

Environmental Assessment  
for  
Bay Model Photovoltaic Parking Structure  
Sausalito, Marin County, California



**U.S. Army Corps of Engineers  
San Francisco District**

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## Acronyms and Abbreviations

AHPA.....	Archaeological and Historic Preservation Act
BCDC.....	Bay Conservation and Development Commission
BMPs .....	Best Management Practices
BMVC.....	Bay Model Visitors Center
CAA.....	Clean Air Act
CCC .....	California Coastal Commission
CDFW .....	California Department of Fish and Wildlife
CCR .....	California Code of Regulations
CEQ .....	Council on Environmental Quality
CFR.....	Code of Federal Regulations
CO.....	Carbon Monoxide
CO <sub>2</sub> .....	Carbon Dioxide
CWA .....	Clean Water Act
CY .....	Cubic Yards
CZMA.....	Coastal Zone Management Act
DAS .....	Data Acquisition System
dB.....	Decibels
EA .....	Environmental Assessment
EFH.....	Essential Fish Habitat
EIS .....	Environmental Impact Statement
EPDM .....	Ethylene Propylene Diene Monomer
ESCP.....	Erosion and Sediment Control Plan
ESA.....	Endangered Species Act
FONSI.....	Finding of No Significant Impact
FWCA.....	Fish and Wildlife Coordination Act
GHG.....	Greenhouse Gas
MCDA .....	Marin County Community Development Agency
Mil.....	Thousandth of an inch
N/A.....	Not Applicable
NEPA.....	National Environmental Policy Act
NHPA.....	National Historic Preservation Act
NMFS.....	National Marine Fisheries Service
NOAA.....	National Oceanic and Atmospheric Administration
NO <sub>x</sub> .....	Nitrogen Oxides
PM.....	Particulate Matter
PV .....	Photovoltaic
PVC.....	Polyvinyl chloride
RHA.....	Rivers and Harbors Act
SCDD.....	City of Sausalito Community Development Department
sf.....	Square feet / Square foot
SHPO .....	State Historic Preservation Officer
SFRWQCB .....	San Francisco Regional Water Quality Control Board
SO <sub>2</sub> .....	Sulfur Dioxide
USACE .....	United States Army Corps of Engineers
USC.....	United States Code
USEPA.....	United States Environmental Protection Agency
USFWS .....	United States Fish and Wildlife Service
USGS .....	United States Geological Survey

# 1 PROPOSED PROJECT

## 1.1 Introduction

This environmental assessment (EA) is written in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C § 4321 *et seq*), as amended, the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 C.F.R. Parts 1500-1508), and U.S. Army Corps of Engineers (USACE) Planning Regulations (ER 200-2-2). It presents an assessment of the potential effects associated with the proposed installation of a photovoltaic (PV) solar system on elevated structural carports in the parking lot of USACE's Baseyard building in Sausalito, California, and reasonable alternatives to this proposed project.

This section introduces the proposed Bay Model Photovoltaic Parking Structure project. It provides a brief description of the proposed action, the project location, and the project objectives.

## 1.2 Project Description

The USACE San Francisco District proposes to install a 100-kilowatt PV system in the existing parking lot of the Baseyard building located adjacent to the Bay Model Visitor Center (BMVC) in Sausalito, California. The system would consist of approximately 500 PV panels elevated above ground on slanted support structures under which vehicles will be able to park (referred to herein as "carport" structures).

The proposed action would involve design, fabrication, and installation of elevated carport structures including installation of support columns with subsurface footings; PV system design and mounting of approximately 500 PV panels atop the carport structures; belowground installation of electric wiring; and repaving and repainting of the parking lot area. The project is expected to take approximately three to four months to complete.

## 1.3 Location

The Baseyard building is located in the city of Sausalito, Marin County, California (Figure 1).





Figure 1 Regional and Area Map (ESRI 2010 [http://services.arcgisonline.com/ArcGIS/rest/services/World\\_Physical\\_Map/MapServer](http://services.arcgisonline.com/ArcGIS/rest/services/World_Physical_Map/MapServer))

The building is located at 2100 Bridgeway Boulevard on USACE’s Baseyard property, which also houses the BMVC Complex, Bay Model Marin dock, and a USACE marine debris storage area. The entire Baseyard property covers approximately 11.4 acres and is bordered by Richardson Bay, a finger of the greater San Francisco Bay, to the northeast and Bridgeway Boulevard to the southwest. Residential and retail properties are located on the opposite side of



Bridgeway Boulevard to the southwest of the Baseyard property. The property is also bordered by Marinship Park to the northwest and commercial and industrial properties to the southeast.



Figure 2 Proposed Project Site (outlined in yellow) and surrounding facilities (Google Earth 2015).

The proposed project site (outlined in yellow in Figure 2) consists of approximately 30,000 square feet (sf) of the existing Baseyard building parking area located between the Baseyard building and the riprap-protected slope to Richardson Bay. Equipment and materials will also be staged in part of USACE’s marine debris storage area.

**1.4 Purpose and Need for Proposed Action**

The purpose of the proposed action is to generate approximately 100 kW of electricity at the Baseyard building annually and feed it into Sausalito’s main power grid, while maintaining or increasing the quantity of employee and visitor parking space.

The proposed action is needed to offset the 47.6 kW of energy consumed at the Baseyard building each year and generate additional annual energy cost savings for USACE by feeding onto the grid energy generated in excess of that consumed. It also provides an opportunity to offset carbon emissions created by generating electricity from fossil fuels by feeding electricity generated from renewable sources into the electrical grid instead. Additionally, the proposed action provides the opportunity to shade vehicles parking Baseyard building.



## **1.5 Authority**

Construction of the USACE Bay Model facilities was authorized by the Rivers and Harbors Act of 1950. The proposed action would be conducted as part of the operation and maintenance of these existing USACE facilities. Additionally, the proposed action would support President Barack Obama's Executive Order 13514 "Federal Leadership in Environmental, Energy, and Economic Performance," which directs Federal Agencies to reduce government greenhouse gas emissions through measures such as installation of onsite alternative energy generation at Federal facilities.

## **2 SCOPE OF ANALYSIS**

The scope of project analysis is limited in time and space by the reasonably foreseeable direct, indirect, and cumulative impacts of the proposed action. The action area for this analysis includes the approximately 30,000 sf Baseyard building parking lot as well as a portion of the marine debris storage area. For certain potential impacts such as construction-related traffic and noise, the scope of analysis also includes adjacent commercial and industrial areas surrounding the Baseyard property.

## **3 PROPOSED ACTION AND ALTERNATIVES**

This section describes the Proposed Action and the No-Action Alternative, under which no new action would be taken. The preferred alternative is identified. Other alternatives considered but eliminated from consideration are discussed.

### **3.1 Proposed Action (Agency-Preferred Alternative)**

The Agency-Preferred Alternative is the proposed construction of PV solar panel system on top of elevated structural carports in the parking lot of the Baseyard building. Construction would begin in May 2016 and take an estimated three to four months to complete.

In order to optimize future parking for USACE personnel and guests visiting the BMVC, the parking stalls and traffic lanes would be laid out for the new parking area as illustrated in Figure 3a. The proposed layout would slightly increase the number of parking spaces from 54 to 62. Three separate structural carports (one full-width carport and two half-width carports) would be constructed above the parking stalls as illustrated in Figures 3b and 3c. The carports would be pre-fabricated out of galvanized steel or steel with other weather-protective coating, then assembled and erected onsite. The panel support surface of the carports may be designed as a continuous roof surface upon which the panels are placed or as open encasings that support the panels and use them to create shading. As depicted in Figure 3c, the panel support surface of the carports would be oriented at a tilted angle and would be approximately 39 feet wide for the full-width carport structure (in the center of the parking lot, covering two rows of parking spaces), and approximately 22.5 feet wide for the half-width carport structures (at the edges of the parking lot, covering a single row of parking spaces). These structures would be elevated on steel columns with approximately 3-foot tall by 2.5-foot in diameter reinforced concrete footings at their base. The final height of the structures would be determined by the optimal tilt of the support surfaces for the PV system design, but would be a minimum of 15.5 feet at its lowest

point to accommodate USACE emergency operation vehicles, service trucks, and buses visiting the adjacent BMVC.

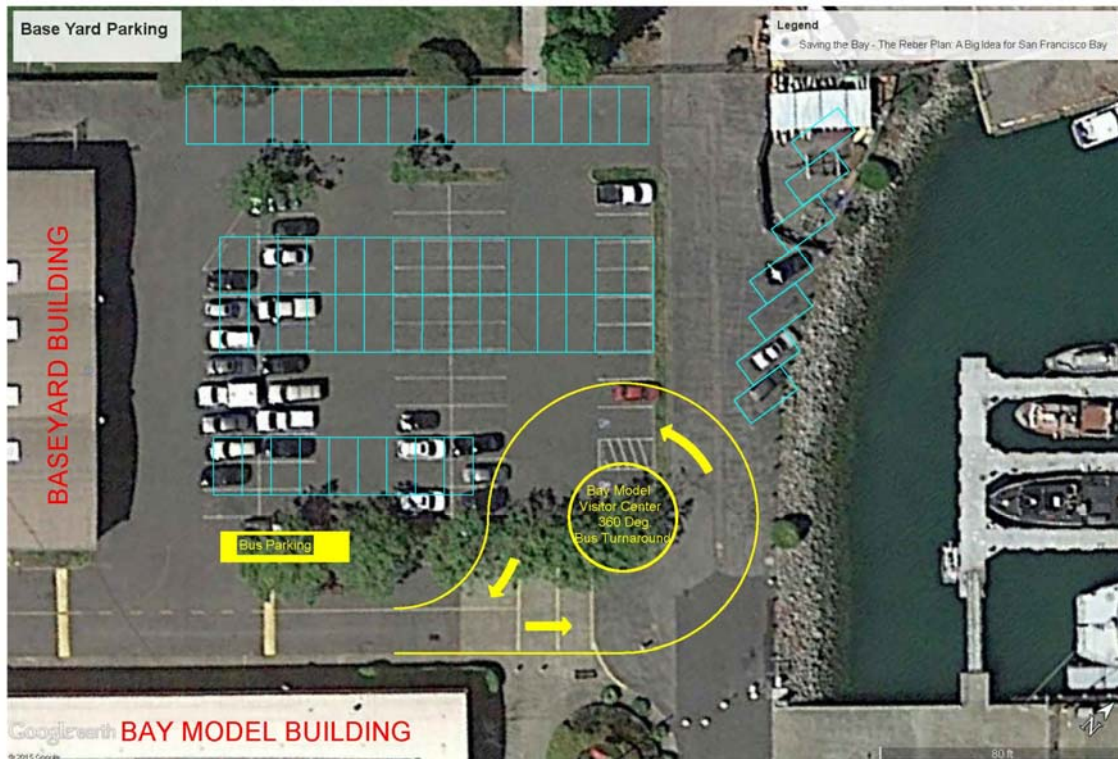


Figure 3a. Proposed parking stall (blue) and traffic lane (yellow) layout for new Baseyard parking area.

