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APPENDIX E

CULTURAL RESOURCES TECHNICAL REPORT

This appendix presents the Cultural Resources Technical Report prepared for the Border BESS Project. A copy of the confidential report has been provided to the California Energy Commission.

Confidentiality Statement

The Cultural Resources Technical Report prepared by Rincon Consultants, Inc. for the Border BESS Project (August 2022) contains sensitive and confidential information concerning archaeological resources. This report should be held confidential and is not for public distribution. Archaeological site locations are exempt from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of this report contain locational maps and other sensitive information. Distribution should be restricted appropriately.

Border 52 MW Battery Energy Storage System Project

Cultural Resources Technical Report

CONFIDENTIAL

prepared for

Hermes BESS LLC
2060 Sanyo Avenue
San Diego, CA 92154

prepared by

Rincon Consultants, Inc.
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August 2022

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Rotella, Brianna, Theadora Fuerstenberg, and Christopher Duran

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Table of Contents

Figures

Tables

Appendices

Executive Summary

Rincon Consultants, Inc. (Rincon) was retained to conduct a cultural resources study and prepare a Cultural Resources Technical Report for the Hermes BESS LLC, 52 megawatt (MW) Border Battery Energy Storage System Project (Project) in San Diego, County of San Diego, California. Rincon understands that the Project is subject to approval by the California Energy Commission (CEC) and a cultural resources study is needed to support the Post-Certification Amendment for the Project, pursuant to Title 20, California Code of Regulations (CCR), Section 1769 (a)(1) *Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments to the Commission Decision*.

This cultural resources study and Cultural Resources Technical Report was completed according to Title 20, CCR Section 1769 (a)(1) and includes discussion and assessment of the proposed Project changes, cultural resources present, and Project compliance with applicable laws, ordinances, regulations, standards. This report also assesses whether the original Conditions of Certification for cultural resources is applicable to the amendment. The original Conditions of Certification for cultural resources (CUL-1) states:

CUL-1 *The project certified under this emergency process shall not cause any significant impact to cultural resources on the power plant site or linear rights of way. No significant cultural resources have been identified in the Area of Potential Effects (APE). No on-site cultural resource monitoring is required for this proposed site.*

Hermes BESS LLC proposes to implement a 52-MW Battery Energy Storage System Project (referred to as the Border BESS) at the existing nominal 52-MW Border Peaker Plant (BPP) located at 2060 Sanyo Avenue in San Diego, California.

The following analysis follows Title 20, CCR, Appendix B guidelines, and includes a general description of the proposed site and related facilities, maps of the proposed Project area and related facilities, cultural resources records search, archival research, Sacred Lands File (SLF) search, field survey, desktop historical built environment analysis, and recommendations. Although the CEC's regulatory nexus is exempt from compliance with the California Environmental Quality Act, this report refers to California Register of Historical Resources (CRHR) thresholds for assessing significance of cultural resources.

The cultural resources records search identified [redacted]. No other previously recorded cultural resources were identified within or adjacent to the Project area.

The pedestrian survey conducted for the Project indicate that the majority of the Project area has undergone previous ground disturbances associated with agricultural activities and the construction of the existing BPP facility. [redacted]

[redacted]

The proposed Project changes have a moderate to high potential to affect previously undisturbed cultural resources. The entire property has been subject to extensive plowing, tilling, and grading activities since the 1950s; however, the depth of ground disturbance for these activities typically extends to a maximum of two feet below surface. The depth of ground disturbance for the current Project is a maximum of four feet for grading and three feet for trenching, the majority of which will occur in areas east of the current BPP facility and disturbances associated with that facility's development [redacted] indicates moderate to high sensitivity for the presence of subsurface Native American resources.

The majority of the Project-related changes are consistent with the previous impact assessment for the existing BPP facilities; however, despite the disturbed nature of the Project area, there is a ***moderate to high risk*** of encountering subsurface archaeological deposits due to the proximity of the Project area to known Native American resources and the likely depth of previous disturbances in comparison to anticipated disturbances for the current Project. The lack of integrity of the surficial archaeological materials identified in the survey does not preclude the existence of intact subsurface deposits.

Therefore, the Conditions of Certification (CUL-1) for the original certification is considered insufficient for the current amendment. Based on the information summarized above, Rincon recommends the addition of a Worker Environmental Awareness Program (WEAP) for cultural resources, archaeological monitoring of initial Project related ground disturbances, and adherence to standard conditions for the treatment of unanticipated discoveries of both archaeological resources and human remains. These are outlined in Section 6 of this report. The applicant has committed to incorporating these additional measures into the proposed Project in order to protect potentially present archaeological resources and human remains.

1 Introduction

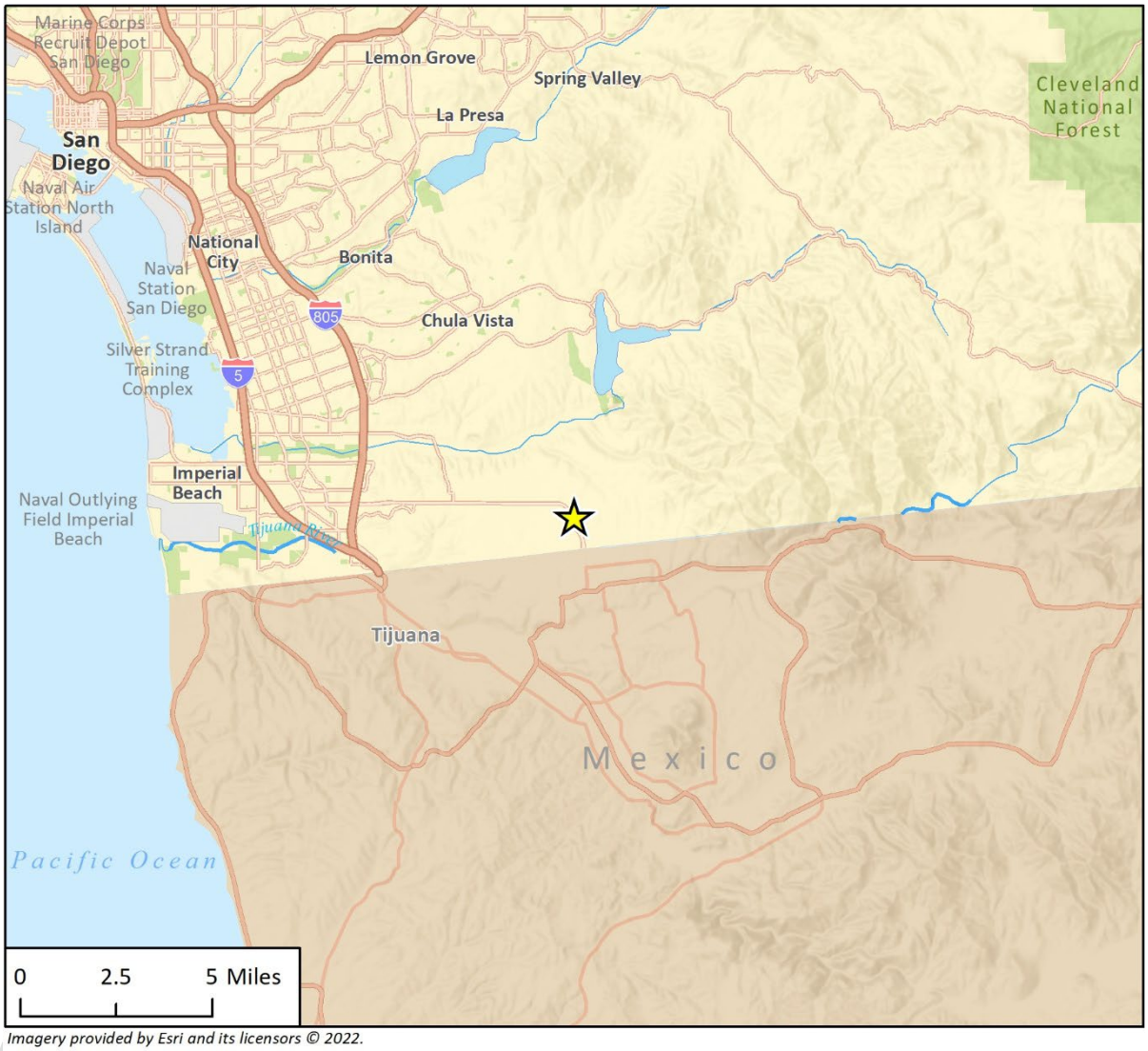
Hermes BESS LLC retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources analysis and provide a Cultural Resources Technical Report for the Border Battery Energy Storage System (BESS) Project (Project) in San Diego, County of San Diego, California. The planned Border BESS facilities will be located on an approximately 1.7-acre area east of the existing Border Peaker Plant (BPP) in the central portion of the overall 10.12-acre BPP property. This analysis includes the entire 10.12-acre parcel and was conducted to assist Patch in obtaining support for the Post-Certification Amendment for the BESS Project that will be submitted to the California Energy Commission (CEC). This report was prepared to support the assessment of potential impacts to historical resources, unique archaeological resources, and tribal cultural resources as defined by the California Environmental Quality Act (CEQA), but pursuant to Title 20, California Code of Regulations, Section 1769(a)(1) *Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments to the Commission Decision*.

