

CALIFORNIA COASTAL COMMISSION

ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
VOICE (415) 904-5260
FAX (415) 904-5400

Th9a

Filed:	9/15/23
180 th Day:	3/13/24
Extended to:	6/11/24
Staff:	JK-SF
Staff Report:	2/29/24
Hearing Date:	3/14/24

STAFF REPORT: REGULAR CALENDAR

Application No.: 9-23-0599

Applicant: Pacific Gas and Electric Company

Project Locations: Diablo Canyon Nuclear Power Plant intake cove approximately nine miles north of Avila Beach, and nearshore of Morro Bay sandspit, San Luis Obispo County.

Project Description: Dredge approximately 70,000 cubic yards of sediment from the power plant intake cove, with transport and placement at an approved dredged material placement site approximately 2,000 ft. offshore of Morro Bay sandspit.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

Pacific Gas and Electric Company ("PG&E" or "Applicant") proposes to dredge approximately 70,000 cubic yards (cy) of shoaled sediment from the Diablo Canyon Power Plant (DCPP) seawater intake cove. This will be the first dredging episode to maintain the intake system since the DCPP went into operation in 1985. PG&E has determined that sediment buildup in the intake cove poses a substantial risk in the near term to the operations of the DCPP's seawater intake equipment, which cycles 2.5 billion gallons of seawater each day for cooling. PG&E has observed sediment in equipment and increased kelp and algal growth in the intake cove, which it is concerned increases the risk of an inadvertent shutdown and interferes with divers performing

critical maintenance of the intake structure. Once collected, dredged sediment would be transported by barge and placed offshore of the Morro Bay sandspit at the U.S. Army Corps of Engineers' nearshore placement site, approximately 1,300 to 2,500 feet offshore. The nearshore placement area is located approximately 13 miles from the dredge site and PG&E proposes to transport dredged sediment there roughly five times per day over the approximately 20-day period of proposed dredging.

Coastal Commission staff recently learned of activities at the subject site involving divers using water hoses to clear accumulated sediment and debris on and in front of the intake structure located in the intake cove without the benefit of a CDP, as required. The Commission's enforcement division has opened an investigation into this alleged Coastal Act violation. The applicant may propose to resolve this matter, at a later date, through submittal of an after-the-fact application for CDP authorization of the actions taken, or for authorization to take remedial measures to address the alleged violation. The matter may also be addressed through an enforcement action. The current application does not include resolution of the alleged violation, and the enforcement matter remains open.

The standard of review for this coastal development permit (CDP) application is the Coastal Act's Chapter 3. The key Coastal Act issues raised by this proposed project and within the Commission's jurisdiction relate to potential adverse impacts to marine biological resources due to dredging and placement operations and potential water quality impacts from turbidity generated during dredging. To ensure conformity with relevant Chapter 3 policies, Commission staff is recommending several [Special Conditions](#). [Special Condition 1](#) would authorize dredging only within the dredge footprint as shown on the project plans. [Special Condition 2](#) would require PG&E to submit a post-dredge bathymetric survey of the dredge footprint and provide the final placement volume. [Special Condition 3](#) requires PG&E to submit an Anchoring and Pipeline Placement Plan. [Special Conditions 4, 5, 6, and 9](#) would require PG&E to adhere to all relevant provisions and mitigation measures in several Plans that would reduce potential impacts to water quality and biological resources within the intake cove. These include a Turbidity Monitoring Plan, Biological Resources Monitoring Plan, Marine Wildlife Contingency Plan, and Oil Spill Prevention and Response Plan. [Special Condition 7](#) would limit placement of dredged sediment to periods when California grunion is not expected to be spawning. [Special Condition 8](#) would require PG&E to develop a Cultural Resources Treatment and Monitoring Plan and [Special Condition 10](#) would require PG&E to obtain all pending state authorizations before starting work and to seek further approval from the Commission if project changes are required as a result of those authorizations.

The project is not expected to adversely affect public access to the shoreline, as the dredging would occur in an area where public access is prohibited due to safety concerns and the sediment placement would occur more than 1,000 feet offshore of the nearest accessible shoreline area.

The Commission staff therefore recommends **APPROVAL** of coastal development permit application 9-23-0599, as conditioned. The motion is on page 5 of this document.

Table of Contents

I. MOTION AND RESOLUTION.....5

II. STANDARD CONDITIONS.....5

III. SPECIAL CONDITIONS6

IV. FINDINGS AND DECLARATIONS..... 11

 A. Background and Project Description 11

 B. Standard of Review 15

 C. Other Agency Approvals 15

 D. Tribal Cultural Resources..... 17

 E. Marine Resources and Water Quality..... 19

 F. Oil Spills 28

 G. Dredging and Filling of Coastal Waters..... 29

 H. Coastal Access 35

 I. Unpermitted Development..... 36

 J. California Environmental Quality Act..... 36

V. REFERENCES37

EXHIBITS

[Exhibit 1 – Location Maps](#)

[Exhibit 2 – Project Site Plans \(Dredge footprint bathymetry and placement site location\)](#)

[Exhibit 3 – Sediment Testing Results](#)

[Exhibit 4 – Biological Survey Results](#)

[Exhibit 5 – Turbidity Monitoring Plan](#)

[Exhibit 6 – Biological Resources Monitoring Plan](#)

[Exhibit 7 – Marine Wildlife Contingency Plan](#)

[Exhibit 8 – Oil Spill Prevention and Response Plan](#)

APPENDICES

[Appendix A](#) – Final Environmental Assessment and Statement of Findings for the Diablo Canyon Power Plant Intake Cover Dredging Project, Prepared by the U.S. Army Corps of Engineers. File No. SPL-2023-00468. December 12, 2023.

[Appendix B](#) - Diablo Canyon Power Plant Intake Cove Dredging Project, Final Biological Assessment, Prepared by SWCA Environmental Consultants. Project No. 82823. February 7, 2024.

[Appendix C](#) - Diablo Canyon Power Plant Intake Cove Dredging Project, Final Essential Fish Habitat Assessment, Prepared by Stantec Consulting Services Inc. Contract No. 3501324439. February 7, 2024.

[Appendix D](#) - Sampling and Analysis Plan Results Report: Morro Bay Harbor 2023 Environmental and Geotechnical Investigation. Prepared by Diaz Yourman and Associates Geotechnical Services, GeoPentech, and Kinnetic Laboratories Joint Venture. USACE Contract No. W912PL20D0003. January 2023.

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit No. 9-23-0599 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act (CEQA) because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by PG&E or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

- 5. Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and PG&E to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

- 1. Sediment Dredging and Placement.** This coastal development permit authorizes maintenance dredging only within the area as shown on [Exhibit 2 – Project Site Plans](#) to an authorized depth of minus 36 feet below mean lower low water (MLLW) plus two feet of allowable over dredge depth. Dredged sediment shall be placed at water depths ranging from minus 20 to minus 40 feet MLLW, approximately 1,300 to 2,500 feet offshore of Morro Bay sandspit. No dredging or placement in other areas is authorized. PG&E shall undertake dredging and placement in conformance with the plans as shown on [Exhibit 2](#) unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed modifications.
- 2. Post-Dredge Survey and Report.** PG&E shall submit a post-dredge survey and report to the Executive Director within 60 calendar days after project completion to document compliance with all general and special conditions imposed by this permit. The report shall include a post-dredge bathymetric map showing the proposed dredge footprint, actual area(s) and depths dredged including any over dredge depth based on MLLW, any dredging that occurred outside the area or below the depths authorized herein, a written statement indicating the total volume of sediment dredged and discharged at the placement location and a map showing the location of all anchor and mooring placements used during project activities.
- 3. Anchoring and Pipeline Placement Plan.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, PG&E shall submit for review and approval by the Executive Director, an Anchoring and Pipeline Placement Plan identifying the locations where all in-water dredging equipment and sediment transport pipelines will be anchored/placed to avoid hard substrate and seafloor vegetation. The Plan shall also describe how anchor and pipeline placement, including any buoys, within the pre-determined locations will be achieved.
- 4. Turbidity Monitoring Plan.** All dredging and sediment placement activities shall be conducted consistent with the provisions and requirements included in the final “Diablo Canyon Intake Cove Dredging Project Turbidity Monitoring Plan” dated February 7, 2024. PG&E shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed modifications. modifications.
- 5. Biological Resources Monitoring.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, PG&E shall submit, for the review and

written approval of the Executive Director, a revised final plan that conforms with the final plan submitted to the Commission titled “Biological Resources Monitoring Plan” dated February 7, 2024, except that it shall be modified as required below.

- a) **Eelgrass Protection:** No more than 60 days prior to the start of dredging activities, an independent third party shall perform a pre-dredge eelgrass survey that includes the full area proposed to be dredged as well as a 150-foot wide buffer around it, and is carried out in full compliance with the California Eelgrass Mitigation Policy (CEMP) (2014).¹ The results of the pre-dredge eelgrass survey shall be submitted for the review and written approval of the Executive Director no later than 15 days prior to the start of dredging. If the Executive Director determines that the pre-dredge survey shows eelgrass within 150 feet of the dredge footprint, two years of post-dredging monitoring shall be carried out by an independent third party per the CEMP guidelines. This monitoring shall include a post-dredge eelgrass survey carried out consistent with the CEMP guidance and completed no later than 30 days following project completion as well as two annual surveys completed thereafter during the eelgrass growing season (April through October). Survey reports shall quantify eelgrass areal extent, bottom coverage, and shoot density. Surveys shall include a detailed description of the survey coverage (e.g., number, location, and type of surveys), date of survey, and any interpolation methods used in the mapping. Transects, grids, or scale bars should be expressed in meters. All post-dredge eelgrass survey reports shall be submitted to the Executive Director for review and written approval within 30 calendar days of survey completion.

Mitigation: Should the Executive Director determine that the post-dredge eelgrass monitoring demonstrates loss or damage to eelgrass occurred, PG&E shall prepare an eelgrass mitigation plan consistent with the CEMP. The mitigation plan shall include provisions for achieving the required 1.2:1 mitigation ratio found within California Eelgrass Mitigation Policy. The mitigation plan, including the location of and authorization to use the mitigation site, shall be submitted to the Executive Director for review and approval no later than 60 days prior to the scheduled commencement of the mitigation work. Implementation of the mitigation plan shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is legally required.

- b) PG&E shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed modifications.

