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STAFF REPORT: REGULAR CALENDAR

Application No.: **9-23-0055**

Applicant: Southern California Edison

Agent: Travis Kegel, Environmental Intelligence, LLC

Project Location: City of Avalon and County of Los Angeles on Catalina Island.

Project Description: Install facility upgrades, including a new seawater intake well, new water storage tank, and other related infrastructure at the Pebbly Beach Desalination Facility to allow for an increase in production capacity and water reliability.

Staff Recommendation: **Approval with conditions.**

SUMMARY OF STAFF RECOMMENDATION

Southern California Edison ("SCE") proposes to install a new well, storage tank, and other infrastructure upgrades at its Pebbly Beach Desalination Facility ("PBDF") on Catalina Island. SCE provides water utility services to the City of Avalon and nearby areas on Catalina Island and the new equipment is meant to increase the facility's production capacity and improve water reliability to these communities.

Catalina Island has long had limited water resources – provided primarily from groundwater and precipitation – some of which is stored in the Middle Ranch Reservoir inland of Avalon. SCE constructed the PBDF in the early 1990s to augment these water supplies and it can now provide most of the water used in the area. During recent drought years, the area was subject to several significant water restrictions tied to reduced water levels in the Reservoir. In 2016, SCE added a temporary desalination unit that worked in concert with the PBDF to more efficiently treat seawater and increase production. Part of the currently proposed project would make the temporary unit and the unit's increased production a permanent part of the overall PBDF.

The proposed project also has the potential to raise environmental justice concerns, due largely to seawater desalination being among the most expensive methods to provide drinking water and due to the relatively small number of residents and SCE ratepayers that would bear the project's approximately five-million dollar cost. As described in Section IV.H of the staff recommendation, many of the residents are low-income or housing-burdened and could be disproportionately affected by higher costs for water. However, SCE has proposed as part of this project a rate-setting approach that would distribute these costs and others to its wider Southern California ratepayer base in a manner that would substantially reduce this potential impact. The California Public Utilities Commission, which has sole authority to set rates for regulated utilities such as SCE, is currently considering this proposal as part of a rate-setting proceeding. Staff has addressed this issue through **Special Condition 10**, as described below.

The location and design of both the current and proposed PBDF include two key characteristics that reduce its impact on some coastal resources. Although it is located on and near the shoreline, it is on a road used for industrial purposes that does not allow public access, so the proposed project is not expected to affect public access to the shoreline. Additionally, the PBDF obtains it source water from vertical wells that extract intruded seawater from just inland of the shoreline. The wells draw in water through the overlying sediments at an imperceptible rate, a design that eliminates effects on marine life during project operations.

Nonetheless, the proposed project raises several other types of coastal resource concerns, for which staff recommend several special conditions. To address the project's construction activities in and near coastal waters, **Special Condition 1** requires SCE to submit a spill prevention and response plan, and **Special Condition 2** requires that SCE implement a number of construction best management practices to avoid or minimize potential impacts to water quality and marine life. Because the project is near areas known to serve as breeding and nesting grounds for Garibaldi, a special-status fish species, **Special Condition 3** prohibits construction activities from occurring in or near the water during its breeding and nesting season, which runs from March 1 through July 31 each year. This inwater and nearshore work would also occur in waters used by marine mammals year-round, and **Special Condition 4** therefore requires SCE to implement a marine mammal protection plan with measures meant to avoid harm or disturbance to marine mammal species that may be nearby.

Project components would also be located in areas subject to several seismic and coastal hazards, including ground shaking, tsunami runup, and sea level rise. **Special Condition 5** provides acknowledgement by SCE of the site's potential hazards and SCE's assumption of the risks associated with those hazards. **Special Condition 6** further requires SCE to submit plans and analyses demonstrating that the project is built to avoid or withstand those hazards and that it has implemented standards applicable to critical facilities to the extent applicable. **Special Condition 7** further requires SCE to develop a disaster response plan that demonstrates SCE's ability to access the facility and continue its operation as a critical facility in the event of any expected hazardous events. To ensure the facility remains capable of avoiding or withstanding these

hazards in the future, **Special Condition 8** establishes a permit term until July of 2032 (consistent with the development's lease of State tidelands from the State Lands Commission) and requires SCE to apply for a CDP amendment before the end of this permit term to update the hazards assessments and reconsider potential feasible alternatives to the project.

