

## Exhibit B

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## DISCUSSION

### PROPERTY BACKGROUND:

The Moss Landing Power Plant (MLPP) was constructed in 1949 and began generating electricity in 1950. At complete buildout, the MLPP consisted of electric generating power Units 1 through 7 with the supporting infrastructures and 19 fuel oil storage tanks, which produced a net capacity of 2,060 megawatts (see **Figure 1**). Since 1950, there has been multiple significant upgrades and improvements. In 2002, MLPP developed a “Modernization Plan” that included replacement of Units 1 through 5 and upgrading Units 6 and 7. During this time the original Units 1 and 5 were not being utilized. In 2002, new electric generating Units 1 and 2 were constructed. In 2005, the original Units 1 through 5 consisting of the eight 225 foot smokestacks, including the original Units 1 and 2 that were operating since 1950, were demolished and removed along with the 19 fuel oil storage tanks. The footprint of where original Units 1 through 5 existed were replaced with asphalt by 2005 (see **Figure 2**).

Since the construction of MLPP in 1949, the subject property has not only changed in its physical use, but intensity of use as well. To date, MLPP does not operate at the prior capacity of 2,060 megawatts as mentioned above. Since the completion of the Modernization plan, the number of permanent employees and temporary/construction contractors have varied based upon the need of the MLPP, whether it was an installation period or general maintenance. During the Modernization Plan, construction and maintenance workers reached levels of 700 employees per day, 7 days a week, for a period of two months. In 2016, there were up to 420 employees were needed for on-site maintenance.

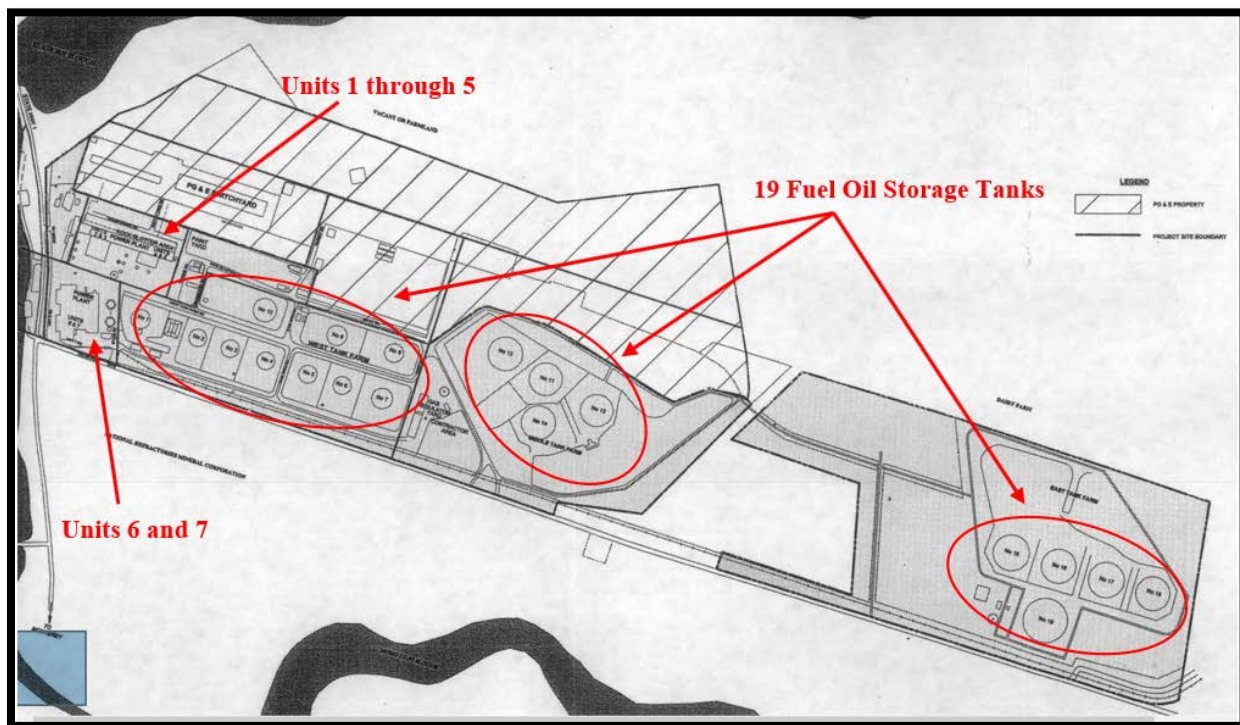


Figure 1. Project History 1949-2002



**Figure 2. Project Site Circa 2005**

#### EXISTING SITE CONDITIONS:

Since the Modernization Plan, three warehouse storage buildings and a 742 square foot non-occupied modular equipment enclosure that supports various frequency drive controls for new Units 1 and 2 have been constructed. Information from the applicant indicates that through construction of various infrastructure at the site, excavation to a depth of approximately 20 feet occurred. These facilities and the supporting electric power infrastructures are on a 90 acre portion of the 137.5 acre parcel (see **Table 1** below). The remaining 47.5 acres, east of the active portions, is the former fuel oil tank farm site. The demolition/cleanup of the fuel tanks and associated equipment has been completed under a previous planning approval (PLN990233<sup>1</sup>) and the area is now unpaved and vacant. Reuse of this area is not proposed with this application.