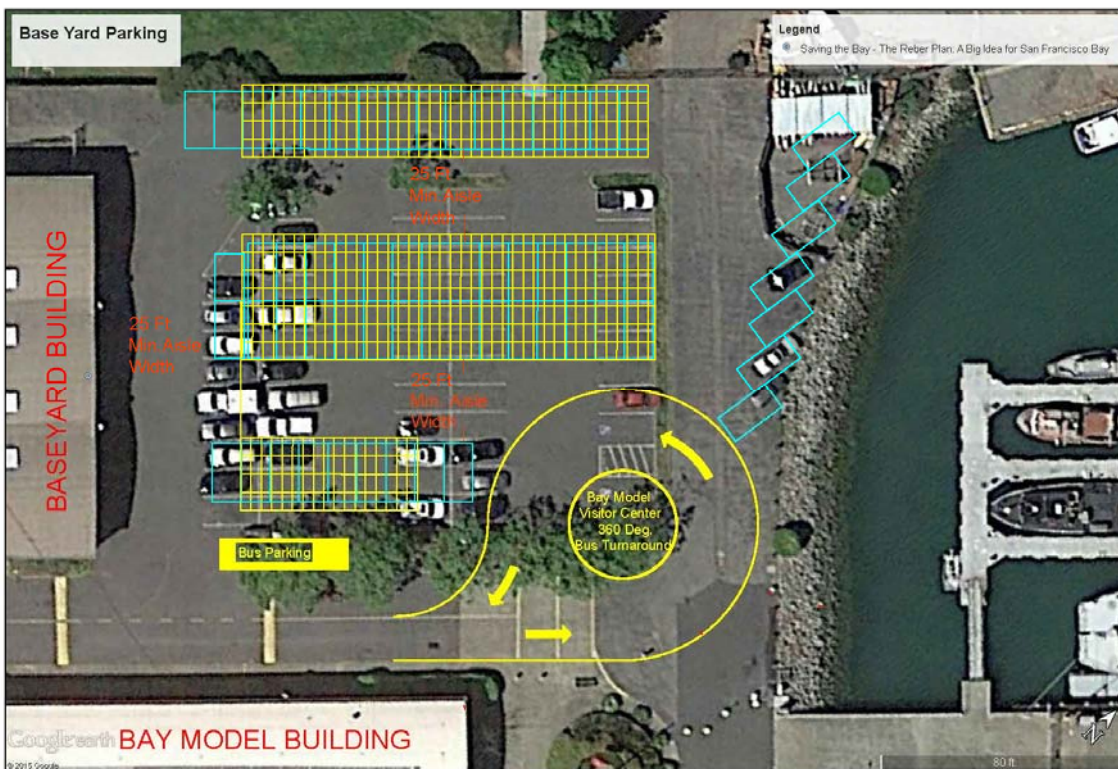


Figure 3b. Proposed future layout of Baseyard parking lot with elevated carport PV solar system.



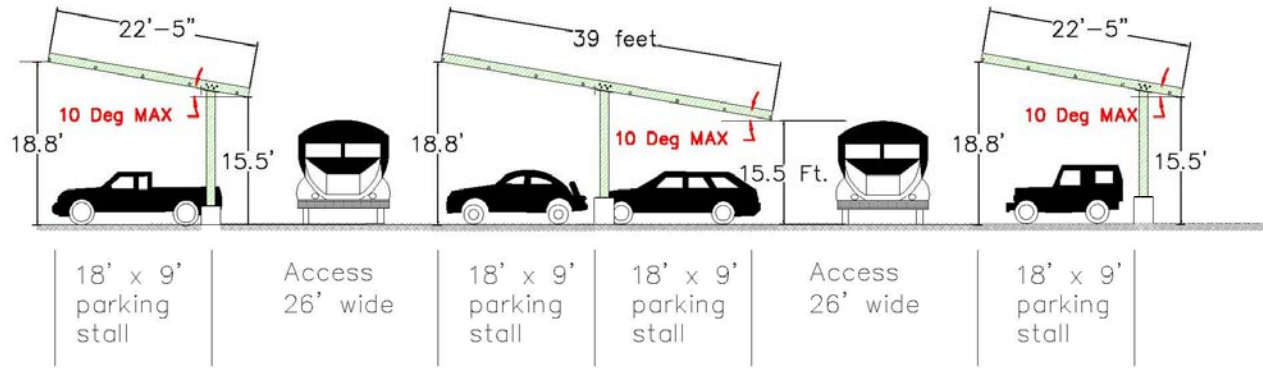


Figure 3c. Side view plan of carport structures proposed for installation in the Baseyard parking lot. The central, full-width carport covers two rows of parking spaces, while the outer half-width carports cover one row of parking spaces each.

The columns would be anchored by reinforced concrete foundations buried approximately 4.5 feet beneath the surface. The dimensions of the foundations would be based on the final height of the structure but are expected to be approximately 6 sf by 2.5 feet high. Diagrams depicting the estimated dimensions of the full- and half-width carports are included as Appendix C1.

In order to accommodate the foundations, an existing subsurface sanitary sewer line would be permanently relocated as shown in Figure 4. This would involve trenching and laying the new section of pipeline, shutting off service to the existing line, connecting the old section to the new section, and then restoring service to the line. Once the new route has been connected and service to the line restored, the bypassed section of the old line would be removed to make way for the solar carport foundations.

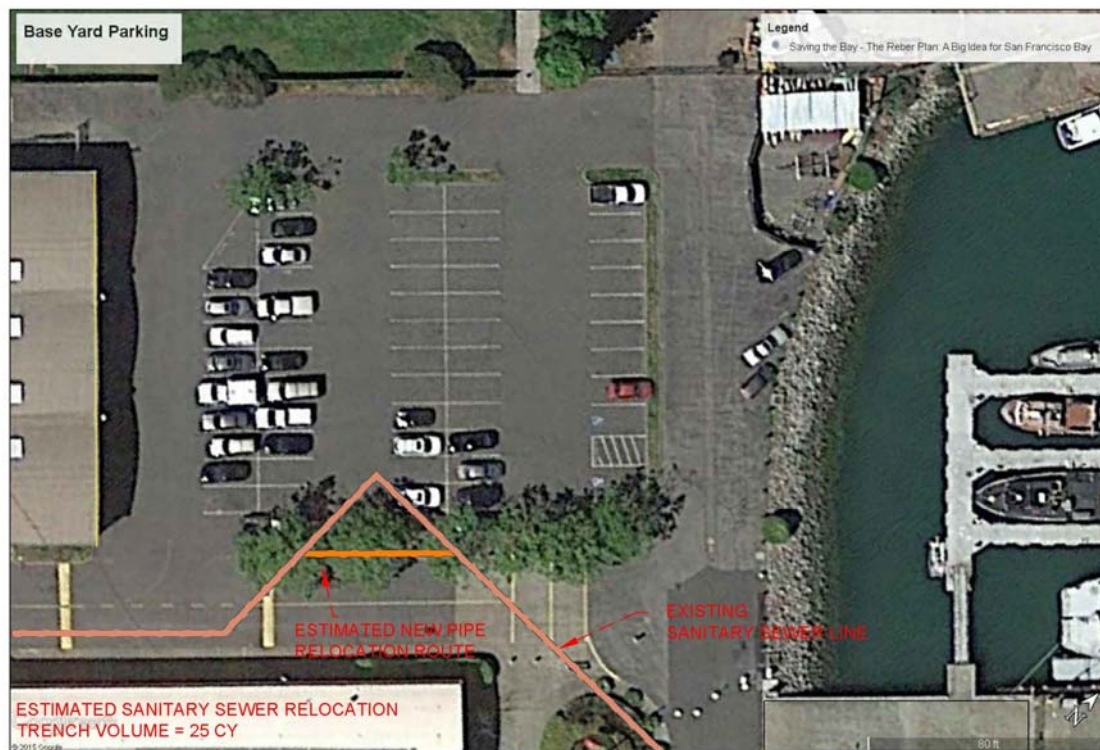


Figure 4. Proposed sanitary sewer line relocation. The location of the existing line is shown in light pink and the proposed rerouting shown in orange.

The PV system would be mounted on top of the elevated carport structures and would consist of approximately 500 PV solar cells, each rated for 275 W of maximum power output. The estimated total power generation of the system would be 100 kW. The specific layout of the PV modules on the elevated carport structures would be designed to provide the greatest energy production possible over the course of a year given the constraint of USACE's desired layout and design of the structural carports. The degree of tilt of the carport panel support surfaces; number of panels on each carport; and the panels' layout, orientation, and inclination would be determined as part of the PV system design. However, a south-facing orientation is typically most efficient for PV installations in the northern hemisphere and the modules would be inclined at an angle above horizontal to help optimize system output and minimize surface collection of dirt and grime. Furthermore, the solar panels would be fixed as opposed to tracking on their axis due to the additional first cost and maintenance associated with tracking systems.

The PV cells on each carport structure would be connected in series circuits, combined via combiner boxes and wired to commercial inverters suitable in size for the project requirements and capable of connecting to the utility grid. The inverters and any additional electrical equipment (e.g. switchgears) would be located within the project site on appropriately-sized concrete pads. A Data Acquisition System (DAS) would be installed as part of the system and co-located with the inverters. The DAS would include a data logger, network interface for data retrieval, dry bulb measuring device, anemometer, solar sensor, radiation shield, and enclosure in order to measure wind speed, solar irradiation, system power output, and inverter performance.

The entire system would be connected to the existing electrical system at the Baseyard building. All power and telecommunication lines from the parking lot system to existing servicing units would be run underground through conduits in concrete-encased ducts. The conduits would be at minimum ½-inch in diameter and made of either galvanized steel, metal, or polyvinyl chloride (PVC). The lines would be tied into existing onsite Pacific Gas & Electric (PG&E) meters at the Baseyard building.

Removal of the existing parking lot pavement and trenching beneath the surface would be required to install the concrete foundations for the elevated carport structures, run underground electrical power and communication lines, and reroute the existing sanitary sewer line. Additionally, removal of some or all of the existing ornamental trees, bushes, and lawn sod in parking lot planters at the southeast, east, and northwest edges of the existing parking lot would be required to install the elevated carport structure in that area and create room for the bus-turnaround lane in the new parking lot orientation (Figure 5).





**Figure 5. Potential vegetation removal areas (red) in the project footprint (yellow).**

The USACE estimates approximately 750-1000 cubic yards (CY) of material would need to be excavated in total for the project. Excavated soil would be stockpiled and contained onsite using applicable best management practices to prevent storm water pollution and promote site cleanliness. Once excavation is complete, USACE would sample the material directly from the stockpile and have the samples tested to determine where the soil is suitable for disposal based on the waste acceptance criteria of local landfills. The excavated material would be properly disposed of according to testing results. All belowground trenches would be backfilled with either clean excavated material or clean material brought in from offsite and then compacted. The pavement would then be restored to original condition.

Finally, new parking lot markings would be painted on the pavement surface approximately as depicted in Figure 3a, including vehicle parking areas, a 360 degree bus turn-around, and a stall for at least one bus.

The equipment required for the Proposed Action would likely include a backhoe, forklift or small crane, jackhammers, excavator or loader, dump trucks, roller or hand equipment for backfilling, and rolled paint sprayer for demarking the parking area. Equipment and materials for the project would be staged at the USACE marine debris storage area adjacent to the north corner of the project area (Figure 6). After all work is completed, the equipment would be removed from the worksite and equipment storage areas would be restored to their original conditions.



Figure 6. Proposed equipment and material staging areas at the USACE Marine Debris Storage area.

### 3.2 No-Action Alternative

Analysis of the No-Action Alternative is required under NEPA and provides a comparative baseline against which other alternatives can be evaluated. Under this alternative, no action would be taken. Elevated carport structures and the PV solar system would not be installed in the existing parking area of the Baseyard building. The existing paved surface and vegetation in the Baseyard parking area would remain undisturbed. There would be no increase in the number of parking spaces at the Baseyard property and no additional energy would be generated onsite (beyond what is generated by the solar PV system on the roof of the BMVC). The annual energy consumption of the Baseyard building would not be offset, and there would be no additional cost savings for USACE. Moreover, there would be no potential to offset carbon emissions from fossil fuel-generated electricity by feeding renewable energy into the grid.

