

March 3, 2023
Revised 09/12/23

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VIA EMAIL
canderson@tbplanning.com

Subject: Results of the Joshua Tree Survey Conducted for the Palmdale Logistics Park Project in the City of Palmdale, Los Angeles County, California

Dear Ms. Anderson:

This Letter Report presents the findings of a Joshua tree survey conducted for the Palmdale Logistics Park Project (hereinafter referred to as the “proposed Project”) located in the City of Palmdale, Los Angeles County, California (Exhibit 1). The purpose of this report is to document all western Joshua trees (*Yucca brevifolia*) occurring on the proposed Project site in order to satisfy the requirements of City of Palmdale Urgency Ordinance No. 1556, the California Desert Native Plants Act and Native Desert Vegetation Preservation Ordinance (Sections 14.04.010-14.04.120), and the California Endangered Species Act (CESA). The western Joshua tree is currently listed as a California Candidate Threatened species (CDFW 2022) and therefore requires an Incidental Take Permit or Joshua Tree Conservation Act permit prior to Project disturbance.

PROJECT LOCATION

The Proposed Project is located on approximately 76.97-acres in the southern portion of the Antelope Valley in the City of Palmdale. The Project site is located at the southwest corner of Columbia Way/Avenue M and Division Street(Exhibit 1). The Project site is located on the Lancaster West U.S. Geologic Survey 7.5-minute quadrangle map (Exhibit 2).

SITE DESCRIPTION

Elevations range from approximately 2,550 feet above mean sea level (msl) in the southern portion of the site to approximately 2,530 feet above msl in the northern portion of the property. The Project site is currently undeveloped with a large dry wash running through the western portion of the site. The vegetation on the site is generally comprised of Joshua tree woodland in the east, with various shrub communities such as disturbed Nevada joint fir scrub, disturbed Nevada joint fir tea – Mojave cottonthorn, disturbed great basin sagebrush – rubber rabbitbrush scrub, red-stem filaree fields, and sandy dry wash, occurring throughout the rest of the site.

The majority of the survey area has been previously disturbed by human activities. Multiple unauthorized encampments were observed in the eastern and northern portions survey area just prior to the start of plant surveys. The areas surrounding these abandoned encampments showed various disturbances such as fire, soil disturbances from off-road vehicles, trash and various household items. In addition, mechanical disturbance to vegetation is visible in

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patches throughout the site. Dirt access roads are located around the perimeter of the site and through the center of the site from north to south.

BACKGROUND

The Joshua tree is an important keystone species, and its range defines the biological extent of the Mojave Desert (Thomas et al. 2004). Literature published in 2007 by Lee W. Lenz contended that what was previously widely accepted as the Joshua tree (*Y. brevifolia* var. *brevifolia*) and Jaeger's Joshua tree (*Y. brevifolia* var. *jaegeriana*) is two distinct species – the western Joshua tree (*Y. brevifolia*) and eastern Joshua tree (*Y. jaegeriana*). In addition to Lenz's research, genetic research conducted on the Joshua tree in 2016 found evidence for strong genome-wide patterns of divergence between the Joshua tree species (Royer et al. 2016), further validating the separation at the species level. The two species are separated geographically and only occur at higher elevations (e.g., 1,300 feet – 6,560 feet) (Hess 2012) and prefer flat and gently sloping aspects. The western Joshua tree's western extent occurs near Gorman, California; the southern extent occurs in Joshua Tree National Park; the eastern extent in Tikaboo Valley, Nevada; and the northern extent near Alkali, Nevada (Lenz 2007). The western Joshua tree is arborescent (tree-like) with a distinct trunk, and it branches only after a flower is produced on the main stalk.

Individual Joshua trees do not flower every year but instead tend to produce flowers during wet years, and usually all at once. Joshua tree pollen is too sticky to be carried by the wind and therefore requires the assistance of pollinators, namely the yucca moth (*Tegeticula synthetica*). Blooming typically occurs from January to mid-April and coincides with the flight of yucca moths (Cornett 2018). Waitman and Esque found through radioactive tracers that rodents such as the white-tailed Antelope squirrel (*Ammospermophilus leucurus*) were responsible for most of the successful germination in the Joshua trees they studied. The white-tailed Antelope squirrel was shown to climb the trees and remove the fruit directly from the tree canopy during peak ripeness, then bury the seeds under a shallow layer of soil, greatly aiding in germination (Waitman and Esque 2012).