The following analysis follows Title 20, California Code of Regulations, Appendix B guidelines, and includes a general description of the proposed site and related facilities, maps of the proposed Project area and related facilities, cultural resources records search, archival research, Sacred Lands File (SLF) search, field survey, desktop historical built environment analysis, and recommendations.

1.1 Project Location

The proposed Border BESS site (Project area) is located within a 10.12-acre parcel at 2060 Sanyo Avenue, San Diego, San Diego County (County), California, and situated approximately 390 feet south of Highway 11 and approximately 850 feet east of State Route (SR) 905 (Figure 1). The area of impact for the proposed Project is located within a 3-acre portion of the 10.12-acre parcel (Assessor Parcel No. 646-130-58) located in the *Otay Mesa, California,* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map, within Township 18 South, Range 01 West, Section 37, San Bernardino baseline and meridian (Figure 2). The western 4.5-acre portion of the property is developed and contains the existing BPP facility. The Project area subject to the current study includes the entire 10.12-acre parcel. The property is bordered by State Route (SR) 11 and vacant land to the north, Sanyo Road and industrial complexes to the east, vacant land to the south and east, and SR-905 to the west. Surrounding land use includes commercial development to the east.

Figure 1 Regional Location Map



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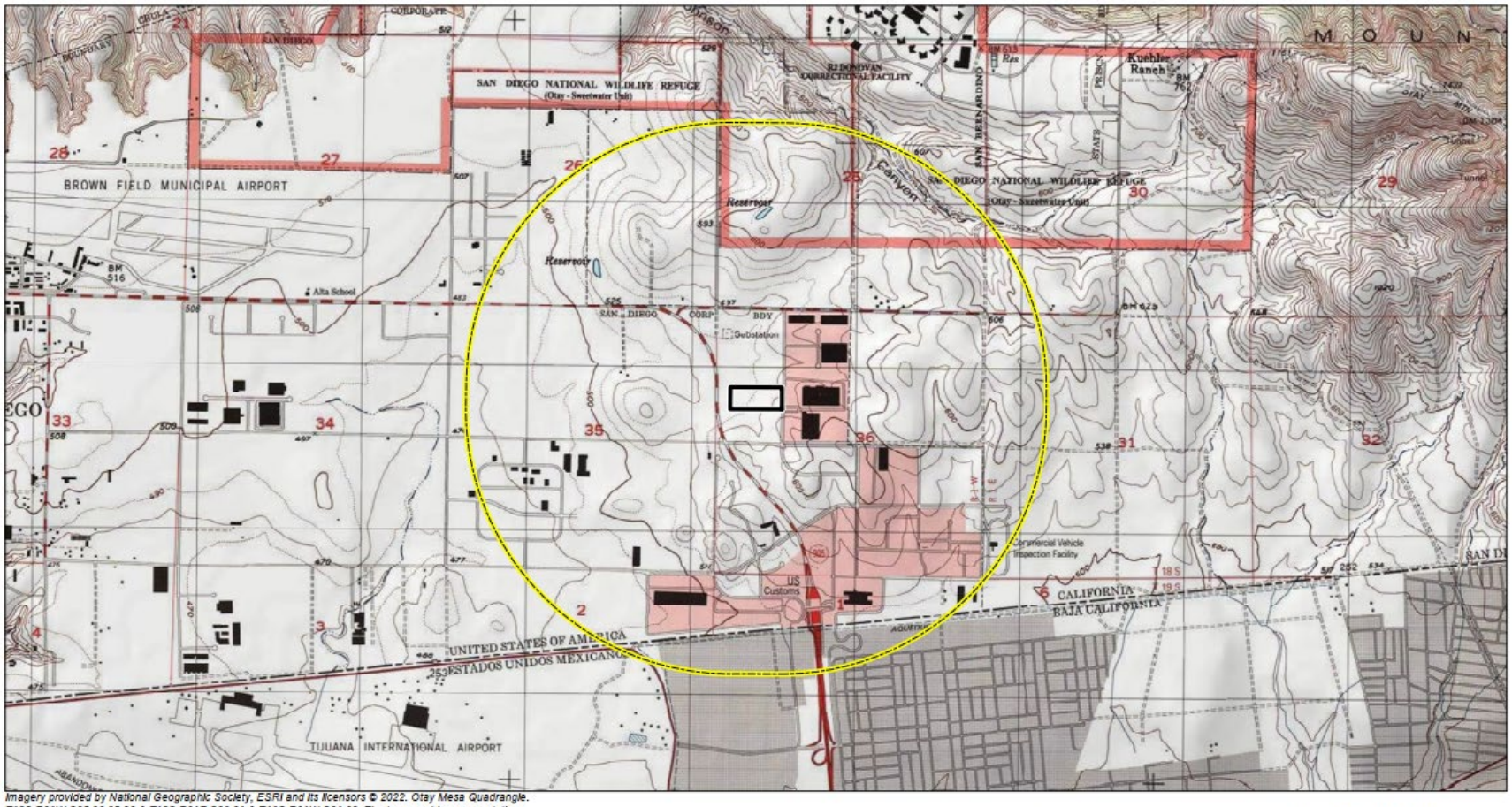
Project Location

N

Figure 2 Project Location Map



Imagery provided by National Geographic Society, ESRI and its licensors © 2022. Otay Mesa Quadrangle. T18S R01W S25,26,35,36 & T18S R01E S30,31 & T19S R01W S01,02. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

1.2 Project Description

Below is a summary of the Project as it is currently defined. See Figure 3 for Project details.

1.2.1 Technology Overview

The Border BESS Project will include an onsite 13.8 kilovolt (kV) switchyard that will connect to the low side (13.8 kV) of the existing nominal 13.8 kV/69 kV generator step-up unit/main power transformer (GSU) before entering the BPP switchyard. This connection will be made using a short underground or overhead 13.8 kV cable. The high side of the existing GSU at the BPP is connected to the existing 69 kV line that connects to the San Diego Gas & Electric (SDG&E) Border Substation to the north. Connecting the Border BESS to the low side of the BPP GSU will allow the BESS to provide energy and capacity at transmission voltage to the SDG&E Border Substation without requiring any high voltage modifications at the BPP switchyard or the CAISO network. Operation of the Border BESS facility will be integrated with the existing BPP. The BESS and the BPP may be operated simultaneously in accordance with the market-optimized dispatch instructions received from the CAISO's Automated Dispatching System (ADS), but the combined output will be control limited to not exceed a net of 52 MW per the Generator Interconnection Agreement. The BPP simple cycle, natural gas-fired peaking plant was licensed by the California Energy Commission (CEC) as a 49.5 MW emergency Project in 2001 (Docket No. 01-EP-14). The BPP Project was certified by the CEC on July 11, 2001 and began commercial operation on October 26, 2001.

