlikely to colonize the project area in the future due to its denuded condition, small size, and human-impacted surroundings. The nearest CNDDB record of the pallid San Diego pocket mouse is located approximately 3.5km from the site and was recorded in 1969. No individuals were observed during the survey and there were no burrows of appropriate size for mice. There are no suitable roosting sites for bats on the project.

The development of the Wine and Rock Shop properties does not present any significant impact to sensitive mammal species, and no additional mitigation is recommended.

5.6 Plants

During the development of the project, the existing Joshua trees shall be intentionally preserved and incorporated into landscaping. Preservation of the Joshua trees can be ensured by the implementation of a ground disturbance exclusion buffer, to be marked prominently by the installation of metal t-posts and orange construction snow fencing, or methods using comparable materials and design. A buffer radius of 10’ from the base of each Joshua tree plant is recommended to ensure the integrity of the root ball and shallow root systems that characterize this species. This mitigation is appropriate to achieve compliance with ordinances of the town of Yucca Valley (Yucca Valley Town Ordinance 291, Section 9.56.090), County of San Bernardino (Desert Native Plant Protection Ordinance Section 88.01.060), and the State of California (California Food and Agriculture Code, Division 23, Chapter 3: Regulated Native Plants, Section 80073).

5.7 Conclusions

Based on design plans and the results of the biological surveys, it can be asserted that the expansion of the Wine and Rock Shop will have no negative impact on sensitive species.

If changes are anticipated to the design of the parking area in the future, and it is determined that Joshua trees may be impacted, it is recommended that consultation with relevant agency personnel be initiated when in the planning stages to determine the appropriate mitigation for removal or transplantation of the plants on the property.

Although focused desert plant surveys during the blooming season could be used to confirm whether any sensitive plants are present on-site, the general vegetation surveys and literature review presented in this report suggest an extremely low probability of sensitive plants occurring on-site, and additional plant surveys are not recommended.

The biological surveys conducted for this project occurred at a discrete time in the season, and conditions have the potential to change on the site. As precipitation levels differ from year to year, annual plants will be more plentiful or more scarce. Depending on the level of human activity on the surrounding properties, animals may also become more common or rare to observe on the project footprint. At present, the project area is in a disturbed, denuded habitat with high levels of human activity (Photos: Appendix A).

6.0 Certification

CERTIFICATION: “I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have no financial interest in the project.”

Liana Harp
Wilder Ecological Consulting, Inc.

Nate Jones
Wilder Ecological Consulting, Inc.

Appendix A
Site Overview Photos of the Wine and Rock Shop Project
(Surveyed October 15th, 2022)

Figure 1. Southeast corner of Wine and Rock Shop, looking towards center of property.

Figure 2. Southwest corner of Wine and Rock Shop, looking towards center of property.

Figure 3. Northwest corner of Wine and Rock Shop, looking towards center of property.

Figure 4. Northeast corner of Wine and Rock Shop, looking towards center of property.

Appendix B
Photos of Joshua Trees Occurring on the Wine and Rock Shop Site
(Surveyed October 15th, 2022)

Figure 1. Joshua tree #1 located on the Wine and Rock Shop project. Yucca Valley, California, San Bernardino County APN#0601-123-13 . Approximately 15' height, healthy, with 5 clonal shoots at base.

Figure 2. Joshua tree #2 located on the Wine and Rock Shop project. Yucca Valley, California, San Bernardino County APN#0601-123-13 . Approximately 9' height, healthy, with 1 clonal shoot at base.

Appendix C
Raw Data Sheets
Biological Assessment and Targeted Protocol Species Surveys:
Desert Tortoise | Burrowing Owl
Field Data Sheets

Page 1 of 1

Burrowing Owl/Nesting Bird Survey Datasheet

Project Surveyed: WINE TRUCK SHOP APNs 0601123140601123130 Date: 15 OCTOBER 2022
Survey Type (spacing/direction): 10 m BELT E-W

Surveyor(s): NATE JONES
Start Weather: CC 20% 19°C @ 5cm 0-2mph WIND Start Time: 0600
End Weather: CC 30% 20°C @ 5cm 0-2mph WIND End Time: 0630

County: San Bernardino Land Owner: MORE WINE LLC Land Use: COMMERCIAL PROPERTY
Elevation: 3165' Land form (bajada, flat, etc): FLAT, GRADED Datum/Zone: WGS84 UTM Zone 11S
Visible Disturbance: ☐ Trash ☒ Roads ☒ Buildings ☐ Ammunition ☐ Other
Dominant Vegetation Type: JOSHUA TREE (2) Dominant Soil Type: GRAVEL/SANDY LOAM

Sign #	Type (Bird, Nest, BUrrow, Scat, Tracks)	Species	Width (mm) (burrows)	Height (mm) (burrows)	Depth (>1m or < 1m) (burrows)	Easting (UTM WGS 84)	Northing (UTM WGS 84)	Notes
∅	—	—	—	—	—	—	—	NO SIGN FOUND

Page 1 of 1

Desert Tortoise Survey Datasheet

Project Surveyed: WINE + ROCK SHOP APNs 0601123314 0601123313 Date: 15 OCTOBER 2022

Survey Type (spacing/direction): 10m BELT E-W & 10m BELT N-S

Surveyor(s): NATE JONES

Start Weather: CC 30% 20°C @ 5cm 0-2 mph WIND Start Time: 0700

End Weather: CC 30% 20°C @ 5cm 0-2 mph WIND End Time: 0730

County: San Bernardino Land Owner: MORE WINE LLC Land Use: COMMERCIAL PROPERTY

Elevation: 3,165' Land form (bajada, flat, etc): FLAT, GRADED Datum/Zone: WGS84 UTM Zone 11S

Visible Disturbance: ☐ Trash ☒ Roads ☒ Buildings ☐ Ammunition ☐ Other

Dominant Vegetation Type: JOSHUA TREE (2) Dominant Soil Type: GRAVEL/SANDY LOAM

Sign #	Type (Burrow, Tortoise, Carcass, Scat, TRacks)	Class (1-5)	Width or MCL (mm)	Height (mm) (burrows)	Depth (>1m or < 1m) (burrows)	Easting (UTM WGS 84)	Northing (UTM WGS 84)	Excavated?	Notes
ϕ	—	—	—	—	—	—	—	—	NO SIGN FOUND

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