

WESTERN JOSHUA TREE CENSUS

CITY OF VICTORVILLE, CALIFORNIA
APN: 3096-361-09

Prepared for:

Guardian Capital

Prepared by:

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Project No: #2023-193 JT

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TITLE PAGE

Date Report Prepared: January 31, 2024

Field Work Completed: January 9, 2024

Report Title: Western Joshua Tree Census

Project Location: Victorville, California
APN: 3096-361-09
NW Corner: 34.49221719°, -117.40147304°
NE Corner: 34.49209596°, -117.39984120°
SW Corner: 34.49129286°, -117.40153600°
SE Corner: 34.49130293°, -117.39984007°

Datum of Coordinates: World Geodetic System 1984 (WGS 84)

Prepared for: Glen Powels
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1.0 SUMMARY

At the request of the project proponent, RCA Associates, Inc. surveyed a 3.5-acre (approximate) property located on the southwest corner of Luna Road and U.S. Highway 395 in the City of Victorville, California (APN: 3096-361-09) (Figures 1 and 2). The properties corners are marked in figure 3 and coordinates are displayed on the title page under location. The property site is located in Section 28, Township 5 North, Range 5 West (USGS Baldy Mesa, CA 7.5-minute quadrangle).

The purpose of the survey was to evaluate the western Joshua trees present on the site to determine possible impacts to the population and to calculate approximate mitigation measures prior to site clearing activities. This report provides the results of the Western Joshua Tree Census performed on January 9, 2024. Following completion of the survey, RCA Associates, Inc. prepared this Western Joshua Tree Census to assist the project proponent with future planning regarding the possible relocation or removal of any Joshua trees and applying for an Incidental Take Permit (ITP). Information on the Joshua trees is provided in Section 4.0. The State of California's Fish and Game Code 1927 states the requirements of the Western Joshua Tree Conservation Act. The requirements of code 1927 are provided in Appendix B.

Based on the results of the background data search it was determined that the project site is located within the standard fee mitigation area for the Western Joshua Tree Conservation Act. Results of the field investigations yielded that there are 47 Joshua trees which occur within the boundaries of the property and no Joshua trees that occur within a 15-meter buffer surrounding the property (Figures 3 and 4). Based on the evaluation and analysis of each tree on-site it was determined that 15 (31.91%) Joshua trees were less than 1 meter in height, 32 (68.09%) Joshua trees were 1 meter or greater but less than 5 meters in height, and 0 (0.00%) Joshua trees were 5 meters or greater in height. A summary of the approximate mitigation fees is located in Table 4-1 and the GPS location and information on each tree are provided in Table 4-2-1.

2.0 INTRODUCTION AND PROJECT LOCATION

The area surveyed is located on the southwest corner of Luna Road and U.S. Highway 395 in the City of Victorville, California. Vacant land borders the property to the south. Existing housing developments border the site to the north and west with a gas station and convenience store to the east beyond U.S. Highway 395. The biological resources on the site consist of a desert scrub community typical of the area which include Joshua tree (*Yucca brevifolia*), rubber rabbitbrush (*Ericameria nauseosa*), fiddleneck (*Amsinckia tessellata*), kelch grass (*Schismus barbatus*), white bursage (*Ambrosia dumosa*), California buckwheat (*Eriogonum fasciculatum*), and red brome (*Bromus rubens*).

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). 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 (Rowland, 1978). 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 Joshua trees for nesting such as hawks, common ravens, and cactus wrens. CDFW consider Joshua tree woodlands as areas that support relatively high species diversity and as such are considered to be a sensitive desert community. 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).

3.0 METHODOLOGIES

Pedestrian surveys were walked throughout the site and biologists from RCA Associates, Inc. evaluated each Joshua tree to determine the height, life stage, and a general health assessment. Each Joshua tree within the project boundaries received a metal numbered tag which was affixed on the north side of each tree for orientation purposes if future transplanting is required by CDFW. A piece of flagging was affixed to each tree while taking pictures to indicate the tree/trunk of focus. Photos of each tree can be obtained by request by contacting CDFW. The precise location, data and assessment of each tree was recorded using a Juniper Systems Cedar CT8X2 GPS tablet running Uinta software. A Nikon Forestry Pro II rangefinder was utilized to determine the extent of the property boundaries, buffer zone and accurate tree height. Those Joshua trees which occur on the property site are presented in Table 4-2-1 and the locations are provided in Figure 3. A 15-meter (~50 ft) is recommended as part of the census area surrounding the project site but was not physically walked and surveyed on foot due to landowner permission not being obtained. No trees were found in the 15-meter buffer surrounding the site. A KML with geographic data on the positions of all trees will be provided to help locate trees in projects with significant tree density and for future mapping.