Facility	Existing Function	Proposed Function
Power (turbine) building for former Units 1-5	Vacant, not in use	Proposed to reuse for Battery Storage
Administration	Still in use	No Change
Warehouse	Still in use	No Change
Maintenance buildings	Still in use	No Change
Two cooling water intake structures	One intake in service	No Change
Two 500-foot chimneys for retired Units 6 and 7	None Mothballed Units	No Change
Water Tank at the base of Units 6 and 7	In use	No change.

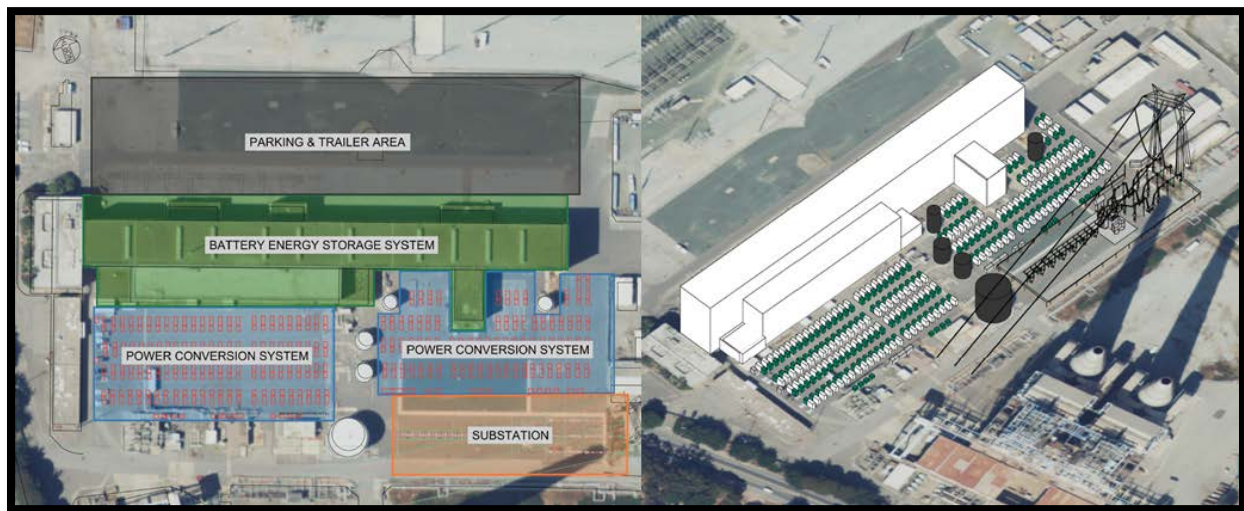
<sup>1</sup> Combined Development Permit consisting of a Coastal Development Permit for demolition of 19 above ground oil tanks and 150,000 cubic yards of grading and an Amendment to the Moss Landing Power Plant Master Plan to allow the proposed demolition and grading.

	Distilled water	
Four 145-foot chimneys for operating new Units 1 and 2	Still in use	No Change
Oil/Water Separator system located west of Unit 1 and north of the Energy Management Center	Still in use	No Change
Boiler make-up system (evaporator and demineralizers)	Still in use	No Change
Energy Management Center building	Still in use	No Change
Single-story 742 square foot non-occupied modular equipment enclosure to house variable frequency drive controls for the Units 1 & 2 circulation water pumps	Still in use	No Change

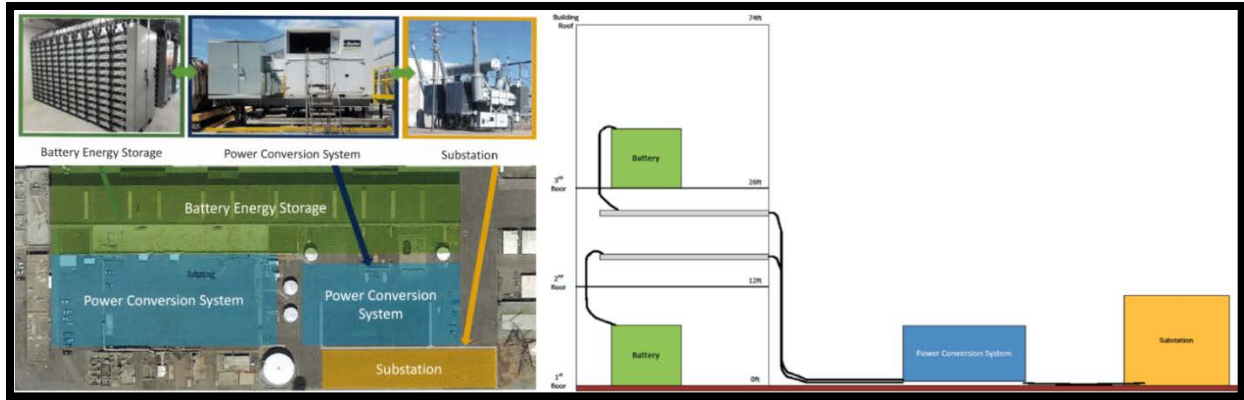
**Table 1. Existing Electric Power Facilities**

