San Francisco Bay Conservation and Development Commission
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October 3, 2014

Application Summary
(For Commission consideration on October 16, 2014)

Number: BCDC Permit Application No. 2014.003.00
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Staff Assigned: Jaime Michaels (415/352-3613; jaimem@bcdc.ca.gov)

Summary

Applicant: Pacific Gas and Electric Company (PG&E)

Location: In and along the City and County of San Francisco's waterfront: (1) between the Port of San Francisco's Piers 28 and 30/32, and adjacent to 23rd Street (near the shoreline); and (2) within a 2.5-mile-long submarine transmission cable corridor ranging from 800 to 1,800 feet offshore between Piers 28 and 30/32 and adjacent to 23rd Street. The project is located entirely outside the boundaries of the Commission's *San Francisco Waterfront Special Area Plan* (Figure 1).

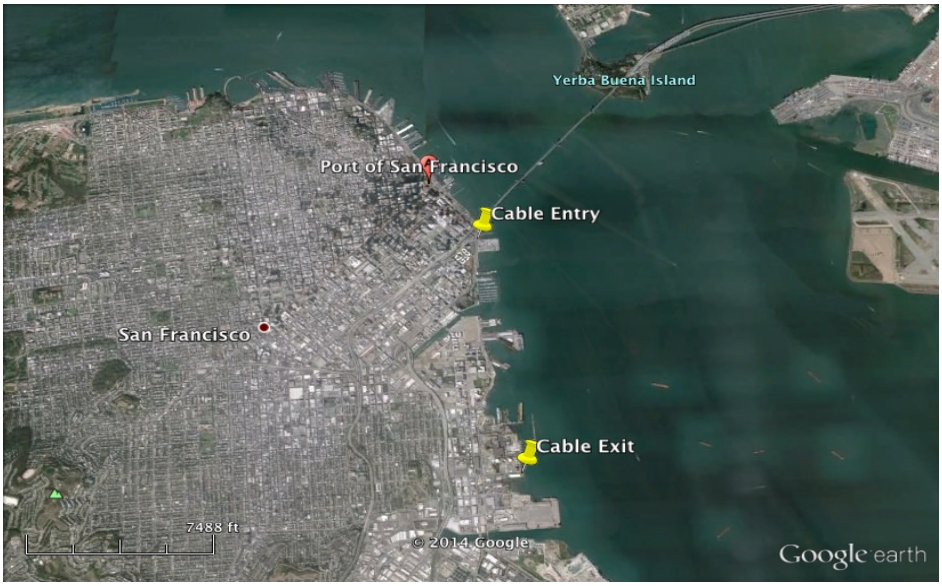

Figure 1

The horizontal directional drilling (HDD) entry points for the proposed transmission cable would be located at Spear Street and at a proposed PG&E Potrero 230kV switchyard on Illinois Street between 22nd and 23rd Streets. Both locations are outside of the Commission's jurisdiction. Excavated sediment associated with the proposed project would be disposed at the Port of Oakland's Berth 10 drying facility previously authorized in Commission Permit No. M1992.014.00. Proposed excavated rock would also be disposed at an authorized location outside of the Bay.

Project: To improve the reliability of PG&E's electric service to the City of San Francisco, PG&E proposes to install three 230kV transmission cables and ancillary features (e.g., concrete mattresses) associated with the Folsom Street Embarcadero sub-station and the proposed PG&E Potrero switchyard at 23rd Street in the City and County of San Francisco. The three cables would be placed parallel to each other and all within an approximately 3.5-mile-long utility corridor, an approximately 2.5-mile-long section of which would be in the Commission's Bay jurisdiction and a 100-foot-long section at each end within the Commission's 100-foot shoreline band jurisdiction (Exhibit A).

PG&E proposes to use horizontal directional drilling to install the three transmission cables approximately 55 to 80 feet below the Embarcadero and to the offshore site. Between Pier 28 and Piers 30/32, the cables would run east approximately 1,800 feet offshore where they would emerge at three excavated pits (Exhibits B and C). At the 23rd Street location, HDD technology would be used to create a bore approximately 10 to 40 feet below the Bay and shoreline, and the cables would emerge through three pits located approximately 800 feet offshore (Exhibit D). Upon emerging in the open Bay, the cables would be installed along the Bay floor using a hydroplow (pulled by a barge), which breaks up the sediment and creates a trench for cable placement at a depth of minus 6 to 10 feet. The three cables would be installed parallel to each other, approximately 33 to 150 feet apart for approximately 2.5 miles. Construction-related activities would occur at a site on 23rd Street located within the 100-foot shoreline band.

