DOCKETED	
Docket Number:	19-SPPE-04
Project Title:	SJ2
TN #:	236296
Document Title:	SJC Data Center Data Request Set 1A Responses
Description:	N/A
Filer:	Jerry Salamy
Organization:	Jacobs
Submitter Role:	Applicant Consultant
Submission Date:	1/14/2021 9:38:25 AM
Docketed Date:	1/14/2021

San José City Data Center
(19-SPPE-04)

Data Response Set 1A
(Response to Data Request 19)

Submitted to
California Energy Commission

Prepared by
Microsoft Corporation

with technical assistance from

JACOBS

January 2021

Contents

Attachments

Introduction

Attached is Microsoft Corporation's (Microsoft or the Applicant) response to the California Energy Commission (CEC) Data Request, Set 1 regarding the San José City Data Center (SJC02) (19-SPPE-04) Small Power Plant Exemption (SPPE). This submittal provides a response to Data Request #19.

Cultural Resources (19)

Background: Utility Line Surveys

The archaeological survey coverage map indicates that two portions of proposed utility lines remain unexamined for cultural resources because of "lack of accessibility" (Jacobs 2019, p.3.5-6, Figure 3.5-1). The application does not describe the accessibility issue(s). These unexamined utility lines total between 1.75 and 2.00 miles long. Their potential to contain cultural resources remains unaddressed.

Data Requests

19) Please provide a schedule for completing the archaeological survey of the linears.

Response: The City of San José granted access to survey the utility lines on November 19, 2020 and a survey of the utility lines was conducted on December 8, 2020. Attachment DR-19 presents a technical memorandum of the results of the survey.

JACOBS

Attachment DR-19
San José Data Center Cultural Resources Survey for Linear Corridors

Jacobs

Memorandum

2485 Natomas Park Drive, Suite 600
Sacramento, California 95833-2937
United States
T +1.916.920.0300
F +1.916.920.8463
www.jacobs.com

Subject	**San José Data Center Cultural Resources Survey for Linear Corridors**
Project Name	**San Jose City Data Center (SJC02)**
From	**Brian Ramos Ph.D., Senior Archaeologist, Jacobs**
Date	**January 06, 2021**
Copies to	**S. Madams/Jacobs, J. Salamy/Jacobs, P. Witters/Microsoft**

A San José Data Center (SJC02 or project) is proposed within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 479,000 square feet of space and related on- and off-site improvements. A previous cultural resources study (PaleoWest 2019) was conducted for the project, however some portions of the project area were not accessible at the time of the 2019 survey. These areas include several proposed linear corridors for the construction of storm drains, sanitary sewers, water lines and electrical supply lines.

This memorandum responds to the request in California Energy Commission (CEC) Staff Data Request, Set 1, Data Request No. 19 (TN231294), which requested additional information concerning the archaeological resources that could be impacted by these utility lines. CEC Staff also requested this information in Data Request No. 53 (TN232269). As described in the sections below, Jacobs completed an ancillary cultural resources pedestrian survey focused on these linear corridors to determine if there is a visible surface manifestation of any previously unrecorded cultural resources present that could be impacted by the project. This memorandum documents the results of that ancillary pedestrian survey, which did not identify any significant historical or archaeological resources within the proposed linear corridors. No subsurface investigations were conducted as part of this review.

Project Background

A San José Data Center (SJC02 or project) is proposed to be located within the City of San José (Appendix Figure 1) on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 479,000 square feet of space and related on- and off-site improvements. As described below, the project includes proposed utility improvements (water, sewer, stormwater) in the vicinity of the PG&E Substation and the Los Esteros Critical Energy Facility located near the junction of Highway 237 and Zanker Road (Appendix Figure 2). This memo addresses the presence/absence for cultural resources (e.g. historical and archaeological resources) within the linear corridors for each of these utility improvements (Appendix Figure 3). This memorandum does not, however, include a

reexamination of the findings of the previous cultural resources study for the project that were previously submitted to the CEC for consideration.

