STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 26-27, 2026
Prepared on February 13, 2026

ITEM NUMBER: **7**

SUBJECT: **Consideration of Permits for Pacific Gas and Electric Company's Diablo Canyon Power Plant, San Luis Obispo County**

7a. Proposed Order R3-2026-0001, *Waste Discharge Requirements for Pacific Gas and Electric Company Diablo Canyon Nuclear Power Plant*, National Pollutant Discharge Elimination System Permit CA0003751

7b. Proposed Order 34024WQ31, Clean Water Act Section 401 Water Quality Certification for Federal License

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KEY INFORMATION

Discharger:	Pacific Gas and Electric Company
Location:	3890 Diablo Canyon Road, Avila Beach, San Luis Obispo County
Type of Discharge:	Once-through cooling water comingled with industrial process waste streams and other lower-volume waste streams
Permitted Flow:	2,760 million gallons per day

Types of Treatment:	Once-through cooling water is not treated. An onsite sanitary wastewater system consisting of an intermittent cycle extended aeration system treats onsite domestic wastewater. A wastewater holding and treatment system consisting of coagulation, settling oil removal, pH adjustment, filtration, and chlorination, treats turbine building sump and waste regenerant liquid from the steam-cycle condensate demineralizers. Liquid radioactive waste treatment consists of storage tanks for radioactive decay, evaporators, activated carbon filters, ion exchangers, and filters.
Disposal Method:	Once-through cooling water is comingled with industrial process wastewater and discharged to the Pacific Ocean through an outfall structure in Diablo Cove. Other lower-volume waste streams are discharged to the Pacific Ocean through various outfalls located around the facility.
Existing Orders:	Order 90-09
ACTION:	**Consider adopting proposed Order R3-2026-0001 and proposed Order 34024WQ31**

SUMMARY

This staff report provides an overview of the proposed permits necessary for Pacific Gas and Electric Company to continue operation of its Diablo Canyon Nuclear Power Plant. The Proposed National Pollutant Discharge Elimination System (NPDES) Permit (Proposed Order R3-2026-0001, Attachment 1) specifies requirements to ensure that discharges of wastewater are protective of water quality, beneficial uses, public health, and the environment. The Proposed 401 Certification (Proposed Order 34024WQ31, Attachment 2) certifies that the federal Nuclear Regulatory Commission's pending new operating licenses will comply with all California water quality standards. Additional information and details can be found in the Fact Sheet, Attachment F of the Proposed NPDES Permit.

DISCUSSION

Background

In operation since 1985, the Diablo Canyon Nuclear Power Plant (Facility) is a 2,269-megawatt nuclear steam electrical power generation facility owned and operated by Pacific Gas and Electric Company (PG&E). The Facility currently produces over 8% of California's electricity to meet the state's electrical demand. The Facility is authorized to discharge up to 2,760 million gallons per day of wastewater, primarily consisting of seawater used for once-through cooling of its two nuclear reactor units along with other lower-volume industrial waste streams. Once-through cooling water is pulled into the

plant from the Intake Cove, routed through steam condensers where heat is transferred, and discharged into Diablo Cove (see figures in Attachment B of the Proposed NPDES Permit).

NPDES Wastewater Permit History

The Facility is currently authorized to discharge wastewater under Central Coast Regional Water Quality Control Board (Central Coast Water Board) Waste Discharge Requirements Order 90-09, NPDES Permit CA0003751. The Central Coast Water Board adopted Order 90-09 on May 11, 1990, and it expired on July 1, 1995. Order 90-09 has been administratively extended since that time and is in full force and effect.

The Central Coast Water Board has begun permit renewal processes numerous times since 1995. However, various circumstances delayed action. These circumstances include state and federal rulemaking, investigation and resolution of alleged permit violations, and PG&E's previous plans to decommission the Facility.

On April 16, 2025, PG&E applied for renewal of Order 90-09 for continued authorization to discharge wastewater from the Facility to the Pacific Ocean.

