

Detailed Description and Plan of Actions Needed to Extend Operations of Diablo Canyon Power Plant

Prepared pursuant to Senate Bill 846 (Dodd, Chapter 239, 2022)

February 2023



INTRODUCTION

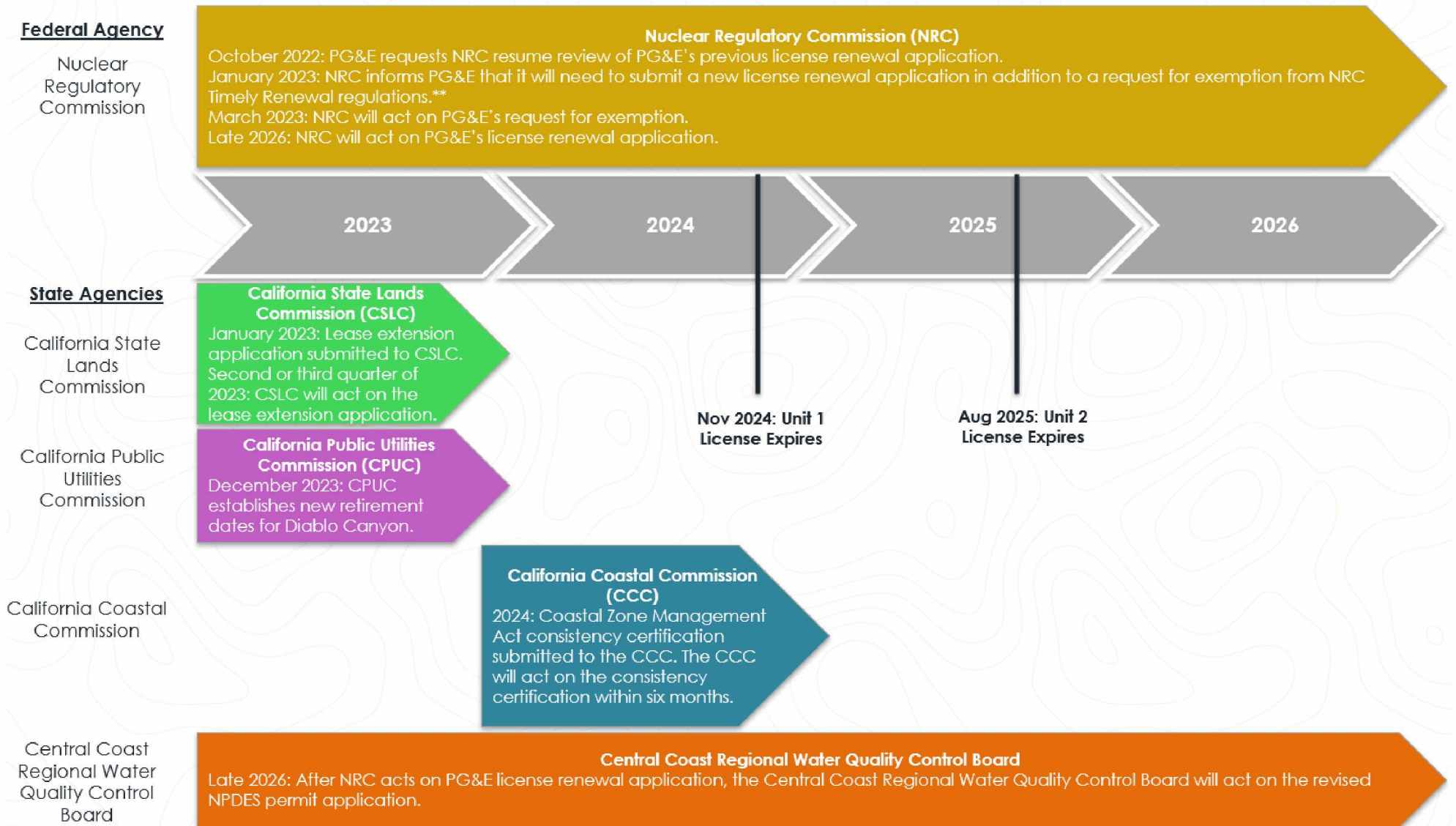
The Diablo Canyon Power Plant (DCPP) is a 2,240 megawatt nuclear power plant located in San Luis Obispo County. It contains two reactors that have been operating since 1985 (Unit 1) and 1986 (Unit 2). The two units are currently licensed by the United States Nuclear Regulatory Commission (NRC) to operate until November 2, 2024 (Unit 1) and August 26, 2025 (Unit 2). Pacific Gas and Electric Company (PG&E) owns and operates DCPP.