**PROJECT DESCRIPTION:**

The proposed project consists of a 300 megawatt (MW) transmission-connected, standalone lithium ion Battery Energy Storage System (BESS) with four hours of storage and a 20-year life span, on the southwest portion of a 137.5 acre parcel. The BESS contains three components: a battery energy storage; a power conversion system; and a substation. The substation receives energy from the electrical grid, the energy current is converted through the power conversion system and the energy is stored within the battery energy storage until utilized. When needed, storage energy gets routed out from the batteries through the power conversion system and substation, and into the electrical transmission grid. (**Figure 3**)





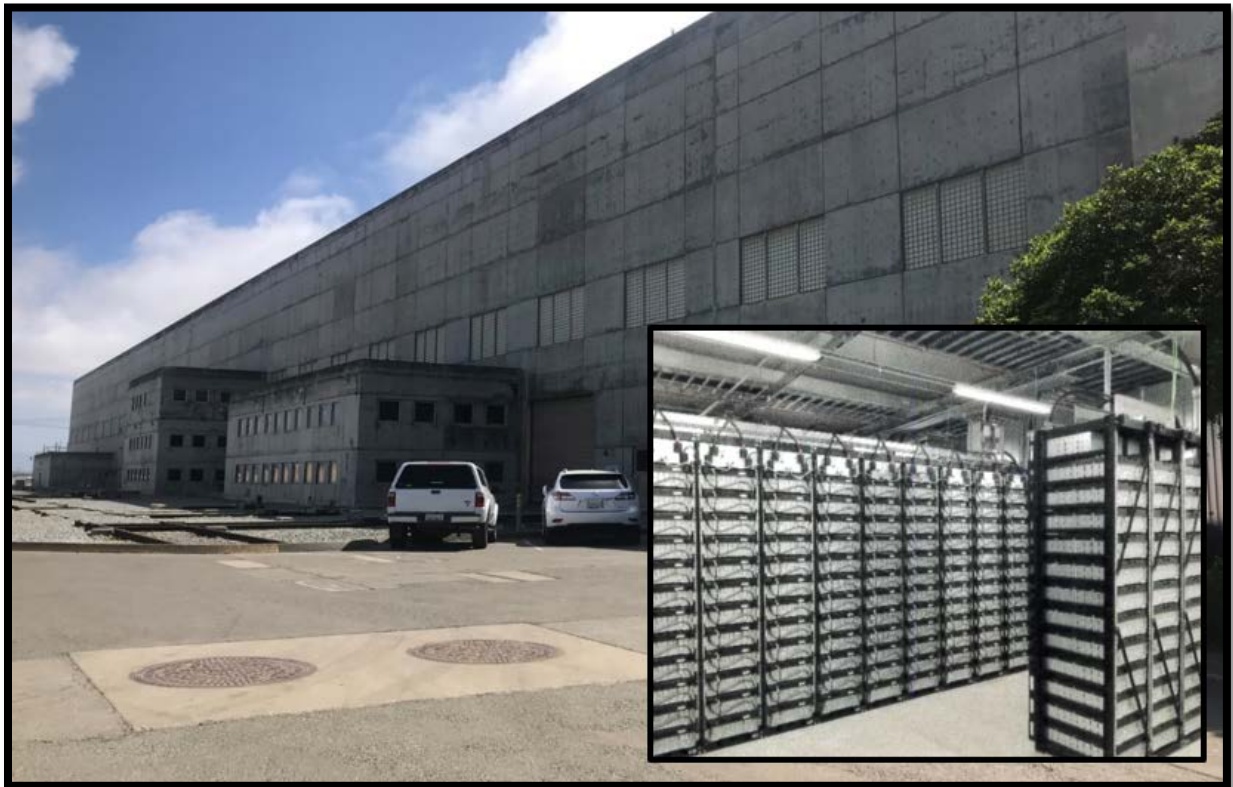


**Figure 3. Partial Site Plan and Proposed Site Improvements**

### **Battery Energy Storage**

The project proposes to install approximately 200,000 battery modules within an existing 96,411 square foot building. The battery modules will be stored in approximately 9 foot tall racks that house 17-24 battery modules. The building floor plan will be reconfigured to store the batteries in separate rooms with independent access throughout the third and possibly first floor. Cables from each battery rack would be routed through the second floor, exiting the southern face of the building wall to connect to the inverters and transformers within the power conversion system outside of the building. No ground disturbance is proposed for this portion of the project.

**(Figure 4)**



**Figure 4. Existing Three-Story Building**

## Power Conversion System

PG&E's electrical transmission grid operates in alternating current (AC) but the battery energy is stored utilizing direct current (DC); therefore, the power conversion system would receive the energy from the transmission grid in AC and convert it to DC to enable battery storage.