At some locations along the proposed alignment, the substrate limits the ability to sufficiently bury the cable. At these locations, protective concrete mattresses would be placed on top of the transmission cables—up to 550 cubic yards of solid fill covering an area totaling approximately 0.5 acres (Exhibit E).

The proposed project also involves removing sediment and rock from the Bay. Approximately 936 cubic yards of sediment would be removed to create the six pits, which would allow the cables to enter/exit HDD bores. Approximately 2,900 cubic yards of rock and associated sediment would be removed to allow cable installation. Lastly, the project would involve on-going maintenance and repair activities in a manner that would not result in additional fill volume or area of coverage beyond that described in PG&E's permit application. The proposed project would take 22 months to complete.

Issues Raised: The staff believes that the application raises four primary issues regarding the project's consistency with the McAteer-Petris Act and the San Francisco Bay Plan (Bay Plan): (1) whether the impacts associated with placing the proposed fill have been minimized and adequately mitigated; (2) whether the project is consistent with the Bay Plan dredging policies; (3) whether the project has been designed to protect and maintain navigational safety; and (4) whether any authorized improvements should be fully or partially removed when the cables are decommissioned.

Project Description

Project Details: The applicant, Pacific Gas and Electric Company, describes the project as follows:

In the Bay:

a. Install using hydroplow technology, use, and maintain in-kind approximately 2.5-mile-long sections of three, 6-inch-diameter submarine transmission cables constituting approximately 300 cubic yards of solid fill below the Bay floor within an approximately 19,000-square-foot area (0.44 acres);

b. Excavate approximately 936 cubic yards (cy) of sediment to create six, 200-square-foot holes each six feet deep at project depths of -35 feet to -76 feet mean lower low water (MLLW) where the three transmission cables would

enter to/exit from the open Bay water and dispose the material at the Port of Oakland's Berth 10 drying facility (authorized in Commission Permit No. M1992.014.00);

c. Remove approximately 2,900 cy of rock and 400 cy of overlying sediment along the cable alignment in areas totaling approximately 49,000 square feet and dispose the excavated sediment at the Port of Oakland's Berth 10 drying facility and the excavated rock at an authorized location outside the Bay; and

d. Place, use, and maintain in-kind up to 550 cubic yards of concrete "mattresses" over an area measuring up to approximately 19,800 square feet (0.45-acre) to protect the three submarine cables.

Within the 100-foot shoreline band:

a. Install using HDD technology, use, and maintain in-kind a 200-foot-long (total) section of an underground transmission cable; and

b. Undertake activities associated with transmission cable installation within a 4,000-square-foot area during the construction phase only (approximately 22 months).

Bay Fill: The proposed project would involve placing three transmission cables representing 300 cubic yards of solid fill below the Bay floor. Such fill would not result in a change of existing Bay volume. In addition, the project would place up to 550 cubic yards of solid fill in the form of concrete mattresses to protect the transmission cables where trenching and burial is not feasible. The mattresses would convert an area totaling 19,800 square feet from Bay mud, rock and sand to concrete surface. Lastly, 2,900 cubic yards of sandstone would be removed from areas totaling 49,000 square feet to facilitate installation of the submarine cable. According to PG&E, the sandstone that would be removed is in a deteriorated condition and was likely placed in an earlier era of waterfront development (e.g., the Gold Rush). With the proposed rock removal, the project would result in a net increase of approximately 2,350 cubic yards of Bay volume and the removal of rock rubble from a 49,00-square-foot area. On-going maintenance and repair of the facility would not result in additional fill volume or area of coverage beyond that described in the permit application. The transmission cables and mattresses are not proposed for removal upon decommissioning. However, PG&E's license with the Port of San Francisco for the subject property requires removal upon license expiration and/or facility decommission.