¹https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf

- 6. Marine Wildlife Protection.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, PG&E shall submit, for the review and written approval of the Executive Director, a revised final plan that conforms with the draft plan submitted to the Commission titled “Diablo Canyon Intake Cove Dredging Project Marine Wildlife Contingency Plan” dated February 7, 2024, except that it shall be modified as required below. The plan shall:
- a) Include the use of a marine wildlife observer (MWO) on any vessel transiting to and from the placement site, and on all work vessels during dredging operations. The MWO shall assure that all work vessels and dredging operations maintain a distance of at least 150 feet from any marine wildlife species whenever feasible. The MWO shall identify any scenarios that require an additional observer on any project vessel and, in these cases, make recommendations as to where they should be placed to ensure complete coverage of the surrounding environment.
 - b) Specify that MWOs will issue a stop work order if project operations pose a risk to any marine mammals or sea turtles, or if any marine mammal or sea turtle enters the 33-foot exclusion zone around active dredging and vessels used for sediment transport.
 - c) Specify that MWOs shall have the appropriate safety and monitoring equipment adequate to conduct their activities (including night-vision equipment, when applicable). Night-lighting required for project activities shall be shielded and directed to the immediate work area but must be bright enough to ensure the MWO can effectively monitor, maintain navigational safety, and sustain the minimum distance of 150 feet from any marine wildlife species whenever feasible as required by [Special Condition 6\(a\)](#).
 - d) Specify that MWOs shall issue a stop work order if visibility is reduced to a degree that MWOs cannot perform observational duties. Dredging operations may proceed once viewing conditions improve and MWOs are able to monitor effectively.
 - e) Include the use of reflective markers so that the perimeter of the dredging area is visible.
 - f) Require MWOs to submit a daily sighting report to the Executive Director no later than noon the following day that shall be of sufficient detail to determine whether observable effects to marine mammals are occurring.
 - g) Work shall stop and the Executive Director of the Commission shall be notified within four hours, or as soon as practicable, if PG&E determines that any monitoring requirements in this special condition are unable to be effectively implemented. PG&E shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the

Executive Director issues a written determination that no amendment is legally required for any proposed modifications.

7. **Protection of Grunion Spawning.** If dredged sediment placement is carried out during the California grunion's spawning season (March through August), the Applicant shall not use the Morro Bay sandspit placement site for two hours before, two hours during, and two hours after each predicted grunion run. The Applicant shall use the dates of the annually published California Department of Fish and Wildlife (CDFW) expected grunion runs² and shall use the tide predictions for Port San Luis, CA³ to determine the start of the two-hour expected grunion run, which begins at the time of the local nighttime high tide.

8. **Cultural Resources Treatment and Monitoring Plan.** PRIOR TO THE START OF DREDGING, the Applicant shall submit, for the review and approval of the Executive Director, a Cultural Resources Treatment and Monitoring Plan prepared by a qualified professional, which shall incorporate the following measures and procedures:
 - a) A specific discussion on the process for identifying unanticipated discoveries in a submerged context, including how unanticipated tribal cultural resources are identified during project activities, when the project area is not visible. The process may include pre- and post-project reconnaissance survey dives. This process should be developed in consultation with representatives from the Santa Ynez Band of Chumash Indians.⁴

 - b) Methods of protection of Tribal Cultural Resources developed in consultation with representatives from the Santa Ynez Band of Chumash Indians. Such methods may include the presence of archeological and Native American monitors during dredging and dredged sediment placement operations that have the potential to impact cultural resources.

 - c) A provision for the Applicant to provide sufficient archeological and Native American monitors to assure that all dredging and dredged sediment placement activities that have any potential to uncover or otherwise disturb cultural deposits are monitored at all times.

 - d) Protocols for the discovery and treatment of archaeological, paleontological, or cultural deposits, including but not limited to skeletal remains and grave-related artifacts, artifacts of traditional cultural, religious or spiritual sites, or

² <https://wildlife.ca.gov/Fishing/Ocean/Grunion#28352306-2024-runs>

³ <https://tidesandcurrents.noaa.gov/stationhome.html?id=9412110>

⁴ Although other Tribes are known to have cultural connections to the project area, this monitoring was specifically requested by the Santa Ynez Band of Chumash Indians.

any other artifacts relating to the use or habitation sites. Such protocols shall include the cessation of activities that have any potential to further uncover or otherwise disturb resources, and reporting of all discovered resources as soon as possible, by phone and/or by email to the Executive Director.

- e) If the Executive Director determines that the discovery is significant or that the treatment method preferred by the affected Native American tribe(s) is in conflict with the approved development plan, the Applicant shall seek an amendment from the Commission to determine how to respond to the discovery and to protect both those and any further cultural deposits that are encountered. Development shall not recommence until an amendment is approved, and then only in compliance with the provisions of such amendment.
- 9. Oil Spill Prevention and Response Plan.** All dredging and sediment placement activities shall be conducted consistent with the provisions and requirements included in the final “Diablo Canyon Intake Cove Dredging Project Oil Spill Prevention and Response Plan” dated February 7, 2024. PG&E shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed modifications.
- 10. Other Agency Approvals.** PRIOR TO THE START OF DREDGING, PG&E shall submit to the Executive Director a copy of the project’s California State Lands Commission lease amendment, the amendment to the Section 401 Water Quality Certification No. 34023WQ30, issued by the Regional Water Quality Control Board, or evidence that these approvals are not needed. PG&E shall inform the Executive Director of any changes to the project required by these permits. Such changes shall not be incorporated into the project or undertaken until PG&E obtains an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
- 11. Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, PG&E acknowledges and agrees (a) that the site may be subject to hazards from coastal erosion, storm conditions, wave uprush, and tsunami runup; (b) to assume the risks to PG&E and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (c) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (d) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission’s approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- 12. Liability for Costs and Attorneys’ Fees.** PG&E shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys’ fees --

including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys' fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought by a party other than PG&E against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit, the interpretation and/or enforcement of permit conditions, or any other matter related to this permit. The PG&E shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs and fees. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

IV. FINDINGS AND DECLARATIONS

A. Background and Project Description

The Diablo Canyon Power Plant (DCPP) is a nuclear power plant complex sited on approximately 760 acres of coastal terrace between Avila Beach and Morro Bay in San Luis Obispo County (see [Exhibit 1 – Project Location Maps](#)). PG&E has operated the DCPP since 1985. The DCPP uses up to 2.5 billion gallons of seawater per day from the Pacific Ocean for the cooling system used in the generation of electric power. Seawater enters the plant through a concrete intake structure located in a constructed intake cove and is discharged in Diablo cove (see [Exhibit 2 – Project Site Plans](#)). The intake structure has vertical metal bar racks that protect its opening and allow seawater to be pumped into the DCPP. These bar racks sit on a concrete foundation, approximately 32 ft below mean sea level (MSL). The constructed intake cove is roughly 10-acres in size and confined by two concrete tribar breakwaters. The intake cove's shoreline consists of granite boulder armoring, natural bedrock, and the vertical concrete intake structure. The intake structure measures approximately 240 feet long and 104 feet wide and is located on the north end of the 10-acre intake cove. The intake structure combined with the intake cove's original depth of minus 36 feet below mean lower low water (MLLW) provides cold water needed to maintain operation of DCPP. Over time, the accumulation of sediment on the seafloor has caused a sandy mound to form which has reduced water depths significantly, to about minus 19 feet below MLLW. Warmer water temperatures caused by shallower depths can affect generator cooling and condenser performance, posing a risk to the overall cooling system. The reduced water depths near the intake can also introduce excess sediment into the cooling system, which can also adversely affect power plant performance.

PG&E has not dredged the intake cove since DCPP began operating in 1985. However, PG&E notes in its CDP application that it has observed sediment accretion in the intake cove in recent years, potentially because of severe winter storms and landslides on the Big Sur coast, north of DCPP, that have increased the amount of sediment within the regional littoral system. PG&E has also indicated that sediment accretion appears to have reached levels over the past year where shoaled sediment near the intake structure has increased the speed at which water is drawn into the DCPP. In turn, this

has increased kelp and debris loading on the intake system, particularly during high swell events and extreme low tides. Shallow depths also pose a safety risk to scuba divers performing critical maintenance activities on the intake structure. If the accumulated sediment is not removed, PG&E has expressed concern that it could reduce performance of the intake structure to a degree that could cause a shutdown of DCPP, which could pose a risk to public safety and interfere with energy generation.

A prior Staff Report on CDP Application No. 9-23-0599 for dredging of the DCPP intake cove was published on September, 22, 2023, and the CDP application was scheduled for a Commission hearing on October 13, 2023. Prior to the hearing date, PG&E requested a postponement in order to revise its proposed project to include the use of a clamshell dredge in addition to a hydraulic suction dredge. Therefore, the original CDP application did not proceed to a hearing. In January 2024, PG&E submitted an amended CDP application, including updated environmental analyses, which staff has evaluated for this present staff report.

Dredging: PG&E proposes to dredge up to 70,000 cubic yards (cy) of accumulated sand from a 125,000 foot² area within DCPP's intake cove to protect and maintain functionality of its intake operations. Dredging would restore the cove's original design depth of minus 36 feet MLLW, plus two feet of over dredge allowance. Approximately 60,175 cubic yards (cy) of sandy sediment would be removed to achieve the original design depth, with approximately 9,089 cy of additional sediment if the 2-foot over dredge depth is achieved (see [Exhibit 2 – Project Site Plans](#)).

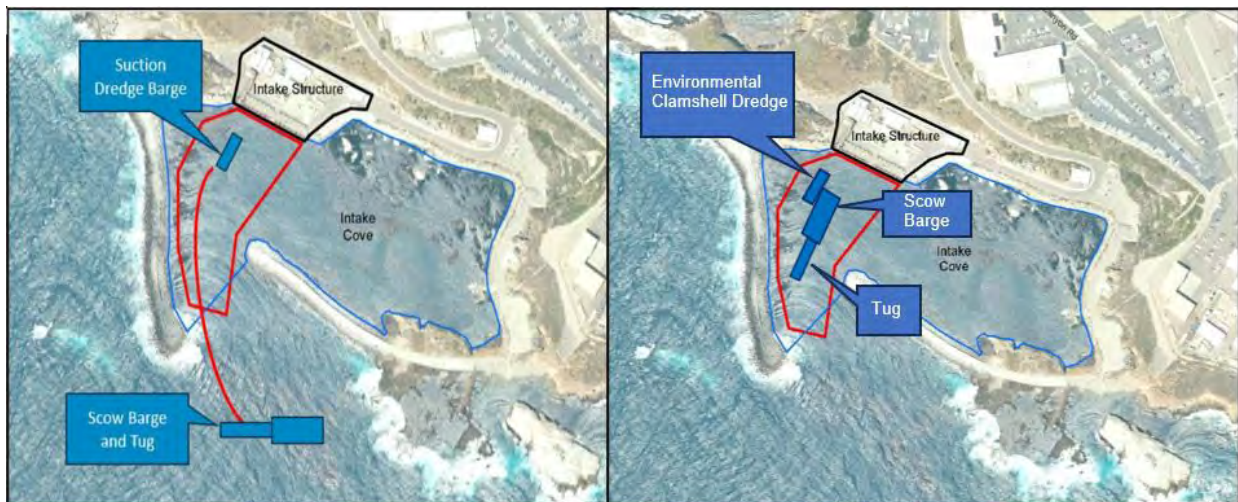


Figure 1a: Possible locations of hydraulic suction dredge equipment.