Three potable water lines are proposed to support data center operations. Water Line Route #1 and Water Line Route #2 begin in the northwestern corner of the project. Both routes travel south to the proposed entrance road, Nortech Extension. From there, they both turn west to Zanker Road. At Zanker Road, Water Line Route #1 heads north briefly and then west, ultimately connecting to the Nortech valve. Water Line Route #1 is approximately 1.5 miles (7,900 feet) long. At Zanker Road, Water Line Route #2 turns south before turning west alongside Highway 237, and eventually turning south to go under Highway 237 to connect to the new Holger Valve. Water Line Route #2 is approximately 1.3 miles (7,100 feet) long. Water Line Route #3 begins at the southwestern corner of the project, and heads generally east to Zanker Road, where it will parallel Water Line Route #2 connecting to the new Holger valve. Water Line Route #3 is approximately 1.4 miles (7,500 feet long). The water will come from the San José Municipal Water System to the project.

Reclaimed water will be used at the site for landscaping and cooling purposes. The reclaimed water line will start at the northwestern corner of the project site and proceed south to the proposed entrance road, Nortech Extension. From there, the line turns west and ends at an existing reclaimed water line that is oriented generally north to south. The reclaimed water line will be approximately 0.5 mile (2,900 feet) long).

A sanitary sewer line will begin at the northwestern corner of the project site, and head south to the proposed entrance road, where the line turns to the west. At Zanker Road, the line turns south and will connect to the existing sanitary sewer force main/pump station at the corner of Zanker Road and Thomas Foon Chew Way. The sewer line is approximately 0.6 mile (3,300 feet) long.

The stormwater line for the project will begin in the northwestern corner of the project site, paralleling the water line route, terminating at the Nortech Parkway extension off Zanker Road, where it will tie into the City of San José's stormwater system in the vicinity of Nortech Parkway. The stormwater line is approximately 0.55 miles (3,000 feet) long. The excavations for these project utility elements within these linear corridors are expected to reach depths of up to 15 feet below the present ground surface.

Regulatory Requirements

California Environmental Quality Act

The overarching regulatory requirement for the proposed work is the California Environmental Quality Act (CEQA) which requires that specified public agencies that finance or approve public or private projects via a discretionary approval process assess the effects of the project on historical resources and archaeological resources (among other environmental topic areas). (14 Cal. Code Regs. ("CEQA Guidelines"), § 15064.5.) CEQA requires that, if the project would result in an effect that may cause a substantial adverse change in the significance of a historical resource, feasible alternative plans or mitigation measures must be considered. Historical resources are those that satisfy the requirements of CEQA Guidelines section 15064.5(a), which are summarized below:

> (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR).

(2) A resource included in a local register of historical resources, or identified as significant in an historical resource survey meeting the requirements of Public Resources Code (PRC) section 5024.1(g), shall be presumed to be historically or culturally significant. [. . .]

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (PRC, § 5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) A resource that the lead agency has determined is an historical resource as defined in PRC sections 5020.1(j) or 5024.1.

As provided in PRC section 5024.1(c), a historical resource may be eligible for inclusion in the CRHR if it:

(a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(b) is associated with the lives of persons important in our past;

(c) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(d) has yielded, or may be likely to yield, information important in prehistory or history.

With respect to archaeological resources, when a project will impact an archaeological site the lead agency must first determine whether the site is considered an "historical resource" as defined in CEQA Guidelines 15064.5(a), and summarized above. (Guidelines, § 15064.5(c).) If an archaeological site does not meet those criteria, but does meet the definition of a unique archeological resource in PRC section 21083.2, the site shall be treated in accordance with the provisions of PRC section 21083.2. Finally, if an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (CEQA Guidelines, § 15064.5(c)(4).)