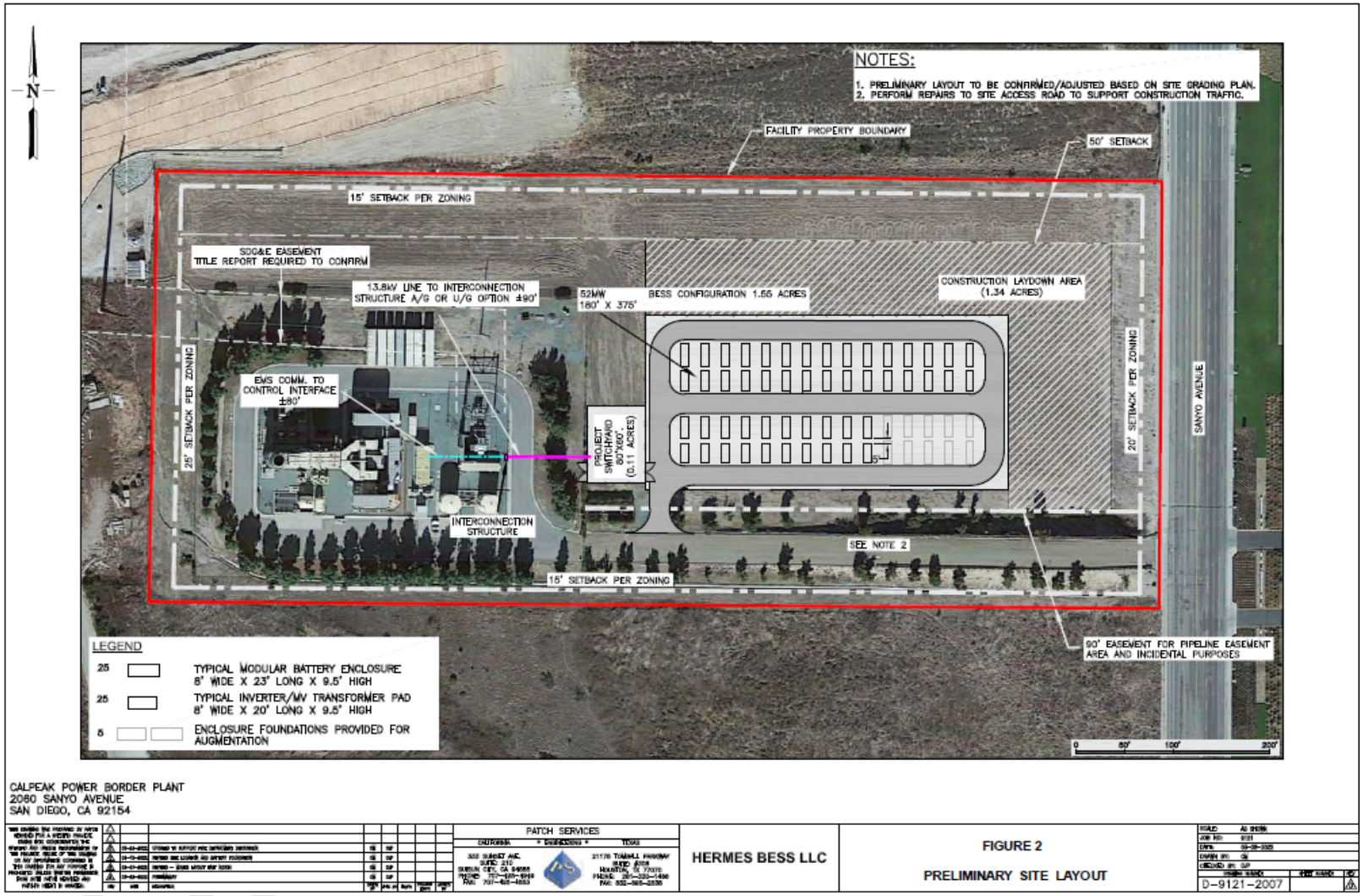
1.2.2 Project Details

The Project is located within an approximately 3-acre undeveloped portion of the existing 10.12-acre BPP property and includes battery storage system enclosures (1.6 acres) and BESS switchyard (0.1 acre), and use of up to approximately 1.3 acres of the BPP site for temporary construction laydown and construction personnel parking. The BPP is interconnected to the SDG&E Border Substation to the north via an existing nominal 69 kV transmission line that crosses State Route 905. The Border BESS Project will include an on-site 13.8 kV switchyard that will connect to the low side (13.8 kV) of the existing nominal 13.8 kV/69 kV generator step-up unit/main power transformer before entering the BPP switchyard. This connection will be made using a short underground or overhead 13.8 kV cable. The high side of the existing GSU at the BPP is connected to the 69 kV line that connects to the SDG&E Border Substation. The 52 MW BESS site area, including site access roadways and switchyard can be seen on the Preliminary Site Plan (Figure 3).

The key components of the proposed Border BESS Project are listed below:

- Batteries with 52 MW hours ("MWh") of energy storage capacity per hour (e.g., 52 MWh for 1 hour or 26 MWh for 2 hours) to be located on an approximate 1.6-acre site within an overall 10.12-acre site owned and operated by CalPeak Power-Border LLC (CalPeak).

Figure 3 Detailed Site Map



- The overall 10.12-acre site includes the existing nominal 52 MW CalPeak BPP that was previously permitted by the CEC as an emergency energy project in 2001 (CEC Docket No. 01-EP-14). The battery storage technologies being considered are lithium iron phosphate and nickel manganese cobalt or other technologies that may become commercially available as the BESS Project undergoes final design.
- The batteries and their associated inverters account for the bulk of the associated BESS equipment and will be located within the parcel (APN 646-130-58, 2060 Sanyo Avenue) that contains the existing nominal 52 MW BPP that was licensed by the CEC in 2001. This parcel is controlled by CalPeak LLC.
- The 52 MW BESS site is located within an existing open area adjacent to the eastern side of the BPP. Site development for the BESS facilities, including BESS switchyard, on approximately 1.7 acres of land will involve site grading and excavation of soil and recompaction to accomplish site stormwater control and to support concrete pad foundations. Similar site grading activities for site stormwater control are planned for the 1.3-acre temporary construction laydown and personnel parking area on the eastern and northern portions of the overall BPP site.
- The BESS site and laydown area will be graded at the same time as one overall operation. It is estimated that up to approximately 5,000 cubic yards of balanced cut-and-fill will be required during site preparation and levelling activities. Maximum cut depths are estimated at approximately 4 feet in the southeastern portion of the laydown area. The average depth of cut-and-fill for 5,000 cubic yards of material when averaged over 3 acres is approximately 1 foot.
- The 52 MW BESS will be connected to the SDG&E Border Substation to the north by installing an approximately 90-foot-long, 13.8 kV overhead line or underground concrete cable trench from the BESS 13.8 kV switchyard to the low side (13.8 kV) of the existing GSU at the BPP. Connecting to the low side (13.8 kV) of the BPP GSU will allow the BESS to provide transmission voltage to the SDG&E Border Substation without requiring an additional step-up transformer at the Border BESS switchyard. The overhead 13.8 kV line option includes the installation of two, approximately 30-feet-tall H-frame structures on concrete pad foundations, one on each side of the BPP perimeter road, to support the 13.8 kV line span crossing of the road from the BESS switchyard to the BPP connection point. The underground cable option consists of multiple conductors to be installed in a concrete trench approximately 10-foot-wide by three-foot-deep across the BPP perimeter access road and covered with steel plates to allow future access to the cables and crossing by vehicles. The 13.8 kV connection will be installed in accordance with applicable codes and standards.
- The Border BESS Project includes repair of a section of the existing peaker plant access road between Sanyo Avenue on the east end and the peaker plant entrance gate on the western end. The road segment to be prepared covers a distance of approximately 600 feet. The repair work will include removal of the existing asphalt surface for asphalt recycling, reconstruction/reconditioning of the roadway subgrade, and repaving with asphalt.

The BESS Project will also include a fiber optic communication/controls cabling that will connect the BESS switchyard to the BPP transmission control system interface to integrate the BESS operation with the BPP and the CAISO. The communication line will be installed either overhead or underground for the portion of the route in common with the 13.8 kV line from the BESS Switchyard to the west side of the BPP perimeter road. The communication line will then be installed in aboveground or buried conduit over a distance of approximately 80 feet to the connection point with the existing BPP transmission control system interface to the west. A summary of ground disturbing work is available in Table 1.