Joshua trees are monocots in the family Agavaceae and therefore do not have thick woody roots but instead numerous small fibrous roots about as thick as a pencil. The roots of Joshua trees spread out horizontally just under the ground surface (approximately as far as the tree canopy) to capture water from light rains, as well as deep (10 to 30 feet) vertically to capture seasonally pooled underground water. Some Joshua trees, usually those at higher elevations, those at the edges of the range, or areas more prone to disturbance such as wildfires, contain rhizomes – a method of asexual reproduction whereby a new stem develops from the rhizome, shoots up above ground, and eventually grows into an adult tree. Clonal Joshua trees are usually shorter stature and contain less branching (Simpson 1975).

REGULATORY AUTHORITY

California Endangered Species Act

On October 21, 2019, the California Fish and Game Commission (CFGF) received a petition from the Center for Biological Diversity to list the western Joshua tree as 'Threatened' under CESA. On September 22, 2020, the CFGF accepted the petition to list the western Joshua tree as a Candidate Threatened species, which became official upon publication in the California Regulatory Notice Register on October 9, 2020. The California Department of Fish and Wildlife (CDFW) conducted a Status Review and released a conclusion in April 2022 indicating listing of the species was not warranted. Subsequently, the CFGF voted to postpone a decision and extend the review period until October 2022. During the review period, the CFGF has issued Approved Emergency Regulatory Language (pursuant to Section 749.12 Title 14) of the California Code of Regulations to provide guidance on applying for an Incidental

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Take Permit for impacts to the western Joshua tree. The western Joshua tree is currently listed as a California Candidate Threatened species and is therefore covered under CESA.

California State Legislature

California State Legislature passed the Western Joshua Tree Conservation Act (Assembly Bill AB1008) on June 27, 2023, which was signed by Governor Gavin Newsom on July 10, 2023, and retroactively took effect July 1, 2023. At the time of writing, the bill is pending a vote by the Senate Natural Resources and Water Committee. This bill, among other things, would authorize the department to authorize, by permit, the taking of a western Joshua tree if specified conditions are met, including, but not limited to, that the permittee mitigates all impacts to, and taking of, the western Joshua tree. The bill would authorize, in lieu of completing the mitigation measures on its own, a permittee to elect to satisfy the mitigation obligation by paying a fee to the State pursuant to a specified fee schedule. The bill would require the department to present the final conservation plan at a public meeting of the commission, for its review and approval, by December 31, 2024, and would require the commission to take final action on the plan by June 30, 2025.

The bill's in-lieu fee Joshua tree mitigation fund, to be established by the State, is available for projects purchasing mitigation credits within a specified area. The in-lieu fee program area is located within a portion of the western Joshua tree range within the area bounded by the intersection of Highway 58 and Interstate 5, then east along Highway 58 to the intersection of Interstate 15, then north along Interstate 15 to the intersection of Highway 247, then south along Highway 247 to the intersection of Highway 18, then west along Highway 18 to the intersection of Highway 138, then west and north along Highway 138 to the intersection of Interstate 5, then north along Interstate 5 to Highway 58. Alternatively, in-lieu fees can be paid in areas outside of the geographical area described above if the project is in a jurisdiction that has entered into an agreement with the State pursuant to this bill. The Project site is located within the bill's in-lieu fee Joshua tree mitigation fund area.

Updates, an interactive map, and additional information regarding the Western Joshua Tree Conservation Act can be found at www.wildlife.ca.gov/Conservation/Environmental-Review/WJT.

City of Palmdale

On December 15, 2020, The City of Palmdale issued an Urgency Ordinance Amending Chapter 14.04 of the Palmdale Municipal Code (Joshua Tree and Native Desert Vegetation Preservation) to Require compliance with the California Endangered Species Act. This letter report satisfies the requirements found in the Palmdale Municipal Code and CESA.