Fill	**Volume (cy)**	**Area (sf)**
Transmission cable	+300 (buried)	N/A
Protective Mattress	+550	+19,800
Rock to be Removed	-2,900	-49,000
Net Increase in Exposed Bay (Floor)	+2,350	+29,200

Public Access: The proposed transmission cable would extend under the Commission's 100-foot shoreline band. The construction activity at 23rd Street would extend to and near the shoreline where the transmission cables would be fused prior to installation. Neither activity would affect dedicated public access areas or views of the shoreline. The proposed project does not include public access improvements within or outside the vicinity of the project site.

Schedule and Cost: The applicant proposes to begin construction in December 2014 and continue for a 22-month period. The estimated total project cost is approximately $191 million.

Staff Analysis

A. The staff believes that the application raises four primary issues regarding the project's consistency with the McAteer-Petris Act and the Bay Plan: (1) whether the impacts associated with placing the proposed fill have been minimized and adequately mitigated; (2) whether the project is consistent with the Bay Plan dredging policies; (3) whether the project has been designed to protect and maintain navigational safety; and (4) whether any authorized improvements should be fully or partially removed when the cables are decommissioned.

1. **Bay Fill.** The Commission may authorize fill when it meets the fill requirements identified in Section 66605 of the McAteer-Petris Act, which states, in part: (a) the public benefits from fill must clearly exceed the public detriment from the loss of water areas, and fill should be limited to water-oriented uses; (b) no alternative upland location exists for the fill; (c) the fill should be the minimum amount necessary; (d) the fill should minimize harmful effects to the bay area, including volume and circulation, water quality and fertility of fish and wildlife resources; (e) the fill should be constructed in accordance with sound safety standards; and (f) the fill should be authorized when the applicant has valid title to the affected property.

   a. **Public Benefit and Water-Oriented Use.** The applicant, PG&E, proposes to install three single-circuit, 230kV transmission cables and ancillary features (e.g., concrete mattresses) that would run in parallel between an existing and a proposed substation in the City and County of San Francisco. The transmission cables would each be approximately 3.5 miles long, including a 2.5-mile section in the Bay. According to the permit application, the project would provide "a high likelihood of continued electric service to downtown San Francisco in the event of overlapping outages on both of two existing 230kV transmission cables that presently feed Embarcadero Substation." This substation, which is currently fed by two underground 230kV cables, is a "critical component" of the transmission system serving much of the downtown area, including Union Square, North Beach, Chinatown, Nob Hill, and South of Market. The proposed project would provide a third power source into the Embarcadero Substation from the (proposed) Potrero Switchyard facility. The proposed transmission cables are designed to "continue operating following a reasonably foreseeable seismic event in the San Francisco area. Section 66605 of the McAteer-Petris Act identifies allowable water-oriented uses, including "water intake and discharge lines for desalinization plants and

power generating plants." Although similar in nature to such utility lines, transmission cables and associated protective mattresses are not specifically identified in Section 66605. However, the Commission's **Fills in Accord with the Bay Plan** policies state partly that approval of permit applications for "some fill", including "utility routes" is contingent, in part, on whether the proposal constitutes the minimum fill necessary and has no upland alternative (discussed below). Further, the Bay Plan **Other Uses of the Bay and Shoreline** Policy 5 states, in part, that "[h]igh voltage transmission cables should be placed in the Bay only where there is no reasonable alternative." In 2007, the Commission issued Permit No. 2006.005.00md to Transbay Cable, LLC, authorizing a 53-mile-long aquatic submarine transmission cable from Pittsburg to San Francisco with sections covered by a total of 20,000 square feet of concrete mattress material, which was defined as a "water-oriented use" and, hence, was found consistent with Section 66605 of the McAteer-Petris Act.

b. **Upland Alternative.** PG&E analyzed upland routes for the proposed transmission cable, including a 3.8-mile-long route located under City of San Francisco streets between the Embarcadero Substation and the Potrero Switchyard, and a 3.1-mile-long route located mostly on city streets except a crossing under China Basin channel. The Mitigated Negative Declaration ("MND") (October 2013) for the proposed project states that PG&E "concluded that the proposed project and [the 3.8-mile-long route] are feasible and are capable of being implemented within the timeframe dictated by the area's electric needs; however, these alternatives differ according to reliability, environmental impacts, engineering feasibility, and cost." The MND further provides that, when compared with the alternative routes, the proposed project would result in less disruption to residential and commercial activities at the street level, and would be considerably less susceptible to damage during a seismic event.