Table 1 Summary of Ground Disturbance and Earthwork

Project Component	Approximate Quantity (+/-)	Description
BESS Site/Switchyard and Construction Laydown -Acreage -Cut and fill (max. 4') -Gravel import for pad -Concrete import for pad	3 acres 5,000 yd3 1,400 yd3 1,000 yd3	▪ Vegetation on the area is mowed on an annual basis for fire prevention. Grading and excavation will be required for site levelling, drainage control, and foundations on BESS site and switchyard areas. ▪ Maximum cut depth is estimated at 4 feet in the southeastern portion of the laydown area. Cut and fill will be balanced on-site for the grading operation. ▪ The BESS site and switchyard areas will be surfaced with gravel (+/- 0.5 foot). Estimated up to 30 each of individual BESS enclosures and inverters (maximum pad sizes at 10' wide x 23' long) will be supported on concrete pads (+/- 1.5-foot thick).
13.8 kV Connection Line from BESS Switchyard to BPP GSU (Low Side) -Overhead Option -Underground Option	Approx. 90 feet long suspended on 2 H-frame structures Approx. 90 feet long in underground concrete with steel plate cover; approx. 100 cubic yards of excavated road pavement and underlying soils	▪ H-frame structures on each side of BPP perimeter road at crossing point are anticipated to have concrete mat foundation pads each approximately 5 feet wide by 20 feet long by 3 feet deep. For two H-frame structures, this equates to approximately 25 cubic yards of concrete needed. ▪ This option would involve excavation and installation of an underground concrete trench with steel plate covers to allow access if needed. The trench excavation dimensions are estimated at 90' long by 10 feet wide by 3 feet deep
Fiber Optics Communications Line (BESS Switchyard to BPP Control Interface) -Total length	170' (~80 feet in conduit in addition to ~90 feet portion in common with 13.8 kV line)	▪ Refer to 13.8 kV information for portion of Communication Line in common with 13.8 kV line; there would be no additional earthwork associated with the Communication Line for the common portion. The additional ~80 feet of Communication Line to the BPP Control Interface will be installed in either aboveground or underground conduit. If installed in underground conduit, it is estimated that the conduit will be installed in a 2 foot by 3 foot trench which will result involve ~ 18 cubic yards of excavation and backfill

Project Component	Approximate Quantity (+/-)	Description
BPP Entrance Access Road Repair -Length/width/acreage -Road cut depth for repair -Road repair cut material for off-site disposal (road-bed material and asphalt)	600 feet/35 feet/0.5 acre 1 foot 780 cubic yards	▪ The ~600-foot-long road segment to be repaired is elevated and runs between Sanyo Road on the eastern end and the peaker plant gate on the west. The existing road will be cut down to a depth of approximately one foot and rebuilt with compacted roadbed material and asphalt road surface. Removed asphalt will be segregated and recycled off-site. It is estimated that about 780 cubic yards of material will need to be removed and disposed of off-site in an approved manner and that about 780 cubic yards of roadbed material and asphalt will need to be imported to repair the roadway

1.3 Personnel

Rincon Senior Archaeologist Theadora Fuerstenberg M.A., Registered Professional Archaeologist (R.P.A.), managed this cultural resources study and provided senior oversight. Theadora Fuerstenberg meets the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). Archaeologist Rachel Bilchak, B.A., conducted the archaeological pedestrian survey and Archaeologist Brianna Rotella, B.A., authored this report. Rincon Geographic Information Systems Analyst Allysen Valencia, B.A., prepared the figures found in the report. Rincon Principal Christopher Duran, M.A., R.P.A., reviewed this report for quality control and quality assurance.

2 Regulatory Setting

This section includes a discussion of federal, state, and local laws, ordinances, regulations, and standards governing cultural resources, as well as applicable Conditions of Certification and CEC citing guidelines. The CEC has jurisdiction over the proposed Project, therefore the Project should adhere to Title 20, California Code of Regulations (CCR), Section 1769 (a)(1): *Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments to the Commission Decision*.

2.1 Federal Regulations

National Historic Preservation Act

Cultural resources are considered during federal undertakings chiefly under Section 106 (as amended) through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), and the National Environmental Policy Act (NEPA). Properties of traditional, religious, and cultural importance to Native Americans are considered under both Section 101 (d)(6)(A) and Section 106 36 CFR 800.3-800.10 of the NHPA (Department of the Interior 2004). Other federal laws include the Archaeological and Historic Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, among others.

Section 106 (16 United States Code 470f) requires federal agencies to account for the effects of their undertakings on any district, site, building, structure, or object included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected historic property is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Historic properties are those significant cultural resources listed in or eligible for listing in the NRHP per the criteria listed at 36 CFR 60.4.

There is currently no federal regulatory nexus for the Border BESS Project.

2.2 State Regulations

§21.11 A. Exemption from CEQA Documentation Requirements

Certified regulatory programs such as the CEC are exempt from the provisions of CEQA concerning preparation of initial studies, negative declarations, and EIRs contained in CEQA Chapters 3 and 4 (Pub Res C §§21100–21154). The environmental review and public comment procedures required under the CEC's regulatory program are deemed equivalent to review under CEQA. Instead of preparing an environmental review document under CEQA, the CEC follows the environmental review process included in its own regulatory program.

California Environmental Quality Act

Formal findings of importance (for state purposes, eligibility for the California Register of Historic Resources) and Project effects are made by the lead state regulatory agency or, for federal undertakings, in consultation with the federal lead agency, the State Historic Presentation

Officer, and the Advisory Council on Historic Preservation. The administering agency for this authority is the CEC.

A Historical Resource is one listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (§21084.1), included in a local register of Historical Resources (§15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (§15064.5[a][3]). Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR.

According to CEQA, impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect. Significant effects or impacts could result from the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines §15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register (CEQA Guidelines §15064.5[b][2][A]).

Although CEC projects are exempt from CEQA, CRHR thresholds were used to assess resource significance for purposes of this study.

California Code of Regulations (CCR) Title 20, § 1769: Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments to the Commission Decision.

(a) Change in Project Design, Operation, or Performance Requirements.

(1) After the final decision is effective under §1720.4, the Project owner shall petition the commission for approval of any change it proposes to the Project design, operation, or performance requirements. The petition must contain the following information:

(A) A complete description of the proposed change, including new language for any conditions of certification that will be affected;

(B) A discussion of the necessity for the proposed change and an explanation of why the change should be permitted;

(C) A description of any new information or change in circumstances that necessitated the change;

(D) An analysis of the effects that the proposed change to the Project may have on the environment and proposed measures to mitigate any significant environmental effects;

(E) An analysis of how the proposed change would affect the Project's compliance with applicable laws, ordinances, regulations, and standards;

(F) A discussion of how the proposed change would affect the public;

(G) A list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of any affected Project linears and 1000 feet of the Project area;

(H) A discussion of the potential effect of the proposed change on nearby property owners, residents, and the public; and

(I) A discussion of any exemptions from the California Environmental Quality Act, commencing with §21000 of the Public Resources Code, that the Project owner believes may apply to approval of the proposed change.

(2) Within 30 days after a petition is filed and the applicable fee is paid, staff shall review the petition to determine the extent of the proposed change and prepare a summary of the petition. The summary shall be concise and understandable, shall describe the content of the petition using the applicant's own words whenever possible, and shall include a description of the commission's procedures concerning proceedings on the petition, as appropriate. As soon as practicable after preparing the summary, staff shall file the summary and provide a copy to each property owner described in subdivision (a)(1)(G) with instructions on how to receive future filings.

(3) Staff Approval of Proposed Change.

(A) Staff shall approve the change where staff determines:

(i) that there is no possibility that the change may have a significant effect on the environment, or the change is exempt from the California Environmental Quality Act;

(ii) that the change would not cause the Project to fail to comply with any applicable laws, ordinances, regulations, or standards; and

(iii) that the change will not require a change to, or deletion of, a condition of certification adopted by the commission in the final decision or subsequent amendments.

(B) Staff, in consultation with the air pollution control district where the Project is located, may approve any change to a condition of certification regarding air quality, provided:

(i) that the criteria in subdivisions (a)(3)(A)(i) and (ii) are met; and

(ii) that no daily, quarterly, annual or other emission limit will be increased as a result of the change.