4.0 RESULTS

A total of 47 Joshua trees occur within the boundaries of the property and no Joshua trees occur within the 15-meter (~50 foot) buffer (Figures 3). Based on the evaluation and analysis of each tree within the boundaries of the property it was determined that 15 (31.91%) Joshua trees were less than 1 meter in height, 32 (68.09%) Joshua trees were 1 meter or greater but less than 5 meters in height, and 0 (0.00%) Joshua trees were 5 meters or greater in height. A summary of the mitigation fees for on-site trees is located in Table 4-1 and the GPS locations and information on each tree are provided in Table 4-2-1.

Table 4-1: Summary of mitigation fees for on-site trees based on “Western Joshua Tree Conservation Act Mitigation Fee Map”

[\(https://experience.arcgis.com/experience/40690ac231124bccb07cbce42fc95ebd/\)](https://experience.arcgis.com/experience/40690ac231124bccb07cbce42fc95ebd/)

Reduced Mitigation Fees (within blue area) [See Section 1927.3 (d)]:		Number of trees per Size Class (A, B or C)	Approximate Cost per Size Class (A, B or C)
(A) Trees less than 1 meter in height - \$150		N/A	N/A
(B) Trees 1 meter or greater but less than 5 meters in height - \$200		N/A	N/A
(C) Trees 5 meters or greater in height - \$1,000		N/A	N/A
Total number of trees		N/A	N/A
Approximate total mitigation cost		N/A	N/A
Standard Fees (anywhere in State, outside blue area) [See Section 1927.3 (e)]:			
(A) Trees less than 1 meter in height - \$340		15	\$5,100
(B) Trees 1 meter or greater but less than 5 meters in height - \$500		32	\$16,000
(C) Trees 5 meters or greater in height - \$2,500		0	\$0
Total number of trees		47	\$21,100

Approximate mitigation cost

Table 4-2-1: Western Joshua Tree Census table showing on-site Joshua trees. (Note: The GPS locations of the Joshua trees are provided below along with the height and a general health assessment.) (Note: The JT numbers correspond to the tag numbers placed on the Joshua trees.)

Total Number of Joshua Trees On-site	Number of Live Joshua Trees On-site	Number of Dead Joshua Trees On-site	Number of Size Class “A” Joshua Trees	Number of Size Class “B” Joshua Trees	Number of Size Class “C” Joshua Trees	Number of Joshua Trees Off-site
47	8	39	15	32	0	0

Joshua Tree	Latitude (WGS 84)	Longitude (WGS 84)	Live or Dead	Height of Tree (meters)	Size Class	Mature Tree (Branched)	Flowering or Fruiting Stage (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other or none)	Will project activities be within 15 meters of tree	Relocation	Additional Notes
JT 2823	34.49148217	-117.4010468	Dead	1.1	B	No	None	Removal	Yes	Not Applicable	
JT 2824	34.49143217	-117.4009142	Dead	2.1	B	No	None	Removal	Yes	Not Applicable	
JT 2825	34.491373	-117.4009373	Dead	2.1	B	No	None	Removal	Yes	Not Applicable	
JT 2826	34.491487	-117.400833	Live	4.4	B	Yes	None	Removal	Yes	Not Applicable	
JT 2827	34.49139483	-117.4007962	Dead	1.8	B	Yes	None	Removal	Yes	Not Applicable	
JT 2828	34.49136033	-117.4007942	Dead	2.2	B	Yes	None	Removal	Yes	Not Applicable	
JT 2829	34.491356	-117.4007307	Dead	0.6	A	No	None	Removal	Yes	Not Applicable	