Figure 1b: Possible locations of clamshell dredge equipment.

Dredging would be conducted by a hydraulic suction dredge or a clamshell dredge, depending on actual conditions encountered in the field. The hydraulic suction dredge is proposed as the primary means of completing the work, with the option to use a clamshell dredge for all or certain locations as backup in case the suction dredge is

unable to function properly, if weather conditions at the time of dredging make suction dredging infeasible, or if sediment is encountered that favors use of a clamshell. The vessel-operated hydraulic suction dredge method would involve use of a pipe that is about 16 inches in diameter to convey sediment to a scow that is positioned outside of the intake cove. The pipe conveying sediment from the dredge to the scow would float on the surface with buoys to avoid entanglement with marine wildlife. If dredging requires use of a clamshell dredge, the clamshell would be an environmental bucket⁵ that minimizes turbidity by sealing in sediment, and a scow would be positioned within the intake cove. Proposed equipment locations are shown above in Figure 1. The precise layout and equipment/positions would be determined by PG&E in coordination with its Dredging Contractor. Dredging would occur for approximately 20 days but could last up to 40 days. Mobilization, dredging, and demobilization is expected to take approximately one to three months, depending on weather, wave conditions, and the availability of equipment.

Sand placement offshore of Morro Bay sandspit: The proposed project includes placement⁶ of the dredged sediment at the existing U.S. Army Corps of Engineers (USACE) nearshore placement site located south of the entrance to Morro Bay and offshore of Morro Bay sandspit. The center of the placement site is approximately 35°20'33.1" North latitude and -120°52'8.7" West longitude. The placement site footprint runs parallel to the beach and is approximately 1,115 feet in width and 4,430 feet in length just beyond the surf zone (See [Exhibit 2 – Project Site Plans](#)). The landward boundary is approximately 1,300 feet from the shoreline and the seaward boundary is approximately 2,500 feet from the shoreline, with water depths in the range of minus 20 to minus 40 feet MLLW. PG&E expects to dredge and place approximately 5,500 cy of sediment per day using 2,000-cy capacity scows that would make roughly three to four trips to the placement site each day. The nearshore placement site is also used by the USACE during the month of May for its annual maintenance dredging of the Morro Bay Harbor federal channel, and on average, USACE places more than twice the amount of sediment that PG&E is proposing to place as part of this project. PG&E received confirmation from the USACE that the nearshore placement site has ample capacity to receive sediment dredged from the intake cove, which is expected to dissipate to nearshore sand supplies over a period of a few months. However, if PG&E dredges during May it would be required to coordinate with the USACE and provide written confirmation of that coordination in its request for a Notice to Proceed under USACE's individual permit (SPL-2023-00468) for the project.

On August 17, 2023, PG&E obtained a suitability determination from the Southern California Dredged Material Management Team (SC-DMMT). The SC-DMMT is an interagency team that includes representatives from the United States Army Corps of

⁵ 'environmental bucket' and 'clamshell' are used interchangeably throughout the report.

⁶ The term "placement" or "placing" is used in place of "disposal" or "disposing" to acknowledge the importance of sediment as a critical coastal resource that, when suitable, can be beneficially reused rather than "disposed" to maintain sand in the littoral system.

Engineers (USACE), United States Environmental Protection Agency (EPA), NOAA National Marine Fisheries Services (NMFS), the Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and Coastal Commission staff. The SC-DMMT determined that sediment from the intake cove is appropriate for placement in the nearshore of the Morro Bay sandspit based on the physical and chemical sediment testing results reported in the *DCPP Intake Cove Dredging: Sediment Sampling and Analysis Plan Results (SAPR)* dated August 10, 2023 (Described further in Part E below).

Proposed avoidance and minimization measures: PG&E proposes to implement measures to avoid or minimize potential adverse effects to coastal resources during sediment dredging and placement activities. On September 6 and 7, 2023, PG&E completed biological surveys focused on black abalone, invasive seaweed (*Caulerpa* spp.), and eelgrass. No black abalone were found on the interior of the east and west breakwaters in the anticipated area of dredging impacts. No invasive *Caulerpa* were found along seven transects within the proposed dredge footprint (See [Exhibit 4 – Biological Survey Results](#)). The eelgrass survey indicated that the nearest eelgrass bed is likely over 100 meters (328 feet) from the dredge footprint; however, due to limitations in the eelgrass survey data, an additional survey effort is necessary to confirm the results, as discussed in Section E below. PG&E proposes to avoid any kelp on rocky substrates on the edges of the intake cove, and the project is not anticipated to cause any impacts to kelp. PG&E proposes to minimize turbidity to the fullest extent possible to minimize potential impacts to both the intake structure equipment and sensitive species in the surrounding marine environment. minimize potential impacts to both the intake structure equipment and sensitive species in the surrounding marine environment.

PG&E states in its CDP application materials that prior to dredging, divers will search the dredge footprint and relocate any large invertebrates, such as clams or sea stars, to outside the dredging footprint. As proposed, placement of the dredged sediment would not affect western snowy plover (*Charadrius alexandrinus nivosus*) because placement would happen outside of the plover's breeding season and would not occur on beach areas. PG&E has also committed to implement a Biological Resources Monitoring Plan and Marine Wildlife Contingency Plan to minimize potential adverse effects on sensitive marine habitats and wildlife. PG&E has committed to preparing an Anchoring Plan and will adhere to the final Turbidity Monitoring and Oil Spill Prevention and Response Plans approved by the Executive Director to ensure potential impacts to water quality and the marine environment are avoided or minimized.

To avoid entrainment of fish and other marine life during dredging operations, the suction head of the dredge will be fitted with fish screens that are approximately 0.5 cm in size. The suction head rotation will be reduced to the lowest speed feasible to minimize marine life impingement or entrainment and it will be turned on only after it contacts the seafloor to avoid drawing from the water column. Suction hose priming with seawater will be performed with fish screens in place and away from any areas containing fish or any wildlife.

For safety reasons relating to DCPP operations, public access is not available within the intake cove, and the United States Coast Guard has established a 2,000-yard exclusion zone in the waters adjacent to the DCPP property. Therefore, the project would not alter or disrupt public access or recreation in the vicinity of the project site as the public is not allowed to enter the 2,000-yard exclusion zone, including the intake cove. Sediment placement is expected to have no more than minor, temporary effects on public access to the shoreline, as the placement site is more than 1,000 feet offshore of the Morro Bay sandspit.

Although the proposed project would be short in duration and PG&E's proposed avoidance measures would reduce many of the potential risks to coastal resources raised by the project, additional protective measures would also be provided through [Special Conditions](#) to help ensure unforeseen impacts to coastal resources are mitigated should post-dredge surveys reveal adverse impacts, as further discussed below.

B. Standard of Review

The offshore work at the dredge and placement sites are located within the California Coastal Commission's retained permit jurisdiction because these include submerged lands that are subject to the public trust or were subject to the public trust at any time and consequently, the standard of review is Chapter Three of the Coastal Act.

Limits of federal preemption: The U.S. Nuclear Regulatory Commission (NRC) has exclusive jurisdiction over radiological aspects of DCPP. Under federal law, the state is preempted from imposing upon operators of nuclear facilities any regulatory requirements concerning radiation hazards and nuclear safety. The state may, however, impose requirements related to other issues. The U.S. Supreme Court, in *Pacific Gas and Electric Company v. State Energy Commission*, 461 U.S. 190, 205 (1983), held that the federal government has preempted the entire field of "radiological safety aspects involved in the construction and operation of a nuclear plant, but that the states retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, costs, and other related state concerns." The Coastal Commission findings herein address only those state concerns related to conformity to applicable policies of the Coastal Act, and do not evaluate or condition the proposed project with respect to any nuclear safety or radiological issues.⁷

C. Other Agency Approvals

California State Lands Commission

⁷ As part of NRC's oversight, PG&E submits annual radiological monitoring reports, the most recent of which showed non-detection results for radionuclides in offshore ocean sediment samples. See: <https://www.nrc.gov/docs/ML2312/ML23121A304.pdf>.

PG&E's use of the intake cove is subject to a sovereign lands lease (Lease No. 9347.1) issued by the California State Lands Commission (SLC). The proposed project requires a lease amendment to allow for both dredging and sediment placement in submerged lands in the Pacific Ocean, that the SLC will consider on April 4, 2024. Commission staff and SLC staff have been consulting throughout their respective review processes and [Special Condition 10](#) requires PG&E to submit documentation of the SLC-approved lease amendment prior to the start of dredging activities.

Central Coast Regional Water Quality Control Board

Projects involving discharges of dredged or fill material to waters of the United States that require permits from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act are often also required to obtain authorization from the Regional Water Quality Control Board (RWQCB) under Section 401 of the Clean Water Act.

Commission staff have been coordinating with RWQCB staff on this proposed project, particularly with respect to turbidity monitoring standards and potential effects on beneficial uses. A Section 401 Water Quality Certification (No. 34023WQ30) was issued by the Central Coast RWQCB on October 4, 2023; however, an amendment to the Section 401 Water Quality Certification is pending from the Central Coast RWQCB to allow for both the clamshell and suction dredging methods. [Special Condition 10](#) requires PG&E to submit documentation of the RWQCB amended 401 Water Quality Certification prior to the start of dredging activities.

U.S. Army Corps of Engineers

The U.S. Army Corp of Engineers (USACE) issued an individual proffered standard permit for the proposed project on December 12, 2023. The USACE has permitting authority for the proposed project under Section 404 of the Clean Water Act and its review included informal consultation with the U.S. Fish and Wildlife Service (Endangered Species Act review) and formal consultation with the National Marine Fisheries Service (Essential Fish Habitat, Endangered Species Act, Marine Mammal Protection Act). In its Final Environmental Assessment ([See Appendix A](#)), the USACE determined that the proposed project would have no significant impact on the human environment. The U.S. Fish and Wildlife Service (USFWS) concurred with the USACE determination that the proposed project may affect but is unlikely to adversely affect the federally threatened southern sea otter. The National Marine Fisheries Service (NMFS) concurred with the USACE determination that the proposed project may adversely affect essential fish habitat (EFH) but would not result in substantial adverse effects to EFH. The USACE also made a 'no effect' determination for black abalone. Commission staff consulted with the USFWS regarding potential impacts to the southern sea otter, and this informed the southern sea otter avoidance and minimization measures that PG&E has committed to adhere to in the Final Marine Wildlife Contingency Plan, as discussed further in Section E below. Consultation with USACE and NMFS informed the development of the eelgrass survey requirements in [Special Condition 5a](#), also described in Part E below.

California Department of Fish and Wildlife

Commission staff has consulted with CDFW staff on the proposed project regarding the potential for impacts to kelp, eelgrass, southern sea otter, and California grunion. This

coordination informed the development of the eelgrass and kelp monitoring requirements in [Special Condition 5](#), the marine wildlife observer requirements in [Special Condition 6](#), and the requirement in [Special Condition 7](#) that no sediment placement shall occur during CDFW's predicted grunion runs. CDFW has indicated that no other permit or approval will be needed as part of the proposed project.