(C) Staff shall file a statement summarizing its actions taken pursuant to subdivisions (a)(3)(A) or (B). Any person may file an objection to a staff action taken pursuant to subdivisions (a)(3)(A) or (B) within 14 days of the filing of staff's statement. Any such objection must make a showing supported by facts that the change does not meet the criteria in this subdivision. Speculation, argument, conjecture, and unsupported conclusions or opinions are not sufficient to support an objection to staff approval.

(D) Staff may submit to the commission, for consideration and a decision, a proposed change that could otherwise be approved by staff under subdivisions (a)(3)(A) or (B).

(4) Commission Approval of Proposed Change.

(A) If staff determines that a change does not meet the criteria for staff approval set forth in subdivision (a)(3), or if staff submits the proposed change to the commission for consideration under subdivision (a)(3)(D), or if a person files an objection that complies with subdivision (a)(3)(C), the petition shall be considered by the commission at a noticed business meeting or hearing. The commission shall issue an order approving, rejecting, or modifying the petition or assign the matter for further proceedings before the commission

or an assigned committee or hearing officer. The commission may approve such a change only if it can make the findings specified in §1748(b), if applicable.

(B) In any matter assigned for further proceedings pursuant to subdivision (a)(4), the presiding member shall establish the schedule and process for the proceeding.

(5) The petitioner may withdraw its petition from consideration by the commission in the manner described for withdrawal of notices or applications in §1709.8.

2.3 Local Regulations

County of San Diego

The County of San Diego has guidelines for determining the significance of archaeological and historical resources, as well as mitigation measures to avoid, preserve, and adequately record significant cultural resources. The County of San Diego Guidelines for Determining Significance (County of San Diego 2007) and includes the following goals, policies, and implementation measures as they pertain to the preservation of cultural and historic resources:

If it can be demonstrated that a project will cause damage to a significant cultural resource, reasonable efforts must be made to mitigate the impact to a level below significant. Mitigation measures identified by CEQA (§21083.2) and the State CEQA Guidelines (§15064.5) include the following:

§21083.2

(b) If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

(1) Planning construction to avoid cultural resources.

(2) Deeding cultural resources into permanent conservation easements.

(3) Capping or covering cultural resources with a layer of soil before building on the sites.

(4) Planning parks, greenspace, or other open space to incorporate archaeological sites.

(e) Excavation as mitigation shall be restricted to those parts of the unique cultural resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines the testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report.

§15064.5

(b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

(3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Building or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) shall be considered as mitigated to a level of less than a significant impact on the historical resource.

(4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

(5) When a project will affect state-owned historical resources, as described in Public Resources Code Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in Public Resources Code Section 5024.5. Consultation should be coordinated in a timely fashion with the preparation of environmental documents.

Accidental Discovery of Human Remains

(f) In the event of an accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(g) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

3. The Most Likely Descendent may make recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendent identified fails to make a recommendation; or

(C) The landowner or his authorized representative reject the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Accidental Discovery of Historical or Unique Archaeological Resources

(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to

allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue in other parts of the building site while historical or unique archaeological resource mitigation takes place.

City of San Diego

The City of San Diego Municipal Code (City of San Diego 2022) includes development regulations for historical resources.

***§143.0201* Purpose of Historical Resources Regulations**

The purpose of these regulations is to protect, preserve and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources. It is further the intent of these regulations to protect the educational, cultural, economic, and general welfare of the public, while employing regulations that are consistent with sound historical preservation principles and the rights of private property owners.

***§143.0210* When Historical Resources Regulations Apply**

(a) This division applies to proposed development when the following historical resources are present on the site, whether or not a Neighborhood Development Permit or Site Development Permit is required;

(1) designated historical resources;

(2) historical buildings;

(3) historical districts;

(4) historical landscapes;

(5) historical objects;

(6) historical structures;

(7) important archaeological sites; and

(8) traditional cultural properties.

(b) Where any portion of a premises contains historical resources, this division shall apply to the entire premises.

(c) See Table 143-02A in the City of San Diego Municipal Code to determine the appropriate regulations and the required decision for various types of development proposals when historical resources are located on the premises.

(d) A construction permit is required for any development on a premises that has a historical resources on the site that will not adversely affect the historical resource and is consistent with one or more of the exemption criteria in accordance with Section 143.0220.

(e) A Neighborhood Development Permit or Site Development Permit is required for the following types of development proposals that do not qualify for an exemption in accordance with Section 143.0220:

(1) Neighborhood Development Permit in accordance with Process Two. Single dwelling unit residential development on a single dwelling unit lot of any size when a traditional cultural property or important archaeological site is present.

(2) Site Development Permit in Accordance With Process Four.

(A) Single dwelling unit residential development on a single dwelling unit lot of any size when a designated historical resource or historical district is present.

(B) Multiple dwelling unit residential, commercial, or industrial development on any size lot, or any subdivision on any size lot, or any City public works construction project, other than any capital improvement program project, public project, or any project specific land use plan when a historical resource is present.

(C) Development that proposes to deviate from the development regulations for historical resources as described in this division, except for any capital improvement program project or public project.

(3) Site Development Permit in Accordance With Process CIP/Public Project-Two. Capital improvement program projects or public projects that comply with the regulations of this division without deviation.17

(4) Site Development Permit in Accordance With Process CIP/Public Project-Five. Capital improvement program projects or public projects that deviate from any of the regulations of this division.

(f) When a development proposal on a site containing a designated historical resource, traditional cultural property, important archaeological site, or a designated contributing resource to a historical district qualifies for an exemption in accordance with Section 143.0220, and includes a historic preservation development incentive in accordance with Section 143.0240, a construction permit or Neighborhood Development Permit is required depending upon the incentive requested, as detailed in Section 143.0240.

3 Natural and Cultural Setting

This section provides background information pertaining to the natural and cultural context of the BESS Project area. It places the Project area in the broader natural environment that has sustained populations throughout history. This section also provides an overview of regional indigenous history, local ethnography, and post-contact history. This background information describes the distribution and type of cultural resources documented in the vicinity of the Project area to inform the cultural resources sensitivity assessment.

3.1 Natural Setting

The BESS Project is located approximately 10 miles east of the Pacific Ocean and approximately one mile north of the United States-Mexico International Border. Elevations within the Project area range from approximately 545 to 550 feet (166 to 168 meters) above mean sea level. The Project vicinity consists of undeveloped parcels and scattered commercial development, paved roads and highways, located approximately 11-miles east of the Pacific Ocean and three miles southwest of Lower Otay Lake. The proposed Project area consists of vegetation comprising of native and non-native grasses, sage scrub, and non-native ornamentals. The region has a Mediterranean climate, with dry summers, mild winters, and relatively low annual rainfall that occurs primarily in the winter and spring. The average annual high temperature is 67 °F, the average annual low temperature is 56 °F, and the average annual precipitation is 9.58 inches (Western Regional Climate Center 2022).

According to published geologic mapping, the Project area is underlain by Oligocene age, sandstone and claystone deposits (Todd et al. 2004). More specifically, one surficial geologic unit comprises the site: (To) which consists of “light gray and light brown, moderately well sorted, poorly indurated” massive sandstone and claystone that is waxy and almost exclusively composed of bentonite (Todd et al. 2004). The soil type within the Project area consists of DaC: Diablo clay., which is made up of the following series: Diablo (85 percent), Altamont (10 percent), Linne (3 percent), and Olivenhain (2 percent) (California Soil Resource Lab 2022). The Diablo Series comprises the majority of the Project area and is discussed here. The Diablo Series consists of fine silty clay materials typically found atop shale. This series is found on rolling to steep uplands throughout the central and southern California coastal ranges. A typical soil profile of the Diablo Series features very dry, hard and firm silty clay from 0 to 15 inches, weak and coarse silty clay from 15 to 42 inches, and weak and find silty clay loam from 42 to 50 inches below surface. From 50 to 60 inches below surface, the soils consist of shale with fine grained sandstone (California Soil Resource Lab 2017).