For purposes of this memorandum, the term "cultural resources" is meant to encompass historical and archaeological resources as those terms are defined above. The steps typically taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify any cultural resources within the study area.
- Evaluate the significance of any identified cultural resources.
- Evaluate the effects of the project on the identified cultural resources pursuant to the applicable significance thresholds.
- To the extent any significant impacts are identified, then develop and impose feasible measures to mitigate the significant effects of the project on the identified resources.

City of San Jose General Plan

Historical and archaeological resources are addressed *Envision San José 2040 General Plan*. The primary General Plan goal is to preserve historically and archaeologically significant structures, sites, districts, and artifacts in order to promote a greater sense of historical awareness and community identity, and to enhance the quality of urban living (City of San José 2018).

According to the City's *Historic Preservation Ordinance* (Municipal Code Chapter 13.48) adopted in 1975 and amended since, the City of San José is authorized to maintain an inventory of historical resources, establish a historical landmarks commission, preserve historical properties using landmark designation process, require historical preservation permits for additions or alternation to City Landmarks or buildings within City Historic Districts, and to provide financial incentives through the Historic Property Contracts program. (City of San José 2019).

According to Policy ER-10.1 in the *Envision San José General Plan*, proposed development sites that have been identified as archaeologically or paleontologically sensitive, "require investigation during the planning process in order to determine whether potentially significant archaeological or paleontological information may be affected by the project and then require, if needed, that appropriate mitigation measures be incorporated into the project design" (City of San José 2018)

Methodology

Record Search Review and Research

A record search was previously performed by PaleoWest and included with the project's California Energy Commission Small Power Plant Exemption (SPPE) Application (PaleoWest 2019).

Consultation with California Native American Tribes

A summary of outreach and consultation with California Native American tribes (PRC, § 21073), an evaluation of potential impacts to tribal cultural resources (PRC, § 21074), a discussion of an ethnographic context, and proposed mitigation measures (MM CUL-1.4, MM TCR-1 and MM TCR-1.2) are provided in Tribal Cultural Resources, Section 3.18 of the SJC02 SPPE Application.

Jacobs cultural staff did not conduct any additional consultation with California Native American tribes or other interested groups for analysis of impacts associated with the proposed linear utility corridors because these corridors were included in the previous Native American consultation for the Project (see

PaleoWest 2019) and were evaluated as part of the impacts analysis associated with tribal cultural resources.

Field Survey

On December 8, 2020, Jacobs senior archaeologists Brian Ramos, Ph.D., and senior architectural historian Mark Bowen M.S., conducted a field survey of the linear corridors using standard pedestrian archaeological survey methods. Dr. Ramos is a senior level archaeologist with 30 years of professional experience and meets the secretary of the Interior Standards for Professional Archaeology (36 Code of Federal Regulations (CFR), Part 61). Mark Bowen has more than 25 years of professional experience and meets the Secretary of the Interior Standards for Architectural History (36 CFR Part 61).

The pedestrian survey consisted of walking surface transects that were spaced approximately 10 meters (33 – ft) apart. Transects were walked along all areas where ground disturbance is planned (Appendix Figure 3) and comprised a 100-foot wide survey corridor corresponding to larger buffer around the proposed location of the linear corridors. The survey included an examination of the ground surface, cut-bank exposures, and local topography. Indications of historical and modern development were also noted and documented. Field conditions were noted, and photographs taken to document the encountered conditions (see Photos 1-8).

In areas of poor visibility all exposed ground surfaces including road cuts, erosional features, rodent back-dirt piles, and animal paths were visually inspected. Field conditions were noted, and photographs were taken to document the variable conditions. Although the survey area is located in an open field that has recently been mowed, surface visibility was still poor due to the dense grass. Only roughly 10-15 percent of the ground surface was visible and most observations for soil constituents were made around the rodent burrows and burrow back dirt prevalent throughout the fields.

Photo 1. Transect 1 facing west on alignment for proposed storm drain and water line route 1.

Photo 2. Inspecting rodent burrows along modern levied road through field. Transect 1

Photo 3. End of transect 1 facing east toward Los Esteros Facility.