Conversely, energy is converted from DC to AC prior to dispersing it from the batteries back to the grid. The power conversion system is proposed adjacent to the existing building to the south and would contain approximately 200 inverter and transformer groups. Each inverter is approximately 11 feet long x 5.5 feet wide x 9 feet high and each transformer is approximately 7 feet wide x 6 feet long x 6 feet high. These components would be installed on top of the existing asphalt and would be connected to the batteries and substation by cables. No ground disturbance is proposed for this portion of the project. (Figure 5)



Figure 5. Power Conversion Areas

## Substation

PG&E transmission lines carry electricity throughout the State of California as part of the electrical transmission grid at high voltages. The transmission line located on the subject property runs at 500 kilovolts (kV). In order for the power to be converted from AC to DC at the power conversion system discussed above, voltage would need to be reduced to 34.5 kV at the substation. The substation is proposed in a 46,875 square foot area southeast of the BESS building and would consist of a 500 kV transformer control house, associated breakers<sup>2</sup>, switches, and three “interrupter” poles, with a maximum height of 23 feet necessary to connect the substation to the existing 500 kV transmission line. Site improvements in the substation area would require the removal of approximately 770 cubic yards of asphalt, the excavation of approximately 3,750 cubic yards of soil and replacement of the existing transformer. Grading is expected to occur over a 3 day period, moving approximately 1,250 cubic yards per day. The depth of excavation is expected not to exceed 4 feet. However, between 4 to 6 piers for the

<sup>2</sup> Each of the seven breakers is approximately 5.5 feet long x 5 feet wide x 11 feet high.

foundation would be drilled to a depth of 15 feet. Grading soils would either be retained onsite for reuse, hauled offsite for reuse, or hauled offsite for disposal. (**Figure 6**)



**Figure 6. Substation Area**

### **Construction and Maintenance**

A preliminary Construction Management Plan (CMP) was provided by the applicant outlining the logistical planning of the proposed site improvements. The project installation component is expected to take approximately 14 months from start to finish (September 2019 through July 2020). Of the 14 month duration, 6 months are anticipated as the peak construction period. There are potential impacts resulting from temporary construction activities for the installation component of the project. These impacts have been determined to be a less than significant level or less than significant level with mitigation measures as described below.

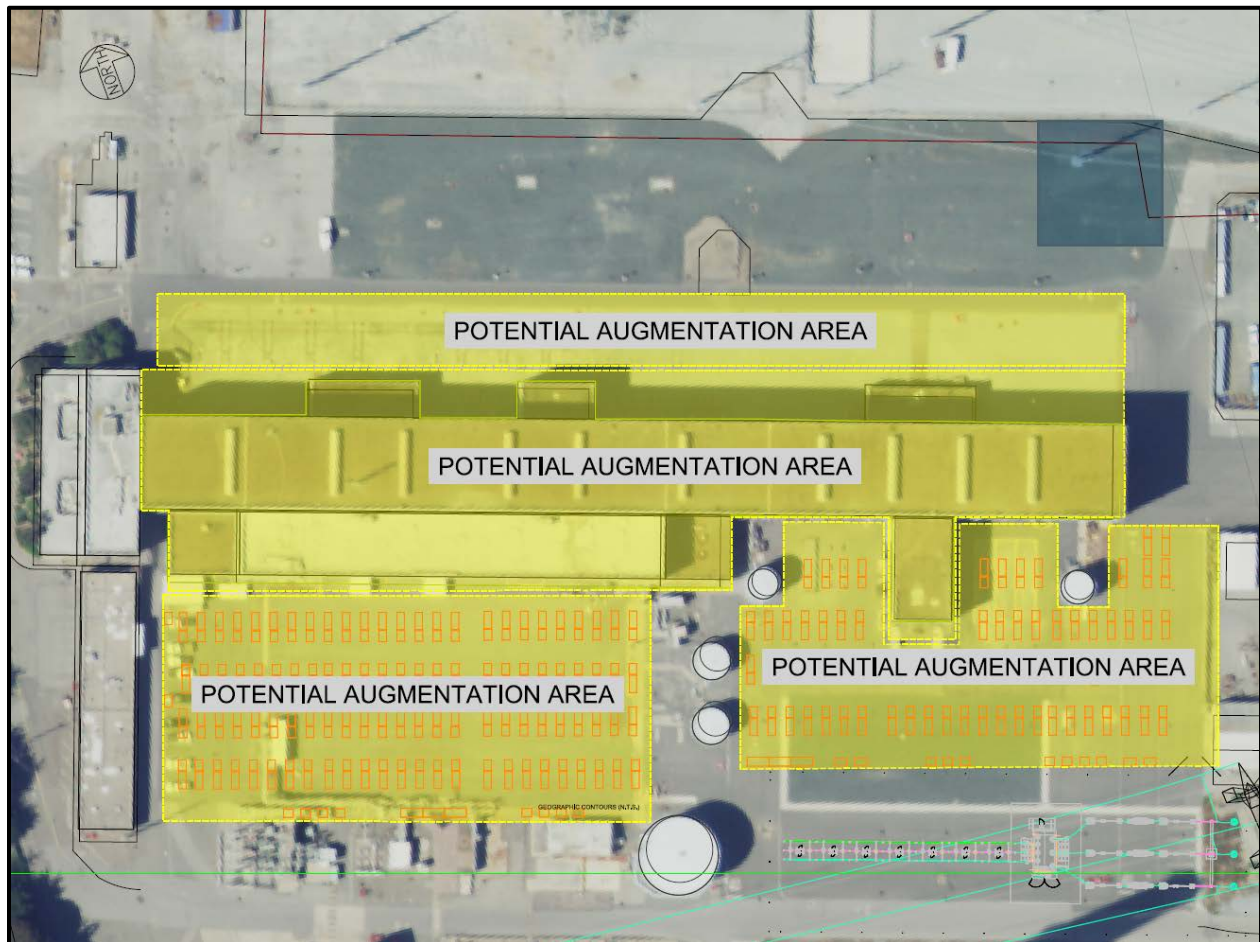
Maintenance of the site and replacement of batteries are anticipated to occur up to 3 times over the 20 year life span of the BESS, with a staggering replacement schedule to allow for optimum use of the BESS and to avoid a wholesale replacement of all the batteries at one time. The battery modules within the BESS would degrade over time and to be able to keep a consistent battery energy storage capacity, augmentation would be required. Augmentation (**Figure 7**) is proposed to occur in of the following ways:

- 1) Replace depleted batteries with new batteries;
- 2) Attach additional batteries to the battery energy storage component; or



- 3) Install approximately 30 containers (approximately 320 square feet and 8 ½ feet tall) adjacent to the battery energy storage building on top of existing asphalt. Containers placed north of the existing building would be located between the building and the existing road. Containers placed south of the existing building would be located within the area identified for the power conversion system. Each container would require one pair of inverters and transformers per container.

Augmentation would not exceed the maximum of 200,000 battery modules and 200 total pairs of inverters and transformers proposed in the project description. As part of the operations, the Project would be monitored on a continuous basis and routinely inspected.



**Figure 7. Augmentation Site Plan**

#### ENVIRONMENTAL REVIEW:

An Initial Study/Mitigated Negative Declaration or “IS/MND” (SCH No. 2019011067) for the project was prepared and circulated from January 28, 2019 through February 28, 2019. During environmental review of the project, potential impacts to air quality, cultural resources, geology/soils, greenhouse gas emissions, hazard/hazardous materials, hydrology and water quality and land use/planning were identified. Conditions of Approval have been incorporated into the proposed project to assure compliance with County requirements to the extent that they

mitigate the identified potential impacts. Therefore, mitigations were not necessary for the proposed project to have a less than significant impact on these resources.

Potential cumulative impacts to air quality, greenhouse gas emissions, hazards/hazardous materials, traffic and tribal cultural resource have been identified resulting from temporary construction activities. There are two (2) projects within the project site's proximity that were taken into consideration with the cumulative impact analysis. The "Elkhorn Battery Energy Storage System Project" or "PG&E", located on an adjacent property to the north (PLN180371) and an "RV and Boat Storage Project" or "McCombs" on Dolan Road east of the subject property (PLN160443). These two (2) projects and the Vistra Project have the potential to create cumulative impacts; however, these impacts would be during the construction phase of the project and/or would not exceed threshold levels established in the CEQA Air Quality Guidelines and Air Quality Management Plan for the Monterey Bay Region. Therefore, these impacts are considered less than significant.

#### *Less Than Significant Level with Mitigation Measures*

Potential impacts to transportation/traffic and tribal cultural resources caused by temporary construction activities and site excavation resulting from project implementation have been identified and mitigation measures have been recommended to reduce these impacts to a less than significant level.

#### **Tribal Cultural Resources**

Monterey County Geographic Information System (GIS) indicates that the development area is within an area of high archaeological sensitivity and in accordance with CIP Section 20.144.110.B.1.a, two archaeological assessments were prepared and submitted for the project. These assessments relied on previous studies prepared for MLPP as well as site specific reconnaissance and identified that the proposed excavation area for the substation (**Figure 6**) has been previously disturbed from previous infrastructure installation to a depth of 20 feet.

The site is in the aboriginal territory of the Ohlone/Coastanoan-Esselen Nation (OCEN) and in accordance with Public Resource Code 21080.3.1, tribal consultation between OCEN and County Staff occurred on December 11, 2018. OCEN identified that the entire Moss Landing area is a sacred ground and they object to the excavation for the substation area in principal but understand that development will continue in the area and have requested the presence of a tribal monitor during excavation if it is allowed to proceed. This is consistent with CEQA examples of mitigation measures for tribal cultural resources; that the mitigation preference for historical and archaeological resources is preservation in place, if feasible. Staff worked with OCEN to identify other acceptable mitigations if avoidance would be infeasible. Because County records for previous permits on MLPP demonstrate that the area for proposed excavation of the substation had been previously disturbed, OCEN identified that if the area of the substation area had been previously disturbed and replaced with new soil, there would be no potential for impacts and mitigation would not be necessary. The project applicant and County staff could not provide substantial evidence to show the area has been filled with new soil. Therefore, OCEN recommended that a tribal monitor be present during the excavation of the substation area and if any artifacts are to be found, they must be provided to the tribe. Implementation of this