SB 846

In 2022, Senate Bill 846 (SB 846) was signed into law, extending the operation of Diablo Canyon's two reactor units until October 31, 2029, and October 31, 2030. In SB 846, the legislature determined that the extended operation was necessary to "improve statewide energy system reliability and to reduce the emissions of greenhouse gases while additional renewable energy and zero-carbon resources come online, until those new renewable energy and zero-carbon resources are adequate to meet demand."

Clean Water Act Section 401 Water Quality Certification

On November 7, 2023, PG&E submitted a license renewal application to the federal Nuclear Regulatory Commission to extend operations of the Facility through August 26, 2045. Before the Nuclear Regulatory Commission can issue a new federal license, section 401 of the federal Clean Water Act requires that the Central Coast Water Board certify that waste discharges from the Facility will comply with all specified provisions of the Clean Water Act, including state water quality standards. PG&E initially submitted its application for water quality certification on April 17, 2025, and completed its application on September 4, 2025. The Proposed 401 Certification specifies that compliance with all applicable water quality standards is conditional on compliance with the updated NPDES wastewater permit, the NPDES industrial stormwater permit, and the State Water Resources Control Board once-through cooling policy. Since the Proposed 401 Certification would be issued for discharges that may occur during the life of the Nuclear Regulatory Commission licenses, the water quality certification remains in effect until the licenses expire.

Proposed NPDES Permit

The following sections summarize the significant differences between the Proposed NPDES Permit and existing Order 90-09. These changes are also discussed in detail in the Fact Sheet found in Attachment F of the Proposed NPDES Permit.

Addition and Removal of Permitted Discharge Points

In its 2025 permit application, PG&E identified additional discharge points that were not previously described in Order 90-09. These are now included in the Proposed NPDES Permit. In total, there are nine discharge points to the Pacific Ocean and 12 internal discharge points.

Stormwater Discharges

Since the adoption of previous Order 90-09, the State Water Resources Control Board has adopted a general NPDES permit for industrial stormwater discharges. PG&E has been covered under the general industrial stormwater permit since 2003. Order 90-09 permitted stormwater discharges directly; however, outfalls that convey stormwater exclusively (six in number) are now regulated by the general permit.

Technology-Based Effluent Limits

Applicable technology-based effluent limits are specified for the newly identified discharge points. Technology-based effluent limits based on secondary treatment standards for publicly owned treatment works and the Ocean Plan are applied to internal Discharge Point 001N, which is effluent from the sanitary wastewater treatment system.

Reasonable Potential Analysis

NPDES permits must incorporate water quality-based effluent limitations for all pollutants that are determined to have reasonable potential to cause or contribute to an excursion above a water quality objective in the receiving water, as specified in Table 3 of *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan). To determine the need for water quality-based effluent limitations, the Central Coast Water Board conducted a reasonable potential analysis (RPA) in accordance with Section III.C and Appendix VI of the Ocean Plan.

The Ocean Plan identifies a multi-step, scientifically defensible statistical method for the RPA that accounts for averaging periods, sparse data sets, censored data,[1] and long-term data variability. The RPA for the Proposed NPDES Permit used effluent monitoring data from January 1, 2020, through March 31, 2025.

Water Quality-Based Effluent Limitation Changes

As discussed in Fact Sheet section 4.3 of the Proposed NPDES Permit, for Discharge Point 001, the RPA found reasonable potential for hexavalent chromium, nickel, and total chlorine residual, and as a result new effluent limits are included in the Proposed

[1] Censored data indicates cases where the exact value is unknown, as may be the case when a pollutant is present at a level too low to be reliability detected by the analytical testing methods employed.

NPDES Permit. Effluent limits for total lead, mercury, silver, cyanide, phenolic compounds, and chlorinated phenolics were retained from the previous order. The RPA found no reasonable potential for arsenic, cadmium, copper, zinc, ammonia, and chronic toxicity, and as a result effluent limits for these pollutants are not retained in the Proposed NPDES Permit.