Joshua Tree	Latitude (WGS 84)	Longitude (WGS 84)	Live or Dead	Height of Tree (meters)	Size Class	Mature Tree (Branched)	Flowering or Fruiting Stage (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other or none)	Will project activities be within 15 meters of tree	Relocation	Additional Notes
JT 2830	34.4913775	-117.4006097	Dead	1.6	B	No	None	Removal	Yes	Not Applicable	
JT 2831	34.49136483	-117.4005613	Dead	1.2	B	No	None	Removal	Yes	Not Applicable	
JT 2832	34.491347	-117.4005203	Dead	1.8	B	Yes	None	Removal	Yes	Not Applicable	
JT 2833	34.4914155	-117.4005247	Dead	0.9	A	No	None	Removal	Yes	Not Applicable	
JT 2834	34.491455	-117.4005122	Dead	0.8	A	No	None	Removal	Yes	Not Applicable	
JT 2835	34.49145583	-117.4004808	Dead	1	B	No	None	Removal	Yes	Not Applicable	
JT 2836	34.49143417	-117.4004032	Dead	1	B	No	None	Removal	Yes	Not Applicable	
JT 2837	34.4913955	-117.4003802	Dead	1.1	B	No	None	Removal	Yes	Not Applicable	
JT 2838	34.491388	-117.40042	Dead	1.2	B	No	None	Removal	Yes	Not Applicable	
JT 2839	34.49133383	-117.4004407	Dead	1.4	B	No	None	Removal	Yes	Not Applicable	
JT 2840	34.49133067	-117.400399	Dead	0.8	A	Yes	None	Removal	Yes	Not Applicable	
JT 2841	34.4914155	-117.4003355	Dead	0.6	A	No	None	Removal	Yes	Not Applicable	
JT 2842	34.4913185	-117.4003035	Dead	1.3	B	Yes	None	Removal	Yes	Not Applicable	
JT 2843	34.49133383	-117.4002465	Dead	0.7	A	No	None	Removal	Yes	Not Applicable	

Joshua Tree	Latitude (WGS 84)	Longitude (WGS 84)	Live or Dead	Height of Tree (meters)	Size Class	Mature Tree (Branched)	Flowering or Fruiting Stage (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other or none)	Will project activities be within 15 meters of tree	Relocation	Additional Notes
JT 2844	34.4913485	-117.4001843	Dead	0.8	A	No	None	Removal	Yes	Not Applicable	
JT 2845	34.49140883	-117.400249	Dead	1.2	B	No	None	Removal	Yes	Not Applicable	
JT 2846	34.49144517	-117.4002752	Dead	1.1	B	No	None	Removal	Yes	Not Applicable	
JT 2847	34.49144433	-117.4003172	Dead	0.6	A	No	None	Removal	Yes	Not Applicable	
JT 2848	34.49145	-117.4002163	Dead	1.3	B	No	None	Removal	Yes	Not Applicable	
JT 2849	34.4914475	-117.4001723	Live	3.4	B	Yes	None	Removal	Yes	Not Applicable	
JT 2850	34.49140183	-117.4001083	Dead	0.9	A	No	None	Removal	Yes	Not Applicable	
JT 2851	34.49146133	-117.4001062	Dead	0.6	A	No	None	Removal	Yes	Not Applicable	
JT 2852	34.49144983	-117.4001373	Live	0.2	A	No	None	Removal	Yes	Not Applicable	
JT 2853	34.49145617	-117.4001307	Live	0.2	A	No	None	Removal	Yes	Not Applicable	
JT 2854	34.49143217	-117.40005	Dead	1.5	B	Yes	None	Removal	Yes	Not Applicable	
JT 2855	34.49147967	-117.400052	Dead	1	B	No	None	Removal	Yes	Not Applicable	
JT 2856	34.4914775	-117.40002	Dead	1.8	B	Yes	None	Removal	Yes	Not Applicable	
JT 2857	34.49142033	-117.400019	Dead	1.5	B	No	None	Removal	Yes	Not Applicable	