Photo 4. Transect 2 facing south towards Highway 237 in location of proposed Water Line Route 2 and 3.

Photo 5. Transect Proposed Water Line Route #3, facing southwest toward Highway 237.

Photo 6. Transect 3 facing east towards PG&E Substation in location of proposed storm drain, sanitary sewer, reclaimed water line and shared waterline.

Photo 7. Transect 4 facing east along proposed Water Line Route 3, east of Zanker Road.

Photo 8. Transect 4 facing west along proposed Water Line Route 3, east of Zanker Road.

Geoarchaeology of the Project Area and Vicinity

The occurrence of deeply buried archaeological sites around coastal and inland water source margins is well documented. The majority of these Holocene age archaeological deposits occur at depths greater than two meter below natural ground surfaces. According to Reynolds and Grant (2010) previous archaeological studies identified over 75 percent of early Holocene-age deposits occur between 2.7 to 4.7 meters below ground surface. Eighty percent of middle Holocene-age deposits occur between 1.0 - 4.0 meters below ground surface, and late Holocene-age deposits occur at depths between 1.0 to 2.3 meters below ground surface.

The geologic Map of Santa Clara County shows the area of the project contain such late Holocene natural levee and floodplain deposits (Qhfp and Qhl) (Helley and Westling 1989) (see Appendix Figure 4). The age and depositional nature of these deposits are such that the project site retains the potential for unknown, buried cultural resources despite previous ground-disturbing activities at the site.

Bay coastal margins and running water sources such as creeks and rivers are generally sensitive for archaeological resources. Although the project vicinity is largely developed with roads, highways, office and commercial space subsurface archaeological materials continue to be discovered in subsurface contexts in highly developed locations throughout the area. The project area is near marshlands that are tied to the Alviso Slough, Guadalupe River, and Coyote Creeks entry into San Francisco Bay. These areas were known to be used by prehistoric inhabitants of the areas for settlements and subsistence locations. Sensitivity for archaeological materials is higher along these water courses that near the surface in lands that were once under the bay's past tidal zones.

Findings and Conclusions

No prehistoric or historical archaeological resources were identified during the pedestrian survey and past record searches have not identified any prehistoric, historical archaeological resources within the project site. There were also no structures, buildings, objects or features that could potentially qualify as historic resources identified during the pedestrian survey. The area has been extensively studied through past archaeological investigations and the record search indicates that over 200 cultural resources studies were conducted within 1 mile of the project site. There have been over 40 past investigations which included portions or all of the project site and several studies that included subsurface archaeological testing within 0.25 mile of the project site. For additional information regarding these past studies, please see PaleoWest 2019.

While surface visibility was limited due to the density of the cut grass throughout the survey area, the extensive amount of animal burrows throughout the project area provided a proxy indicator of subsurface conditions in the immediate vicinity of the burrow backfill piles. Several dozen such burrow piles occurred within the survey area allowing for better inspection of soils and constituents in the project area. No significant cultural materials were identified during the pedestrian survey. Nothing was identified other than occasional small fragments of historic era material such as glass, ceramic fragments and highly corroded fragments of ferrous metal or modern debris. All of this material was highly fragmentary in nature and appeared within the highly disturbed context of extensive animal burrowing tunnel back dirt piles.

Recommendations

While the archaeological pedestrian survey did not identify any unrecorded historical or archaeological resources, bay coastal margins and running water sources such as creeks and rivers are generally sensitive for archaeological resources. Although the project vicinity is largely developed with roads, highways, office and commercial space subsurface archaeological materials continue to be discovered in subsurface contexts in highly developed locations throughout the area. The project area is near marshlands that are tied to the Alviso Slough, Guadalupe River, and Coyote Creeks entry into San Francisco Bay. These areas were known to be used by prehistoric inhabitants of the areas for settlements and subsistence locations. Sensitivity for archaeological materials is higher along these water courses that near the surface in lands that were once under the bay's past tidal zones.