- The Project area is not within an alluvial deposit and predates the Holocene (the age of human occupation); therefore, the archaeological sensitivity for the Project area, based on sediments alone, is low. However, this does not preclude the existence of archaeological materials.

3.2 Cultural Setting

3.2.1 Indigenous History

The BESS Project area lies in what is described generally as California’s Southern Bight (Byrd and Raab 2007). This region extends from the Mexican border to Santa Monica and includes Orange and San Diego counties, western Riverside County, and the Southern Channel Islands. At European

contact, the region was occupied by the Tongva, Juaneño, Luiseño, Cupeño, and Kumeyaay (Ipai and Tipai). For this study, the indigenous cultural chronology for the Southern Bight is presented following Byrd and Raab (2007), who divided it into the Early (9600 - 5600 Before Common Era [BCE]), Middle (5600 - 1650 BCE), and Late (1650 BCE – 1769 Common Era [CE]) Holocene.

Early Holocene (ca. 9600 - 5600 BCE)

Evidence of Paleo-Indian occupation of southern California remains very limited. The earliest accepted dates for human occupation of the California coast are from the Northern Channel Islands, off the Santa Barbara coast. Daisy Cave, on San Miguel Island, dates to as early as 9600 BCE (Erlandson et al. 1996). Human remains found at the Arlington Springs site on Santa Rosa Island, have yielded a date of approximately 10,000 BCE (Johnson et al. 2002). San Diego and Orange counties and the Southern Channel Islands have not produced dates as early as these, but radiocarbon evidence has dated early occupation of the coastal region between circa (ca.) 8000 and 7000 BCE (Byrd and Raab 2007).

Traditional models describe California's first inhabitants as big-game hunters roaming North America during the end of the last Ice Age. As the Ice Age ended, warmer and drier climatic conditions are thought to have created wide-spread cultural responses. The pluvial lakes and streams in the desert interior began to wane and cultures dependent on these water sources migrated to areas with moister conditions, such as the southern California coast (Byrd and Raab 2007).

The San Dieguito Complex is a well-defined cultural response to these changing climatic conditions in the southern California coastal region and was named originally for the cultural sequence in western San Diego County (Rogers 1929, 1939). Leaf-shaped points, knives, crescents, and scrapers characterize the artifact assemblages throughout the region (Byrd and Raab 2007). San Dieguito sites show evidence generally of the hunting of various animals, including birds, and gathering of plant resources (Moratto 1984).

Middle Holocene (ca. 5600 – 1650 BCE)

The Middle Holocene is viewed as a time of cultural transition. During this time, the cultural adaptations of the Early Holocene gradually altered. Use of milling stone tools began to appear across most of central and southern California around 6000 - 5000 BCE, indicating a focus on the collection and processing of hard-shelled seeds. Environmental changes in the Southern Bight are thought to have been the key factor in these changing adaptations (Byrd and Raab 2007). Occupation patterns indicated semi-sedentary populations focused on the bays and estuaries of San Diego and Orange counties, with shellfish and plant resources as the most important dietary components (Warren 1968). In the San Diego area, this adaptive strategy is known as the La Jolla complex.

Sometime around 4,000 years ago, extensive estuarine silting began to cause a decline in shellfish resulting in a depopulation of the coastal zone. Settlement shifted to river valleys, and resource exploitation focused on hunting small game and gathering plant resources (Warren 1968; Byrd and Raab 2007).

Late Holocene (ca. 1650 BCE - 1769 CE)

The Late Holocene witnessed numerous cultural adaptations. The bow and arrow was adopted sometime after 500 CE, and ceramics are found with frequency in sites dating to ca. 1200 CE. Food

surpluses, especially of acorns, sustained populations (Byrd and Raab 2007; Kroeber 1925). Other exploited food resources include shellfish, fish, small terrestrial mammals, and small-seeded plants. Settlement patterns of the Late Holocene are characterized by large residential camps linked to smaller specialized camps for resource procurement (Byrd and Raab 2007).

3.2.2 Ethnographic Overview

The people who traditionally lived in the region along the Pacific coast from central San Diego County southward into Baja California and eastward into Imperial County were originally referred to by Europeans as the Diegueño or Diegueno, because they lived on the lands allotted to Mission San Diego de Alcala after contact (Carrico 1987; Gifford 1931). Today, the Native Americans dubbed Diegueno generally refer to themselves as the Kumeyaay (Shipek 1987). Linguistic studies support the division of the Kumeyaay people into northern (Ipai) and southern (Tipai) dialect groups, while often identifying the Desert Kumeyaay of eastern San Diego County, portions of northeastern Baja California, and the majority western portion of Imperial County as Kamia (Gifford 1931; Luomala 1978). Luomala notes that anthropologists have created "hazily defined" divisions with "cultural and environmental differences shading into one another" (1978:592). Prior to European contact, the boundary between the Kumeyaay groups was not rigid and the distinction between them likely existed as a gradient rather than a clear division of cultural and political units (Carrico 1987). These groups shared closely related Yuman languages, as well as customs, beliefs, and material culture. This report will focus on the Tipai as the Project is in the southern portion of Kumeyaay territory.

The ethnographic Tipai lived on the Pacific coast from La Jolla south to below Ensenada and Todos Santos Bay in Baja California, Mexico. The Northern Kumeyaay (Ipai) resided in the area north of La Jolla to Agua Hedionda Lagoon. Kumeyaay territory extended inland throughout the Cuyamaca and Laguna mountains into the Yuha and Anza Borrego deserts of Imperial County (Carrico 1987; Luomala 1978). The region includes tremendous environmental variation and resource zones. Neighboring groups included the Luiseño and Cupeño to the northwest, the Cahuilla to the northeast, the Quechan to the east, and the Paipai to the south (Kroeber 1925).

The ethnographic Tipai territory was divided among bands, small communities that typically controlled 10 to 30 linear miles in a drainage system and up to the drainage boundaries. Within each band's territory, a primary village and a number of secondary homesteads were located along tributary creeks (Shipek 1982:297). Each band community was composed of five to 15 kinship groups (sibs or *shiimul*), some of which were divided among more than one band (Kroeber 1925:719; Shipek 1987:8). Approximately 50 to 75 named kinship groups lived throughout the entire Kumeyaay territory.

Tipai winter villages were located in sheltered valleys near reliable sources of water with the entire community present. Dwellings in the relatively permanent winter villages were semi-subterranean and roughly circular, with a wooden pole framework covered with brush thatch. The main entrance had a mat covering to keep out the wind and ensure privacy, and ritually faced the east (Luomala 1978:597). Other structures in the village consisted of family-owned platform granaries, a village-owned brush ceremonial enclosure, and sweat lodges. A semi-circular enclosure was used for the *keruk* mourning ceremony, and a rock wall sometimes surrounded ceremonial and dance areas. At their summer camps, ramadas and windbreaks were common and built into trees or rock shelters. Granaries and housing that was more permanent would sometimes be constructed in frequently visited oak groves in the hills and mountains of Tipai territory. The dead were cremated and the ashes buried or placed in ceramic urns that were then buried or placed in caves.

Many Tipai camped in coastal valleys at certain times of the year and gathered coastal resources. They fished using hooks, nets, and bows, often from tule boats. Shellfish were gathered from the sandy beaches (e.g., *Chione* and *Donax*) and rocky shores (e.g., mussels and abalone). Common game birds included doves and quail; migratory birds included geese. Rabbits, woodrats, and other small game living along the mesas and foothills were primary sources of protein. These animals were caught using throwing sticks, the bow and arrow, or in nets on community drives. Expert hunters trained in specialized hunting folklore took on the role of hunting large game such as deer and mountain sheep (Luomala 1978:601). Land resources belonged generally to the bands with only a few areas considered "tribal" land and open to anyone (Shipek 1982:301).

During the winter, small game and seasonal herbs were collected in the valleys. Greens included miner's lettuce, clover, pigweed, and grasses. Seeds were harvested from buckwheat, chia and other salvias, and a variety of grasses. In the mountains and foothills, yucca was gathered for its stalks, flowers, and leaves. Elderberry, manzanita, cholla and prickly-pear *Opuntia* cactus, and juniper shrubs provided berries and fruit. The acorns from several species of oak were depended upon heavily, gathered during the late summer, and stored in family and village granaries. For the Tipai, and many other southern California groups, acorns were the primary staple. They were gathered, pounded into flour, and leeched of toxic tannins. During the late spring and summer, small groups foraged in favored spots, usually at progressively higher elevations as various resources ripened (Shipek 1987).