In 2022, Senate Bill (SB) 846 (Dodd, Chapter 239, 2022) was enacted. Section 25548.2(f) of SB 846 requires that “[t]he Secretary of the Natural Resources Agency, in consultation with the state agencies described in subdivisions (c) and (d) and with the Public Utilities Commission shall, by January 31, 2023, provide to the Joint Legislative Budget Committee a detailed description and plan that identifies all the actions that are necessary for the extension of the operations of the Diablo Canyon powerplant to beyond the current expiration date of each unit, and until new dates that shall be no later than December 31, 2029, for Unit 1, and no later than December 31, 2030, for Unit 2.”

This document provides a detailed description and plan of the regulatory actions that are needed at the state and federal levels to extend the operations of the DCPP beyond its current expiration dates to October 31, 2029, for Unit 1 and October 31, 2030, for Unit 2. The graphic on the following page shows the timeline for the various regulatory actions, followed by a description of these regulatory actions on subsequent pages.

Given the focused legislative directive to identify actions needed to extend operations of the Power Plant, actions that are not regulatory in nature or would need regulatory approval but would occur regardless of whether PG&E was seeking to extend the operations of the DCPP are not discussed in this document. Examples of actions that are not discussed include continuation of appropriate decommissioning activities already in progress, dredging the DCPP Intake Cove, and site modifications to accommodate a different cask technology at the Independent Spent Fuel Storage Installation (ISFSI).¹

¹ PG&E has already initiated action to address spent fuel management as ISFSI timetables typically require a two-year lead time to contract, manufacture, transport, and load canisters in support of continued core reloads. ISFSI activities will occur independent of any NRC licensing decision, but extended operations will require additional planning and scheduling actions by PG&E to assure adequate space remains in the spent fuel cooling pools.



* SB 846 requires that state agencies complete their review within 180 days of finding the application from PG&E complete. The timelines above reflect the 180 days beginning once an agency finds that PG&E's applications is complete and assume all requested regulatory actions will be approved.

** NRC requires operators to submit license renewal applications at least five years before the expiration of the existing license. Then, if NRC has not made a final determination on the license renewal, the existing license does not expire until NRC makes a final determination. Because PG&E must submit a new license renewal application to NRC and it will be less than five years before the expiration of DCPD licenses, PG&E has requested an exemption from the requirement that the license renewal application be submitted at least five years prior to expiration of the existing license.