Additionally, the geologic Map of Santa Clara County shows the area of the project as late Holocene natural levee and floodplain deposits (Qhfp and Qhl) (Helley and Westling 1989). The age and depositional nature of these deposits are such that the project site retains the potential for unknown, buried cultural resources despite previous ground-disturbing activities at the site.

According to Policy ER-10.1 in the *Envision San José General Plan*, proposed development sites that have been identified as archaeologically or paleontologically sensitive, "require investigation during the planning process in order to determine whether potentially significant archaeological or paleontological information may be affected by the project and then require, if needed, that appropriate mitigation measures be incorporated into the project design" (City of San José 2018).

Consistent with the applicants proposed design measure CUL-1.1, prior to the issuance of any grading permit, the project will be required to complete subsurface testing to determine the extent of possible resources onsite. Subsurface testing shall be completed by a qualified archaeologist. Based on the findings of the subsurface testing, an archaeological resources treatment plan shall be prepared by a qualified archaeologist and submitted to City of San José for approval prior to the issuance of grading permits.

References Cited

Reynolds, Alisa and Joanne Grant. 2010 ICF Jones & Stokes. *Archaeological Extended Phase I Report. South Bay Advanced Recycled Water Treatment Facility,* Santa Clara Valley Water District, Santa Clara California.

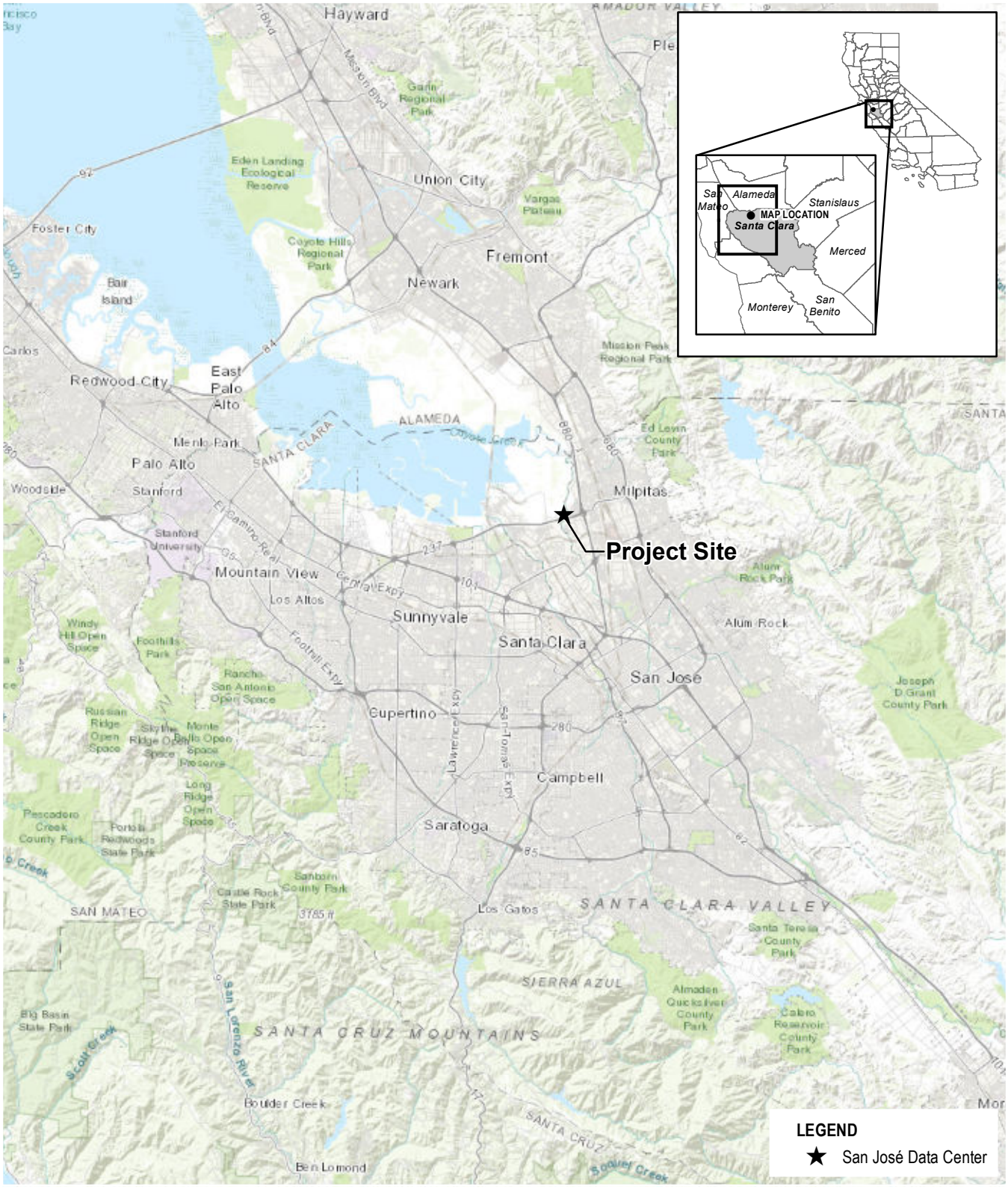
City of San José. 2018. *Envision San José 2040 General Plan*. November 2011 amended December 2018.