Joshua Tree	Latitude (WGS 84)	Longitude (WGS 84)	Live or Dead	Height of Tree (meters)	Size Class	Mature Tree (Branched)	Flowering or Fruiting Stage (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other or none)	Will project activities be within 15 meters of tree	Relocation	Additional Notes
JT 2858	34.4913745	-117.4000455	Dead	2.1	B	No	None	Removal	Yes	Not Applicable	
JT 2859	34.49137833	-117.400022	Dead	1.4	B	Yes	None	Removal	Yes	Not Applicable	
JT 2860	34.4913745	-117.4000247	Dead	2.5	B	Yes	None	Removal	Yes	Not Applicable	
JT 2861	34.49142417	-117.3999422	Dead	2.1	B	Yes	None	Removal	Yes	Not Applicable	
JT 2862	34.491364	-117.3999362	Dead	0.6	A	No	None	Removal	Yes	Not Applicable	
JT 2863	34.4915445	-117.3999713	Dead	1	B	No	None	Removal	Yes	Not Applicable	
JT 2864	34.49197967	-117.3998767	Live	2.9	B	Yes	None	Removal	Yes	Not Applicable	
JT 2865	34.492039	-117.3998842	Live	2.4	B	Yes	None	Removal	Yes	Not Applicable	
JT 2866	34.4920525	-117.3998902	Live	0.3	A	No	None	Removal	Yes	Not Applicable	
JT 2867	34.49206867	-117.3998942	Live	0.1	A	No	None	Removal	Yes	Not Applicable	
JT 2868	34.49199133	-117.399968	Dead	1.3	B	No	None	Removal	Yes	Not Applicable	
JT 2869	34.49206767	-117.4000085	Dead	2.6	B	Yes	None	Removal	Yes	Not Applicable	

5.0 CONCLUSIONS

The site is located within the standard mitigation fee area by CDFW for the Western Joshua Tree Conservation Act. A total of 47 Joshua trees occur within the boundaries of the property and no Joshua trees occur within the 15-meter buffer surrounding the site. (Figures 3 and 4). As stated above, based on the evaluation and analysis of each tree on-site it was determined that 15 (31.91%) Joshua trees are less than 1 meter in height and are categorized under size class “A”. There are 32 (68.09%) Joshua trees 1 meter or greater but less than 5 meters in height categorized under size class “B”. There are 0 (0.00%) Joshua trees 5 meters or greater in height categorized under size class “C”. As indicated in Table 4-1, the majority of Joshua trees are less than 5 meters in height.

As of July 10, 2023, California legislature passed and signed the Western Joshua Tree Conservation Act (WJTCA, Senate Bill 122) into effect listing the western Joshua tree (*Yucca brevifolia*) as a candidate endangered species. The WJTCA authorizes CDFW to oversee the various permitting processes dealing with mitigation and/or removal of western Joshua trees. Therefore, any attempt to remove a Joshua tree from its current position will require a California Endangered Species Act Incidental Take Permit (CESA, ITP) or a Western Joshua Tree Conservation Act Incidental Take Permit (WJTCA, ITP). CDFW is the lead agency in the decision making of the projects forward progress pertaining to western Joshua trees.

6.0 REFERENCES

- Brittingham, S. and W. Lawrence. 2000. Facilitation of *Yucca brevifolia* Recruitment by Mojave Desert Shrubs. *Western North American Naturalist* 60(4), pp. 374-383.
- City of Hesperia. 1990. Native Desert Vegetation Ordinance, Municipal Code: Chapter 16.24.
- Hickman, James C. The Jepson Manual Higher Plants of California. University of California Press. Berkeley, CA. 3rd Edition. 1996.
- Holland, Robert F. 1986 Preliminary Description of the Terrestrial Natural Communities of California. Prepared for the California Natural Diversity Data Base. California Department of Fish and Game. Sacramento, California. 160 pp.
- Johnson, H. 1976 vegetation and Plant Communities of Southern California Deserts- a functional view. In Symposium proceedings: Plant communities of Southern California. June Latting, editor. California Native Plant Society, Spec. No. 2 Berkeley, CA.
- Munz, Philip A. 1974. A Flora of Southern California. University of California Press, Berkeley, California. 1086 pp.
- SB 122, Committee on Budget and Fiscal Review. Public resources trailer bill. SEC 5, Chapter 11.5. Western Joshua Tree Conservation Act.

7.0 CERTIFICATION

I hereby certify the statements furnished above and in the attached exhibits, present the data and information required for this Joshua tree survey and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Fieldwork conducted for this survey was performed by Ryan D. Hunter and Brian S. Bunyi.

Date: January 31, 2024, Signed: *Ryan D. Hunter*
Brian S. Bunyi

Field Work Performed by: Ryan D. Hunter
Principal Environmental Scientist & Wildlife Biologist
Brian S. Bunyi
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APPENDIX A

Figures

APPENDIX B

**California Department of Fish and Game Code
1927**