The RPA found reasonable potential at Discharge Points 003 and 004 for tributyltin. Therefore, the Proposed NPDES Permit establishes effluent limitations for tributyltin at those discharge points. However, PG&E is unlikely to be able to comply with the new effluent limitations. Therefore, PG&E has requested a compliance schedule to allow phased compliance with the new effluent limitations. The Proposed NPDES Permit authorizes a compliance schedule and establishes an interim effluent limit for both Discharge Points 003 and 004. The compliance schedule outlines a series of milestone deadlines to comply with the final effluent limits established in the Proposed NPDES Permit. Milestones include developing and implementing a source identification and sampling plan and developing and implementing a corrective action plan if the Facility is found to be the source of elevated tributyltin.

Minimum Initial Dilution Credit

The Proposed NPDES Permit establishes a revised minimum initial dilution factor for discharges from Discharge Point 001. The previous order established a minimum initial dilution factor of 4.1:1 (ambient water to effluent), based on a 1988 dilution study submitted by PG&E. This dilution study used a plume-averaged dilution as opposed to a centerline dilution, the latter of which reflects the minimum amount of dilution and is a more conservative estimate of dilution. As a result, a new minimum initial dilution factor, based on the centerline dilution, of 2.9:1 was used for the RPA and applicable water quality-based effluent limits established in the Proposed NPDES Permit. This change increases the stringency of effluent limitations.

The Proposed NPDES Permit also includes a provision requiring PG&E to conduct a new dilution study due to the age and methods of the original 1988 study.

Once-Through Cooling Requirements

PG&E is required to comply with the State Water Resources Control Board's once-through cooling policy. The once-through cooling policy was adopted in compliance with federal Clean Water Act section 316(b) requirements.

The once-through cooling policy requires the location, design, construction, and capacity of cooling water intake structures reflect the best technology available to minimize adverse environmental impacts. In 2014, an independent evaluation concluded that the existing once-through cooling system did not meet the best technology available standard and that upgrading the Facility to implement best technology available would not be feasible. In response, PG&E proposed to decommission the power plant when its federal Nuclear Regulatory Commission licenses expired in 2024 and 2025. In response to SB 846, the State Water Board amended the once-through cooling policy compliance dates for Diablo Canyon Units 1 and 2 to October 31, 2030.

In the meantime, the once-through cooling policy requires that PG&E contribute to a fund that pays for projects to mitigate environmental impacts of plant operation. The mitigation amount is reevaluated annually by the State Water Resources Control Board. The mitigation fund and projects are overseen by the California Ocean Protection Council and the California Coastal Conservancy.

Monitoring and Reporting

NPDES permits must establish monitoring and reporting requirements. The Proposed NPDES Permit requires that PG&E observe conditions visually, collect and analyze representative samples, and evaluate the ecological impacts of the wastewater discharges. Regular monitoring reports are required.

Revised Ecological Monitoring and Reporting Program

The Proposed NPDES Permit includes revisions to the ecological monitoring and reporting program established in Order 90-09 and previous NPDES permits. The revisions formalize changes made in 1995 and 1999 that have been in effect since that time.

Receiving Water Limitations Removal

As described in Fact Sheet section 5.1, almost all of the generalized receiving water limitations contained from previous Order 90-09 have been removed. This addresses the U.S. Supreme Court's decision in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S. Ct. 704, holding that NPDES permits may not include end result requirements-provisions that do not spell out what a permittee must do or refrain from doing; rather, they make a permittee responsible for quality of the water in the body of water into which the permittee discharges pollutants.

Table F-21 of the Fact Sheet contains a summary of receiving water limitations removed and additional monitoring, effluent limits, and prohibitions in place to ensure receiving waters are protected. Table F-22 of the Fact sheet contains other applicable generalized receiving water limits from the Ocean Plan and *Water Quality Control Plan for the Central Coastal Basin* (Basin Plan) that are not included in the Proposed NPDES Permit and additional monitoring effluent limits or prohibitions in place to ensure receiving waters are protected.

A receiving water limitation requiring that the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption may not be altered as a result of the discharge was retained from Order 90-09, but is now required by state law, as the Supreme Court decision precludes its inclusion under federal authority.