City of San José. 2019. *Municipal Code,* Chapter 13.48 Volume I 2000. August.

Helley and Wesling. 1989. *USGS Open-File Report 89-671*. Accessed October 6, 2019.

PaleoWest. 2019. *Cultural Resource Investigations in Support of the San Jose Data Center (SJC02) Project, Santa Clara County, California.*

APPENDIX



Source:
ESRI Service Layer

Figure 1
Regional Location
San José Data Center (SJC02)
San José, California

JACOBS

LEGEND

- Project Site
- Los Esteros Critical Energy Facility
- PG&E Substation
- Proposed Storm Drain
- Proposed Sanitary Sewer
- Proposed Reclaimed Water
- Proposed Water Line Route #1
- Proposed Water Line Route #2
- Proposed Water Line Route #3
- Proposed Shared Water Line
- Proposed Electrical Supply Line

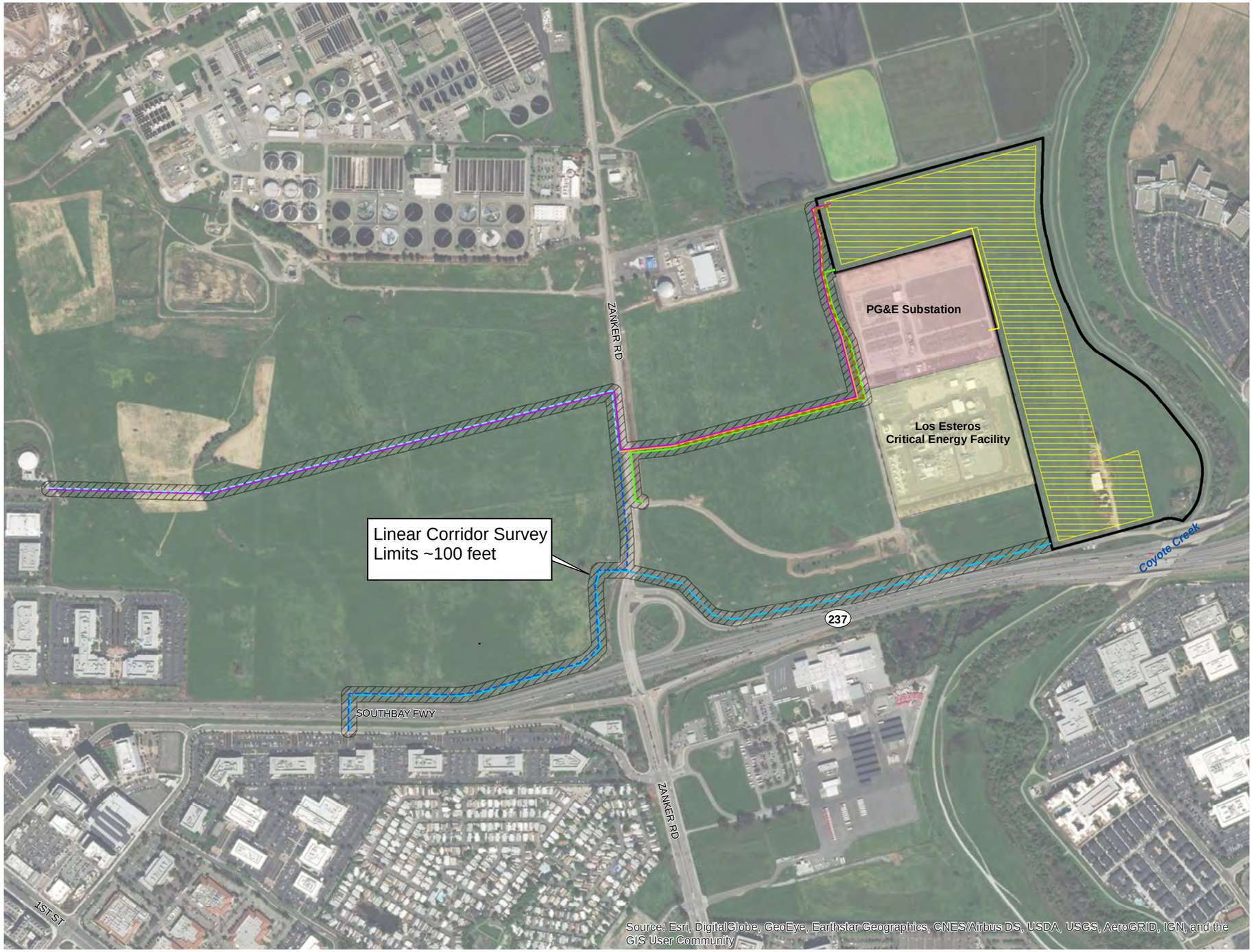
N

0 750 1,500

Approximate scale in feet

Figure 2
Project Location
San José Data Center (SJC02)
San José, California

JACOBS



LEGEND

- Project Site
- Proposed SJC02 Development Area (Estimated Excavation Depth 35-65 ft bgs)
- Linear Corridor Survey Limits
- Los Esteros Critical Energy Facility
- PG&E Substation
- Proposed Storm Drain
- Proposed Sanitary Sewer
- Proposed Reclaimed Water
- Proposed Water Line Route #1
- Proposed Water Line Route #2
- Proposed Water Line Route #3
- Proposed Shared Water Line
- Proposed Electrical Supply Line