c. **Minimum Fill Necessary.** The proposed transmission cables would result in 300 cubic yards of solid fill for cables installed using a hydroplow, which would be towed by a barge along the Bay floor. The hydroplow would "fluidize" and temporarily displace bottom sediment and create three 6 to 10 foot deep trenches. According to the permit application, as the plow moves forward, the cables would be installed in the trenches after which sediment would resettle, bury the lines, and result in no change in bathymetric conditions. The hydroplow would be used for a period of 3 to 4.5 days. During installation, a 19,000-square-foot area at the Bay floor would be temporarily disturbed and existing benthic organisms significantly disturbed.

   Approximately in the middle of the transmission cable alignment, scattered sand-stone—possibly placed during the Gold Rush era according to the applicant—would prevent hydroplow use unless sandstone is removed. For this reason, the applicant proposes to remove approximately 2,900 cubic yards of sandstone at eleven discrete locations over areas totaling 49,000 square feet. At the north end of the proposed alignment for the submarine transmission cables within an area totaling 19,800 square feet, hard compacted sediment would prevent trenching and burial tech niques and, within this area, up to 550 cubic yards of nine-inch-thick concrete material ("mattresses") at -30 feet (MLLW) would be placed to protect underlying transmission cables from displacement and damage.

PG&E has stated that the "fill associated with the submarine cables is the minimum necessary." A majority of the 300 cubic yards placed for the proposed transmission cables would be buried under the Bay floor. The applicant states that the concrete mattresses (550 cubic yards of solid fill placed over a 19,800-square-foot area) are needed because underlying conditions make it infeasible to use trenching and burial techniques. Because the project would also remove approximately 2,900 cubic yards of deteriorating sandstone over areas totaling 49,000 square feet, the project would result in a net increase of Bay volume of 2,350 cubic yards and the uncovering of approximately 49,000 square feet of Bay bottom.

d. **Minimizing Harmful Effects.** In addition to the relevant provisions in the McAteer-Petris Act (Section 66605), the Bay Plan addresses minimizing effects of fill projects on Bay resources, as noted in the following policies. The Bay Plan **Subtidal Areas** Policy 1 states, in part, "proposed filling or dredging project[s] in a subtidal area should be thoroughly evaluated to determine the local and Bay-wide effects of the project on… fish, other aquatic organisms and wildlife," and tidal hydrology and sediment movement, and bathymetric conditions. Further, the policy states projects in such areas "should be designed to minimize and, if feasible, avoid any harmful effects." The Bay Plan **Other Uses of the Bay and Shoreline** Policy 5 states, in part, "[h]igh voltage transmission cables should be placed in the Bay only when there is no reasonable alternative. Whenever high voltage transmission cables must be placed in the Bay or in shoreline areas: (a) [n]ew routes should avoid interfering with…wildlife, to the greatest extent possible."

The Bay Plan **Fish, Other Aquatic Organisms, and Wildlife** Policy 4 states, in part, "[t]he Commission should: (a) consult with the California Department of Fish and [Wildlife] and…the National Marine Fisheries Service whenever a proposed project may adversely affect an endangered or threatened plant, fish, other aquatic organism or wildlife species;…and (c) give appropriate consideration to the recommendations of the California Department of Fish and [Wildlife], the National Marine Fisheries Service…to avoid possible adverse effects of a proposed project on fish, other aquatic organisms and wildlife habitat."

The Bay Plan **Mitigation** Policy 1 states, in part, "projects should be designed to avoid adverse environmental impacts to Bay natural resources such as to water surface area, volume, or circulation and to plants, fish, other aquatic organisms and wildlife habitat, subtidal areas, or tidal marshes or tidal flats. Whenever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable. Finally, measures to compensate for unavoidable adverse impacts to the natural resources of the Bay should be required."