Antidegradation Analysis

In response to comments received, the Fact Sheet at section 4.4.2 includes an updated discussion of compliance with federal and state antidegradation policies. A new antidegradation analysis is not needed; however, staff included a simple antidegradation analysis for completeness of the record.

Climate Change Adaptation
In accordance with State Water Resources Control Board Resolution 2017-0012, *Comprehensive Response to Climate Change*, which requires a proactive response to climate change in all California Water Board actions, the Proposed NPDES Permit (see Section 6.3.6.2, Other Special Provisions) includes a requirement for PG&E to submit a climate change response plan to the Central Coast Water Board. The plan must describe PG&E's long-term approach for identifying and addressing climate change hazards and vulnerabilities at the Facility, including all associated infrastructure (e.g., treatment facilities, conveyances to discharge points, collection components, and discharge facilities).

Compliance History

Impingement and Entrainment Consent Decree
In 1997, the USEPA, Central Coast Water Board, and PG&E resolved alleged violations of the NPDES permit related to PG&E's submittal and analysis of data regarding impingement on the intake screens and entrainment in the once-through cooling system. PG&E agreed to update its once-though cooling analyses and made a one-time payment of $14.04 million.

Thermal Effects Consent Judgment
In 2021, the Central Coast Water Board and PG&E resolved alleged violations of the NPDES permit related to the effects of the heated wastewater discharge to Diablo Cove. PG&E made a one-time payment of $5.9 million.

Compliance Review
A full review of the facility's performance and compliance with the existing permit was conducted and documented using the last five years of records. This review is described in section 2.4 of the Fact Sheet and summarized here.

From January 2020 through May 2025, PG&E had two permit violations:

- One exceedance of the oil and grease effluent limitation at internal Discharge Point 001F on November 16, 2021.
- One deficient reporting violation for failure to sample and report pH and total suspended solids at internal Discharge Point 001P on May 31, 2024.

Public Outreach

Early Outreach
In August 2025, staff reached out to known tribal contacts inviting them to participate in the permitting process. There are currently 32 contacts on the tribal contact list. Staff also developed an email subscription list for communicating with interested persons. The general list contains several hundred contacts.

Community Meeting
The Central Coast Water Board facilitated a community meeting in Avila Beach on November 12, 2025, to explain the permitting process and accept input from the public.

Comments received during this public workshop were recorded and are addressed with the written comments received during the public review period.

Draft Documents
The tentative orders were released for public comment on November 7, 2025, and comments were due by December 8, 2025. The comments, staff responses, and descriptions of changes made to the orders in response to public comments received are provided as Attachment 5 to this staff report. Clean versions and redline versions reflecting proposed changes of each order are provided as attachments to this staff report.

Human Right to Water

California Water Code section 106.3, subdivision (a) states that it is the policy of the State of California "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes." On January 26, 2017, the Central Coast Water Board adopted Resolution R3-2017-0004, which affirms the realization of the human right to water and the protection of human health as the Central Coast Water Board's top priorities. The proposed orders do not authorize the discharge of wastes to waters that serve as a primary source of drinking water or waters that are designated with Municipal or Domestic Water Supply beneficial uses as described in the Basin Plan. Therefore, these orders are consistent with the Water Code and Resolution R3-2017-004.

Environmental Justice

Environmental justice principles call for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, adoption, implementation, and enforcement of all environmental laws, regulations, and policies that affect every community's natural resources and the places people live, work, play, and learn. The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of all people, including underrepresented communities. Underrepresented communities include but are not limited to disadvantaged communities (DACs), severely disadvantaged communities (SDACs), economically distressed areas (EDAs), tribes, environmentally disadvantaged communities (EnvDACs), and members of fringe communities.[2]

[2] Disadvantaged community: a community with an annual median household income that is less than 80% of the statewide annual median household income (Public Resources Code section 80002(e)); severely disadvantaged community: a community with a median household income of less than 60% of the statewide average (Public Resources Code section 80002(n)); economically distressed area: a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality where the segment of the population is 20,000 persons or less with an annual median household income that is less than 85% of the statewide median household income and with one or more of the following conditions as determined by the department: (1) financial hardship, (2) unemployment rate at least 2% higher than the statewide average, or (3) low population density (Water Code section 79702(k)); tribes: federally recognized Indian Tribes and California State Indian Tribes listed on the Native American Heritage Commission's California Tribal Consultation List;

Furthermore, the Central Coast Water Board is committed to providing all persons the opportunity to participate in the public process and provide meaningful input to decisions that affect their communities.