D. Tribal Cultural Resources

Section 30244 of the Coastal Act states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The Commission recognizes that the entirety of the State's coastal zone was originally indigenous territory that continues to have cultural significance to Native American tribes. The Commission's Tribal Consultation Policy (adopted on August 8, 2018)⁸ recognizes the importance of State efforts to protect Tribal Cultural Resources and improve communication and coordination with Tribes, and it sets out a tribal consultation process that is fully consistent with, and complementary to the nature of, the Commission's goals, policies (including Section 30244), and mission statement. Tribal Cultural Resources can be sites, features, cultural landscapes, sacred places, and objects with cultural value and can also qualify as archeological, paleontological, visual, biological, or other resources that the Commission is tasked with protecting pursuant to the Coastal Act.

Tribal Cultural Resources in Project Area

The California coastal zone has been home to native populations since time immemorial. The proposed project would take place in waters adjacent to the ancestral homelands of the indigenous Chumash and Salinan Tribes, who lived along and stewarded what is now the central coast. The Project is within the Rancho Cañada De Los Osos Y Pecho Y Islay Archaeological District, which is eligible to be listed on the National Register of Historic Places and contains 106 cultural resource sites. Several of these sites are in close proximity to the intake cove, and there is potential that materials from these sites have been washed into the cove and deposited in seafloor sediments over time.

Commission staff prepared a joint outreach letter with staff from the California State Lands Commission (SLC). Outreach letters were sent to 11 individuals representing eight Tribes to provide information about the proposed dredging and placement project and to offer formal or informal Tribal consultation. Chair Mona Olivas Tucker of the yak tityu tityu yak tiłhini Northern Chumash Tribe, responded to staff's letter with concerns

⁸<https://documents.coastal.ca.gov/assets/env-justice/tribal-consultation/Adopted-Tribal-ConsultationPolicy.pdf>

about the dredged sand being placed onshore which could cause damage to the fragile and culturally intense Diablo Lands. Chair Tucker recommended taking the sediment to an underwater site, as long as it does not harm marine life or marine habitat. Chair Tucker also expressed disagreement with the statement within PG&E's application materials that "[t]he [CA-SLO-1163] site is now considered to be destroyed, possibly by the construction of the DCPP or by cliff erosion (Enright 2023)." Chair Tucker stated that, "much may be destroyed but no one can say with 100% certainty that all is destroyed. This is a point for us all to keep in mind for this site or any other sites." The CA-SLO-1163 site was recorded within the Intake Cove and was first described as a 254-square-meter, short-term residence located on the northwest corner of the Intake Cove (Caruso et al. 1986). Staff responded to Chair Tucker that those comments would be kept in mind when reviewing projects in the Diablo Canyon area. In addition, staff responded that the sand would be placed back in the ocean, roughly 2,000 feet offshore beyond the surf zone, and that sand would not be placed on or near sensitive habitat.

Commission and SLC staff also consulted with the Santa Ynez Band of Chumash Indians (Santa Ynez Band) on the originally proposed project on September 28, 2023. The Santa Ynez Band voiced concerns about the potential for tribal cultural resources to have fallen into the cove and potentially be present in the area of dredging. The Santa Ynez Band requested more information on cultural resource monitoring during dredging. PG&E responded that dredging operations would be continually monitored and if previously unknown cultural resources are identified during dredging operations, all activity would cease in the area of the find and the find would be documented. PG&E stated that if dredging equipment clogged, any material removed would be inspected by monitors, however agreement between PG&E and the Santa Ynez Band was not reached prior to postponement of the October 2023 Commission hearing. Commission and SLC staff notified the Santa Ynez Band of the postponement and agreed to reengage once a revised CDP application was received. The Tribe was notified that PG&E had submitted a revised CDP application on January 29, 2024, and staff met with the Tribe on February 27, 2024. During that meeting, the Santa Ynez Band reiterated its concerns about the presence of cultural resources within the area proposed to be dredged and requested that tribal monitors be present during the dredging activity. [Special Condition 8](#) was developed in response to this request, and also in recognition that materials from the known cultural resource sites could have been washed into the intake cove. **Special Condition 8** would require PG&E to work directly with the Santa Ynez Band to prepare a plan, for Executive Director review and approval, for the monitoring, protection and treatment of cultural resources that may be present within the area proposed to be dredged. Although other Tribes are known to have cultural connections to the project area, this monitoring was specifically requested by the Santa Ynez Band of Chumash Indians.

As conditioned, the Commission finds the proposed project consistent with Section 30244 of the Coastal Act.

E. Marine Resources and Water Quality

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed project has the potential to adversely affect marine biological resources and water quality, including through the disturbance or loss of sensitive marine habitats and wildlife during dredging operations. The key resources evaluated below, and for which [Special Conditions](#) are required, are eelgrass, kelp, and special status marine species.

Sensitive Species and Habitats

Eelgrass: As stated in the National Marine Fisheries Service's California Eelgrass Management Policy, eelgrass is a highly productive, habitat forming species that warrants strong protection because of the important physical, biological, and economic value it provides, as well as its importance for managed fisheries (NOAA Fisheries 2014). Eelgrass contributes to ecosystem function at multiple levels, providing important spawning and forage surfaces for invertebrates and fish, and food for migratory waterfowl and sea turtles. Fish species commonly found in local eelgrass beds include: jacksmelt, surfperch, California halibut (*Paralichthys californicus*), bass (*Paralabrax* spp.), northern anchovy (*Engraulis mordax*), kelpfish, pipefish, and blennies. Dredging and filling in or near eelgrass beds can result in habitat removal or burial, as well as indirect impacts related to increased sediment, nutrients, and shading, and altered circulation patterns. Like turbidity, shading reduces light availability for eelgrass photosynthesis. Prolonged shading can lead to reduced eelgrass growth and can even cause die-off in extreme cases if the shading is severe and prolonged. Additionally, shading can disrupt the natural light-dark cycles that eelgrass relies on for optimal growth and reproductive timing.

The DCPD intake cove contains several patches of eelgrass and eelgrass habitat. Based on subtidal surveys conducted in 2020, the intake cove supports approximately 0.21 acres (9,147.6 feet²) of eelgrass beds in the eastern areas of the intake cove (County of San Luis Obispo, 2023).

PG&E proposes to avoid eelgrass beds during all dredging operations. PG&E completed an eelgrass survey for the proposed project on September 6-7, 2023. Four divers swam along seven transects across the dredge footprint (See [Exhibit 4](#)). Divers estimated underwater horizontal visibility at 17 feet. The seven transects surveyed for eelgrass covered approximately 75% of the dredge footprint. A less intensive boat-based search covered areas of the intake cove, outside of the proposed dredge footprint, where biologists recorded approximate sizes and positions of eelgrass patches by visual observation. PG&E reported that all eelgrass found during the survey was in the eastern portion of the intake cove, with the closest patch being over 100 meters (328 feet) away from the proposed dredging footprint. Several eelgrass patches and beds were mapped from the boat, as denoted by the approximate eelgrass patches shown in green on Figure 2 below (and in [Exhibit 4 – Biological Survey Results](#)).

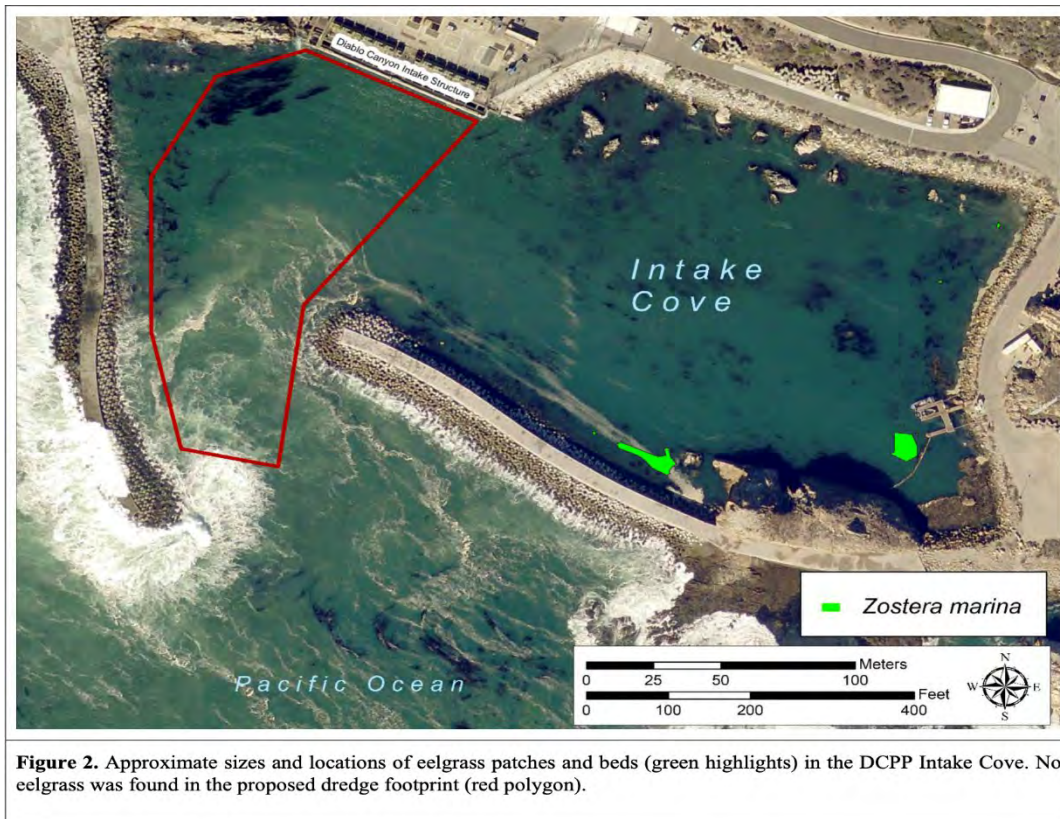


Figure 2. Approximate sizes and locations of eelgrass patches and beds (green highlights) in the DCPD Intake Cove. No eelgrass was found in the proposed dredge footprint (red polygon).

Based on the surveyed distribution of eelgrass within the intake cove in September 2023, the proposed dredging is likely to avoid direct impacts to eelgrass habitat. [Special Condition 1](#), which authorizes dredging only within the dredge footprint as shown on [Exhibit 2 – Project Site Plans](#), would ensure that areas of known eelgrass coverage are avoided. **Special Condition 3** requires submission of an Anchoring and Pipeline Placement Plan with designated anchoring locations that are not within areas of rocky reef or submerged aquatic vegetation.