The Bay Plan **Water Quality** Policy 2 states, in part: "[w]ater quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the Regional Water Quality Control Board's [RWQCB] Basin Plan. The policies, recommendations, decisions, advice and authority of the State Water Resources Control Board and the Regional Water Quality Control Board, should be the basis for carrying out the Commission's water quality responsibilities."

Immediately offshore of the San Francisco waterfront at the northern and southern project areas, the three transmission cables would be installed using HDD technology and, consequently, would travel under and avoid entirely any overlying habitat and species. Most of the Bay floor in the project area is composed and, following installation, would remain, small-grained size, soft-bottom (mud, clay, sand) sediment hosting mainly benthic organisms. The cables would be completely buried and, thus, localized bathymetric conditions would remain unchanged. At the mid-way point of the alignment in the Bay, eleven discrete areas composed of sandstone exist which, according to PG&E, do "not present a high habitat value for encrusting organisms as species like oysters do not effectively settle on sandstone."

According to the applicant, following removal of the sandstone, the Bay floor bottom at these eleven discrete areas would be composed of soft surface sediment hosting benthic organisms, the assumed natural condition of these areas. In the northernmost section of the alignment in the Bay, Bay floor sediment characterized as compacted and hardened would prevent burial of the cables. In this area, the cables would be placed on the Bay bottom and would be covered with nine-inch-thick concrete mattress material and, according to PG&E, create a hard-bottomed area that is expected to host organisms associated with these areas. According to the applicant, "[n]o intertidal areas, marsh, wetlands, eelgrass beds, oyster beds, or underwater pinnacles would be disturbed" by the proposed project. In light of the proposed installation technology and associated fill materials and volumes—especially since the project would increase areas of exposed Bay floor surface—PG&E states that the proposed fill "would not affect the volume of Bay waters, Bay surface area, or circulation of Bay water."

On July 15, 2014, the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) issued an Endangered Species Act (ESA) Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation Management Act Essential Fish Habitat Response regarding the proposed project. The concurrence letter found that the project could have potential effects on the federally-threatened Central California Coast steelhead (*Oncorhynchus mykiss*) and the North American green sturgeon (*Acipenser medirostris*), and on designated critical habitat for both species. The CCC steelhead and the green sturgeon are anadromous, spending time in fresh- and salt-water environments, with steelhead migration occurring in the project area during the winter and spring seasons and sturgeon present year-round at all life stages. The letter also states that the project is located in an area identified as Essential Fish Habitat (EFH) for species managed with the Pacific Coast Salmon Fishery Management Plans (FMP), the Pacific Groundfish FMP, and the Coastal Pelagic FMP, and that the project "has the potential to adversely impact EFH for federally managed fisheries in California waters….[due to] highly localized and temporary disturbance, and potentially conver[sion of] soft bottom habitat to concrete. Through its consultation, NOAA Fisheries concludes that "…the proposed action is not likely to adversely affect the subject listed species and designated critical habitats," as discussed below.

NOAA Fisheries' letter states, in part, "[t]he hydroplow buries the line without displacing the majority of material…and minimizes suspension of sediments in surrounding waters. This installation method was selected because it disturbs the substrate less than other techniques….Pumps on the barge [towing the hydroplow] would provide the water source for the hydroplow's jets and these pumps [will be] screened per California Department of Fish and Wildlife and NOAA Fisheries standards to prevent the entrainment or impingement of fish…" Further, the letter provides that regarding the proposed HDD drilling occurring just offshore of the City of San Francisco, drilling fluids would be used during the installation process and "[b]est management practices for monitoring [potential] loss of drilling fluids, spill containment, and response measures would be implemented….[and] land-to-submarine drilling and operation of the hydroplow [would be limited] to the period between June 1 and November 30."

According to NOAA Fisheries, the potential effects of the project include degradation of water quality during hydroplow operations, disturbance of benthic habitat, and placement of concrete at the bay bottom. The restricted work schedule from June 1 to November 30 avoids the migration period of threatened CCC steelhead and, thus, NOAA Fisheries concluded that the proposed construction effects on the CCC steelhead "are anticipated to be discountable." Regarding the green sturgeon, which is present year-round—effects of sediment displacement (during hydroplow use), associated turbidity, and potential gill injury, are expected to be "insignificant" as the sturgeon "is tolerant of high levels of turbidity, including levels exceeding those expected of the proposed work" and "highly mobile" expected to disperse temporarily while plow is present over the 3- to 4.5-day period of operation. Further, the use of fish screens required by the California Department of Fish and Wildlife on the hydroplow's water intake feature would prevent entrainment and impingement. NOAA Fisheries also determined that the concrete mattress placement is "not expected to adversely affect foraging or movements by green sturgeon."