METHODS

On March 23, 2022, a team of three biologist, led by Certified Arborist Trevor Bristle (ISA Certificate No. WE-10233A), walked transects throughout the site to document Joshua trees in the Project boundary plus a 186-foot buffer (survey area) (Exhibit 3). Each Joshua tree received a pre-numbered metal tag affixed with a 3 inch metal nail on the north side of the trunk for orientation purposes during potential future transplanting. The location of each tree was recorded using an iPad Mini 6. Individual Joshua trees were measured for diameter at breast height (dbh) (4.5 feet above natural grade), and height. Total branching, spread, number of fresh panicles, and the presence and number of clones was also counted. Weather the tree was flowering or had any lean (e.g., no lean, slight lean, lean, extreme lean not touching ground, extreme lean touching ground) was noted. An overall assessment of health was made on a grading system: excellent, good, fair, poor, critical, dead standing, dead freshly fallen, dead moderately

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aged, dead severely aged. See Table 1 for a description of each health rating. A photograph was taken of each tree and can be found in Attachment A.

Following the field survey, each tree was assessed for its suitability for transplantation/relocation based on a general health assessment and size threshold (height and minimal branching). Per the Palmdale Ordinance, only trees less than or equal to 15 feet in height, and in good condition are recommended for transplanting. Those trees in close proximity to other trees (e.g., clonal) were not selected due to difficulties presented from underground root systems.

**TABLE 1
 JOSHUA TREE HEALTH ASSESSMENT RATINGS**

Health Rating	Description
Excellent	Tree has excellent health and strong vigor. No damage. Flowering and fruiting expected. Typically, only given to large, high quality specimens (>13 feet in height). Transplanting generally not recommended due to size. Avoidance recommended.
Good	Tree has good health and vigor. All branches are alive and healthy. Damage is very localized and minimal. Flowering and fruiting likely. Tree is transplantable.
Fair	Tree health average. Some stressors or damage possible, however any damage is minimal to moderate (e.g., rodent grazing, or insect damage). No dead/broken branches. Tree is transplantable.
Poor	Tree under stress, and overall health in decline, or tree has taken significant damage. Mortality likely unless stressors relieved, and/or conditions change. Broken/dead limbs likely present. Tree is generally not transplantable.
Critical	Tree in extreme decline. One or more branches dead. One or more branches dying. Physical damage likely present. Damage is significant and extensive. Mortality expected within 2 to 4 years. Tree is not transplantable.
Dead – Standing	Tree is dead (no green leaves) but still standing.
Dead – Freshly Fallen	Tree is dead and fallen but appears freshly fallen based on intact branches and leaves. Can likely record other data for these trees such as height.
Dead – Moderately Aged	Tree is dead and fallen and appears to have been on the ground a while, portions of the inner system exposed, plants growing up between branches, etc. May not be possible to record any other data.
Dead – Severely Aged	Tree is dead and fallen and is broken into many smaller pieces, few/no leaves left on the dead specimen. Not possible to record any other data.

SURVEY RESULTS

A total of 110 western Joshua trees were documented in the survey area; 99 living and 11 dead. Of the 110 Joshua trees, 92 are on-site and 18 are located off-site within the survey buffer area. A map of the tree locations can be found on Exhibit 3. A detailed data table of each tree and corresponding attributes, as well as those trees potentially suitable for transplantation, can be found in Attachment B.

CONCLUSIONS

Of the 110 Joshua trees located in the survey area, 23 were marked “yes” for transplantation, and 15 were marked “potential” for transplantation due to their size being near the threshold size of 15 feet tall. This conclusion was based on: (1) trees which were one foot or greater in height and less than 15 feet tall (approximate); (2) in good health; (3), few branches; (4) not clonal; and (6) trees that did not exhibit extreme lean.

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The City of Palmdale requires avoidance of Joshua trees to the maximum extent practicable. A qualified City-approved biologist or arborist should be retained to conduct any future relocation/transplanting activities and should follow the Palmdale Municipal Code protocols in Section 14.04.060, titled Joshua Tree Relocation Methodology. The City may default mitigation requirements to the CDFW if an ITP or Joshua Tree Conservation Act permit is issued.

Psomas appreciates the opportunity to assist on this project. If you have any comments or questions, please call Marc Blain at (626) 351-2000.