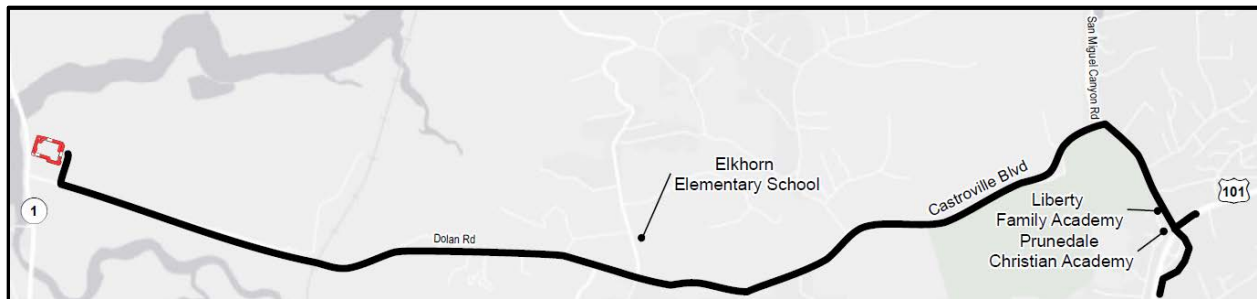
recommended mitigation (Condition No. 17 – MM01) would reduce potential impacts to tribal cultural resources to a less than significant level.

### **Traffic/Transportation**

MLCP Section 5.2.2 states that the primary transportation emphasis of the Coastal Act is to preserve highway capacity for coastal access and coastal dependent land uses and recommends a reduction in the number access points from the Highway 1 to minimize hazardous and congested conditions. The power plant is a coastal dependent land use because it has historically used seawater intake pipes in the energy generation use at the site. The North County Coastal Implementation Plan (CIP) Section 20.144.120.A.1 requires a traffic study for all development proposals with potential to significantly impact the service level or safety along Highway 1. In accordance with the provisions of the CIP, a traffic assessment was submitted with the project application. Historical vehicular access on and off the MLPP, is provided along Highway 1 and Dolan Road. Primary access is through a driveway entrance off Dolan Road, approximately  $\frac{3}{4}$  of a mile east of the Highway 1 and Dolan Road intersection. A secondary access point, for egress only, is located approximately 550 feet east of Highway 1 off Dolan Road. A tertiary access, for emergency services only, is located over 800 feet from the intersection of Highway 1 and Dolan Road, directly off Highway 1.

The operational component of the project would result in 5 new employees or less to run the facility and provide for any daily maintenance. However, the construction component of the project would result in a temporary increase of vehicle trips to and from the subject property. The existing operational site conditions consists of between 30 to 60 employees during a typical workday. During routine repair and maintenance operations that occur periodically throughout the year, there are approximately 420 employees at the MLPP. The installation component of the project will occur over a 14 month period (April 2019 – July 2020). During this time, the project anticipates to have a maximum of 420 construction worker during peak construction activity and a maximum peak of 924 daily vehicle trips resulting from employees, deliveries, and off-haul trips. In addition to other measures, the proposal includes coordination of construction trips and repair and maintenance trips to limit total combined daily employees for construction of the BESS Project and ongoing maintenance of existing MLPP operations to the existing total of 420 per day.

The CMP (**Exhibit J**) illustrates a vehicle trip route (**Figure 8**) that would be utilized from subject property, to Dolan Road, to Castroville Boulevard, to San Miguel Canyon Road, to Highway 101 and vice versa. Therefore, the existing level of service (LOS) of these roadways were considered.



**Figure 8. Haul Routes**

The 2-lane segment of Highway 1 through Moss Landing operates at a LOS F during peak hours. Dolan Road, a 2-lane major roadway, carries approximately 5,000 vehicles per day and operates at a LOS B during peak hours. Castroville Boulevard is a 2-lane major roadway that carries approximately 8,400 vehicle per day and operates at a LOS C during peak hours. San Miguel Canyon Road is a 2-lane major roadway that carries approximately 22,000 vehicles per day and operates at a LOS E during peak hours. Highway 101 is a 6-lane freeway that carries approximately 84,000 vehicles south of San Miguel Canyon Road, operating at a LOS C, and a 4-lane freeway that carries approximately 59,700 vehicles north of San Miguel Canyon Road, operating at a LOS between C and D during peak hours.

The CMP has been developed to address the temporary traffic impacts within the intention of reducing any potential impact to a less than significant level. In addition to the traffic route that avoids traveling on Highway 1, the CMP outlines the following traffic management actions:

- Encourage carpooling
- Schedule shift changes for construction worker during off-peak hours.
- Enforce a policy of one site entrance per day per vehicle.
- Schedule deliveries of construction materials during off-peak hours.
- Limit total combined daily employees for construction of the BESS Project and ongoing maintenance of existing MLPP operations to the existing total of 420 per day.
- Prohibit the use of Highway 1 for construction personnel and deliveries
- Monterey County Public Works Department will have the discretion to require the use of California Highway Patrol during Battery Project shift changes.

The strategies contained in the CMP would reduce or eliminate peak hour construction impacts and limit the amount of construction employees on the site to a maximum of 420, which is the established existing baseline condition. The project has been conditioned for the applicant to submit a final CMP that outlines these initiatives and monitors them to ensure their compliance (Condition No. 11). Construction trips are temporary and will be controlled to avoid peak hour trips and Highway 1. Therefore, the proposed project mitigates potential impacts relative to traffic to a less than significant level. No additional mitigation measures are required. RMA-Public Works and Facilities have recommended a standard Condition of Approval requiring the applicant to submit a Final Construction Management Plan prior to issuance of construction permits. This would ensure proper implementation of the CMP.