Designated critical habitat would be temporarily affected by turbidity associated with hydroplow use and disturbance to benthic habitat and invertebrates, yet NOAA Fisheries states, in part, that the "impacts to existing benthic community is expected to be minimal…and benthic invertebrates are expected to rapidly recolonize [within a few months] the [affected area] disturbed by the hydroplow." Further, NOAA Fisheries states that the "proposed installation of the transmission cable is not expected to degrade [the primary constituent elements of designated critical habitat, including water and sediment quality, salinity conditions, food resources] for CCC steelhead or green sturgeon. The potential effects of this project are considered insignificant or discountable and are not expected to result in a net change to existing habitat values or result in adverse impacts to designated critical habitat."

NOAA Fisheries determined that the proposed action would adversely affect EFH associated with "localized temporary degradation of water quality, disturbance of the benthic community, and the conversion of soft-bottom habitat to hardscape." However, NOAA Fisheries concludes that these adverse effects "are minimal in nature….[and] has no practical EFH Conservation Recommendations to provide to avoid or reduce the magnitude of these effects."

On August 29, 2014, the RWQCB issued a certification for the project covering temporary water quality effects from construction through the accidental release of soil and hazardous materials (HDD drilling fluids), hydroplow use and associated turbidity, and the turbidity resulting from excavating 936 cubic yards of Bay sediment via clamshell dredge to create six HDD exit pits and in removing sandstone material. In certifying the proposed project, the RWQCB took into consideration measures to minimize such impacts including: (1) the implementation of Best Management Practices (BMPs) to reduce erosion and sediment transport and control pollution sources to prevent impacts during construction, e.g., the preparation of a Storm Water Pollution Prevention Plan (SWPPP); (2) the use of a hydroplow to minimize suspension of sediments in the water column as compared to other cable burial techniques; (3) the restriction of in-water work to periods approved by the state Department of Fish and Wildlife (DFW) and NOAA Fisheries; (4) the use of DFW- and NOAA Fisheries - approved screens on features providing water to the hydroplow to prevent fish entrainment or impingement; and (5) the implementation of a HDD Fluid Release Contingency Plan (February, 2014) for monitoring the loss and clean-up of drilling fluids, spill containment, and response measures.

The RWQCB's certification also addresses the placement of concrete mattresses covering areas totaling approximately 0.5-acres of Bay floor. The certification states that this element of the project would result in a "permanent impact" at the Bay floor surface, yet this impact would occur only if mattress placement is necessary—a determination that would not be made, according to the certification, until after project commencement. Further, the certification states that if mattresses are placed in the Bay, "compensatory mitigation" would be necessary and subject to additional RWQCB consideration and approval. PG&E's permit application to the Commission includes the placement of concrete mattresses—without mention that the activity would occur only if deemed necessary. According to the application, the use of concrete mattress material is needed to protect the transmission cable from damage and displacement at an area where cable trenching and burial is not feasible. PGE&E has stated that the use of the concrete material would not have an adverse environmental effect and, in terms of Bay floor coverage, would be offset by the removal of disintegrating sandstone at a nearby location covering an area more than double in size.

In issuing BCDC Permit No. 2006.005.00md for the installation of a 53-mile-long transmission cable and 20,000 square feet of associated concrete mattresses, the permittee did not propose nor did the Commission require compensatory mitigation. In other cases involving Bay fill, proposals to place fill are often accompanied by a proposal to remove an equal or greater quantity of fill to ensure a minimum amount of fill in carrying out the project. For example, in 2012, BCDC Permit No. 2011.006.00 was issued to remove a 50,000-square-foot wharf at the Port of Redwood City and to construct a new wharf measuring 45,600 square feet thereby resulting in a 4,400-square-foot net increase in open Bay surface. Similarly, in 2010, BCDC Permit No. M1993.016.03 was issued to allow placement of approximately 28,000 square feet of fill for public access, pier use, and shoreline improvement purposes, and the removal of approximately 77,000 square feet of fill thereby resulting in an approximately 48,000-square-foot net increase in open Bay surface.