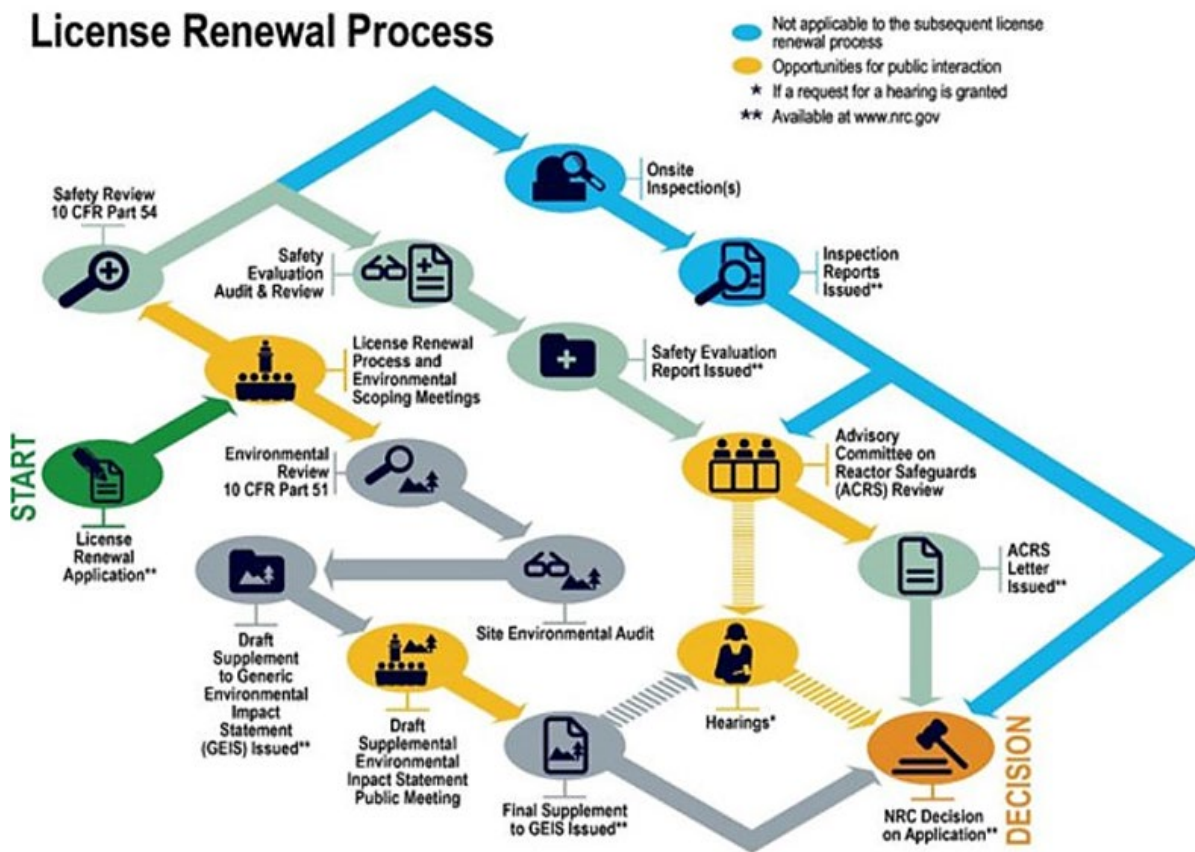
REGULATORY ACTIONS

Federal Agencies and Actions

United States Nuclear Regulatory Commission (NRC)

The NRC has regulatory authority over the radiological safety aspects of nuclear power, including plant licensing and license extensions. The NRC will evaluate whether PG&E meets federal criteria for continued operations before renewing the DCCP's operating licenses.

As shown in the graphic below, the NRC license renewal process consists of a safety review, environmental review, inspections, and a separate review by the Advisory Committee on Reactor Safeguards.² The safety review focuses on the plant hardware and equipment and on identifying and managing the detrimental effects of plant aging. The environmental review considers plant-specific impacts to the environment from license renewal.



Source: <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-reactor-license-renewal.html#process>

² NRC Backgrounder on Reactor License Renewal, <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-reactor-license-renewal.html#process>.

In 2009, PG&E submitted an application to the NRC requesting renewal of its operating licenses for the DCP's Units 1 and 2. However, after the CPUC approved the retirement of the DCP in 2018, PG&E requested, and NRC approved PG&E's withdrawal of its license renewal application.

On October 31, 2022, PG&E submitted a licensing action with the NRC, requesting resumption of their operating license renewal application for the DCP's Units 1 and 2.³ Specifically, PG&E requested that NRC resume their review of the license renewal application originally submitted in 2009. NRC informed PG&E on January 24, 2023, that it will need to submit a new license renewal application. PG&E anticipates submitting a new license renewal application to the NRC by the end of 2023.

Still pending before the NRC is PG&E's request in the alternative for an exemption from NRC Timely Renewal regulations, 10 CFR 2.109(b) (exemption request), which require a licensee to submit a renewal application that is sufficient for the NRC's review at least five years before expiration of the existing license in order to continue operating past the license termination date if a license renewal application remains pending at that time.⁴

NRC expects to make a decision on PG&E's exemption request in March 2023. Exemption from NRC Timely Renewal regulations, 10 CFR 2.109(b), would allow DCP to continue to operate past its current license termination date until the NRC issues a decision on the license renewal application if the application is deemed sufficient by the NRC (complete) prior to the expiration of the current license of a unit. Under normal conditions, NRC staff will complete review of the full license renewal application within 30 months from receipt if a hearing is required or within 22 months from receipt if no hearing is required.

State Agencies and Actions

California State Lands Commission (CSLC)

The CSLC is responsible for managing the State's ungranted tide and submerged lands consistent with the Public Trust Doctrine and in the best interests of the State. The CSLC has leasing authority over certain DCP facilities located on the State's filled and water covered sovereign tide and submerged lands (Public Trust lands), including the cooling water discharge channel, water intake structure, breakwaters, and other structures associated with DCP.

An amendment to the PG&E existing lease will be required for the extension of the DCP

³ <https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML22304A691>

⁴ <https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML22343A179>

operations. The review process for PG&E's lease amendment application consists of application processing and negotiation of lease provisions, including but not limited to, insurance, annual rent, and a surety bond to minimize the risk that the facilities could become a public liability. The CSLC will also conduct an analysis to determine whether the proposed 5-year lease extension is consistent with the common law Public Trust Doctrine and in the best interests of the State. SB 846 directs that the proposed operational extension is subject to the "existing facility" exemption from California Environmental Quality Act review.