Using 2020 census data, the California Department of Water Resources Disadvantaged Community (DAC) Mapping Tool[3] identifies the areas at and downstream of the Facility as not disadvantaged. Operation of this Facility in compliance with the Proposed NPDES Permit will not pose a significant threat to water quality and is therefore unlikely to impact DACs. If impacts to surface water result from the discharges regulated by the proposed orders, Central Coast Water Board staff will work with the discharger to rectify the water quality impacts and help facilitate outreach and education to inform affected communities and connect them with available resources.

Although the Facility is not expected to impact a disadvantaged community, the Central Coast Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach to potentially interested groups representing disadvantaged communities and tribal communities. Through the development of an outreach plan, Central Coast Water Board staff identified interested groups representing disadvantaged communities and included them in the distribution list for notifications related to development and consideration of these orders for adoption. In addition, 33 outreach letters were distributed to tribal communities that provided general information about the Facility and an invitation to provide input and participate in the order development process.

Climate Change

The Central Coast faces the threat and the effects of climate change for the foreseeable and distant future. To proactively prepare and respond, the Central Coast Water Board has launched the Central Coast Water Board's Climate Action Initiative, which identifies how the Central Coast Water Board's work relates to climate change and prioritizes actions that improve water supply resiliency through water conservation and wastewater reuse and recycling; mitigate for and adapt to sea level rise and increased flooding; improve energy efficiency; and reduce greenhouse gas production. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution 2017-0012.

EnvDACs: CalEPA designates the top 25 percent scoring census tracts as DACs. Census tracts that score the highest five percent of pollution burden scores but do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data are also designated as DACs (refer to the CalEnviroScreen 3.0 Mapping Tool or results Excel sheet; fringe community: a community that does not meet the established DAC, SDAC, and EDA definitions but can show that it scores in the top 25 percent of either the Pollution Burden or Population Characteristics score using the CalEnviroScreen 3.0.

[3] The DAC Mapping Tool is used to inform statewide Integrated Water Resources Management (IRWM), Sustainable Groundwater Monitoring Act (SGMA), and California Water Plan implementation efforts and can be found at the following website: https://gis.water.ca.gov/app/dacs/. The tool defines a DAC as a census block with a median household income between $50,458 and $67,278 and a severely disadvantaged community (SDAC) as a census block with a median household income below $50,458.

Aligning with the State Water Resources Control Board's Resolution 2017-0012, the Proposed NPDES Permit regulates the discharge of nuclear-driven steam energy cooling water to allow the Facility to continue to provide a low-carbon alternative energy supply to meet California's energy needs during its transition to clean energy. The Proposed NPDES Permit also requires PG&E to prepare a climate change response hazards and vulnerabilities plan to address climate change impacts and hazards associated with the continued operation of the Facility.

CONCLUSION

Proposed NPDES Permit, Order R3-2026-0001 and 401 Certification, Order 34024WQ31 have been drafted and prepared in compliance with state and federal guidance and regulations. The proposed orders are protective of water quality and require a monitoring and reporting program sufficient to demonstrate compliance with the proposed orders' effluent limitations and other requirements.

RECOMMENDATION

1. Adopt Order R3-2026-0001 as proposed.
2. Adopt Order 34024WQ31 as proposed.

ATTACHMENTS

1. Proposed NPDES Permit, Order R3-2026-0001
2. Proposed NPDES Permit, Order R3-2026-0001 showing proposed changes in response to comments received
3. Proposed 401 Certification, Order 34024WQ31
4. Proposed 401 Certification, Order 34024WQ31 showing proposed changes in response to comments received
5. Response to Comments