Because the September 7, 2023 surveys did not provide 100% coverage of the area and the project's commencement date is not currently scheduled, [Special Condition 5a](#) requires a pre-dredge eelgrass survey prior to permit issuance and within 60 days of the start of dredging. That survey must specify eelgrass areal extent, bottom coverage, and shoot density and report the survey coverage, date of survey, and any interpolation methods used in the mapping. The pre-dredge eelgrass survey must be submitted to the Executive Director for review and written approval within 30 calendar days of survey completion, to confirm the amount and extent of eelgrass that could be affected by dredging. [Special Condition 5a](#) further requires an independent, third-party to perform post-dredge monitoring if any eelgrass is found within 150 feet of the proposed dredge footprint, the distance that was identified by Commission staff following coordination with NMFS staff, as most likely to be affected by dredging operations. If the Executive Director determines, based on a review of post-dredge monitoring results, that adverse impacts to eelgrass occurred, [Special Condition 5a](#) would require PG&E to mitigate for such impacts at a ratio of 1.2:1 (mitigation area: impact area) on-site, in full accordance with the CEMP guidance for the Central Coast region. The mitigation plan, including the location of and authorization to use the mitigation site, must be submitted to the Executive Director for review and approval.

Indirect dredging impacts to eelgrass related to increased turbidity are unlikely given that the sediment to be dredged is about 88% sand and therefore is not expected to remain in suspension long enough to be deposited within the known eelgrass beds, or to reduce light availability to a degree that would substantially reduce the persistence of eelgrass in the intake cove. Nonetheless, to minimize the potential for indirect effects on eelgrass, [Special Condition 4](#) also requires PG&E to adhere to its Turbidity Monitoring Plan (TMP), which includes specific measures to ensure the coastal waters in which dredging will take place is not more turbid than a nearby reference site. The TMP specifies that waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity must not exceed the following limits: 1) where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU) increases shall not exceed 20 percent, 2) where natural turbidity is between 50 and 100 NTU, increases shall not exceed 10 NTU, 3) where natural turbidity is greater than 100 NTU, increases shall not exceed 10 percent. Furthermore, the TMP specifies that the dissolved oxygen concentration shall not be reduced below 5.0 Mg/L at any time and that median values should not fall below 85 percent saturation.

Canopy kelp: Canopy-forming kelp (e.g. giant kelp [*Macrocystis pyrifera*] and bull kelp [*Nereocystis leutkeana*]) grows on rocky substrate to form highly productive kelp forests. Kelp forests are critically important ecosystems in California, providing a broad suite of services, including support of commercial and recreational fisheries, and hold cultural significance to California's Tribes and coastal communities. Kelp forest ecosystems are some of the most productive in the world, supporting a diverse assemblage of marine algae, fish, invertebrates, and marine mammals. Kelp forests provide structural habitat, shelter, and food for hundreds of other organisms. Kelp forests also play a key role in nutrient cycling and have other important physical effects on the water flow, light availability to the seafloor, and sediment transport within the nearshore environment.

Giant kelp and bull kelp form beds in and around the intake cove breakwaters, and approximately seven acres (304,920 square feet) of kelp were mapped within the intake cove (County of San Luis Obispo 2023). In the decades since the opening of DCPP, PG&E has conducted routine kelp removal and trimming activities, in coordination with CDFW, in order to prevent kelp debris from being pulled into the power plant intake system. Kelp removal activities have included whole-plant removal within the “exclusion zone” immediately in front of the intake structure (which largely overlaps the proposed dredging area) as well as more limited removal and trimming in other areas of the cove. PG&E has not proposed to remove or damage any kelp as part of the proposed project and has stated that the project is not anticipated to cause any direct impacts to kelp.

No impacts on kelp are expected from placement of dredge sediment in the nearshore of Morro Bay sandspit because there is no suitable rocky habitat for kelp to attach to in the sandy bottom area, and the nearest kelp is approximately three miles from the placement site (Merkel and Associates, Inc. 2022).

Black Abalone: Based on recent surveys, and the USACE’s determination of “no effect,” black abalone (*Haliotis cracherodii*) is unlikely to be adversely impacted by the proposed project. Black abalone is a long-lived, sensitive marine snail species that was once abundant in California but is currently designated as endangered under federal and state law. Historical overfishing and mass mortalities due to the withering syndrome disease have contributed to its decline. Black abalone were observed in 2020 on the offshore faces of the east (downcoast) and west (upcoast) intake cove breakwaters, but not within the intake cove itself (County of San Luis Obispo 2023). On September 7, 2023, PG&E conducted diver surveys for black abalone within the intertidal zones of the breakwaters, riprap, and boulders in the intake cove and did not find any black abalone. Moreover, the dredge prism is outside of the locations where black abalone was detected in 2020, on the outside of the intake cove breakwater. Dredging has a potential to impact black abalone through the creation of suspended sediment which could impair their respiration and feeding abilities. Turbidity increases related to dredging are expected to be limited and temporary, however, because the sediment is predominantly sand and is expected to settle quickly after dredging stops. PG&E proposes to further reduce potential turbidity by positioning the scow outside of the intake cove when using the hydraulic suction dredge, so that water decanted from the scow does not generate turbidity within the intake cove. For any clamshell dredging, PG&E would use an environmental clamshell bucket, which seals in sediment such that it would not spill out as the clamshell ascends through the water column. This will minimize turbidity and reduce the potential for impacts to black abalone on the outside of the breakwater. Furthermore, as required by [Special Condition 4](#), PG&E will conduct turbidity monitoring during dredging and will modify dredging operations by slowing the dredge rate, alternating the dredging method from suction to clamshell or vice versa, installing silt curtains, or implementing other measures should turbidity levels exceed the identified thresholds.

Fish: Some federally listed finfish could potentially occur within the project area as their oceanic distribution overlaps; however, they have not been observed in the intake cove

during diver surveys completed for PG&E (See [Appendix C](#) - Diablo Canyon Power Plant Intake Cove Dredging Project Final Essential Fish Habitat Assessment). The two salmonid species that may occur are chinook salmon, (*Oncorhynchus tshawytscha*) and steelhead trout (*Oncorhynchus mykiss irideus*), with the latter having been observed in lower Diablo Creek. Chinook salmon and steelhead trout are anadromous, hatching in freshwater streams before migrating to the ocean, spending a few years feeding and growing and then returning to their natal streams to spawn and complete their life cycle. Chinook salmon in the oceanic phase are known to be present in the offshore areas adjacent to the DCPP site. Recreational and commercial fishermen that launch from Port San Luis and Morro Bay regularly catch them during the salmon fishing season, which typically runs from May to October, however, mean catch per unit effort in this area seems to be lower than that of fishing zones further north (Bellinger et al. 2015). Typically, salmon and steelhead in the local fishery off Morro Bay are caught at least one mile from the shore in depths greater than 100 feet, therefore they are unlikely to be present in the intake cove.

California grunion: California grunion (*Leuresthes tenuis*; herein “grunion”) are a species of fish that inhabit the nearshore waters from the surf to a depth of 60 feet from Point Conception, California, to Point Abreojos, Baja California. Grunion are in the New World silversides family, Atherinopsidae, along with jacksmelt and topsmelt. Unlike other fish, grunion come ashore to spawn, a behavior known as “grunion runs.” Grunion runs typically occur from March to August, during the highest nighttime tides that coincide with the new and full moons. They use the highest tide to ride the waves onto the beach where the female then digs a shallow nest in the sand above the mean high tide line, and emits her eggs in a safe environment for development. Sand up to about 16 inches thick can be deposited onto the eggs by the outgoing tide ensuring they will incubate safely in the moist sand. Following spawning, both male and female individuals make their way back to the ocean as the tide ebbs. Approximately two weeks later, during the subsequent tidal highs, the eggs are released and hatch within 2 or 3 minutes upon being liberated by the crashing waves, swiftly carrying them back into the ocean.

In recent years, California grunion have been spawning further north along the coast and have been found as far north as Tomales Bay. Commission staff met with Dr. Karen Martin, a distinguished professor at Pepperdine University and expert in grunion biology. Dr. Martin confirmed that although California grunion have not been reported using the Morro Bay sandspit yet, it could provide suitable beach habitat for them, especially because it is sandy and they regularly spawn to the south at Avila Beach. Dr. Martin believes that this far north, grunion runs probably would not start until May, and explained that the effects of nearshore sediment placement on grunion have not been studied but could nonetheless alter their “staging” behavior before they come ashore to spawn. Nearshore placement operations will temporarily increase suspended particulates and turbidity nearshore of Morro Bay State Park sandspit, which may interfere with the grunion’s affinity for a specific beach site. To avoid interrupting a potential grunion run, [Special Condition 7](#) prohibits sediment placement during the

times when grunion may run, based on the nighttime high tide predictions for Port San Luis, CA, on the predicted run dates that CDFW posts annually to its California Grunion website. The Applicant may not place sediment for two hours before, two hours after, and during the two-hour expected run. Inclusion of the 6-hour moratorium on sediment placement activities during the days of predicted grunion runs will minimize the potential disruption to grunion from suspended sediment in the nearshore.

Marine wildlife – mammals: Marine mammals have been observed on a regular basis in and around the intake cove over the past several decades. Since 1976, an environmental consultancy has conducted biweekly or monthly marine mammal surveys as required by the Nuclear Regulatory Commission, and these surveys combined with observations by PG&E, CDFW, and other organizations, serve as a baseline of the species and numbers that can be expected to occur in the project area. Harbor seals, California sea lions, and southern sea otters are the most likely marine mammal species to be encountered in the project area. Up to about 20 harbor seals are often hauled out at any time in various places on wash rocks in the intake cove and on the inside of the eastern and western breakwaters. California sea lions have been relatively uncommon inside the intake cove, but in Summer 2006, nearly 200 sea lions occupied the protected side of the west breakwater for one month.

The southern sea otter (*Enhydra lutris nereis*) is a federally threatened marine-dwelling member of the weasel family (Mustelidae) (USFWS 2015) whose numbers plummeted in the early 1900s due to the fur trade. They are most abundant along the rocky coast of central California, feeding and resting within productive kelp forests (Lafferty and Tinker 2014, USFWS 2021). Southern sea otters mainly consume marine invertebrates and use rocks as tools to break into their main food source of mollusk shells. The rocky habitat and kelp surrounding the intake cove supports sea otter food, including abalone, rock crabs, sea urchins, kelp crabs, clams, turban snails, mussels, octopus, barnacles, scallops, sea stars, and chitons (USFWS 2019). Up to approximately 20 sea otters can be seen in the intake cove on a regular basis, resting in giant kelp beds along the breakwaters adjacent to the area of proposed dredging.