Sincerely,

P S O M A S



Marc T. Blain
Senior Project Manager/Biologist



Sarah Thomas
Biologist

Enclosures: Exhibit 1 – Regional Location and Local Vicinity
 Exhibits 2 – USGS Quadrangle Map
 Exhibits 3 – Survey Results Map
 Attachment A – Joshua Tree Photographs
 Attachment B – Joshua Tree Survey Data Table

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ATTACHMENT A
JOSHUA TREE PHOTOGRAPHS

ATTACHMENT B

JOSHUA TREE SURVEY DATA TABLE

JOSHUA TREE SURVEY DATA TABLE

Species	Date Collected	Observer	Tree Tagged	Tree Tag ID	Clonal	DBH	Height (ft.)	Spread (ft.)	No. of Panicles	No. of Branches	Health	Flowering	Transplantation	Notes
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	1	no	8	8	2	1	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	2	yes	11	14	9	3	14	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	3	yes	4	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	4	yes	3	1	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	5	yes	4	2	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	6	yes	4	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	7	no	10	13	4	2	15	good	yes	potential	Two stems coming out of same base.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	8	no	8	8	3	1	8	good	yes	yes	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	9	no	4	3	1	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	10	no	3	2	1	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	11	yes	10	13	5	2	24	good	no	no	4 stems protruding from base
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	12	yes	4	4	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	13	yes	4	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	14	yes	4	4	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	15	yes	4	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	16	yes	4	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	17	yes	2	1	1	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	18	no	10	13	4	3	14	good	no	potential	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	19	no	10	13	5	2	12	good	yes	potential	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	20	no	11	17	6	4	14	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	21	no	14	25	10	7	27	good	yes	no	off-site; Active raven nest in JT.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	22	no	11	13	10	0	19	good	no	potential	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	23	yes	6	5	2	0	3	good	no	no	3 stems coming out of same base.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	24	yes	12	11	7	3	14	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	25	yes	4	3	1	0	1	good	no	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	26	yes	8	9	3	0	11	good	no	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	27	yes	8	13	8	5	18	good	yes	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	28	yes	10	14	9	7	33	good	yes	no	off-site; Two stems coming from base.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	30	no	13	16	12	3	9	good	yes	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	32	no	5	4	1	0	1	good	no	yes	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	33	no	8	12	8	1	25	good	no	potential	off-site; 4 stems coming out of base
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	34	no	8	9	2	0	3	good	no	yes	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	35	no	9	11	2	0	5	good	no	yes	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	36	no	9	13	4	3	13	good	yes	potential	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	37	no	7	12	1	0	1	fair	no	no	off-site; extreme lean not touching ground.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	38	no	8	5	1	0	11	critical	no	no	off-site; 7 branches coming out of base. Only one is alive.
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	39	no	10	16	5	0	11	good	yes	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	40	no	12	14	5	5	15	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	41	no	11	15	8	4	27	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	42	no	12	15	7	0	16	good	no	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	43	no	12	16	9	6	18	good	yes	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	44	no	9	12	9	0	14	good	no	potential	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	45	yes	2	2	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	46	yes	2	1	1	0	1	good	no	no	