For the proposed project, the Commission needs to determine if the potential environmental impacts of placing concrete mattresses and the new coverage at the Bay floor would be adequately offset by the proposed removal of sandstone, which according to PG&E was disposed in the Bay during an earlier era of waterfront development. As proposed, sandstone would be removed from an area double the size of the area where concrete mattresses are proposed for placement.

e. **Sound Safety Standards**. According to the application, "the transmission cable[s] would be designed to withstand a 7.8 magnitude earthquake on the San Andreas Fault." The project was not reviewed by the Commission's Engineering Criteria Review Board. According to PG&E, "a third party geotechnical and seismic engineering consultant [was hired]…to provide third party reviews of all engineering and geotechnical work…for this project. In addition, PG&E Engineering Group also reviewed all work product related to this project…. In addition, the [project] geotechnical information has been provided to the City and County of San Francisco, Port of San Francisco and [the California Department of Transportation] as part of our construction permits, which have been approved for the HDD installations."

f. **Valid Title.** The in-water portion of the proposed transmission cable would be located within land that the State Lands Commission legislatively granted to the City and County of San Francisco, which has provided a 40-year license to PG&E for undertaking the proposed project. The license states, among other things, PG&E's responsibility for maintaining, repairing and removing the proposed facilities from the subject property upon expiration of lease or decommissioning of facilities. PG&E's application for a permit from the Commission does not include a proposal for ultimate removal of the facilities.

The Commission should determine whether the fill proposed for the proposed project is consistent with the Commission's law and policies regarding fill, including whether proposed solid fill in the form of concrete mattresses generates a need for compensatory mitigation (as required by the RWQCB in its certification for the project), and whether the project should include a proposal to remove the transmission cable system in its entirety from the Bay upon license expiration and/or project decommissioning.

2. **Dredging and Sediment Disposal.** The proposed project involves dredging 936 cubic yards of sediment to create six pits where the transmission cable exits and re-enters HDD drill points. The Bay Plan **Dredging** Policy 2 states, in part, that the Commission should authorize dredging when "(a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose…; (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal restrictions established by the California Department of Fish and [Wildlife], the U.S. Fish and Wildlife Service and/or the [NOAA Fisheries], or through other appropriate measures; (d) the siting and design of the project will result in the minimum dredging volume necessary for the project; and (e) the materials would be disposed of in accordance with Policy 3." The Bay Plan Dredging Policy 3 states, in part: "Dredged materials should, if feasible, be reused or disposed outside the Bay and certain waterways."

As stated previously, the Commission has determined in the past that the installation of submarine electric cables in the Bay is a water-oriented use. In 2014, the inter-agency Dredged Material Management Office (DMMO) completed its review of the proposed project concluding, among other things, that the sediment would be suitable for excavation and disposal outside of the Bay at the previously-authorized Port of Oakland's Berth 10 drying facility for dewatering prior to transport to a permitted landfill for final disposal. The DMMO's review did not specifically address the excavation of 400 cy of sediment overlying the sandstone proposed for removal, but this sediment would be disposed outside the Bay, at the Port of Oakland's Berth 10 drying facility. On August 29, 2014, the RWQCB issued a certification for the proposed dredging.

The proposed dredging would occur in an area where special-listed fish species exist, including the federally-threatened Central California Coast steelhead, the North American green sturgeon, the federally threatened Chinook salmon (*Oncorhynchus tshawytscha*), federally and state threatened steelhead trout (*Oncorhynchus mykiss)*, and the state threatened Pacific herring (*Clupea pallasii*). In recognition of potential impacts to these species from dredging, PG&E proposes to undertake the dredging within the DFW, NMFS, and U.S. Fish and Wildlife Service (USFWS) work windows defined in the Biological Opinions on the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region. As proposed, PG&E would limit the dredging to June 1 to November 30, which covers the range of work windows for the above-referenced special listed species (Pacific herring, between March 1 to November 30, and Chinook Salmon and Steelhead Trout, between June 1 to November 30).