The proposed dredging operations have the potential to result in direct injury and/or indirect impacts to marine mammals and sea turtles from noise or increased turbidity leading to an adverse behavioral response. To avoid and minimize the potential for such adverse impacts, [Special Condition 6](#) requires PG&E to adhere to a revised final Marine Wildlife Contingency Plan ([Exhibit 7](#)) which incorporates multiple project-specific protections for marine mammals and sea turtles and would be revised to include specific requirements for nighttime operations. Project vessels are required to avoid disturbance of submerged aquatic vegetation and sensitive marine habitat by vertically dropping and retrieving anchors, without dragging, and using crown buoys for anchoring. Vessels must minimize interference with sea otters and other marine mammals by reducing vessel speeds to less than 5 knots if animals are visually observed in the vessel's vicinity. PG&E must conduct environmental awareness training for all project personnel, as specified in the final Biological Assessment, to ensure project personnel understand the ecology of all special status species and the measures that must be taken to avoid them. The Plan requires PG&E to have a marine

wildlife observer (MWO) on all project vessels, including those used for dredging operations and sediment transport and placement. MWOs shall assure that all work vessels, including vessels in transit, maintain a distance of at least 150 feet from any marine wildlife species, such as whales, seals, dolphins, otters, and sea turtles. A stop work order must be issued if any marine mammals or sea turtles enter a 33-foot exclusion zone around active dredging or if dredging activities become dangerous. The location of dredging operations would be sequenced so that any marine wildlife within the intake cove has adequate space and time to leave the intake cove prior to operations each day. **Special condition 6c and 6e** requires PG&E to incorporate measures such as use of night-vision equipment and reflective markers so that MWOs can effectively maintain the 150-foot buffer and 33-foot exclusion zone required by **Special Condition 6a and 6b**. **Special Condition 6d** ensures that MWOs will issue a stop work order if visibility is reduced to a level that MWOs cannot perform their monitoring duties, and **Special Condition 6f** requires reporting of daily sightings to verify whether any observable effects to marine mammals or sea turtles occurred. As outlined in **Special Condition 6g**, the Executive Director will receive prompt notification if any of the monitoring stipulated by **Special Condition 6** cannot be accomplished. **Special Condition 9** requires PG&E to implement its final Oil Spill Response Plan ([Exhibit 8](#)), which will help ensure sea otters, seals, sea turtles, and their habitats are less likely to be exposed to hazardous spills.

Sandy seafloor: The seafloor of the intake cove consists of sandy sediment, boulder fields, low rock ridges, and emergent rocks during low tides. The nearshore placement site is a sandy bottom area. PG&E proposes only to dredge sandy sediment that has shoaled above the original design depth of the intake cove, over an approximately 125,000 ft² area as specified by [Special Condition 1](#). No dredging is authorized in rocky habitat, and [Special Condition 3](#) requires submission of an Anchoring and Pipeline Placement Plan identifying locations where dredging equipment will anchor to avoid hard substrate and seafloor vegetation. The sediment to be dredged is sand -- a soft substrate that is not generally considered sensitive due to its regional abundance. Dredging with a hydraulic suction or clamshell dredge is expected to remove any benthic fauna that was originally present in the dredge prism, and placement of dredged sediment would potentially bury slow moving or sessile invertebrates. However, benthic invertebrate recovery is expected to occur quickly at the placement area and would recover at the dredge site as sand accretes following dredging. During the September 2023 biological surveys, common invertebrates such as moon snails (*Polinices* spp.), and gaper clams (*Panopea* spp.) were observed and no sensitive Sunflower Stars (*Pycnopodia helianthoides*) were observed (See [Exhibit 4 – Biological Survey Results](#)). Benthic organisms in the placement area are generally adapted to routine disturbance (e.g. the high-energy surf zone nearby and annual exposure to sediment dredged from the Morro Bay federal channel) and are typically able to recolonize within a few years (Newell et al. 1998). Invertebrates removed from the intake cove will likely recolonize from adjacent areas once sediment re-accumulates. In addition, given the short project duration, and the maximum limit on the amount of sediment (up to 70,000 cy) that would be placed compared to the USACE's 10-year average annual placement volume of 195,000 cy at this site (See [Appendix D](#) – Morro Bay Harbor 2023

Environmental and Geotechnical Investigation), impacts to benthic invertebrates at the placement site are likely to be short term, minimal, and temporary (USACE 2013, USACE 2023).

Dredged sediment characteristics: PG&E proposes to use a placement area for dredged sediment that has been used by the U.S. Army Corps of Engineers (USACE) for its federal maintenance dredging of Morro Bay Harbor since the mid-1980s. The USACE's record of placement volumes dates to 1986, when the Commission first began reviewing USACE's Morro Bay dredging program under the Coastal Zone Management Act (CZMA) federal consistency process.

The Corps and other agencies have established requirements to determine whether sediment is suitable for placement at this site. To assure the sediment's suitability for placement, PG&E analyzed the physical and chemical characteristics of the sediment proposed for dredging. Chemical and grain size testing helps ensure that sediment is suitable for the aquatic environment at the placement site and will not cause undesirable human health or ecological effects. The Southern California Dredged Material Management Team (SC-DMMT) is an interagency team comprised of the USACE, EPA, NMFS, various Regional Water Quality Control Boards (RWQCB), CDFW, and Coastal Commission staff responsible for reviewing sampling and analysis plans, analyzing results, and making sediment suitability determinations for dredging projects in Southern California. Coastal Commission staff participated in the review of the draft *DCPP Intake Cove Dredging: Sediment Sampling and Analysis Plan (SAP)* dated January 17, 2023, at the January 25, 2023, SC-DMMT meeting. The DCPP SAP was prepared in accordance with the USACE Sampling and Analysis Plan/Results (SAR/R) Guidelines (USACE 2021). The SC-DMMT requested that PG&E resubmit the SAP once the bathymetric survey of the dredge footprint had been completed so that the SC-DMMT could confirm that the core locations were appropriately located to adequately characterize the shoaled sediment. PG&E submitted a revised SAP dated April 27, 2023, which was subsequently approved by the SC-DMMT on May 31, 2023.

For purposes of this project, five sediment core samples were collected with a vibracore on July 12, 2023, and sediment chemistry and grain size analyses were conducted as outlined in the SAP. On August 17, 2023, the SC-DMMT reviewed the *DCPP Intake Cove Dredging: Sediment Sampling and Analysis Plan Results (SAPR)* dated August 10, 2023. Grain size analysis showed that the sediment is, on average, 87% sand, 1% gravel, 9% silt, and 3% clay (See [Exhibit 3 – Sediment Testing Results](#)). Grain size data for the intake cove sediment samples were compared with the grain size results for the nearshore area (See [Appendix D – Morro Bay Harbor 2023 Environmental and Geotechnical Investigation](#)). Almost all of the approximately 140 chemicals tested were within acceptable concentrations, with most registering as non-detect. Only two – 4,4'-DDE and Total DDTs – were detected at a concentration equivalent to or slightly higher than any environmental thresholds recommended in the USACE SAP/R Guidelines

(2021).⁹ 4,4'-DDE was measured at 2.2 µg/kg (micrograms per kilogram), which is equal to the Effects Range-Low (ERL) sediment quality threshold in the USACE SAP/R Guidelines. The ERL is the threshold where toxicity effects are scarcely observed, and it is more stringent than the Effects-Range Medium (ERM) threshold. Total DDTs were measured at 2.2 µg/kg, just slightly above its ERL threshold of 1.58 µg/kg. For comparison, the ERM threshold for Total DDTs, above which toxic effects on marine life frequently occur, is 46.1 µg/kg. Because the ERL and ERM values are used primarily as estimates of the likelihood of adverse effects, and the measured concentration of Total DDTs in sediment sampled in the intake cove is only marginally greater than the ERL, it is likely similar to levels found in sediments throughout the wider region and the SC-DMMT did not consider this slight exceedance concerning enough to warrant further testing or to pose a significant risk of biological effects. Based on the high sand content and lack of significant contaminant exceedances, the SC-DMMT determined the sediment suitable for placement in the nearshore of Morro Bay sandspit.

Turbidity associated with placement activities would likely have little to no effect on water quality and the marine environment as this is a high energy environment; the minor fraction of fine sediment in the dredged material would disperse quickly, while the predominant sand fraction is anticipated to settle very quickly. The placement site is within an active littoral cell near the seaward side of the surf zone so sediment would over time be dispersed by wave action and natural transport processes.

Although only 12% of the sediment within the dredge prism is fine sediment (9% silt, and 3% clay) on average, and not anticipated to cause significant turbidity issues, [Special Condition 4](#) requires PG&E to adhere to the turbidity criteria and standards in the Turbidity Monitoring Plan that necessitates response actions to turbidity exceedances such as slowing the dredge rate, installing silt curtains if feasible, or stopping work to mitigate any turbidity exceedance. Per [Special Condition 10](#), PG&E must also obtain an amendment to its water quality certification prior to project commencement.

Conclusion

The proposed project has the potential to adversely impact marine resources, water quality, and the biological productivity of coastal waters. With implementation of [Special Conditions 1 through 10](#) however, the project would be carried out to avoid or further minimize those potential impacts. The Commission therefore finds the proposed project, as conditioned, consistent with Marine Resource Sections 30230 and 30231 of the Coastal Act.

⁹ DDE is a chemical similar to DDT that forms when DDT breaks down. DDT was a common and widely used insecticide in agricultural and other uses in the United States for decades until it was largely banned in the 1970s. Nonetheless, DDT compounds widely persist in the environment as a result of this historic use.

F. Oil Spills

The proposed project must demonstrate that effective oil spill prevention and response measures are in place that meet the standards of Coastal Act Section 30232.

Section 30232 of the Coastal Act states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

PG&E evaluated different spill scenarios and determined that the worst-case discharge would be if a marine tugboat were to spill its entire fuel tank contents (up to 31,500 gallons) in the intake cove. In this scenario, diesel fuel would be expected to spread across the intake cove into intertidal and rocky shoreline habitats. In addition, the project uses a barge with hydraulic suction or clamshell dredge, a scow barge and marine tug to transport sediment, support vessels to transport crew members, and possibly an excavator to distribute the sediment load on the scow barge. These pieces of equipment require oil, hydraulic fluid, and other petroleum products to operate, and are potential sources of smaller spills if the equipment fails or malfunctions.

The first test of Coastal Act Section 30232 requires evidence of oil spill prevention technologies, programs, and procedures to protect against the spillage of crude oil, gas, petroleum or other hazardous materials during both dredging and sediment placement. To satisfy this requirement, PG&E's submitted a final Oil Spill Prevention and Response Plan (OSPRP), dated February 7, 2024 ([Exhibit 8](#)). The final OSPRP incorporates and implements Commission staff's previous comments and suggestions. on the draft OSPRP, and demonstrates evidence of adequate oil spill prevention technologies, programs, and procedures to prevent oil, gas, petroleum, or other hazardous material spills during both dredging and sediment placement activities, The scope of the final OSPRP includes all nearshore and offshore environments between Morro Bay and Avila Beach, that could be impacted in the event of an accidental spill; including the DCPP intake cove, discharge cove, tug transit route to the placement site, and nearshore placement site. Oil spill prevention measures that are proposed to be taken to avoid or mitigate potential spills include setting up pre-planning meetings to assign employees and/or contractors to designated roles and responsibilities, and setting-up a training schedule before work can begin. All personnel will need to be trained on whom they should notify in the case of an oil spill and where all spill response equipment is stored on-site. In addition, PG&E will require the selected dredging contractor to prepare and implement a re-fueling spill contingency plan for any required fueling activities during the project activities. PG&E will also require the dredging contractor to provide evidence of US Coast Guard required vessel inspections and to complete daily inspections of vessels and equipment for fuel and hydraulic system leaks or spills. All dredge equipment and associated vessels will be tested/inspected and shown to be in good working condition. PG&E will also establish on-water fueling procedures/prohibitions to

be implemented during dredging activities. With these measures included, the first test of Coastal Act Section 30232 has been met.