### 3.3 Alternatives Considered and Eliminated

Alternatives to the Proposed Action that were considered, but eliminated from further analysis include:

- Installation of a ground-mounted PV solar system in the existing Baseyard building parking lot;
- Installation of a PV system on the roof of the Baseyard building; and
- generating power on the Baseyard site using a different form of renewable energy;

Installation of a ground-mounted PV solar system in the existing Baseyard building parking lot was eliminated as it would not meet the objective of maintaining or increasing the existing level of employee and visitor parking space. Installation of a PV system on the roof of the Baseyard building was eliminated from further analysis as it is unlikely that the Baseyard building roof could support the weight of a solar system without extensive structural upgrades and removal of existing skylights. A 100kW system is approximately the maximum system size that could be installed in the parking area given the constraints of existing infrastructure and the need for bus parking.

Generating electricity onsite using forms of renewable energy other than PV solar power was found to be infeasible due to the small scale of the planned energy generation. Common forms of renewable energy generation other than solar include wind, geothermal, biomass, and tidal power. Geothermal, biomass, and tidal power technologies are economically and technologically prohibitive at the small scale associated with this project. Although wind power is feasible on a smaller scale, placing wind turbines onsite would likely have significant impacts on surrounding communities' view of Richardson Bay and on the flight path of birds in the area. Therefore, alternatives involving the generation of power onsite using forms of renewable energy other than PV solar power were eliminated from further study.

## 4 IMPACT ASSESSMENT

This section provides an assessment of potential impacts of the Proposed Action on the environment. Potential impacts are evaluated in relation to the No-Action Alternative. If an environmental factor is considered not applicable, the factor is followed by N/A.

### 4.1 Water

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Richardson Bay is the only surface water feature located in the vicinity of the Proposed Action area. It borders the Baseyard property to the northeast and is a portion of the greater San Francisco Bay. There are no drainages or other defined surface water features within the vicinity of the Proposed Action area.

**(X) Quality - temperature, salinity patterns, and other parameters:** Although Richardson Bay is adjacent to the Baseyard property, the Proposed Action area is outside of the Bay; therefore, water quality parameters within the Bay would not differ from those that would be experienced under the No-Action Alternative.

**(X) Turbidity and suspended particulates:** The Proposed Action would involve excavation, temporary onsite storage, and removal of approximately 750-1000 CY of material adjacent to Richardson Bay. However, the Proposed Action would implement best management practices (BMPs) to prevent release of sediment particulates into the Bay. The soil excavated for installation of the carport structure foundations and trenching would be stockpiled as far away as possible from the shoreline on the USACE marine debris storage area (Figure 6). The designated storage area would be covered with a 15 mil plastic liner before any excavated material is placed. To prevent wind or water transport of the soil into the Bay once material is placed for storage, the bottom liner edges would be turned up, the material would be entirely covered with additional 15 mil plastic liner, and the perimeter sufficiently anchored to remain in place during windy or stormy conditions.



Additionally, the construction contractor would be required to prepare an Erosion and Sediment Control Plan (ESCP) documenting additional BMPs that would be implemented to prevent, to the maximum extent practicable, construction site pollutants from leaving the site. The ESCP will, at least, include the applicable minimum erosion control, sediment control, and good housekeeping BMPs required by the Marin County Stormwater Pollution Prevention Program (Marin County, 2015).

As a result of these BMPs, no changes to turbidity or suspended particulates in Richardson Bay are expected from the Proposed Action. No changes to turbidity or suspended particulates in Richardson Bay would occur under the No-Action alternative.

**Substrate:** N/A

**Currents, circulation, or drainage patterns:** N/A

**Mixing zone:** N/A

**Flood control functions:** There would be no change in flood control functions under either the Proposed Action or No-Action alternatives.

**Storm, wave, and erosion buffers:** N/A

**Erosion and accretion patterns:** There are no permanent changes in gradient associated with the Proposed Action and thus any erosion and accretion patterns would be the same as those experienced under the No-Action Alternative.

**Aquifer recharge:** The proposed worksite would be located on Bay fill and is not expected to have a freshwater aquifer accessible to infiltration by runoff. Thus, neither the Proposed Action nor the No-Action Alternative would affect aquifer recharge.

**Base flow:** N/A

**Water supplies and conservation:** N/A

## **4.2 Habitat**

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The majority of the terrestrial area in the Proposed Action area is occupied by existing infrastructure including the paved Baseyard building parking lot and the concrete marine debris storage area. The action area also includes ornamental trees, bushes, and lawn sod planted in parking lot planters along the northwest and southeast edges of the parking lot (Appendix C2: Bay Model Planting Plan). Existing structures within the immediate vicinity of the action area include the BMVC and Baseyard buildings and the Bay Model Marin Dock. Marinship Park is adjacent to the northwest border of the existing Baseyard parking lot and includes a large area of ornamental grass with additional trees along its north edge. Richardson Bay, adjacent to the northeast of the Baseyard property, provides the only aquatic habitat located in the vicinity of the Proposed Action area.

**Aquatic Habitat:** None of the work associated with the Proposed Action would occur within Richardson Bay, and there would be no impacts to water quality, currents, conditions, or



aquatic substrate. Therefore, the aquatic habitat within the Bay would be unaffected by the proposed action and would remain the same as under the No-Action Alternative.

**(X) Special aquatic sites (wetlands, mudflats, coral reefs, pool and riffle areas, shallows, sanctuaries and refuges, other):** There are no special aquatic sites in the vicinity of the Proposed Action area and potential impacts to water quality that could affect offsite locations would be avoided. Therefore, there would be no impacts to special aquatic sites under either the Proposed Action or the No-Action Alternative.

**(X) Terrestrial Habitat:** Under the No-Action Alternative, there would be no change in habitat quality at the project site. The Proposed Action would involve the removal of some or all of the existing ornamental trees, bushes, and lawn sod planted in planters in the Baseyard building parking lot to accommodate the elevated solar PV system and new parking lot layout. This action would also require temporary removal of existing pavement, storage of equipment and materials onsite, and short-term operation of heavy equipment within the Proposed Action area.

The removal of some or all of the existing trees, bushes, and lawn sod in the parking lot planters would affect terrestrial habitat at the site; however, the impact is not expected to be significant. The vegetation that may be partially or fully removed is illustrated in Figure 5 in the project description section. The value of the habitat currently provided by the trees and bushes present at the site is minimal given they are ornamental species placed during landscaping of the property and are located in a high traffic area adjacent to active worksites at the Baseyard building and a marine debris storage area. Marinship Park adjacent to the project site, provides a large area of higher quality terrestrial habitat with an expansive lawn and numerous trees along its north edge. This terrestrial habitat would remain unaffected by the Proposed Action. Moreover, USACE would plant additional trees elsewhere on the greater Baseyard property to replace some of the vegetation removed by this project. The parking lot surface and project staging areas would be restored to their pre-project condition after construction.

The majority of the Proposed Action area is paved and of low habitat quality, the vegetation present in the Proposed Action area is ornamental and would be partially replaced elsewhere on the Baseyard property, and Marinship Park offers a large amount of higher quality terrestrial habitat in the vicinity. Thus, the effects of the Proposed Action on terrestrial habitat are expected to be less than significant.

### **4.3 Biological Resources**

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Because the Proposed Action area consists of asphalt and ornamental vegetation, the project site provides minimal habitat for biological resources. Notable organisms that could potentially occupy the site include species commonly associated with human-dominated landscapes and near shore areas — e.g., songbirds, pigeons, gulls, squirrels, and rodents (USACE 2009). Due to the minimal area of vegetation, potential ecological functions associated with the proposed work site are minor.

**(X) Organisms:** None of the actions associated with the proposed project would occur within Richardson Bay or affect aquatic habitat, nor would actions taken outside of the Bay have effects within the Bay. Therefore, there would be no impacts to aquatic organisms or ecology within the

Bay under either the Proposed Action or No-Action Alternative. Under the latter, there would also be no impact to any terrestrial organisms occupying the action area or ecological functioning of this area.

Removal of some or all of the existing ornamental trees, bushes, and lawn sod in parking lot planters, would affect terrestrial birds or rodents potentially occupying the action area through the permanent removal of a potential habitat and food source. The short-term operation of construction equipment could also cause movement or noise that might temporarily disturb terrestrial birds or rodents potentially occupying the action area or its surroundings. Given that the existing vegetation is in a human-dominated, high-traffic area, the greater quantity and quality of habitat of a similar type at the adjacent Marinship Park, and the temporary nature of the construction activities, the effects of the Proposed Action on terrestrial organisms would be less than significant.

**(X) Endangered or Threatened Species:** In order to identify listed species or critical habitats with the potential to occur in the project region, USACE obtained an official U.S. Fish and Wildlife Service (USFWS) list of threatened and endangered species and critical habitats potentially associated with the proposed project vicinity (Sacramento Fish and Wildlife Office, personal communication, January 4, 2016). USACE (2009 and 2010) environmental assessments for previous projects at the Baseyard property were also reviewed to identify additional special-status plant and animal species listed in the California Natural Diversity Database (CNDDDB) that could potentially be found in the San Francisco North U.S. Geological Survey (USGS) 7.5-minute quadrangle region where the Baseyard property is located. These sources cover federal and state listed, proposed, and candidate threatened and endangered species (and designated critical habitats); California Department of Fish and Wildlife (CDFW) Species of Special Concern and Fully Protected species; plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.); and plants considered by the California Native Plant Society to be rare, threatened, or endangered in California.

Appendix A.1 provides the USFWS species list and a table of the listed and special-status plant and animal species that have the potential to occur in the region. The table provides a summary of the expected occurrence of each listed and special-status species at the project site.

There is no aquatic habitat within the Proposed Action area, and no part of the Proposed Action would be performed in Richardson Bay or any other surface waters or drainages. Therefore, none of the fish, aquatic invertebrates, aquatic mammals, or aquatic reptiles with the potential to occur in the region would be found within the action area or affected by the Proposed Action.

Similarly, the existing vegetation in the Baseyard parking lot consists of ornamental species placed during landscaping of the property and does not include any of the listed or special-status plant species with the potential to occur in the region. Finally, none of the remaining listed or special-status terrestrial species with the potential to be found in the region are known to occur at the project site, and their ranges and habitat requirements make it unlikely that they would be present.

Based on our analysis of the project action area and the ranges and habitat requirements of the listed and special-status plant and animal species with potential to occur in the region, USACE

has determined that the Proposed Action would not affect such species. Under the No-Action Alternative, there would also be no impacts to such species.

#### **4.4 Air Quality**

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The Proposed Action area lies in the San Francisco Bay Area Air Basin (SFBAAB), which includes San Francisco; portions of Sonoma and Solano counties; and all of San Mateo, Santa Clara, Alameda, Contra Costa, Marin, and Napa counties. The Bay Area Air Quality Management District (BAAQMD) regulates onshore (stationary) air pollution sources in the SFBAAB. Presently, BAAQMD is in “attainment” of all National Ambient Air Quality Standards (NAAQS) except the 8-hour ozone standard and the 24-hour particulate matter 2.5 micron (PM<sub>2.5</sub>) (BAAQMD, 2015). The 1-hour carbon monoxide and particulate matter 10 micron (PM<sub>10</sub>) standards are unclassified because of a lack of data for the EPA to form a basis on attainment status.