#### COMMENTS RECEIVED DURING IS/MND CIRCULATION:



During the circulation period of the IS/MND, comments were received from the California Department of Transportation (Caltrans) and the California Department of Fish and Wildlife (CDFW). These comments are discussed below.

#### **California Department of Transportation (Caltrans)**

“Caltrans appreciates the CMP initiatives and requests that a form of monitoring plan or report be incorporated for the duration of the project to evaluate the strategy and ensure compliance.” The project has been condition (Condition No. 11) for the CMP to include a monitoring report to ensure compliance and prior to the final of a construction permit, a final report shall be submitted to RMA-Planning that documents the mitigation measures implemented and their success. This Condition of Approval addresses Caltrans comments and no issues remain.

#### **California Department Fish and Wildlife (CDFW)**

CDFW submitted a comment letter identifying a potential impact to special-status species such as California Tiger Salamander (CTS), Santa Cruz Long-Toed Salamander (SCLTS) and Peregrine Falcon. There were eight (8) mitigation measures recommended (**Exhibit F**).

During environmental review of the project, it was determined that there was no impact to biological resources. NC LUP Chapter 2.3 states that development shall be prohibited in environmentally sensitive habitat areas such as riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as identified as environmentally sensitive. CIP Section 20.144.040 requires a biological survey for all development in, or within 100 feet of, environmentally sensitive habitat as shown in North County resource maps, a site visit or when there’s disagreement between the County and applicant. Monterey County Geographic Information System (GIS) contains metadata from the California Natural Diversity Database which indicates the potential for western snowy plover, bank swallow, short-eared owl, longfin smelt, Congdon’s tarplant, burrowing owl, and California red-legged frog to be onsite. The existing conditions of the site were observed during staff’s site visit, which consists of an operating energy facility. Pavement and structures are found within a 300-foot radius of the development area outside of the existing building. Based on GIS data, this area for development is approximately 2,500 linear feet from the buffer area identifying the potential for California red-legged frog to occur. Based on this information and consistent with the applicable regulations, staff determined that submittal was not necessary as part of the application. There are existing industrial facilities in use as described above and the project proposes to utilize an existing three-story building and paved areas adjacent to this building. The project includes ground disturbance in areas that have been previously disturbed.

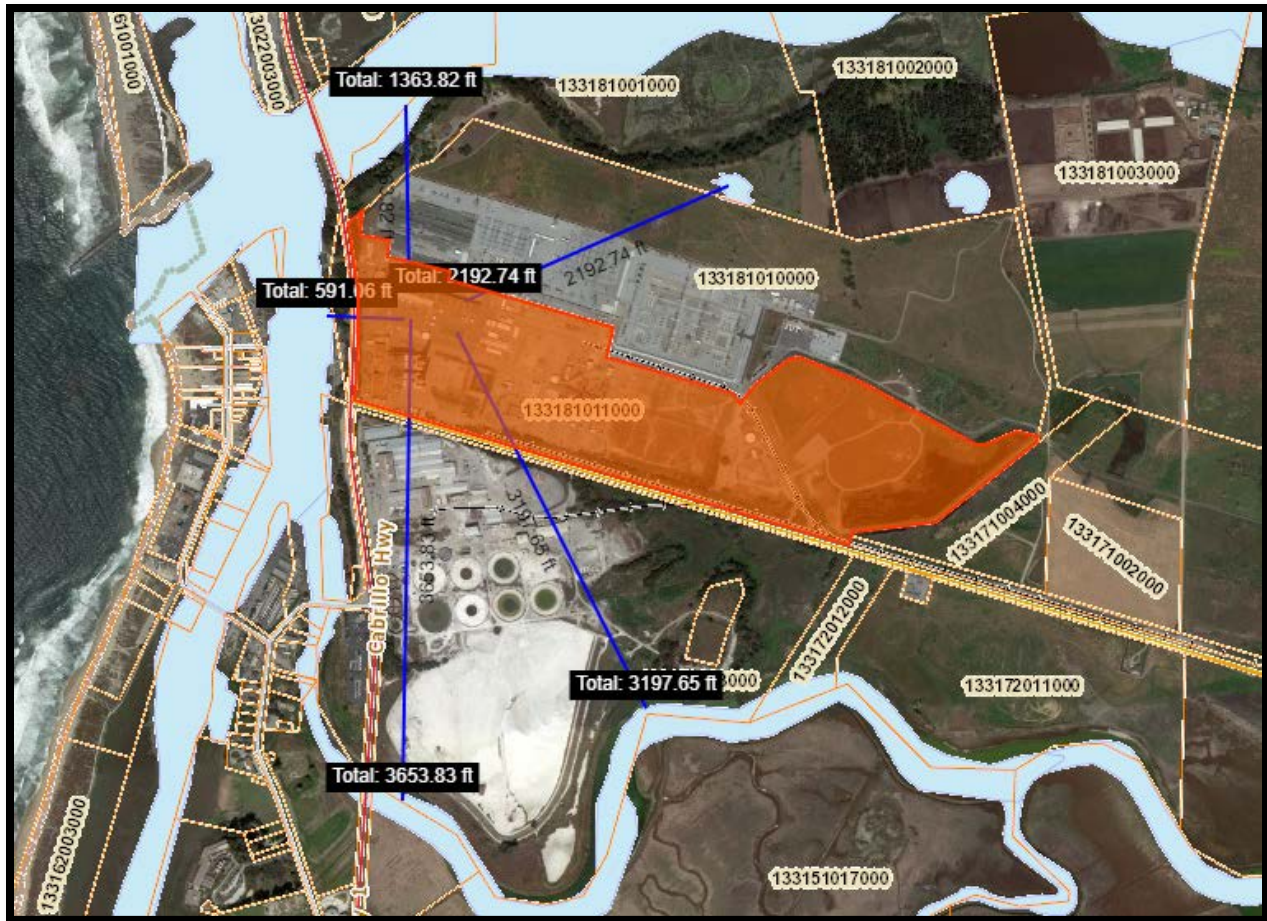
A phone conference was held between the County and the CDFW on March 8, 2019 to discuss the comment letter provided. CDFW identified potential impacts and recommended mitigation measures based on their understanding of the project’s increase in traffic. As described above, the existing site conditions include 420 employees during the MLPP maintenance component which occur several times throughout the year. The IS/MND clearly identified the existing baseline traffic conditions, site conditions and disclosed that with implementation of the CMP (**Exhibit J**), the project would not does not impact congested intersections or road segments by avoiding peak hour trips, routing traffic away from Highway 1, avoiding additive traffic impacts