The second test requires a proposed project to provide effective containment and clean-up facilities and procedures for accidental spills that do occur. In this case, an oil spill response team will be established that will coordinate any necessary oil spill response from an Incident Command Center (ICC) located on-site at DCPP. PG&E will hire a qualified Oil Spill Response Organization (OSRO) contractor to provide dedicated equipment and personnel available to assist with any required oil spill response within the Intake Cove. The OSRO contractor and/or PG&E will stage the appropriate amounts of boom and absorbent materials on-site within the Intake Cove staging area for rapid mobilization. According to the final OSPRP, DCPP will ensure that they have at least 3,355 feet (ft) of sorbent boom, 3,565 ft of containment boom, and two skimmers on-site during the pre-planning process in the event of a worst-case spill scenario in which a spill occurs at the Intake Cove. The OSRO contractor will be on-call during the project to assist with boom deployment if needed. For spills within the open ocean, PG&E will coordinate with the US Coast Guard to determine and implement appropriate spill response actions. Lastly, a spill kit containing absorbent boom and/or pads and equipment for handling oily material will be located on the marine tug(s) and dredge barge(s) to effectively contain and clean up smaller spills and drips that could occur during dredging and sediment placement activities. With these measures included, the second test of Coastal Act Section 30232 has been met.

In order to memorialize that effective oil spill prevention and response measures will be in place and implemented during the project, Special Condition 9 requires that all dredging and sediment placement activities be conducted consistent with the provisions and requirements included in the final “Diablo Canyon Intake Cove Dredging Project Oil Spill Prevention and Response Plan” dated February 7, 2024. Therefore, with the incorporation of [Special Condition 9](#), the Commission finds that the project will adequately prevent spills and effective containment and cleanup facilities will be provided for accidental spills that may occur. Thus, as conditioned, the project is consistent with Section 30232 of the Coastal Act.

G. Dredging and Filling of Coastal Waters

Section 30233 of the Coastal Act states, in part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

...

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable shore current systems.

Section 30233(a) of the Coastal Act permits dredging in open coastal waters if three tests are met: (1) the dredging constitutes an allowable use under 30233(a); (2) there is no feasible less environmentally damaging alternative; and (3) feasible mitigation measures have been provided to minimize any adverse effects.

Allowable Use

The first requirement of Coastal Act Section 30233(a) is that the proposed activity must fit into one of the seven listed categories (i.e., in the “allowable use” test). PG&E’s proposed project qualifies as an “allowable use” under Section 30233(a)(4) because it is a dredging project to maintain an existing cooling water intake for the continued operation of the DCPP, which provides the public service of energy generation. The project, therefore, is consistent with the allowable use requirement of Section 30233(a).

Alternatives

For the second test of Section 30233(a), the Commission must find that there are no feasible, less environmentally damaging alternatives to the proposed dredging and filling of open coastal waters.

Dredging alternatives

PG&E investigated project alternatives that would eliminate or reduce the need for dredging. The no project alternative is infeasible because leaving the sediment in place would not ensure effective functioning of the once-through-cooling system that is an essential component of DCPP’s operations. Instead, the no project alternative would allow sediment accretion to continue, eventually affecting the system’s ability to take in enough water for effective cooling, creating a safety risk that could potentially lead to a shutdown. PG&E also considered modifying or relocating the intake structure to avoid dredging, but the technical, economic, and environmental constraints of this approach significantly outweigh the potential effects of the relatively small proposed dredging project. PG&E would not be able to relocate or modify the intake structure in time to address the risk of a shutdown. It is not clear, either, whether this isolated dredging event – the first needed in DCPP’s more than 30 years of operations – will need to be repeated again in the future, or at a scale and frequency that would justify consideration of intake modification or relocation.

The other alternatives PG&E considered include a reduced dredge area footprint, different dredging methods, and onshore placement of dredged sediment. In considering a reduced dredge footprint, PG&E determined that dredging solely in front of the intake structure would not achieve the objective of ensuring effective operation of the intake structure, as the “pull” of the intake could draw the remaining sediment from the dredging prism into the area in front of the intake structure, which would result in the

need for an additional dredging event. Therefore, the proposed dredging (of up to 70,000 cy of sediment) is the minimum amount necessary to meet the project objectives.

Least environmentally damaging feasible alternative

PG&E evaluated dredging equipment alternatives to determine if use of a hydraulic suction dredge or a clamshell dredge would be the least damaging feasible¹⁰ alternative. In general, the choice of dredging equipment is site-specific and depends on several factors including the quality, quantity, and depth of the material to be dredged, the presence of sensitive marine resources such as eelgrass, kelp, and sensitive wildlife species, and the constraints of the dredging equipment.

PG&E evaluated the alternatives of (a) using only a hydraulic suction dredge to complete the proposed project, or (b) using both a hydraulic suction dredge and a clamshell dredge. PG&E determined the suction dredge to be the preferred method because this equipment allows for a higher dredging rate and would likely minimize the project duration. A shorter project duration would minimize the overall time that sea otters, black abalone, kelp, eelgrass and other sensitive species are exposed to the disturbance, injury risk, and turbidity associated with project equipment and dredging operations. Hydraulic suction is often the preferred method for dredging sand because coarser sediments do not tend to mobilize as far away from the suction head and may be more efficiently pulled into the suction pipe. Within the intake cove, the hydraulic suction dredge is expected to produce only a small, short-lived turbidity plume near the point of contact with the seafloor, and because the scow would be located outside the cove, water decanting from the scow will not raise turbidity within the intake cove. Sediment pumped to a scow must settle out prior to placement so if sediment is predominantly sand, it takes less time to settle out and there are fewer concerns that the scow's decant water would generate a significant turbidity plume outside the cove.

On the other hand, having the option to use a clamshell dredge as a back-up option would provide PG&E with greater operational flexibility without substantially affecting the potential for environmental impacts at the project site. Under this dredging approach, the clamshell dredge would be used under certain conditions, including if the hydraulic suction dredge breaks down, weather conditions at the time of dredging warrant the use of the clamshell, or if sediment is encountered that favors the use of a clamshell. The clamshell dredge would be equipped with an environmental bucket that is sealed at the top to limit sediment flowing out as it rises to the surface through the water column. The environmental bucket can dredge more precisely and in locations that may be difficult to reach with the suction dredge. The environmental bucket applies downward pressure such that each grab is mainly sediment without water, which reduces the need to decant

¹⁰Under Section 30108 of the Coastal Act, feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

water from the scow. Any excess water would be released from the scow during dredging so that the maximum amount of sediment is withdrawn before transporting it to the placement site, thereby reducing the number of trips needed to finish the dredging project. To prevent material from being spilled, the sides of the environmental bucket have strong rubber seals and the top is fully enclosed so that sediment escape is limited and turbidity is minimized. Due to these design and operational features, the clamshell dredge is not expected to produce more turbidity than the suction dredge, especially in the predominantly sandy sediment of the intake cove. Moreover, due to the fact that the clamshell dredge can be more readily deployed during high wind and swell conditions, it may allow PG&E to avoid significant work stoppages and to minimize the project duration and associated impacts.

The Commission routinely reviews and approves dredging proposals that incorporate the use of more than one type of dredge to complete the project. For example, the Commission recently concurred with the flexible use of barge-mounted clamshell, hydraulic, suction, backhoe or hopper dredge equipment in the dredging of the U.S. Coast Guard's vessel mooring basin in Humboldt Bay (negative determination No. ND-0004-23), and found that all proposed dredge types would only generate short-term and localized increases in turbidity and less than significant adverse impacts to benthic species. Similarly, for dredging in Ventura Harbor and Ventura Keys (CDPs Nos. 4-16-0333-A1 and 4-18-0390-A1), the Commission authorized use of one or more dredge types including a cutterhead hydraulic pipeline dredge, clamshell, or hopper dredge. Commission staff concludes that it is appropriate for the project to use suction dredging as the primary method, with clamshell dredging as a backup option. Moreover, there is no appreciable difference in environmental impacts overall whether suction dredging or clamshell dredging is used for this project.

Sediment placement alternatives

PG&E evaluated two alternatives for sediment placement, including (1) the proposed placement site offshore of Morro Bay sandspit, and (2) an upland placement site on the DCPP property.

The use of the proposed sand placement site has been previously concurred with by the Commission in its federal consistency review of the U.S. Army Corps of Engineers Morro Bay Maintenance Dredging Project (see ND-0007-23, ND-0026-16, ND-0011-14, ND-034-08, CD-074-01, ND-20-98, ND-85-98, ND-89-97, ND-29-96, ND-28-95, ND-44-93, CD-81-91, CD-55-90, CD-29-90, CD-11, 87, CD-39-86, and CD-58-94). In these concurrences, the Commission found that sediment placement in the nearshore of Morro Bay sandspit complied with the alternatives test of Section 30233 because when the sediment is suitable for beach or nearshore placement, this is the least damaging feasible alternative. The nearshore placement area offshore of Morro Bay sandspit is sandy and lacks the hard substrate necessary to support kelp communities. The nearest mapped historical kelp extent is approximately three miles south of the placement site near Spooner's Cove and not likely to be impacted by placement activities. Commission staff also compared PG&E's proposed maximum dredging volume of 70,000 cy to the

volume the USACE is authorized to place annually at this site when dredging the Morro Bay federal channels. In 2016, the Commission concurred with a six-year maintenance dredging program that included spring placement of up to 200,000 cy of sediment and fall dredging (when needed) of up to 500,000 cy of sediment per year. In 2023, the Commission concurred with the USACE's annual dredging and placement of up to 400,000 cy of sediment at the nearshore placement site. As part of the proposed project, PG&E has coordinated with USACE to confirm the capacity of the placement site. The USACE also confirmed that PG&E's use of the placement site in 2023 would not affect the USACE's ability to use the site in 2024 when dredging Morro Bay Harbor. PG&E's sediment placement would therefore represent a relatively small proportion of the volume of sediment the Commission has already evaluated and approved for this placement site. Turbidity associated with placement activities would likely have little to no effect on water quality and the marine environment as this is a high energy environment and sand is anticipated to dissipate from the area within a few months. The placement site is within an active littoral cell near the seaward side of the surf zone, and over time the placed sediment would be dispersed by wave action and natural transport processes, contributing to the regional littoral sand supply.