JOSHUA TREE SURVEY DATA TABLE

Species	Date Collected	Observer	Tree Tagged	Tree Tag ID	Clonal	DBH	Height (ft.)	Spread (ft.)	No. of Panicles	No. of Branches	Health	Flowering	Transplantation	Notes
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	47	yes	3	3	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	48	yes	2	1	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	49	no	12	14	8	1	27	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	yes	50	no	9	13	4	2	5	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Underwood	no	51	no	8	8	2	0	4	good	no	no	off-site
<i>Yucca brevifolia</i>	3/23/2022	Underwood	no	52	no	8	8	2	1	5	good	yes	yes	off-site
<i>Yucca brevifolia</i>	3/23/2022	House	yes	101	no	18	15	11	3	33	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	102	yes	9	10	9	0	15	good	no	no	lean
<i>Yucca brevifolia</i>	3/23/2022	House	no	103	yes	2	1	1	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	House	no	104	yes	5	5	4	0	3	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	no	105	yes	6	8	4	1	2	good	yes	no	Two stems coming out of base
<i>Yucca brevifolia</i>	3/23/2022	House	no	106	no	5	3	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	no	107	no	4	3	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	108	no	8	12	9	2	15	good	yes	potential	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	109	no	9	10	5	0	9	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	110	yes	9	12	9	2	16	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	no	111	no	10	10	8	0	4	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	112	no	4	4	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	113	yes	11	14	10	1	17	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	114	no	11	15	10	5	18	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	115	yes	11	10	5	1	10	good	yes	no	Two stems
<i>Yucca brevifolia</i>	3/23/2022	House	yes	116	no	10	14	5	0	12	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	117	yes	11	14	5	0	14	good	no	no	Old bird nest at top
<i>Yucca brevifolia</i>	3/23/2022	House	yes	118	yes	11	14	12	0	11	good	no	no	Two stems
<i>Yucca brevifolia</i>	3/23/2022	House	yes	119	yes	7	11	9	0	15	good	no	no	Two stems; lean
<i>Yucca brevifolia</i>	3/23/2022	House	yes	120	yes	4	4	2	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	House	no	121	yes	4	4	3	0	2	dead - severely aged	no	n/a	Two stems
<i>Yucca brevifolia</i>	3/23/2022	House	yes	122	yes	6	6	5	0	4	good	no	no	Four stems
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	123	no	12	12	8	4	21	good	yes	potential	lean
<i>Yucca brevifolia</i>	3/23/2022	Bristle	no	124	no	7	10	8	0	8	dead - standing	no	n/a	Behind encampment. Appears burned. 5 stems.
<i>Yucca brevifolia</i>	3/23/2022	House	yes	125	no	11	13	5	0	9	good	no	potential	
<i>Yucca brevifolia</i>	3/23/2022	House	no	126	no	18	14	12	0	13	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	no	127	no	10	12	8	0	11	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	128	no	9	14	5	1	14	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	no	129	no	5	3	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	130	no	10	12	6	1	12	good	yes	potential	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	131	no	10	13	5	2	14	good	yes	potential	Appears to be mechanically injured
<i>Yucca brevifolia</i>	3/23/2022	House	yes	132	no	4	4	3	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	133	no	10	8	4	1	4	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	no	134	no	10	11	5	2	7	good	yes	yes	Next to encampment. Estimated from a distance
<i>Yucca brevifolia</i>	3/23/2022	House	yes	135	yes	10	9	8	0	3	dead - standing	no	n/a	3 stems
<i>Yucca brevifolia</i>	3/23/2022	House	yes	136	yes	3	3	2	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	137	no	5	6	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	138	no	10	13	9	0	15	good	no	potential	
<i>Yucca brevifolia</i>	3/23/2022	House	no	139	no	7	8	6	0	2	dead - severely aged	no	n/a	

JOSHUA TREE SURVEY DATA TABLE

Species	Date Collected	Observer	Tree Tagged	Tree Tag ID	Clonal	DBH	Height (ft.)	Spread (ft.)	No. of Panicles	No. of Branches	Health	Flowering	Transplantation	Notes
<i>Yucca brevifolia</i>	3/23/2022	House	yes	140	no	8	9	6	0	6	poor	no	no	Coloration not good; lean
<i>Yucca brevifolia</i>	3/23/2022	House	no	141	yes	9	11	6	0	9	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	142	no	8	9	5	0	6	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	143	no	12	13	10	6	25	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	144	no	11	13	10	1	40	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	145	yes	7	10	3	1	5	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	146	yes	7	10	4	1	6	good	yes	no	Old nest
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	147	yes	3	3	2	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	148	yes	13	13	11	4	23	good	yes	no	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	149	yes	5	4	2	0	1	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	150	no	12	15	8	6	19	good	yes	no	slight lean
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	151	no	12	13	10	0	26	good	no	no	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	no	152	no	6	8	3	0	1	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	153	no	3	2	2	0	1	good	no	yes	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	154	no	9	7	4	0	5	good	no	yes	Inactive bird's nest
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	155	yes	13	13	10	1	29	good	yes	no	Three stems
<i>Yucca brevifolia</i>	3/23/2022	House	yes	156	no	10	9	4	1	3	good	yes	yes	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	no	157	no	10	8	6	0	4	dead - severely aged	no	n/a	
<i>Yucca brevifolia</i>	3/23/2022	House	yes	158	no	10	11	10	2	16	good	yes	potential	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	159	no	8	11	4	2	5	good	yes	potential	
<i>Yucca brevifolia</i>	3/23/2022	Bristle	yes	160	no	4	3	2	0	1	good	no	yes	