All Kumeyaay practiced plant husbandry to "maintain and increase supplies of native foods" (Shipek 1987:12). These practices included clearing lands for planting seeds of greens, shrubs, and specific trees; sowing grass seed on burned fields; and transplanting wild onions, tobacco, and cuttings of *Opuntia* (nopales or paddle cactus) near village sites.

Men and children wore utilitarian belt sashes and pouches designed to hold tools and small game, while women wore a one- or two-piece apron made of shredded bark, and a round, twined cap. Robes of rabbit, willow bark, or deerskin were worn in the winter and served as bedding. Sandals woven from agave fibers were worn when traveling long distances (Luomala 1978:599).

Tipai baskets were of high quality and of the same weave and forms found elsewhere in southern California; carrying nets and sacks were also made and used. Pottery was manufactured regularly in the form of water jars, cooking and storage pots, and cremation urns (Kroeber 1925:722). The Tipai made and traded curved clay pipes, stone pipes, and medicine sucking tubes.

Religious mythologies shared by the Tipai and other Kumeyaay groups include abstract spiritual concepts and a higher creator-god (Shipek 1985). *Kuuchama*, or Tecate Peak, was the most sacred landmark. The Kumeyaay believed the peak was designated as the location for acquiring power for good, healing, and peace. Other holy places recognized by all Kumeyaay include *Wee'ishpa* or Signal Mountain, Jacumba Peak, Mount Woodson, Viejas Mountain, and other mountains beside the Colorado River in the Desert Kumeyaay region (Shipek 1985, 1987:14). Ceremonies among the Kumeyaay are similar to those of other southern California native peoples (Kroeber 1925: 712-717), including puberty rites, marriage, naming, cremation of the dead, and the annual mourning ceremony (*keruk*) for all those who died the previous year. The ceremonial leader inherited religious position and conducted these rituals.

3.2.3 Post-Contact Setting

The post-Contact history of California is divided into three periods: the Spanish period (1769 – 1822), the Mexican period (1822 – 1848), and the American period (1848 – present). These historical periods are described below.

Spanish Period (1769-1822)

Juan Rodriguez Cabrillo in 1542 led the first European expedition to observe present day southern California. That year, he landed on Point Loma, approximately 20 miles from the proposed BESS Project area. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003).

Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. The Mission and its associated presidio were built initially near the Kumeyaay village of Cosoy, near the present site of Old Town San Diego. However, the water supply at this location was low and the soil was not very fertile. Thus the mission was moved in 1774 to its present location, near the Kumeyaay village of *Nipaguay* (Mission San Diego 2013; City of San Diego 2006). The missions were responsible for administering to the local tribes and converting the population (Engelhardt 1927a). In 1775, a force of Kumeyaay surrounded Mission de Alcala and set fire to the structure and fought against the small contingent of Spanish guards (Carrico 1997). The revolt against the Spanish was likely the result of increased forced conversions, rape, theft of land, and forced imprisonment of Kumeyaay by the Spanish (Carrico 1997).

During the Mission period, Spain deeded ranchos to prominent citizens and soldiers, though very few in comparison to the following Mexican Period. Presidio commandants were given the authority to grant house lots and garden plots to soldiers and sometime after 1800, soldiers and their families began to move towards the base of Presidio Hill to receive land grants from the presidio commandants (City of San Diego 2006). Colonists used Native Americans as indentured servants to manage and expand their herds of cattle on these large ranchos (Engelhardt 1927b).

Mexican Period (1822-1848)

The Mexican period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains. The California missions declined in power and were ultimately secularized in 1834. By 1835, the presidio and Mission San Diego de Alcala had been abandoned and lay in ruins (City of San Diego 2006). The hallmark of the Mexican period was large ranchos deeded to prominent Mexican citizens, frequently soldiers, by the governor.

The Mexican government recognized the newly established Pueblo of San Diego in 1834. The pueblo did not fare as well as other California towns during the Mexican Period. Secularization of the missions caused increased hostilities by Native Americans against the *Californios* living in San Diego County during the late 1830s. Attacks on outlying ranchos and an unstable political and economic climate caused the pueblo's population to drop from approximately 500 to 150 permanent residents by 1840. In 1838, San Diego was demoted from pueblo status and made a subprefecture of the Los Angeles Pueblo (City of San Diego 2006).

American Period (1848-Present)

The American period in San Diego County began as early as 1846 when the United States (US) military occupied San Diego and effectively ended *Californio* resistance in 1847. The American government assumed formal control of Alta California with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the US agreed to pay Mexico $15 million for the territory that included California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming.

During the early American Period, cattle ranches dominated much of Southern California, although droughts and population growth resulted in farming and urban professions supplanting ranching through the late nineteenth century. After the US took control of San Diego in 1846, the political and economic situation stabilized, and population increased. The discovery of gold in northern California in 1848 led to the California Gold Rush, which resulted in a massive population increase (Guinn 1977). By 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869. By the 1880s, the railroads had established networks throughout southern California, resulting in fast and affordable shipment of goods, as well as means to transport new residents (Dumke 1994).

San Diego County

San Diego County was formally organized on February 18, 1850, as one of the original counties of California. It contained 37,400 square miles including the present counties of San Diego, Riverside, Imperial, San Bernardino, and a portion of Inyo. In 1851 the San Bernardino and Inyo sections were removed because they were too far from the county seat. Subsequent reductions in the size of San Diego County came in 1893 when Riverside County was created and in 1907 when Imperial County was created.

The population of San Diego County grew slowly from 798 in 1850 to 4,324 in 1860. Most of the population resided on farms or ranches (Pourade 1963a). San Diego County experienced several booms and busts in population from the 1860s through the late 1800s. Contributing factors include development of the port in San Diego, the discovery of gold around the area of Julian in 1870, and the 1872 “Tom Scott Boom” transcontinental railroad speculation of the Texas & Pacific railroad (Mills 1985).

In 1879 a group of San Diego and National City businessmen formed a committee with the intent on bringing a transcontinental rail line to San Diego. They sent a representative to Boston to meet the President of the Santa Fe Railroad and convinced him to bring his transcontinental line to San Diego, instead of his original intention of Guaymas, Mexico. It began with a rail line running up the coast to Oceanside, then Temecula Canyon, toward and through San Bernardino, and over the Cajon Pass to Santa Fe’s railhead in Barstow. This initial rail line was never fully completed due to a large 1883 winter storm washing out a large section of completed track (Mills 1985). Despite that, the onset of a rail line construction had initiated a major boom, particularly for the city of San Diego, including the establishment of a gas company supplying gas for heating and lighting, and a telephone company in 1882. In 1885 a new rail line was completed, connecting San Diego to Los Angeles, a rail line that still exists today. With the train came continue population growth and development both in the city of San Diego, as well as the outlying communities that had established themselves around old ranchos and land grants. By 1887 the population had reached 40,000.

The 20th century brought further development to San Diego. John D. Spreckels launched a major building campaign with the purpose of modernizing the city. Summer cottage retreats began to

develop in the beach communities of Ocean Beach and La Jolla. Improvements in public transportation to spread to the areas of University Heights, Greater North Park, and Mission Hills. In 1907 the United States Naval Coaling Station was established on the bay side of Point Loma. The military facility would slowly grow to be significant to the history of San Diego (Mills 1985). In 1915, the Panama-California Exposition was held in the city of San Diego in celebration of the opening of the Panama Canal (City of San Diego 2006). The event brought publicity and attracted people like Theodore Roosevelt, Thomas Edison, and Henry Ford.