In addition, PG&E examined an alternative upland placement location on the DCPP property. The onshore placement area is a coastal prairie consisting largely of nonnative grasses and some native needle grass (*Stipa* spp.). This site has the potential to provide dispersal and sheltering habitat to the California red-legged frog (*Rana draytonii*), a federally threatened species, which is known to occur in a pond that is 0.4 miles from the onshore placement area. Placing sediment here would bury the site in two feet of sediment, which would bury and potentially take any California red-legged frogs present. Placing dredged sediment on land would also require the sediment to first be decanted in a temporary dewatering area, which would require an additional but unspecified amount of land and habitat in this area. It would also require the sediment to be transported to this location by approximately 4,660 truck trips to the onshore placement site, which could increase the risk of injury to California red-legged frogs if they disperse into the line of traffic. Finally, upland placement of the dredged sediment would remove it from the littoral system, precluding this high-sand content material from being naturally redistributed onto local beaches.

Thus, the project meets the alternatives test of Section 30233 because there is no less damaging feasible alternative to the proposed project.

Mitigation

The third test of Section 30233(a) requires that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

As described above, the proposed project includes multiple protective measures intended to avoid and minimize potential adverse effects of sediment dredging (whether the method is suction dredging or clamshell dredging) and placement activities. The dredge suction head will be fitted with fish screens and will rotate at the slowest feasible

speed to avoid entrainment of fish and other large marine life during dredging. As specified in the final Biological Resources Monitoring Plan ([Exhibit 6](#)), PG&E will locate actions as far as possible from existing eelgrass and canopy kelp, and will minimize turbidity to the greatest extent feasible by positioning the scow barge on the outside of the intake cove and by adhering to the TMP approved by the Executive Director. However, if pre- and post-dredge surveys reveal any impacts to eelgrass, **Special Condition 5a** would require preparation of an eelgrass mitigation plan to be approved by the Executive Director. The final Biological Resources Monitoring Plan and Marine Wildlife Contingency Plan would require PG&E to minimize potential adverse effects on sensitive marine habitats and wildlife. PG&E will use appropriate lighting at night and will require the use of two approved wildlife monitors during project activities and vessel transit.

For the reasons described in Parts D and E above, Special Conditions have been included to further reduce potential adverse environmental effects to coastal resources. [Special Condition 2](#) requires PG&E to submit a post-dredge bathymetric survey of the dredge footprint and provide the final placement volume to confirm that dredging and placement activities are performed in accordance with the project plans. [Special Condition 3](#) requires PG&E to submit an Anchoring and Pipeline Placement Plan. [Special Conditions 4, 5, 6, and 9](#) would require PG&E to adhere to all relevant provisions and mitigation measures in several Plans that would reduce potential impacts to water quality and biological resources within the intake cove. These include a Turbidity Monitoring Plan, Biological Resources Monitoring Plan, Marine Wildlife Contingency Plan, and Oil Spill Prevention and Response Plan. [Special Condition 7](#) would limit placement of dredged sediment to periods when California grunion is not expected to be spawning. As described in Part D, [Special Condition 8](#) requires PG&E to prepare a Tribal Cultural Resources Treatment and Monitoring Plan for the proposed project to minimize potential effects to tribal cultural resources. The project therefore meets the mitigation test of Section 30233(a) because, as proposed and conditioned, feasible mitigation measures are in place to minimize potential adverse environmental effects.

Furthermore, Section 30233(b) of the Coastal Act requires that dredging and sediment placement must be carried out in a manner that is protective of marine resources and water circulation, and that suitable dredged sediment is used to nourish the beach or longshore current. The project is consistent with Section 30233(b) because, with the inclusion of [Special Conditions 1 through 10](#) as described in Section D through E above, it will avoid or minimize potential disruption to sensitive marine life and to water circulation. Placement of dredged sediment in the nearshore also complies with Section 30233(b) because it retains sediment within the littoral system.

The project, as conditioned, meets the mitigation test of Section 30233 because it includes feasible mitigation measures to minimize any adverse environmental effects.

Conclusion

The project is consistent with Section 30233 of the Coastal Act because dredging to maintain the DCPP intake line is an allowable use under Section 30233(a)(4), there is

no feasible less environmentally damaging alternative, and feasible mitigation measures have been provided to minimize any adverse environmental effects. The project is also consistent with Section 30233(b) because dredged sediment will be retained in the littoral system through nearshore placement.

H. Coastal Access

Section 30210 of the Coastal Act states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 of the Coastal Act states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

The project is expected to have minimal to no adverse effects on public access to the shoreline because the dredging would occur in an area where access is already restricted due to public safety concerns and the sediment placement would occur well offshore of the publicly accessible shoreline outside of Morro Bay.

PG&E and the United States Coast Guard maintain a federally required exclusion zone of 2,000 yards around the DCPP for security for nuclear power plant operations (33 CFR § 165.1155). Only authorized vessels may enter the intake cove, and the nearest public access points are the Pecho Coast Trailhead, approximately 6 miles southeast, and the Point Buchon Trailhead, approximately 4 miles northwest. PG&E anticipates in-water work to take place over a period of 20 days, involving only a handful of vessels, so any increases in vessel traffic would be minor and temporary. Dredged sediment would be transported to the USACE Morro Bay sandspit nearshore placement area, located 13 miles from the dredge site, about four times per day. This would represent only a minor increase in vessel traffic in the area and would remain largely downcoast of the Morro Bay entrance channel, which provides most of the vessel egress and exit to this section of the coast. Nearshore placement activities would not affect public access on the sandspit because the marine tug and scow would only be present temporarily to discharge sediment in waters that are 20 to 40 feet deep, more than 1,000 feet seaward of the surf break, and not near the beach, where recreational access is most likely to occur. PG&E also proposes to use Morro Bay Harbor, possibly Port San Luis, and PG&E's private parking area near the intake structure, for some equipment staging, though these areas provide sufficient space to accommodate the temporary staging area.

Based on the above, the project would be consistent with relevant Coastal Act public access policies, as it is expected to result in no more than minor reductions to existing access at and near the project sites.

I. Unpermitted Development

Unpermitted development has occurred at the subject site including, but not necessarily limited to, unpermitted use by divers of water hoses to clear accumulated sediment and debris on and in front of the intake structure located in the intake cove as part of ongoing maintenance activities. Approval of this application will not resolve the violation and thus, even if this application is approved, and the permit is exercised, a violation will remain on the subject property. The matter has been referred to the Commission's enforcement division to consider options for future action to address the violation. The Applicant may propose to resolve this matter, at a later date, through submittal of an after-the-fact CDP application for CDP authorization of the actions taken, or for authorization to take remedial measures to address the alleged violation. The matter may also be addressed through an enforcement action. The current application does not include resolution of the alleged violation, and the enforcement matter remains open.

J. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. The Commission's regulatory program for reviewing and granting CDPs has been certified by the Resources Secretary to be the functional equivalent of environmental review under CEQA. (14 CCR § 15251(c).)

The Commission incorporates its findings on Coastal Act consistency as if set forth in full herein. As discussed in the findings, the project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives or mitigation measures. Therefore, the proposed project is consistent with CEQA.

V. REFERENCES

- County of San Luis Obispo. 2023. Diablo Canyon Power Plant Decommissioning Project: Draft Environmental Impact Report. State Clearinghouse # 2021100559. Available at: [https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Active-Planning-Projects/Diablo-Canyon-Power-Plant-Decommissioning-\(1\)/Draft-Environmental-Impact-Report.aspx](https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Active-Planning-Projects/Diablo-Canyon-Power-Plant-Decommissioning-(1)/Draft-Environmental-Impact-Report.aspx).
- Herbich, J.B. and Brahme, S.B. 1991. Literature review and technical evaluation of sediment resuspension during dredging. Contract Report HL-91-1, Prepared for the Department of the Army. Washington, D.C. Available at: <https://apps.dtic.mil/sti/pdfs/ADA232583.pdf>
- Lafferty, K.D. and Tinker, M.T. 2014. Sea otters are recolonizing southern California in fits and starts. *Ecosphere* 5(5):50. <http://dx.doi.org/10.1890/ES13-00394.1>.
- Long, E. R., D. D. MacDonald, S. L. Smith, and F. D. Calder. 1995. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management* 19(1): 81-97.
- Merkel and Associates, Inc. 2022. Post-dredge Canopy Kelp and Subtidal Reefs Survey Report in Support of the Morro Bay 2022 Maintenance Dredging Project. Document No. 05-024-42. San Diego, CA.
- Newell, R.C., Seiderer, L.J., and Hitchcock, D.R. 1998. The impact of dredging works in coastal waters: a review of the sensitivity to disturbance and subsequent recovery of biological resources on the sea bed. *Oceanography and Marine Biology: An Annual Review* 36, p. 127-178. Available at: http://www.sussex.ac.uk/geography/researchprojects/coastview/dredging/Impact_of_Dredging_Oc_Bio.Ann_Rev.pdf
- NOAA National Marine Fisheries Service. 2014. California Eelgrass Mitigation Policy and Implementing Guidelines. West Coast Region. Available at: https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf.
- Stantec Consulting Services Inc. 2023. Diablo Canyon Power Plant Intake Cove Dredging Project Administrative Draft Environmental Assessment. Prepared for PG&E. Project No. 185806006.
- Sherman, K., and L.A. DeBruyckere. 2018. Eelgrass habitats on the U.S. West Coast: State of the Knowledge of Eelgrass Ecosystem Services and Eelgrass Extent. A publication prepared by the Pacific Marine and Estuarine Fish Habitat Partnership for The Nature Conservancy. Available at: https://www.pacificfishhabitat.org/wp-content/uploads/2017/09/EelGrass_Report_Final_ForPrint_web.pdf.
- U.S. Army Corps of Engineers. 2013. Draft Environmental Assessment Morro Bay Six Year Federal Maintenance Dredging Program, San Luis Obispo County, California.

Available at:

https://www.spl.usace.army.mil/Portals/17/docs/publicnotices/morro_bay_draft_ea.pdf

U.S. Army Corps of Engineers. 2015. Dredging and Dredged Material Management Engineer Manual No. 1110-2-5025, Washington, DC. Available at:

https://www.publications.usace.army.mil/portals/76/publications/engineermanuals/em_1110-2-5025.pdf

U.S. Army Corps of Engineers. 2023. Final Environmental Assessment and Finding of No Significant Impact for the Morro Bay Six Year Federal Maintenance Dredging Program, San Luis Obispo County, California.

U.S. Army Corps of Engineers and US Environmental Protection Agency. 2021. Sampling and Analysis Plan/Results (SAP/R) Guidelines. Available at:

https://www.spl.usace.army.mil/Portals/17/docs/regulatory/2021_Corps-EPA_SAPR-G_FINAL-with-figures.pdf

U.S. Fish and Wildlife Service. 2021. Southern sea otter stock assessment report. Ventura Fish and Wildlife Office. Ventura, CA. Available at:

<https://www.fws.gov/sites/default/files/documents/southern-sea-otter-stock-assessment-report.pdf>