from regular repair and maintenance activities at the site, and will be temporary in nature. Further traffic initiatives such as carpooling, enforcement of one site entrance per vehicle, and scheduling shift changes and deliveries of construction material during off-peak hours to further reduce temporary traffic impacts.

Subsequently, a letter from the applicant's biologist (**Exhibit H**) was provided in response to the CDFW letter. On August 13, 2018, the applicant's biologist conducted a survey and assessed the potential for special-status species to occur within the project site. In addition to this biological survey, there were two previous survey reports completed in 2016 and 2017 for the DeepWater Desal site, east of the existing MLPP and one mile east of the BESS project site. The only observation from these reports was the capture of one adult CTS in January of 2017. From knowledge of the biological resources conducted from these two reports, the survey conducted on August 13, 2018, the existing operational activities of the MLPP, and the proposal to utilize an existing building and paved areas, no further biological investigations were recommended.

*California Tiger Salamander (CTS) and Santa Cruz Long-Toed Salamander (SCLTS)*

The California Natural Diversity Database (CNDDB) contains three occurrence records for SCLTS in the project vicinity, the nearest of which occurs 1.2 miles from the installation site in wetlands associated with Moro Cojo Slough. The project site and vicinity were assessed for the potential presence of suitable aquatic or upland CTS and SCLTS habitat. CTS have specific habitat requirements including freshwater ponds or inundated pools and adjacent or nearby burrow habitat. SCLTS requires shallow ephemeral freshwater pools and breed near suitable upland habitat that include a moist area that organisms can survive through. There were no freshwater ponds, inundated pools or ephemeral freshwater pools within or within 100 feet of the project site (see **Figure 9**). Elkhorn Slough is located about a quarter of a mile north of the project site and the Moss Landing Harbor is located less than a quarter mile east of the project site – on the other side of Highway 1. These two water bodies contain saltwater or brackish water, not freshwater. Two disturbed, undeveloped patches of ruderal grasses and ground burrows were observed within 100 feet of the project site boundary. The March 7, 2019 biologist letter identified the ruderal patches to contain low quality potential upland habitat for SCLTS. The project does not propose to disturb any burrows and any attempt for CTS and SCLTS to migrate to the two identified habitats would encounter significant barriers such as buildings, industrial development and operations, fencing and berms that already exist on-site. It is the opinion of the biologist that installation of the proposed project would not increase the potential of encountering or taking CTS and/or SCLTS when compared to existing conditions.



**Figure 9. Pools and Ponds within the Vicinity.**

#### *Peregrine Falcon*

The March 7, 2019 biological letter identified the Peregrine Falcon forages over open landscape, including urban areas, agricultural lands, harbors, salt marshes and grasslands. In 2015, observation of a nesting pair was spotted on one of the MLPP smokestacks as recorded in the CNDDDB. This nesting activity occurred on the MLPP despite the existing operational activities and generated noise. Project installation and noise would be similar to what is already existing on the site. The proposed project would not increase the potential of encountering or taking a Peregrine Falcon when compared to the existing site conditions.

Thus, analysis of the proposed project in reference to the existing operational site conditions and the biologist letter, identify that there are no potential impacts to special-status species such as CTS, SCLTS and Peregrine Falcon. Findings and Evidences contained in the Draft Resolution (**Exhibit C**) amplify the existing baseline conditions and clarify that the project would have no impact to biological resources. No issues remain.

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