On June 28, 2016, the CSLC authorized a lease to PG&E for existing facilities within the CSLC's leasing jurisdiction. In April 2020, the CSLC authorized a lease amendment to change the submittal date for a proposed plan for the restoration of the lease premises from August 26, 2020, to August 26, 2023. This lease expires on August 26, 2025.

On January 5, 2023, PG&E submitted an application to amend the existing lease to extend the lease term from August 26, 2025, to October 31, 2030. This period aligns with the dates of operation specified in SB 846. On February 2, 2023, the CSLC notified PG&E that its lease amendment application is complete. Pursuant to SB 846, the CSLC has 180 days to act on the application. PG&E's application to amend its existing lease to extend its term to October 31, 2030, is anticipated to be considered at a CSLC properly noticed, public meeting in the second or third quarter of 2023.

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies.

SB 846 requires, among other things, the CPUC to establish new retirement dates for the DCPP's Units 1 and 2 by December 31, 2023. While the CPUC is directed to extend the DCPP operations until October 31, 2029, for Unit 1 and October 31, 2030 for Unit 2, the CPUC may establish earlier retirement dates if any of the following conditions occur:

1. The loan provided to PG&E for the extension of DCPP (under Chapter 6.3 of Division 15 of the Pub. Res. Code) is terminated;
2. The NRC does not approve the license renewals for DCPP;
3. The CPUC determines that any costs associated with the conditions of NRC's license renewal, or any seismic safety or other safety upgrades recommended by the Diablo Canyon Independent Safety Committee (DCISC), are too high to justify; or
4. the CPUC determines that newly constructed and interconnected renewable energy and zero-carbon resources are an adequate substitute for DCPP, and

meet the state's energy reliability needs.

The CPUC opened a rulemaking (R.23-01-007) in January 2023, to establish the new retirement dates for the DCCP. In evaluating the conditions listed above, the CPUC will need to utilize the products of other agency actions in some cases.

With regard to Condition #2, the NRC's decision is highly unlikely to occur before the end of the year when the CPUC must decide on new retirement dates for DCCP. Any new retirement date set by the CPUC would be conditioned on the NRC licensing continued operations for at least that long.

For Condition #3, the CPUC will review the reports and recommendations from the DCISC's meetings scheduled for February, June, and September 2023. The CPUC will also look to the California Energy Commission's (CEC) cost-effectiveness report called for in SB 846. SB 846 requires the CEC to compare the costs of extending DCCP operations with a portfolio of clean energy resources that are available in calendar years 2024-2035. That comparison must be completed by September 30, 2023.

For Condition #4, when determining the adequacy of newly constructed and interconnected renewable and zero-carbon carbon resources, the CPUC will reference two CEC products in making their determination: a reliability assessment and the Joint Reliability Planning Assessment; both of which are required by SB 846. In the reliability assessment, the CEC must evaluate whether the state's electricity supply forecasts for calendar years 2024-2030 indicate an energy supply issue if DCCP operations are not extended beyond 2025 and whether it would be prudent to extend DCCP operations to at least 2030. The CEC anticipates making that determination in March 2023. The Joint Reliability Assessment is a CEC-CPUC effort that looks at energy supply and demand under various scenarios. The first assessment will be submitted to the Legislature in early 2023 and is required to be completed on a quarterly basis.

SB 846's direction that the proposed operational extension is subject to the "existing facility" exemption from California Environmental Quality Act review, noted above, applies to the CPUC's review also, as well as to the other state and local agencies discussed below.

California Coastal Commission (CCC)

The CCC plans and regulates the use of land and water in the coastal zone pursuant to the Coastal Act of 1976. The California Coastal Commission (CCC) has two primary review and permitting roles for the proposed Diablo Canyon NRC license extension. First, the CCC will review PG&E's license renewal for consistency with California's Coastal

Management Program (CCMP) under the federal Coastal Zone Management Act (CZMA) of 1972. The CCC implements the CCMP as it applies to federal activities, development projects, permits and licenses, and support to state and local governments. Under the CZMA, federal and state government agencies work in partnership to bring all federal agency activities and actions (including federal development projects, permits and licenses, and assistance to state and local governments) affecting the coastal zone into consistency with the enforceable policies of the state's certified program (i.e., Chapter 3 policies of the California Coastal Act). Because the NRC's licensing action is subject to the CZMA, PG&E will need to certify that relicensing is consistent with the CCMP, and the CCC will then decide to either concur with or object to PG&E's consistency certification.