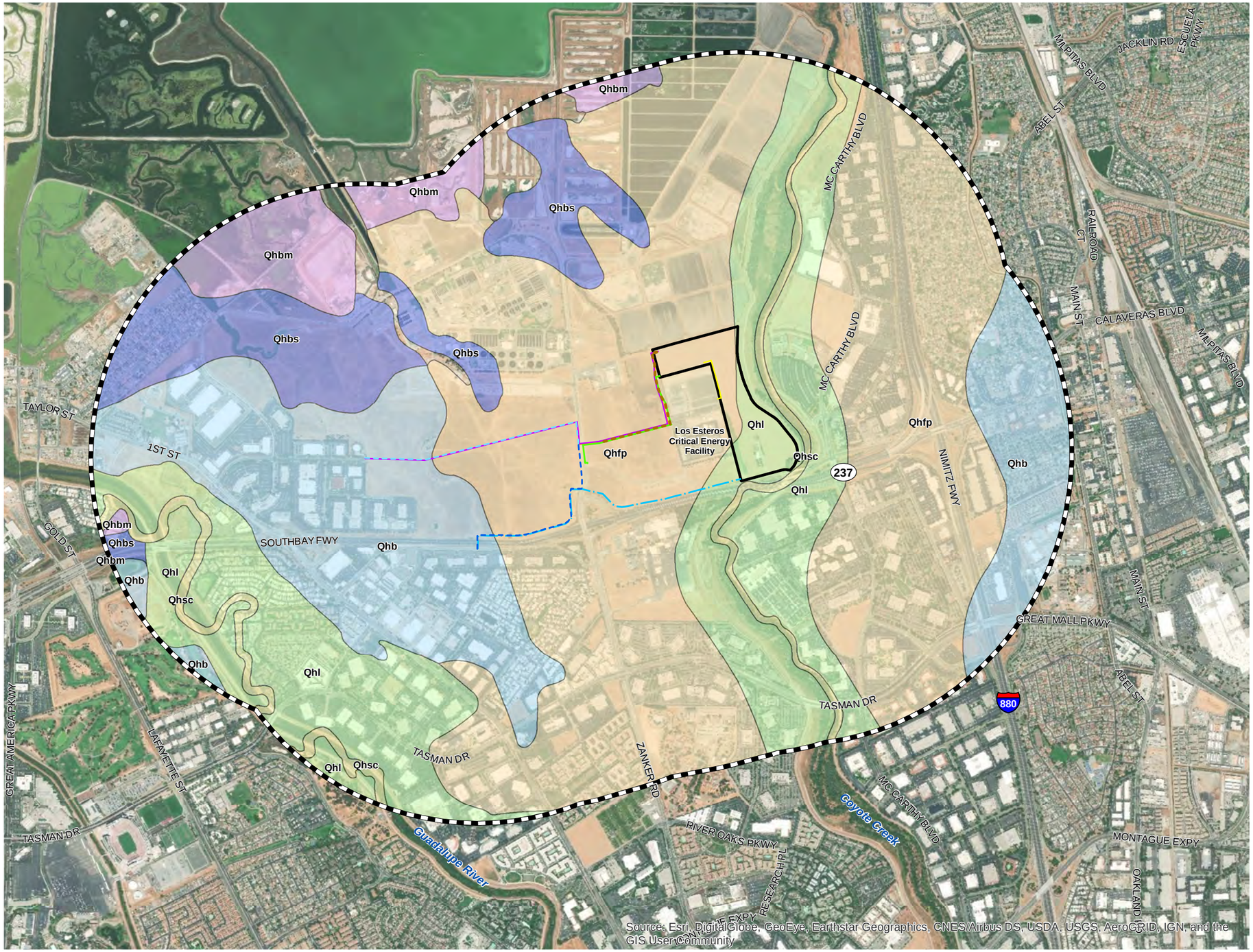
N

0 750 1,500

Approximate scale in feet

Figure 3
Linear Corridor Survey Limits
San José Data Center (SJC02)
San José, California

JACOBS



LEGEND

- Project Site
- 1-Mile Buffer
- Qhsc: Holocene Stream Channel Deposits
- Qhl: Holocene Natural Levee Deposits
- Qhfp: Holocene Floodplain Deposits
- Qhb: Holocene Floodbasin Deposits
- Qhbs: Holocene Floodbasin Deposits (salt-affected)
- Qhbm: Holocene Estuary Deposits (Bay Mud)
- Proposed Storm Drain
- Proposed Sanitary Sewer
- Proposed Reclaimed Water
- Proposed Water Line Route #1
- Proposed Water Line Route #2
- Proposed Water Line Route #3
- Proposed Shared Water Line
- Proposed Electrical Supply Line

N

0 2,000 4,000

Approximate scale in feet

GEOLOGIC MAP FROM Helley and Wesling (1989) USGS Open-File Report 89-671

Figure 4.
Geology Within 1 Mile of the Project Site
San José Data Center (SJC02)
San José, California

JACOBS