**(X) Pollutants and Greenhouse Gases:** Minor amounts of air-quality pollutants and greenhouse gases may be generated during construction activities associated with the Proposed Action. Such pollutants could include exhaust emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, nitrogen oxides (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>) from fuel combustion for diesel and gasoline-powered equipment as well as material transport and worker commute vehicles, fugitive PM dust from ground-disturbance activities, volatile organic compounds from asphalt paving, and greenhouse gas (GHG) emissions from construction activities (construction-generated criteria air pollutant and precursor emissions, 2009).

The BAAQMD has developed construction-related screening criteria to provide lead agencies with a conservative indication of whether a proposed project could result in potentially significant construction-related air-quality impacts. If all of the screening criteria are met by a proposed project, then construction of the proposed project would result in a less-than-significant impact from criteria air pollutant and precursor emissions and a detailed air-quality assessment of their project’s air-pollutant emissions is unnecessary (BAAQMD, 2011).

The Proposed Action involves removal of some existing pavement; excavation of 750-1000 CY of soil; installation of the elevated carport structures and PV system; backfilling and repaving; and repainting of the parking lot. The magnitude of these actions would be minimal, and the proposed project meets the construction-related screening criteria documented in the BAAQMD’s CEQA Air Quality Guidelines for criteria pollutants or precursors (BAAQMD, 2011 p. 3-5). After completion of the Proposed Action, air quality would return to existing background levels. Therefore, the Proposed Action is expected to result in a less-than-significant impact to air quality.

Additionally, once operational, the proposed action is expected to result in small yet long-term GHG reduction benefits by generating 100kW of renewable solar electricity annually and feeding it into the electrical grid. This would presumably reduce some of the need to generate electricity from fossil fuel sources and prevent the GHG emissions associated with such generation. While the No-Action Alternative would result in no impacts to air quality, it also would not provide the GHG reduction benefits associated with the Proposed Action.

## 4.5 Geology and Soils

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The Baseyard property was built in the 1940's on fill overlying the original tidal flats of Richardson Bay. No mineral resources are known to exist within or around the property.

**(X) Contaminants in dredge or fill material:** The Proposed Action would include some excavation of below-grade trenches for installation of the carport structure foundations, electrical wiring conduits, and relocated sanitary sewer. Soil will be stockpiled in the USACE marine debris storage area and the stockpile area would be covered with a 15 mil plastic liner before any material is placed. To prevent wind or water transport of material once placed in the area for storage, the bottom liner edges would be turned up, the material would be entirely covered with additional 15 mil plastic liner, and the perimeter sufficiently anchored to remain in place during windy or stormy conditions.

Once excavation is complete, USACE would sample the material directly from the stockpile and have the samples tested to determine where the soil is suitable for disposal based on the waste acceptance criteria of local landfills. The USACE expects to collect roughly one, 4-point composite sample per 500 cubic yards of material proposed for disposal, and thus two composite samples total for the proposed project. The samples would likely be tested for constituents including benzene, dichloromethane, total petroleum hydrocarbons-diesel, ethylbenzene, methyl ethyl ketone (MEK; butanone), polychlorinated biphenyls (PCBs), perchloroethylene, phenol, styrene, toluene, trichloroethylene, vinyl chloride, xylenes, and metals (aluminum, arsenic, barium, beryllium, cadmium, chloride, chromium (VI), cobalt, copper, lead, manganese, mercury, and molybdenum). However, further coordination with potential landfills would be conducted to confirm the number of samples and testing required to determine if the material meets waste acceptance criteria. The USACE expects that the soil will be suitable for disposal at either Redwood Landfill in Novato, CA (Class III Landfill) or Altamont Sanitary Landfill in Livermore, CA (Class II Landfill). Class III sites accept nonhazardous wastes while Class II sites may accept "designated" and nonhazardous wastes.

While hazardous contamination is not anticipated, should hazardous levels of contamination be found, a remediation and disposal plan will be developed to ensure that any potential for environmental contamination is mitigated to the level of insignificance. Thus, the Proposed Action is not expected to introduce environmental contaminants from excavated materials. Any soil used as fill material to backfill the trenched areas would be clean and free of contaminants so the Proposed Action is also not expected to introduce contamination through fill material.

Under the No-Action Alternative, no excavation or fill would take place; thus, there would be no contaminants in excavated or fill material.

**( ) Mineral resources:** N/A

## 4.6 Noise

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The Proposed Action area is immediately surrounded by commercial and industrial properties, Marinship Park, Richardson Bay, and is in close proximity to Bridgeway Boulevard, a major roadway. Background noise in the vicinity results from vehicle traffic and sounds associated with



the operation of the Bay Model Visitors’ Center, Baseyard building, Marin dock, marine debris storage area, and other surrounding commercial properties. The nearest noise-sensitive receptors are likely to occur at the Marinship Park recreational area adjacent to the northwest side of the Baseyard property and residential and retail properties on the opposite side of Bridgeway Boulevard.

**(X) Construction-related Noise:** Under the No-Action Alternative there would be no change to existing background noise levels. The construction actions associated with the Proposed Action would begin in May 2016 and take an estimated three to four months to complete. The proposed construction actions would involve equipment such as a backhoe, forklift or small crane, jackhammers, excavator or loader, dump trucks, roller or hand equipment for backfilling, and rolled paint sprayer for demarking the parking area. Use of such equipment is likely to contribute to increased ambient noise levels during the construction period.

Generally, noise levels above 70 decibels (dB) produce the following human responses: 80 to 90 dB (annoying), 90 to 110 dB (very loud), 110 to 120 dB (extremely loud), 130 to 140 dB (painfully loud) (SAIC, 2007). According to the U.S. Department of Transportation’s Construction Noise Handbook (DOT, 2015), Airborne noise associated with the equipment likely to be used for the Proposed action can range from 79 to 89 dB at 50 ft (Table 1). Given these noise levels, work associated with the Proposed Action would remain at or below levels that could annoy people who are within 50 ft of the worksite. Noise levels would be lower at greater distances from the activities.

**Table 1. Average noise level (in dB) associated with construction equipment likely to be used for the proposed action**

<b>Equipment</b>	<b>Average Decibels in Air (dB) at 50 feet<sup>1</sup></b>
Backhoe	78
Forklift	75
Crane	81
Jackhammer	89
Excavator	81
Front End Loader	79
Dump truck	76
Roller	80

<sup>1</sup>from DOT (2015)

Such increases in ambient noise levels would be mitigated by practices such as the confinement of construction-related activities to weekdays between the hours of 8 AM and 7 PM in compliance with City of Sausalito ordinances and the use of equipment sound-control devices no less effective than those provided originally on the equipment. The temporary increases in ambient noise would cease at the completion of construction, and levels would return to the normal background levels expected under the No-Action Alternative. Given the existing ambient noise conditions at the project site, the temporary nature of the expected construction noise, and the proposed minimization measures, construction-related noise impacts from the Proposed Action would be less than significant.

### 4.7 Recreation

Recreational boat storage occurs at a private boat dock located at the easternmost corner of the Baseyard property, and Marinship Park is a recreational area adjacent to the northwest side of the Baseyard property. Additionally, the BMVC is a recreational and educational facility open to the public during the week and weekends.

**(X) Recreational Opportunities:** Under the No-Action Alternative there would be no change in recreation opportunities at or around the Proposed Action area. Construction actions associated with the Proposed Action would be confined to the existing Baseyard building parking lot area located between the front of the building and the riprap-protected slope of Richardson Bay and to a portion of the marine debris storage area for staging. The proposed construction activities would not impede recreation activities at the BMVC, private dock, or Marinship Park. Recreation along the San Francisco Bay Trail would not be affected by the project as the portion of the Bay trail in this region runs along Bridgeway Boulevard not the Bay shoreline near the project site (Figure 7).



Figure 7. San Francisco Bay Trail in relation to the project site (Map source: <http://baytrail.abag.ca.gov/baytrailmap.html>, 2016).

While the Proposed Action would not inhibit recreation, minor increases in noise levels associated with the short-term operation of construction equipment during the Proposed Action could temporarily lower the quality of recreation around the action area and are discussed in the “Noise” section. Some impact to parking availability at the BMVC would also occur during the Proposed Action and is discussed in the “Transportation” section. Any such impacts would be minor and temporary, ending once the project is completed. Thus, no significant impacts to recreation around the project site are expected from the Proposed Action.

## **4.8 Transportation**

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The Baseyard property is bordered to the southwest by Marinship Way and Bridgeway Boulevard, a major roadway. The property is bordered to the northeast by Richardson Bay, a navigational route. A paved access way runs between the northeast front of the Baseyard building parking lot and the riprap-protected slope of Richardson Bay. The access way has parking slots and is sometimes used as a pedestrian walkway along Richardson Bay. Southeast of the BMVC is a private boat dock

**(X) Transportation and traffic:** The majority of the Proposed Action area falls within the existing parking lot at the Baseyard building. This parking area is primarily used by USACE operational vehicles, USACE employees’ personal vehicles, and both personal vehicles and passenger busses carrying Bay Model visitors. During normal operations at the Baseyard property, available parking in the existing lot exceeds parking demand by approximately 50% (USACE, 2010).

Parking availability in the Proposed Action area would be partially or fully diminished during construction. If possible, to minimize impacts to parking, installation of the three separate elevated carport structures would be phased such that only a portion of the parking area would be closed-off at any one time, allowing parking in the remaining portion of the parking lot. However, if such phasing is not possible, the parking area would remain closed during the duration of the Proposed Action. In either case, additional parking for USACE employees, Bay Model visitors, and the public would be available in a small existing parking area behind the BMVC building (along Marinship Way) and slightly further away along Bridgeway Boulevard. Any impacts to parking availability would be temporary and end at the completion of construction.

In the long-term, the Proposed Action would benefit parking quality at the Baseyard building by providing vehicles with covered parking spaces and by designating specific areas for bus parking and turnaround. Due to the availability of alternative parking nearby, the relatively low demand for parking during normal operation at the property, and the temporary nature of the impacts to parking availability, the Proposed Action would have less-than-significant impacts to parking.

Transportation of construction equipment, materials, and construction workers associated with the Proposed Action would result in temporary increases in vehicle trips along surrounding regional and local roads providing access to the proposed action area. Such increases would be temporary, intermittent, and not in excess of the level of traffic such roadways are designed to accommodate. The transportation of project-related construction equipment and materials would

terminate at the completion of the Proposed Action. Because any changes to transportation and traffic conditions would be minimal and temporary, no significant impacts to traffic or transportation are expected from the Proposed Action.

Under the No-Action Alternative there would be no increase in traffic levels or change in parking availability.

**(X) Navigation:** Construction activities associated with the Proposed Action would be confined to the existing parking lot at the Baseyard building and a portion of the marine debris storage area. The Proposed Action would not impede activities at the Bay Model Marin dock or the private dock northeast of the BMVC, and would not involve any work in the Bay. Navigation would be unaffected under both the Proposed Action and the No-Action Alternative.

## 4.9 Aesthetics

Residential properties are located on the hillsides directly to the south, southeast, and southwest of the Baseyard property. Commercial, retail, and recreational facilities also surround the property. The view of the Richardson Bay is a significant asset to these surrounding properties.

**(X) Visual impacts:** The Proposed Action would involve construction of new elevated carport structures supporting a solar PV system in the existing Baseyard building parking lot as well as removal of some or all of the existing trees, bushes, and lawn sod planted in the existing parking lot planters. An example of a typical solar carport is shown in Figure 8.