The CCC's second permitting role would be to review any proposed development undertaken in conjunction with extended operations at DCP. The CCC has regulatory authority over development within the state's coastal zone, which extends seaward from the shoreline out three nautical miles and inland to various distances along the California coast. In most inland locations, the CCC has certified a Local Coastal Program (LCP), which transfers much of the regulatory authority to the local city or county government, though some of those local decisions can be appealed to the CCC. Within both the CCC's retained authority areas and areas covered by a certified LCP, the Coastal Act's definition of "development" includes placing structures on land or in water, discharging liquid or thermal waste, changing the intensity of use of waterbodies, and other types of activities or uses. At this time, PG&E has not proposed any development associated with extending operations that would require review or permitting by the CCC. Other development occurring in connection with future decommissioning of the plant would also require a coastal development permit (CDP) or an amendment to an existing CDP but would be considered by the CCC outside of the process described in this document. There is an active CDP in process with the County of San Luis Obispo and the CCC related to decommissioning. The draft Environmental Impact Report for that process – still being pursued in parallel – will be issued in April 2023.

The review process for a federal consistency certification consists of an application review for completeness, review of the proposed action for consistency with Coastal Act policies, and if applicable, evaluation of strategies to bring the proposed action into conformance with those policies. Issues that are likely to be part of the CCC review include impacts to marine resources, public access, and an analysis of coastal hazards. The CCC anticipates making a federal consistency determination in 2024.

State Water Resources Control Board (Water Board)

The Water Board preserves, enhances, and restores the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses. The Water Board sets statewide water policy as well as supports the nine regional water quality control boards. The regional water quality control boards are responsible for implementing state water policy for their regions.

Regulatory actions for Diablo Canyon that fall within the Water Board's jurisdiction will be implemented by the Central Coast Regional Water Quality Control Board (Central Coast Water Board). The Central Coast Water Board implements the federal Clean Water Act and the California Porter-Cologne Water Quality Act. The Central Coast Water Board has issued a federal National Pollutant Discharge Elimination System (NPDES) permit to PG&E for operation of Diablo Canyon Power Plant. The permit regulates PG&E's discharges of reactor cooling water, desalination brine, and domestic wastewater to ocean waters at Diablo Cove.

The Central Coast Water Board issued the NPDES permit for the DCPP in 1990, and the permit expired in 1995. The Central Coast Water Board was in the process of renewing the permit when PG&E decided not to renew their license with NRC. Since the DCPP was expected to shut down, the Central Coast Water Board did not go through the renewal process. While the NPDES permit for the DCPP is expired, the DCPP can continue operating under the expired permit until a new permit is issued. The Central Coast Water Board has administratively extended the permit on an annual basis, and it is in full force and effect.

PG&E is coordinating with the Central Coast Water Board to update the NPDES permit. The Central Coast Water Board anticipates needing additional data and information to complete the review process. Requests for more information and data are expected to be ongoing. The timing for adoption of an updated permit depends on the NRC's relicensing process. The Central Coast Water Board plans to reissue an updated NPDES permit following the NRC's relicensing action, which is anticipated to occur in late 2026.

In the permit development and adoption process, the Central Coast Water Board will evaluate all aspects of PG&E's compliance with the current permit and laws and regulations. The permit will be updated to include any new regulatory requirements for once-through cooling and desalination intakes and discharges, such as the possibility of an increased interim mitigation fee as described in Section 25548, subdivision (e) of the Public Resources Code. Monitoring and reporting requirements will also be reviewed and updated. The permit process will include opportunities for PG&E, local, state and

federal agencies (including the U.S. Environmental Protection Agency), and the public to review the draft permit. In addition, there will be a public hearing prior to adoption, further ensuring a transparent public process.

Local Agencies and Actions

County of San Luis Obispo – Planning and Building Department

The Planning and Building Department provides oversight of the unincorporated areas of San Luis Obispo County. It performs all land use planning functions, including permitting, environmental review and zoning enforcement.

No action is needed from the Planning and Building Department to extend the operations of the DCPP. The DCPP has a current land use permit that covers its operations. That land use permit will cover the extended operations of the DCPP as long as PG&E's proposed operations plan does not create any new processes that would trigger the need for a new land use permit. PG&E confirmed that it does not intend to create any new processes that would require a new land use permit.