The Commission should determine whether the proposed dredging would be consistent with the Bay Plan policies on dredging.

3. **Navigational Safety.** The Bay Plan **Navigational Safety and Oil Spill Prevention** Policy 1 states, in part, "[p]hysical obstructions to safe navigation, as identified by the U.S. Coast Guard and the Harbor Safety Committee of the San Francisco Bay Region, should be removed to the maximum extent feasible when their removal would contribute to navigational safety and would not create significant adverse environmental impacts." Further, Policy 2 states, in part, "[t]o ensure navigational safety and help prevent accidents that could spill hazardous materials…the Commission should encourage major marine facility owners and operators, the U. S. Army Corps of Engineers and the National Oceanic and Atmospheric Administration to conduct frequent, up-to-date surveys of major shipping channels, turning basins and berths used by deep draft vessels and oil barges. Additionally, the frequent, up-to-date surveys should be quickly provided to the U.S. Coast Guard Vessel Traffic Service-San Francisco, masters and pilots."

   According to PG&E, it "designed the proposed [transmission cable] route to avoid known underwater obstacles….[which] would not be within the north/south shipping lanes or designated anchor areas." Project vessels would anchor at the project site during construction of the transmission cable system, but locations would vary daily based on local ship traffic and guided via the Vessel Traffic Service and the U.S. Coast Guard. Further, "[o]nce the submarine cables are installed they would be recorded by the Coast Guard and given to NOAA for publication. PG&E would publish a Local Notice to Mariners

(LNM) via Coast Guard District 11. This would provide advisory to the San Francisco Vessel Traffic Service (VTS) to allow the management of waterway traffic…through the project location. Besides promoting the new cable awareness and engaging stakeholders by registering the new cable on navigational maps, PG&E intends to implement an operation and maintenance strategy that would include an automatic identification system (AIS) vessel monitoring to ensure the new cable security. The system would use live vessel position in conjunction with the cable location information to create automatic warnings if the cable is at risk due to abnormal shipping activities such as vessels that are off course or moving at unusual speed." It should be noted that the cable authorized in BCDC Permit No. 2006.005.00md to Transbay Cable, LLC was recently snagged by a runaway vessel dragging anchor. Repairs to the cable have not yet been undertaken but will require that a section of the cable be lifted out of the Bay, splicing in a new cable section, and replacing the repaired cable section on the Bay bottom.

The Commission should determine whether the proposed project would be consistent with the Bay Plan policies regarding navigational safety.

B. **Engineering Criteria and Design Review Boards.** The Commission's Engineering Criteria Review Board, and Design Review Board did not review the proposed project because in light of proposed design and location, it does not warrant additional input on seismic safety, flooding issues, or public access.

C. **Environmental Review.** On October 28, 2013, the California Public Utilities Commission certified the Final Mitigated Negative Declaration finding that "although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent." All potentially significant impacts associated with the proposed project can be mitigated to a level below significance (Exhibit F). On January 16, 2014, the Notice of Determination was approved by CPUC and was filed at the State Clearing House on January 21, 2014.

D. **Relevant Portions of the McAteer-Petris Act**

1. Section 66605

E. **Relevant Portions of the San Francisco Bay Plan (Bay Plan)**

1. Policies on Fills in Accord with the Bay Plan
2. Policies on Other Uses of the Bay and Shoreline
3. Policies on Subtidal Areas
4. Policies on Mitigation
5. Policies on Fish, Other Aquatic Organisms, and Wildlife
6. Policies on Water Quality
7. Policies on Dredging
8. Policies on Navigation and Oil Spill Prevention

Exhibits

A. **Exhibit A:** Proposed Project

B. **Exhibit B:** Proposed Northern On-Land HDD Entry Point

C. **Exhibit C:** Proposed HDD Technology

D. **Exhibit D:** Proposed Southern On-Land HDD Entry Point

E. **Exhibit E:** Proposed Concrete Mattresses

F. **Exhibit F:** Final Mitigated Negative Declaration and Supporting Initial Study for Proposed Project, Proposed Mitigation Monitoring Plan (October 2013)