Figure 8. Example of a typical solar carport in a parking lot (source <http://www.gewa.de/>)

The removal of existing vegetation and installation of new structures would change the aesthetics of the project site. However, given the industrial and commercial nature of the immediately surrounding facilities, the carport structures are expected to complement the visual character of the site. Moreover, a large rooftop solar system was installed on the BMVC in 2009 and thus the addition of a smaller adjacent system in the parking lot of the Baseyard building is not expected to significantly change the view looking down from residences on the hillside above. While some or all of the ornamental trees, bushes, and lawn sod would be removed from the parking



area, there is significant green open space and trees adjacent to the site in Marinship Park that will remain and USACE would plant additional trees elsewhere on the greater Baseyard property to replace some of those removed by the Proposed Project. Thus, changes to the site aesthetics associated with the Proposed Action are expected to be less-than-significant.

The No-Action Alternative would result in no permanent change to site aesthetics.

#### **4.10 Land Use**

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The Baseyard property is currently classified as publicly-owned, non-taxable land.

**(X) Land use classification:** Neither the Proposed Action nor the No-Action Alternative would have any impact on the classification of the Baseyard property.

**(X) Land use plans, policies or controls:** The Proposed Action and No-Action Alternative do not conflict with any land use plans, policies, or controls governing the project site. The Proposed Action area is within the jurisdiction of the Bay Conservation and Development Commission's (BCDC) 100-foot shoreline band and therefore USACE is in the process of completing a Consistency Determination for submission to BCDC in accordance with the Coastal Zone Management Act of 1972. USACE has determined that the Proposed Action is consistent to the maximum extent practicable with the San Francisco Bay Plan and Richardson Bay Special Area Plan. USACE will seek concurrence from BCDC with this determination in accordance with 15 C.F.R. Part 930 prior to issuance of a FONSI or conducting any construction actions.

**( ) Prime and unique farmland:** N/A

**(X) Socio-economic:** The socio-economic environment around the Baseyard property would remain unchanged under both the Proposed Action and No-Action alternative.

**(X) Environmental Justice:** The environmental justice conditions in Sausalito and Marin County would remain unchanged under both the Proposed Action and No-Action Alternative.

**(X) Growth inducing impacts - community growth, regional growth:** The Proposed Action would not contribute to any growth-inducing impacts. Community and regional growth in Sausalito and Marin County would remain unchanged under both the Proposed Action and No-Action Alternative

#### **4.11 Utilities, Services, and Facilities**

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Facilities adjacent to the Proposed Action area include the Baseyard building, which serves as an construction and operations building for USACE, the BMVC, a public facility providing education services and a location for certain community gatherings, the Bay Model Marin Dock, where USACE operations vessels anchor, and the Marine Debris Storage Area, where ocean debris collected by USACE is placed. Utilities exist within the Proposed Action area and USACE has an existing contract with PG&E to provide solar electricity from the Baseyard property to the main electrical grid. Emergency services within the Proposed Action area would be provided by the City of Sausalito or the County of Marin.

**(X) Public utilities and services:** Under the Proposed Action existing underground gas, electrical, and water utilities would be identified prior to construction and would be avoided or, if necessary, temporarily relocated during the Proposed Action. An existing sanitary sewer below the Baseyard parking lot would also be permanently relocated as part of the Proposed Action (Figure 4). The existing line connects to the public restrooms located outside of the BMVC between the water front and the main door of the BMVC. It is expected that service to these restrooms would be interrupted for a maximum of two days. Other sewer lines to facilities inside the BMVC would remain operational during this work. No significant impacts to utilities are expected under the Proposed Action.

There would be no permanent change in the existing levels of public services required or available in Sausalito or Marin County as a result of the Proposed Action and any utilities temporarily relocated would be restored prior to repaving of the parking area. Thus, no impacts to utilities and public services would be expected. The No-Action alternative would also have no effect on public utilities and services.

**(X) Energy consumption or generation:** The Proposed Action would result in the annual generation of approximately 100kW of electricity. Production of this amount of power would be a direct permanent beneficial impact on regional energy generation and would exceed the approximately 47.6 kW of energy consumed annually by the Baseyard building. The excess energy generated would be fed into the electrical grid for other users to consume and USACE would receive a credit from PG&E. Therefore, the Proposed Action would result in direct beneficial impacts to energy consumption and generation.

Under the No-Action Alternative, no solar power would be generated at the Baseyard building and the current amount of commercial electrical power necessary for the Baseyard building would continue to be consumed.

**(X) Public facilities:** Public facilities adjacent to the Proposed Action area include BMVC and Marinship Park. Potential effects from the Proposed Action on these facilities are addressed in the “Recreation” and “Transportation” sections of this document. These potential effects are expected to be minimal and temporary. No significant impacts to public facilities are expected to result from either the Proposed Action or No-Action Alternatives.

#### ***4.12 Safety and Hazardous Materials***

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The San Andreas Fault Zone lies approximately 6.5 miles west of the Baseyard property. This fault and other regional faults have the potential to generate strong ground motions at the Baseyard site that could endanger public safety (Leighton Consulting 2010a). No hazardous or toxic materials are known to exist within or around the Proposed Action area.

**(X) Public health and safety:** Areas under active construction or being used for staging during the Proposed Action would be fenced-off to protect public safety. Additionally, signs would be placed warning the public of the active construction site and flag people would be used when trucks or other construction equipment are entering and existing the site to warn other

vehicles. Given these proposed safety measures, no effects on public health and safety are expected from the Proposed Action or the No-Action Alternative.

**(X) Hazardous and toxic materials:** No hazardous or toxic materials would be used during the Proposed Action, and no hazardous and toxic materials are expected to be encountered within the action area. Testing of the soil material to be excavated from the site under the Proposed Action is described in the “Contaminants in dredge or fill material” section of the document. No significant hazardous or toxic material impacts are expected under either the Proposed Action or No-Action Alternatives.

#### ***4.13 Cultural and Historic Resources***

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The Baseyard site was originally constructed by W.A. Bechtel Company on the mudflats of Richardson Bay in 1942 as part of the Marinship Shipyard to facilitate shipbuilding during World War II (USACE 2009). The Baseyard building served as the yard’s outfitting shop (Knapp & VerPlanck Preservation Architects, 2011). In 1946, the Marinship Shipyard was turned over to USACE and the Baseyard building was used to house its Navigation Department. While the southern Marin County region is home to several designated historic monuments and sites, none of these resources exist at or near the proposed action area.

**(X) Cultural and historical resources:** The USACE performed reconnaissance on the Baseyard property in 1980 and determined that it did not contain any previously recorded prehistoric or historic archaeological sites (Brandt, 1980). Knapp & VerPlanck Preservation Architects (2011) prepared a historic context statement for the former Marinship yard in 2011 and indicated that as of that point in time, no property located within the entire former Marinship property had been listed in the California or National Registers of historic places. Knapp & VerPlanck (2011) identify two buildings from the former Marinship yard that they believe would be eligible for both the National and California Registers of historic places, and four additional buildings they believe to be eligible for only the California Register. Neither the Baseyard building nor the BMVC building were among the six identified by Knapp & VerPlanck (2011). However, Knapp & VerPlanck (2011) further indicate that the “outfitting zone” of the former Marinship site, which includes today’s Baseyard property and facilities, retains eight surviving Marinship buildings located in close proximity to each other and most of which retain their characteristic barrel-vaulted roofs, as well as their historic scale and massing. Although most of these buildings have been altered and their setting has changed from that of a working shipyard to an office/commercial complex, taken together, the buildings convey a diluted sense of the former Marinship yard (Knapp & VerPlanck Preservation Architects, 2011). Applying National Register integrity standards, Knapp & VerPlanck (2011) find that this potential district no longer retains sufficient integrity for listing in the National Register. But, given the California Register’s lower standards for integrity, they suggest that the district may potentially be eligible as a historic district in the California Register (Knapp & VerPlanck Preservation Architects, 2011). They further note that the six buildings they identified, additional former Marinship buildings, or the district could be identified as historic resources under the Sausalito local register (Knapp & VerPlanck Preservation Architects, 2011).

While the Baseyard property has not previously been found to contain any individual buildings eligible or registered as historic buildings under the National or California registers, the Baseyard

property and the buildings on it fall within a section of the former Marinship yard that may be eligible as a historic district under the California Register of Historic Places. The Proposed Action would change the aesthetics of the Baseyard property through the addition of an elevated solar PV system on carport structures in the existing Baseyard building parking lot. However, Knapp & VerPlanck (2011) suggest that the existing character of the site has changed from that of a working shipyard to an office/commercial complex. Given the industrial and commercial nature of the immediately surrounding facilities and the existing, larger PV system on the roof of the BMVC, the carport structures are expected to complement the existing character of the site. Additionally, the Proposed Action would not alter the characteristics of the “outfitting zone” that Knapp & VerPlanck (2011) suggest make it potentially eligible as a historic district under the California or local registers, including the proximity, barrel-vaulted roofs, historic scale, or massing of the eight former Marinship buildings located there.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. In accordance with regulations implementing Section 106, as amended, USACE has determined that no historic properties are located in the area of potential effects for the proposed action and that construction will not have an adverse effect on historic properties. A copy of this EA will be sent to the State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation to afford them the opportunity to comment on this determination.

No significant impacts to cultural or historic resources are expected from either the Proposed Action or the No-Action Alternative.

**(X) Historic monuments, parks, national seashores, wild and scenic rivers, wilderness areas, research sites, etc:** No historic monuments, national parks or seashores, wild and scenic rivers, wilderness areas, or research sites exist in the Proposed Action area and thus none would be affected by either the Proposed Action or No-Action Alternative.

**(X) Archaeological sites:** Given that the property was built on fill overlying the original tidal flats and wetlands, neither the Proposed Action nor the No-Action Alternatives are expected to uncover evidence of prehistoric occupation or historic use. Therefore, no effects on archaeological resources are expected.

#### ***4.14 Irreversible Changes and Cumulative Effects***

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**(X) Irreversible changes and irretrievable commitment of resources:** The installation of proposed carport structures and elevated PV solar system associated with the Proposed Action would not be an irreversible change as the system and carport structures could be easily removed in the future if so desired. The removal of the ornamental trees, bushes, and lawn sod in parking lot planters would be an irreversible change as would the permanent relocation of the sanitary sewer line (which would be much more difficult to move back, if desired). However these changes would be less than significant. The use of fossil fuels for construction associated with the Proposed Project would also constitute an irretrievable commitment of resources but would be limited and minor. Conversely, the installation of a solar system would provide a small,

indirect, beneficial impact on existing irretrievable resources by slightly reducing the use of electricity produced using non-renewable fossil-fuels.

Under the No-Action Alternative, there would be no irreversible changes and no change in the existing commitment of resources.

**(X) Other Cumulative effects not related to the proposed action:**

**1. Occurred onsite historically:** The Baseyard site was originally constructed by W.A. Bechtel Company on the mudflats of Richardson Bay in 1942 as part of the Marinship Shipyard to facilitate shipbuilding during World War II (USACE 2009). The Bay Model building originally served as the shipyard's warehouse and the Baseyard building served as the yard's outfitting shop (Knapp & VerPlanck Preservation Architects, 2011). In 1946, the Marinship Shipyard was turned over to USACE and the San Francisco Hydraulic Bay Model was constructed within the Bay Model building in 1957 (USACE 2009). Since 1946 USACE has used the Baseyard building to house its Navigation Department. The building was raised in height in 1948 to gain more headroom and was re clad in stucco in the 1980s to match the BMVC next door (Knapp & VerPlanck Preservation Architects, 2011). In 2010 USACE replaced the existing roof covering materials on the Bay Model building roof and installed a 345kW PV solar system on it. In 2011, USACE performed a geotechnical stabilization project, injecting concrete beneath the surface between the Bay Model Building and the riprap protected slope of Richardson Bay to prevent lateral slippage of the building. Routine maintenance of the Baseyard building, such as painting and minor repairs, has been performed through time.