During the 1920s, San Diego's population grew from 74,683 to 147,897 as a result of the Panama-California Exposition and efforts to attract the U.S. Navy to San Diego. In 1935 the Convair aircraft manufacturing plant was opened in San Diego, who in addition to multiple other aviation companies, helped with the development of the city and county. World War 2 contributed significantly to the development and growth of San Diego County. Local aircraft manufacturing plants attracted workers from all over the country and the military installations, including Camp Callan, Camp Elliot, and Camp Pendleton were established. The Marine Base and Naval Training Center, established in 1923, was significantly increased in size. After World War II San Diego County successfully transitioned away from a wartime economy while still retaining many important military installations. The aircraft industry continued to flourish, as well as a bustling shipbuilding industry, several research institutions, and an ever increase in tourism (Mills 1985).

4 Methods

This section presents the methods for each task completed during the preparation of this assessment.

4.1 Background and Archival Research

4.1.1 California Historical Resources Information System

Rincon conducted a cultural resources records search of the California Historical Resources Information System (CHRIS) records utilizing information obtained from the South Coast Information Center (SCIC) at the University of San Diego, San Diego in April 2022. The search was performed to identify previously conducted cultural resources studies and previously recorded cultural resources within the BESS Project area and a 1.0-mile radius surrounding it. Results from the records search can be found in Appendix A of this report.

4.1.2 Background Research

As part of the background research for this Project, Rincon also reviewed the State Built Environment Resources Directory, NRHP, CRHR, California Historical Landmarks, California Points of Historic Interest, and the California Office of Historic Preservation Archaeological Determinations of Eligibility.

Additionally, the following resources were reviewed:

- Google Earth imagery
- USGS topographic quadrangles for 1903 Cuyamaca; 1943 Jamul; 1950 and 1958 San Diego; 1979 El Cajon; 1996, 2012, and 2015 Otay Mesa
- Aerial photographs dating to 1953, 1964, 1966, 1968, 1971, 1978, 1980-1985, 1987-1990, 1993-2000, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016, and 2019.

4.1.3 Native American Outreach

Rincon contacted the Native American Heritage Commission (NAHC) on March 22, 2022, to request a search of the Sacred Lands File (SLF) and a contact list of Native Americans culturally affiliated with the project vicinity. Appendix B provides documentation of Rincon's outreach effort to locally affiliated Native American tribes.

4.2 Field Survey

On April 20, 2022, Rincon archaeologist Rachel Bilchak, B.A., conducted a pedestrian field survey of the entire 10.12-acre Project area using transect intervals of 10-meters. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, ground stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and historic-period debris (e.g., metal, glass, ceramics). Surface scrapes were conducted to improve ground surface visibility and survey reliability, particularly within the 3-acre area of direct impact and vicinity. Ground disturbances such as rodent burrows and drainages were also visually

inspected. Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the Project area. Site characteristics and survey conditions were documented using field records and a digital camera. Copies of the survey notes and digital photographs are maintained at Rincon's San Diego office.

Letters requesting permission for site access to perform environmental surveys were sent by applicant representatives to adjacent property owners in April 2022. As of June 3, 2022, no responses were received. Accordingly, no on-the-ground off-site surveys of any buffer zones around the Project area was practical.

5 Results

5.1 [redacted]

[redacted]

5.1.1 [redacted]

[redacted]

5.1.2 [redacted]

[redacted]

5.1.3 [redacted]

[redacted]

5.1.4 [redacted]

[redacted]

[redacted]

5.1.5 [redacted]

[redacted]

5.1.6 [redacted]

[redacted]

5.1.7 [redacted]

[redacted]

5.1.8 [redacted]

[redacted]

5.1.9 [redacted]

[redacted]

5.1.10 [redacted]

[redacted]

5.1.11 [redacted]

[redacted]

5.2 [redacted]

[redacted]

5.2.1 [redacted]

[redacted]

5.2.2 [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

5.2.3 Background Research

Review of the Built Environment Resource Directory (BERD) for San Diego County did not identify any properties within 1.0-mile of the Project area which are designated in the NRHP or CRHR. A review of the NRHP/CRHR and other local historical databases was negative for listings within the 1.0-mile search radius of the Project area.

5.2.4 Review of Historical Topographic Maps and Aerial Imagery

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the Project area. Topographic maps from 1903 to the 1950s and historic aerial imagery show the Project area as generally undeveloped, bordered by agricultural land and dirt roads. The proposed Project area appears to have been subject to ground disturbances including land clearing, plowing, and tilling, as well as development of adjacent land and construction of roads since the 1950s. Development appears to have increased to the west in the 1970s, and to the south and east with the construction of CA-125/CA-905 in the 1980s (USGS 2022a-h). Historic aerial imagery indicates that the footprint of the present-day CA-125/CA-905 was cleared and graded by 1984 and appears to have been paved by 1985 (NETR 2022). The general Project area appears to have remained undeveloped until 2002, when the existing Border Peaker Plant (BPP) was constructed in the western portion of the property. The entire Project area appears to have been extensively graded during the construction of the BPP facilities. Road CA-11, to the north of the Project area, appears to have been graded for construction between 2012 and 2014, and was completed by 2019 (NETR 2022; UCSB FrameFinder 2022). Development of roads,

infrastructure, and residential communities have continued to present; however, no buildings or structures were depicted within the Project area other than the existing BPP.

5.2.5 Native American Outreach

A response from the NAHC was received on May 3, 2022, stating that the results of the SLF search were *negative*, meaning no tribal heritage resources are noted in the Project vicinity (the SLF search is conducted by USGS quadrangle map, an approximately 50 to 70 square mile area). A list of 16 individuals from eleven tribal groups in the region was provided (see Appendix B).

5.3 [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

6 Findings and Recommendations

[redacted]

A review of historical aerial photographs and assessor data indicates that the proposed Project area has been subject to ground disturbances including land clearing, plowing, and tilling, as well as development of adjacent land and construction of roads since the 1950s. Soils in the Project area have been previously disturbed as a result of previous agricultural activities, grading activities associated with the construction of the existing BPP facility within the western portion of the property, and from the construction of the adjacent highway interchange and access roads.

[redacted]

The majority of the Project-related changes are consistent with the previous impact assessment for the existing BPP facilities; however, despite the disturbed nature of the Project area and the non-alluvial soils, there is a ***moderate to high risk*** of encountering subsurface archaeological deposits due to the proximity of the Project area to known Native American resources and the proposed depth of ground disturbance potentially extending beyond previous ground disturbance. The lack of significance of the isolated surficial archaeological materials identified in the survey does not preclude the existence of intact subsurface deposits, considering the surficial disturbances and number of previously recorded cultural materials.

Therefore, the Conditions of Certification (CUL-1) for the original certification is considered insufficient for the current amendment. Rincon recommends the addition of a Worker Environmental Awareness Program (WEAP) for cultural resources, archaeological monitoring of Project related ground disturbances, and adherence to standard conditions for the treatment of unanticipated discoveries of both archaeological resources and human remains. These are outlined below. The applicant has committed to incorporating these additional measures into the proposed Project in order to protect potentially present archaeological resources and human remains.

6.1 Worker Environmental Awareness Program

A Worker Environmental Awareness Program (WEAP) training should be conducted by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology and local Native American representative prior to the commencement of any Project-related ground disturbances. The WEAP training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and protocols for treatment of the materials in the event of a find.

6.2 Archaeological Monitoring of Initial Project Related Ground Disturbances

Due to the general archaeological sensitivity of the area, archaeological monitoring of project related ground disturbances is recommended until the potential to encounter intact resources is deemed low by a qualified archaeologist. Archaeological monitoring should be performed under the direction of a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983). The archaeological monitor should be on-site full-time during all initial ground disturbing activities into native soils to observe construction, identify any archaeological resources that may be present, and prevent and/or minimize potential impacts to any identified resources. The monitors should inspect excavated areas, graded surfaces, and back dirt spoils piles.

6.3 Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are unexpectedly encountered at the Project area during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the find is pre-contact era, then a Native American representative should also be contacted to participate in the evaluation of the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility to ascertain significance. If the discovery proves to be eligible for the CRHR and cannot be avoided by the modified Project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.

6.4 Unanticipated Discovery of Human Remains

No human remains are known to be present in the Project area. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations

within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

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Appendix A

CONFIDENTIAL – South Coast Information Center Records Search Results

Appendix B

Native American Heritage Commission Sacred Land Files Search

Appendix C

California Department of Parks and Recreation 523 Series Form