**2. Likely to occur within the foreseeable future:** Within the foreseeable future, continued general maintenance to the Baseyard property and facilities is expected. No additional major projects are anticipated at this time.

**3. Contextual relationship between the proposed action and (1) and (2) above:**

Continued maintenance to buildings and the property would involve work on existing structures and would be unlikely to significantly alter existing conditions at the Baseyard site further. With consideration of the historic actions that occurred at the site and these foreseeable future actions, the Proposed Action is not expected to have any cumulative adverse impacts.

## **5 SUMMARY OF INDIRECT AND CUMULATIVE EFFECTS FROM THE PROPOSED ACTION**

The proposed installation of solar panels would result in indirect beneficial impact to the irretrievable commitment of existing resources by generating renewable solar energy that presumably would be consumed instead of electricity produced using other non-renewable resources.

No significant cumulative effects are expected from the Proposed Action.



## **6 ENVIRONMENTAL COMPLIANCE**

Detailed compliance information, supporting reports, and environmental compliance history for this project can be found in Appendix A – Environmental Compliance.

**Table 2. Summary of Environmental Compliance**

Statute	Status of Compliance
<p>National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. § 4321 <i>et seq</i>)</p> <p>Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 C.F.R. Parts 1500-1508) dated July 1986</p>	<p>This EA has been prepared in compliance with NEPA and CEQ regulations. All agency and public comments will be considered and evaluated. If appropriate, a Finding of No Significant Impact (FONSI) will be signed with a conclusion of no significant impacts from this proposed action. A Draft FONSI is provided in Appendix B.</p>
<p>Clean Air Act, as amended (42 U.S.C. § 7401 <i>et seq</i>)</p>	<p>The Proposed Action is not expected to exceed de minimus thresholds for pollutant emissions or adversely impact air quality. Air emissions associated with the proposed action will be temporary.</p>
<p>Clean Water Act, as amended (33 U.S.C. § 1251 <i>et seq</i>)</p> <p>Rivers and Harbors Act of 1899 (33 U.S.C. § 403)</p> <p>Executive Order 11990, Protection of Wetlands, (42 FR 26961, 1977)</p>	<p>The Proposed Action is not expected to affect surface waters or drainages in any way.</p> <p>This action does not involve work or structures in navigable waters of the U.S.</p> <p>No wetlands occur within the proposed project area.</p>
<p>National Oceanic and Atmospheric Administration Federal Consistency Regulation (15 C.F.R. Part 930)</p> <p>Coastal Zone Management Act of 1972 (16 U.S.C. § 1451 <i>et seq</i>)</p> <p>California Coastal Act of 1976</p>	<p>A Consistency Determination for the Proposed Action will be submitted to the San Francisco Bay Conservation and Development Commission (BCDC) because the proposed action area is within the jurisdiction of BCDC’s 100-foot shoreline band. USACE will seek concurrence from BCDC with this determination in accordance with 15 C.F.R. Part 930 prior to issuance of a FONSI or conducting any construction actions.</p>
<p>Endangered Species Act as amended (16 U.S.C. § 1531 <i>et seq</i>)</p> <p>Fish and Wildlife Coordination Act (16 U.S.C. § 661 <i>et seq</i>)</p> <p>Magnuson-Stevens Fishery Conservation and Management Act - Fishery Conservation Amendments of 1996, (16 U.S.C. § 1801 <i>et seq</i>) – Essential Fish Habitat (EFH)</p> <p>Migratory Bird Treaty Act (16 U.S.C. §§ 703-711)</p> <p>Marine Mammal Protection Act (16 U.S.C. § 1361 <i>et seq</i>)</p> <p>National Marine Sanctuaries Act (16 U.S.C. § 1431 <i>et seq</i>)</p> <p>Marine Protection Research and Sanctuaries Act of 1972 (33 U.S.C. § 1401 <i>et seq</i>)</p>	<p>Inventories of listed and proposed endangered, threatened, and candidate species and critical habitats that may occur at the project site or in the greater San Francisco North USGS 7.5-minute quadrangle, where the project site occurs, were obtained from the U.S. Fish and Wildlife Service (USFWS) and the California Natural Diversity Database (CNDDDB). The official USFWS species list and a table summarizing the potential for such species and habitats to occur in the project action area are provided in Appendix A.</p> <p>The Proposed Action will have negligible impacts on fish, wildlife, and existing habitat.</p> <p>No impacts to EFH are expected from the Proposed Action.</p> <p>No impacts to migratory birds are expected from the Proposed Action.</p> <p>No impacts to marine mammals are expected from the Proposed Action.</p> <p>The Proposed Action will not take place in or near a national marine sanctuary.</p>

<p>National Historic Preservation Act (16 U.S.C. § 470 and 36 C.F.R. Part 800): Protection of Historic Properties</p>	<p>The State Historic Preservation Officer (SHPO) and National Advisory Council for Historic Preservation will be notified by USACE of the Proposed Action and given the opportunity to comment.</p>
<p>Executive Order 11593: Protection and Enhancement of the Cultural Environment</p>	<p>See above.</p>
<p>Archaeological and Historic Preservation Act of 1974, (16 U.S.C. § 469 <i>et seq</i>)</p>	<p>See above.</p>
<p>Federal Water Project Recreation Act (16 U.S.C. § 4601 <i>et seq</i>)</p>	<p>The Proposed Action is not expected to impact recreation.</p>
<p>Abandoned Shipwreck Act of 1987, (43 U.S.C. § 2101 <i>et seq</i>)</p>	<p>None occur on the site.</p>
<p>Submerged Lands Act, (Public Law 82-3167; 43 U.S.C. § 1301 <i>et seq</i>)</p>	<p>None occur on the site</p>

## 7 AGENCIES CONSULTED AND PUBLIC NOTIFICATION

The following federal, state, and local agencies, and various interested local individuals have been notified of the availability of this Environmental Assessment for review and comment. A complete list of notified agencies can be found in Appendix E. A Public Notice of Availability of the EA will be provided to other interested agencies, groups, and individuals.

### A. Federal agencies:

- 1) U.S. Environmental Protection Agency (USEPA Region 9)
- 2) U.S. Fish and Wildlife Service (USFWS), Coast Bay Branch
- 3) National Marine Fisheries Service (NMFS), San Francisco Bay Branch
- 4) Advisory Council – Historic Preservation

### B. State and local agencies:

- 1) Bay Conservation and Development Commission (BCDC)
- 2) California Coastal Commission (CCC)
- 3) California Department of Fish and Wildlife (CDFW), Bay Delta Region Office
- 4) California State Historic Preservation Officer (SHPO)
- 5) California State Lands Commission (CSLC)
- 6) San Francisco Bay Regional Water Quality Control Board (SFRWQCB)
- 7) City of Sausalito Community Development Department (SCDD)
- 8) Marin County Community Development Agency (MCDA)

### C. Other organizations and individuals

- 1.) Marin City Library
- 2.) Sausalito Public Library

## 8 MITIGATION MEASURES

The Proposed Action is not expected to negatively affect the resources documented above. Mitigation measures for potential temporary impacts are described with the relevant resources in section 4.0.

## 9 DETERMINATIONS AND STATEMENT OF FINDINGS

The proposed installation of a PV solar system on elevated structural carports in the parking lot of the USACE's Baseyard building in Sausalito, California would generate approximately 100 kW of electricity annually while slightly increasing the quantity of employee and visitor parking spaces. The Proposed Action would result in energy cost savings for the USACE and provide the opportunity to slightly reduce the consumption of fossil fuels to generate electricity. Therefore, the Proposed Action is the Agency-Preferred Alternative.

No significant direct, indirect, or cumulative adverse impacts to environmental resources are expected from either the Agency-Preferred Alternative or the No-Action Alternative. The No-



Action Alternative would result in no change to the existing condition of environmental resources in and around the action area. Conversely, the Agency-Preferred Alternative is expected to result in benefits to energy generation and consumption, while creating only insignificant or temporary construction impacts.

Given that the Agency-Preferred Alternative is not expected to significantly adversely affect environmental resources and while providing energy generation and consumption benefits, the Agency-Preferred Alternative is also the Environmentally-preferred Alternative.

A Finding of No Significant Impact (FONSI) is anticipated (33 C.F.R. Part 325). The determination of whether to prepare the FONSI will be made after agency and individual comments are incorporated into this Environmental Assessment. A draft FONSI is included with this document (Appendix B).

## 10 REFERENCES

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## **APPENDIX A: LISTED SPECIES INFORMATION**

### **A.1 – Official species list from USFWS**



United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

### **Official Species List**

**Provided by:**

Sacramento Fish and Wildlife Office  
FEDERAL BUILDING  
2800 COTTAGE WAY, ROOM W-2605  
SACRAMENTO, CA 95825  
(916) 414-6600

**Non-participating U.S. Fish and Wildlife Service office(s):**

*The following office(s) have jurisdictions that overlap your project area, but do not provide automatically generated Species list documents. Please contact them directly to request a Species list document. Do this by visiting their website, if it is provided below. If a website is not provided, contact the office(s) by mail or phone.*

San Francisco Bay-Delta Fish and Wildlife  
650 CAPITOL MALL  
SUITE 8-300  
SACRAMENTO, CA 95814  
(916) 930-5603

**Consultation Code:** 08ESMF00-2016-SLI-0584

**Event Code:** 08ESMF00-2016-E-01171

**Project Type:** POWER GENERATION

**Project Name:** Bay Model PV Parking Structure Project

**Project Description:** Construction of a 100kW solar PV system supported on elevated carport structures (under which vehicles will park) in the existing parking lot of the USACE Baseyard building (adjacent to the Bay Model Visitors' Center). Approximately 750-1000 CY of excavation for foundations of carport structures and underground trenching of electrical wiring. No in work in Richardson Bay will be conducted.

**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

<http://ecos.fws.gov/ipac>, 01/04/2016 05:48 PM

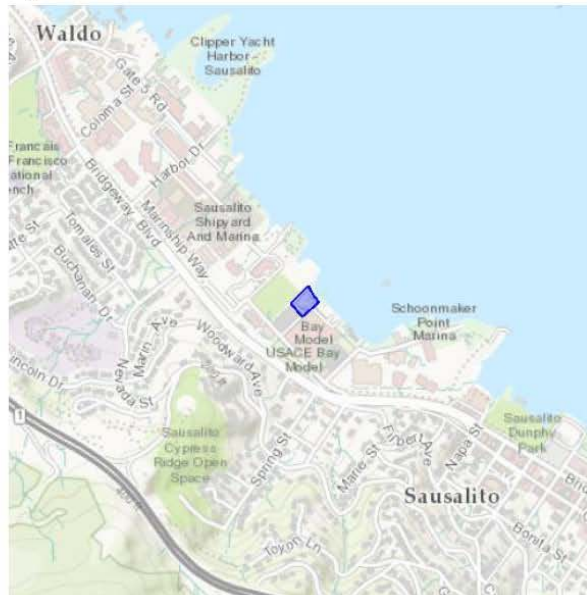




United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

**Project Location Map:**



**Project Coordinates:** MULTIPOLYGON (((-122.49557375907898 37.86439150936028, -122.49498099088669 37.86485312553531, -122.49477982521057 37.86456726264853, -122.49463230371474 37.86442538954482, -122.49515265226363 37.86405482417967, -122.49557375907898 37.86439150936028)))

**Project Counties:** Marin, CA

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United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

### Endangered Species Act Species List

There are a total of 20 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog ( <i>Rana draytonii</i> ) Population: Entire	Threatened	Final designated	
<b>Birds</b>			
California Least tern ( <i>Sterna antillarum browni</i> )	Endangered		
Short-Tailed albatross ( <i>Phoebastria (=diomedea) albatrus</i> ) Population: Entire	Endangered		
western snowy plover ( <i>Charadrius nivosus ssp. nivosus</i> ) Population: Pacific coastal pop.	Threatened	Final designated	
<b>Fishes</b>			
Delta smelt ( <i>Hypomesus transpacificus</i> ) Population: Entire	Threatened	Final designated	
steelhead ( <i>Oncorhynchus (=salmo) mykiss</i> )	Threatened	Final designated	

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United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

Population: Northern California DPS			
Tidewater goby ( <i>Eucyclogobius newberryi</i> ) Population: Entire	Endangered	Final designated	
<b>Flowering Plants</b>			
Marin dwarf-flax ( <i>Hesperolinon congestum</i> )	Threatened		
Marsh Sandwort ( <i>Arenaria paludicola</i> )	Endangered		
Presidio Manzanita ( <i>Arctostaphylos hookeri</i> var. <i>ravenii</i> )	Endangered		
Presidio clarkia ( <i>Clarkia franciscana</i> )	Endangered		
San Francisco lessingia ( <i>Lessingia germanorum</i> (=l.g. var. <i>germanorum</i> ))	Endangered		
San Francisco manzanita ( <i>Arctostaphylos franciscana</i> )	Endangered	Final designated	
White-Rayed pentachaeta ( <i>Pentachaeta bellidiflora</i> )	Endangered		
<b>Insects</b>			
Bay Checkerspot butterfly ( <i>Euphydryas editha bayensis</i> ) Population: Entire	Threatened	Final designated	
Callippe Silverspot butterfly ( <i>Speyeria callippe callippe</i> ) Population: Entire	Endangered		
Mission Blue butterfly ( <i>Icaricia</i> )	Endangered		

<http://ecos.fws.gov/ipac>, 01/04/2016 05:48 PM



United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

<i>icarioides missionensis</i> Population: Entire			
<b>San Bruno Elfin butterfly</b> ( <i>Callophrys mossii bayensis</i> ) Population: Entire	<b>Endangered</b>		
<b>Mammals</b>			
<b>Salt Marsh Harvest mouse</b> ( <i>Reithrodontomys raviventris</i> ) Population: wherever found	<b>Endangered</b>		
<b>Southern Sea otter</b> ( <i>Enhydra lutris nereis</i> )	<b>Threatened</b>		

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United States Department of Interior  
Fish and Wildlife Service

Project name: Bay Model PV Parking Structure Project

### **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

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## A.2 – Table of special status species’ potential to occur at the project site

SCIENTIFIC NAME	COMMON NAME	FED ESA STATUS	CA ESA STATUS	DIG STATUS	CMPS LIST	Potential to Occur at Project Site
<b>Invertebrates</b>						
<b>Insects</b>						
<i>Halictes cacherocci</i>	black abalone	Endangered	Endangered			No aquatic habitat at project site - <i>Does not occur</i>
<i>Halictes sororum</i>	white abalone	Endangered	Endangered			No aquatic habitat at project site - <i>Does not occur</i>
<i>Plebejus icaroides missouriensis</i>	Mission blue butterfly	Endangered	Endangered			Exists in grassland and sand dune habitats (NatureServe 2010) - <i>Not expected to occur</i>
<i>Euphydryx editha bayensis</i>	Bay Checkerspot butterfly	Threatened	Threatened			Restricted to serpentine outcrops with thin soils that support dry native grasslands (NatureServe 2010) - <i>Not expected to occur</i>
<i>Speyeria callippe callippe</i>	Callippe silverspot butterfly	Endangered	Endangered			Occurs in grassland habitat, closest recorded occurrence at San Bruno Mountains (NatureServe 2015) - <i>Not expected to occur</i>
<i>Callophrys mosali bayensis</i>	San Bruno elfin butterfly	Endangered	Endangered			Range limited to San Bruno Mountain, Millagra Ridge, Montara Mountain, and Whiting Ridge - <i>Not expected to occur</i>
<b>Amphibians</b>						
<i>Rana draytonii</i>	California red legged frog	Threatened	Threatened	SSC		Distribution in the San Francisco Bay region is limited to scattered locations in the mountains and foothills (Coals Project 2000) - <i>Not expected to occur</i>
<b>Fish</b>						
<i>Lycodogobius neobornii</i>	Hideaway joby	Endangered	Endangered	SSC		No aquatic habitat at project site - <i>Does not occur</i>
<i>Hypomesus transpacificus</i>	Delta smelt	Threatened	Endangered			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus kisutch</i>	Coho salmon - central CA coast	Endangered	Endangered			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus tshawytscha</i>	Central CA coastal steelhead	Threatened	Threatened			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus mykiss</i>	Central Valley steelhead	Threatened	Threatened			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus mykiss</i>	Northern California DPS Steelhead	Threatened	Threatened			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus tshawytscha</i>	Central Valley spring run chinook	Threatened	Threatened			No aquatic habitat at project site - <i>Does not occur</i>
<i>Oncorhynchus tshawytscha</i>	Winter-run chinook salmon, Sacramento	Endangered	Endangered			No aquatic habitat at project site - <i>Does not occur</i>
<i>Chirodius alexandrinus nivosus</i>	western snowy plover	Threatened	Threatened			Nests on open, flat beaches and alkali flats; forages on beaches and mudflats (Jones and Stokes 1998) - <i>Not expected to occur</i>
<i>Diomedea albatrus</i>	short-tailed albatross	Endangered	Endangered			Pedagic bird that nests on small oceanic islands (NatureServe 2010) - <i>Not expected to occur</i>
<i>Sterna antillarum</i> (-Sterna, -albifrons) brown	California least tern	Endangered	Endangered			Nests on sandy, upper ocean beaches, and mudflats; forages on adjacent surf line, estuaries, or the open ocean (Jones and Stokes 1998) - <i>Not expected to occur</i>
<i>Phalacrocorax auritus</i>	double-crested cormorant	Threatened	Threatened	WL		Nests on coastal cliffs (NatureServe 2010) - <i>Not expected to occur</i>
<i>Larus californicus</i>	California black rail	Threatened	Threatened	EP		Occurs in salt marshes associated with nearby wetlands (Jones and Stokes 1998) - <i>Not expected to occur</i>
<i>Riparia riparia</i>	bank swallow	Threatened	Threatened			Nests in steep sand, dirt, or gravel banks, in burrows dug near the top of the bank, along the edge of inland water, or along the coast (NatureServe 2010) - <i>Not expected to occur</i>
<i>Melospiza melodia, samuelis</i>	San Pablo song sparrow			SSC		Occurs in brackish and tidal marshes (Jones and Stokes 1998) - <i>Not expected to occur</i>

SCIENTIFIC NAME	COMMON NAME	FED/ESA STATUS	CA/ESA STATUS	DFG STATUS	CRPS LIST	Potential to Occur at Project Site
<b>Mammals</b>						
<i>Arctocephalus townsendi</i>	Guadalupe fur seal	Threatened				No aquatic habitat at project site - Does not occur
<i>Balaenoptera borealis</i>	sei whale	Endangered				No aquatic habitat at project site - Does not occur
<i>Balaenoptera physalus</i>	blue whale	Endangered				No aquatic habitat at project site - Does not occur
<i>Eschscholzia californica</i>	poppy	Endangered				No aquatic habitat at project site - Does not occur
<i>Erinaceus erinaceus</i>	skunk	Threatened				No aquatic habitat at project site - Does not occur
<i>Phocaena diopatra</i>	spotted whale	Threatened				No aquatic habitat at project site - Does not occur
<i>Phocaena phocaenoides</i>	common dolphin	Threatened				No aquatic habitat at project site - Does not occur
<i>Phocaena stenocephala</i>	long dorsal finned dolphin	Threatened				No aquatic habitat at project site - Does not occur
<i>Phocaena tenuirostris</i>	western pond turtle	Threatened		SSC		No aquatic habitat at project site - Does not occur
<i>Reithrodontomys arizonensis</i>	salt marsh harvest mouse	Endangered				Occurs in brackish and salt marshes (Jones and Stokes 1998). Not expected to occur
<i>Larus californicus</i>	western gull	Endangered				Occurs in Sonoran and Transition life zones in California (NatureServe 2010). Not expected to occur
<i>Larus delawarensis</i>	western red-tail	Endangered		SSC		In California found in limestone caves and human-made structures in coastal lowlands, cultivated valleys, and nearby hills (NatureServe 2010); None observed at or near site - Not expected to occur
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	Threatened		SSC		Known to occur at locations from the Golden Gate along the Point Reyes Peninsula (BUCN 2010) - Not expected to occur
<i>Zapus trinotatus</i> or <i>arivus</i>	Point Reyes jumping mouse	Threatened		SSC		Not expected to occur
<i>Taxidea taxus</i>	American badger	Threatened		SSC		Occurs in brushlands with little groundcover (NatureServe 2010) - Not expected to occur
<b>Plants</b>						
<i>Triquetrella californica</i>	coastal triquetrella	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Santula maritima</i>	adobe santula	Endangered	Rare		1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Grisium andrewsii</i>	Franciscan thistle	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Grindelia hirsuta</i> var. <i>maritima</i>	San Francisco gumplant	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	seaside tar plant	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Layia carnosu</i>	beach layia	Endangered	Endangered		1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Leucogonum germanorum</i>	San Francisco leucogonum	Endangered	Endangered		1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Stebbinsoseris decipiens</i>	Santa Cruz microseris	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Microseris paludosa</i>	marsh microseris	Endangered			1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Pentstemon heterophyllus</i>	white-rayed pentstemon	Endangered	Endangered		1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Plagiobothrys chorizanus</i> var. <i>chorizanus</i>	Chorizanus pop-corn-flower	Endangered	Endangered		1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Plagiobothrys diffusus</i>	San Francisco pop-corn-flower	Endangered	Endangered		1B.1	Only landscaped vegetation present at the project site; Does not occur

SCIENTIFIC NAME	COMMON NAME	FED ESA STATUS	CA ESA STATUS	DFG STATUS	CNPS LST	Potential to Occur at Project Site
<i>Plagiobothrys glaber</i>	hairless popcorn-flower				1A	Only landscaped vegetation present at the project site; Does not occur
<i>Arenaria paludicola</i>	marsh sandwort	Endangered	Endangered	Endangered	1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Silene verucunda</i> ssp. <i>verucunda</i>	San Francisco campion				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Arctostaphylos hookeri</i> ssp. <i>ravenii</i>	Presidio manzanita	Endangered	Endangered	Endangered	1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Arctostaphylos franciscana</i>	San Francisco manzanita	Endangered			1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Hesperolinon congestum</i>	Marin western (dwarf) flax	Threatened	Threatened	Threatened	1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Clarkia franciscana</i>	Presidio clarkia	Endangered	Endangered	Endangered	1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	San Francisco Bay spineflower				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Gilia capitata</i> ssp. <i>chamissonis</i>	blue coast gilia				1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Gilia millefoliata</i>	dark-eyed gilia				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Leptosiphon rosaceus</i>	rose leptosiphon				1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Polemonium carneum</i>	Oregon polemonium				2.2	Only landscaped vegetation present at the project site; Does not occur
<i>Horkelia cuneata</i> ssp. <i>sericea</i>	Kellogg's horkelia				1B.1	Only landscaped vegetation present at the project site; Does not occur
<i>Collinsia corymbosa</i>	round-headed Chinese houses				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Collinsia multicolor</i>	San Francisco collinsia				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	Point Reyes bird's-beak				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Triphysaria floribunda</i>	San Francisco owl's-clover				1B.2	Only landscaped vegetation present at the project site; Does not occur
<i>Carex comosa</i>	bristly sedge				2.1	Only landscaped vegetation present at the project site; Does not occur
<i>Fritillaria liliacea</i>	fragrant fritillary				1B.2	Only landscaped vegetation present at the project site; Does not occur

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## APPENDIX B: DRAFT FINDING OF NO SIGNIFICANT IMPACT

### DRAFT FINDING OF NO SIGNIFICANT IMPACT (FONSI)

(33 CFR Part 230-325)

Bay Model Photovoltaic Parking Structure Project  
Sausalito, Marin County, California

1. Action: Construction of an approximately 100 kW photovoltaic solar panel system on top of three elevated structural carports in the existing parking lot of the Base Yard building. Three carport structures with solar panel arrays will be installed and tied into existing onsite Pacific Gas & Electric (PG&E) meters to provide renewable solar electricity to the Base Yard facilities and the regional electrical grid. Construction will include removal of existing trees, bushes, and lawn sod in parking lot planters, as well as sub-surface trenching and excavation of approximately 1000 cubic yards of material for installation of the carport structure foundations, electrical wiring conduits, and rerouting of a small section of sanitary sewer line. At the completion of construction the parking lot surface will be repaved and painted to include parking stalls and a passenger bus turnaround lane.
2. Factors Considered: Factors considered for this FONSI were impacts to air and water quality, aquatic and terrestrial habitat, endangered/threatened species, geology and soils, recreation and public facilities/services, transportation and land use, noise, aesthetics, public health and safety, hazardous and toxic materials, energy consumption and generation, and cultural and historic resources. Indirect and cumulative effects of the proposed action were also considered.
3. Conclusion: Based on a review of information incorporated in the Environmental Assessment, including views of the Corps, general public, and resource agencies having special expertise or jurisdiction by law, the Corps concludes the proposed activity would not significantly affect the quality of the human environment. Pursuant to the provisions of the National Environmental Policy Act of 1969, the preparation of an Environmental Impact Statement will therefore, not be required.

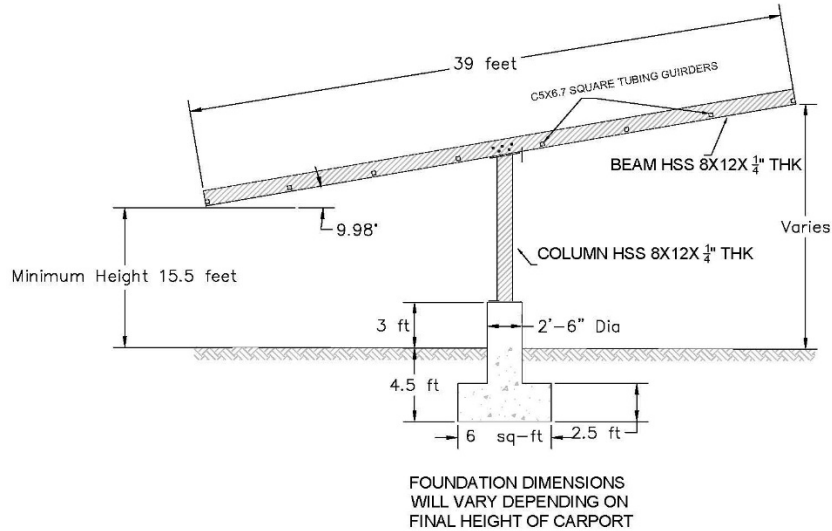
Approved by:

\_\_\_\_\_  
John C. Morrow  
Lieutenant Colonel, US Army  
District Engineer

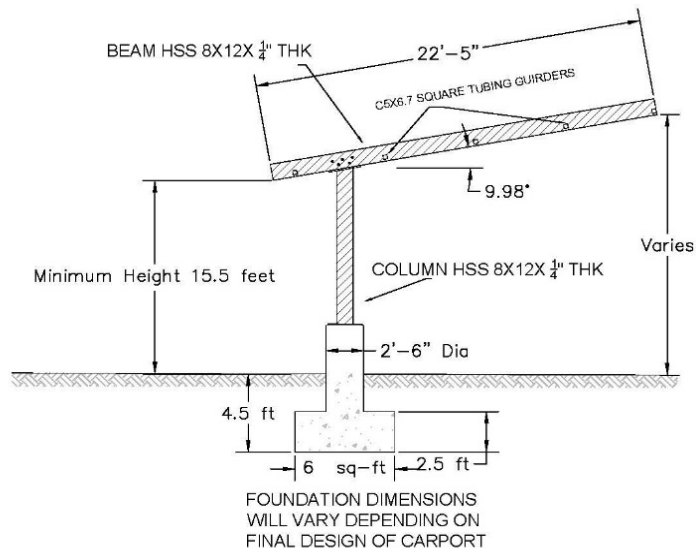
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Date

## APPENDIX C: PLANS AND DRAWINGS

### C.1 – Full and half carport structural drawings

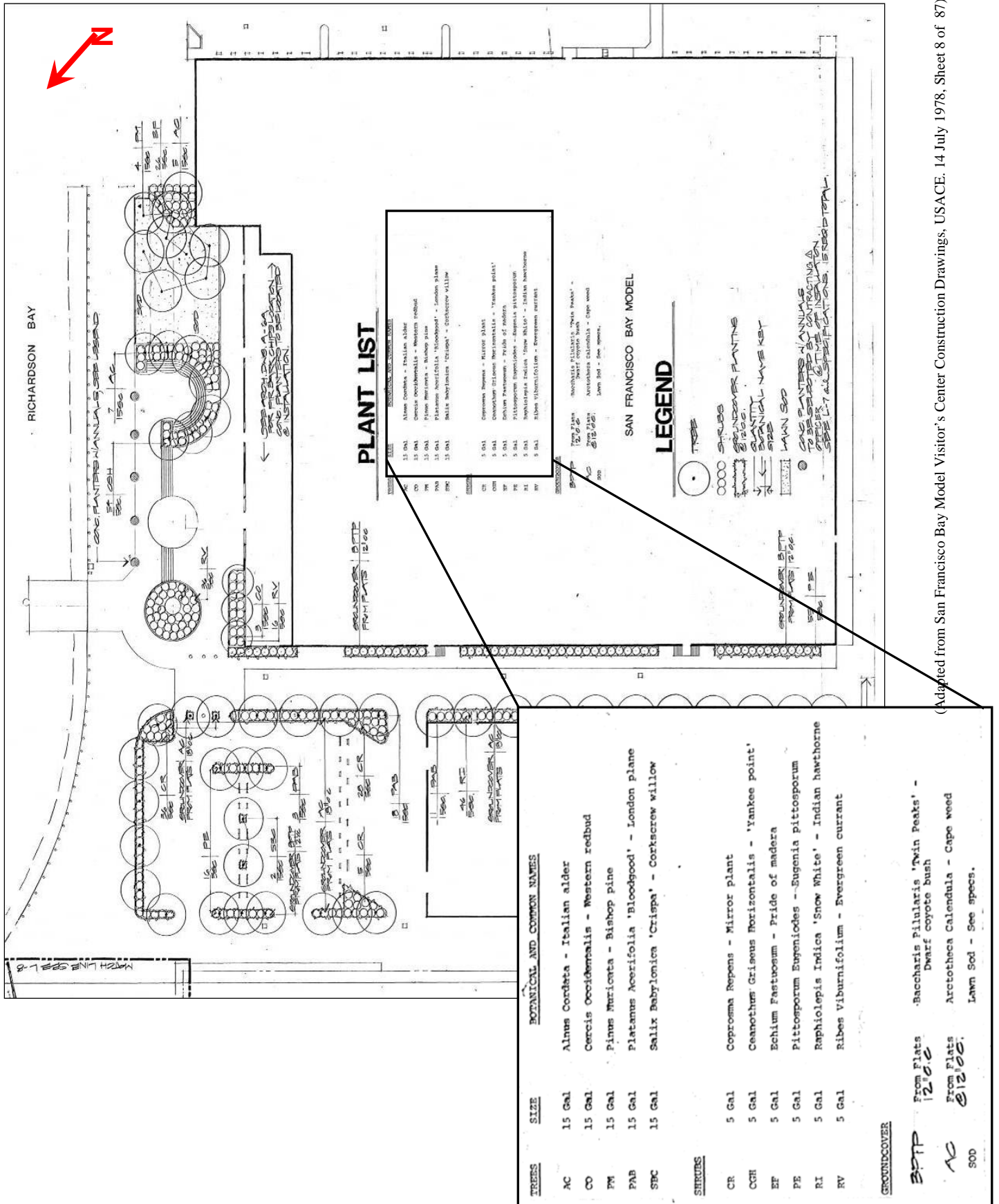


FULL SIZE MODEL  
SOLAR SUPPORT CARPORTS  
SIDE VIEW



HALF SECTION MODEL  
SOLAR SUPPORT CARPORT  
SIDE VIEW

C.2 – Bay Model Planting Plan



(Adapted from San Francisco Bay Model Visitor's Center Construction Drawings, USACE. 14 July 1978, Sheet 8 of 87)

## **APPENDIX D: AGENCY AND PUBLIC PARTICIPATION**

<b>Agency</b>	<b>Date notified</b>
California Coastal Commission	Mailing was sent out on January 26, 2016
California Department of Fish and Wildlife, Bay Delta Region Office	
State Historic Preservation Officer	
San Francisco Regional Water Quality Control Board	
National Marine Fisheries Service, San Francisco Bay Branch	
U.S. Environmental Protection Agency, Region IX	
U.S. Fish and Wildlife Service, Coast Bay Branch	
California State Lands Commission	
San Francisco Bay Conservation and Development Commission	
Marin County Community Development Agency	
City of Sausalito Community Development Department	



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## ***APPENDIX E: PUBLIC CORRESPONDENCE, COMMENTS, AND RESPONSES***

### **Public Correspondence**

Pursuant to 33 C.F.R. § 230.11 (b) U.S. Army Corps of Engineers – Procedures for Implementing [the National Environmental Policy Act] NEPA, notice of the availability of this Supplemental Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Bay Model PV Parking Structure project was provided to agencies, organizations, and the interested public on 26 January 2016. The document was made available online and hard copies were mailed to the agencies listed in Appendix D as well as to the Marin City Library and the Sausalito Library. To inform the interested public of the availability of this EA and FONSI, postcard announcements were mailed to the approximately 550 individuals and organizations on the Bay Model Visitor Center mailing list. Information on how to access the document, how to submit comments, and the length of the comment period was provided to the informed agencies, organizations, and interested public.

### **Public Comments and Responses**

Any comments received and responses provided will be documented here at the close of the public comment period.

## **APPENDIX F: PREPARERS**

### **For further information regarding this document, contact:**

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