SCE would also rely on non-renewable greenhouse gas-emitting fossil fuels for the electricity needed to run the facility and so **Special Condition 9** requires SCE to implement measures needed to make those operations "net carbon neutral," including the use of renewable energy sources when feasible and the purchase of carbon offsets or credits. The facility also represents a relatively costly method to produce drinking water, and although SCE has proposed measures for this CDP application and in a pending rate setting proceeding before the California Public Utilities Commission ("CPUC") that are meant to avoid undue cost burdens on its Catalina Island customers, many of whom are low-income, it is uncertain at this time what the eventual costs will be. **Special Condition 10** therefore requires SCE to report back to the Commission upon completion of its pending CPUC rate setting proceeding and to submit an amended CDP application if the CPUC's rate setting decision substantially differs from SCE's proposal. Finally, because the project sites are within the territory of interested Tribal groups that have expressed concerns about the potential exposure or damage to Tribal cultural resources, **Special Condition 11** requires SCE to have approved Tribal monitors on site for all ground disturbing activities during project construction and to allow for training of project personnel on proper treatment and reporting of any cultural resources encountered during construction.

Commission staff recommends the Commission find that with implementation of recommended **Special Conditions 1** through **11**, the project would be consistent with relevant Coastal Act provisions regarding marine biological and water quality protection, placing fill in coastal waters, coastal hazards, energy use, environmental justice, and archeological and cultural resources. Commission staff recommends that the Commission **APPROVE** coastal development permit application 9-23-0055, as conditioned. The motion is on page 5. The standard of review is Chapter 3 of the Coastal Act.

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I. Motion and Resolution

Motion:

I move that the Commission approve Coastal Development Permit No. 9-23-0055 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote. 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 to Approve the Permit:

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 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act 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 the applicant 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 or 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 the applicant to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. **Spill Prevention and Response Plan.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, Project-specific Spill Prevention and Response Plans that address potential spills or releases of hazardous materials during both project construction and project operations. The Plans shall identify worst-case spill scenarios and demonstrate that adequate spill response equipment will be available. The Plans also shall include preventative measures that will be implemented to avoid spills and measures that will be implemented should spills occur. The Plans shall specify responsibilities of contractors and project personnel. The Plans shall identify the location of all on- and off-site spill response equipment (including sorbent materials, booms, etc.) that will be available in the event of a spill, and the protocols and expected response times for deployment. The Plans shall clearly identify responsibilities of project personnel and contractors in the event of a spill and shall include necessary contact information for responsible personnel and involved emergency response agencies (e.g., Fire Department, U.S. Coast Guard, etc.).

2. **Construction Best Management Practices.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, Construction Plans that address construction methods and Best Management Practices ("BMPs") of all project components and that include the following:
   a) Construction areas: site plans showing the location of all construction areas, staging areas, fueling areas, and construction access corridors. The areas within which construction activities and/or staging are to take place are to be minimized to the extent feasible to reduce potential impacts to coastal resources.
   b) Construction BMPs: the Plans shall identify the type and location of all erosion control and water quality BMPs that will be implemented during construction to protect coastal water quality. Silt fences, straw wattles, filtration equipment, and other similar materials are to be installed and maintained around the perimeter of all construction areas to prevent construction-related runoff and sediment from discharging directly into storm drains or coastal waters. The Plans shall identify all measures that will be used to keep the construction areas physically separate from public recreational use areas, such as using signage, temporary fencing, or other measures to delineate construction areas. The Plans shall also describe all

measures that will be implemented to reduce the effects of construction noise and lighting of areas outside the delineated construction areas.

c) Equipment BMPs. Equipment fueling, washing, and maintenance shall take place at a designated hard-surfaced area where any leaks or spills can be contained and collected. All equipment shall be inspected at least daily to identify any leaks or potential leaks promptly. Any fueling and maintenance of mobile equipment conducted on site shall take place at designated areas located at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible (unless those inlets are blocked to protect against fuel spills). Fueling and maintenance areas shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.

d) Good Housekeeping BMPs. The Plans shall describe good construction housekeeping controls and procedures that will be implemented, including cleaning up all leaks, drips, and other spills immediately, keeping materials covered and out of the rain, covering exposed piles of soil and wastes, disposing of all wastes properly, placing trash receptacles on site and covering open trash receptacles during wet weather, and removing all construction debris from the site at least daily.

e) Construction timing: The Plans are to provide a construction schedule identifying the expected duration of construction and the hours and days construction is expected to occur.

f) Construction Coordinators. The Plans shall identify one or more designated construction coordinators at each construction site as the point of contact during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies). The Plans shall provide coordinators' contact information, including, at minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction and that shall be conspicuously posted at the job site where such contact information is readily visible from areas accessible to the public. The Plans shall require that the coordinators record all complaints received regarding construction activities, including the nature of the complaints, contact information where available (e.g., name, phone number, and email address) and shall require the coordinator to investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director upon request.

Copies of the approved Plans and of the signed CDP shall be maintained at the appropriate construction site(s) and be available to project personnel and the interested public upon request. All project personnel shall be briefed on the content and meaning of the CDP and the approved Plans prior to their start on project activities.

The Applicant shall implement development in accordance with this condition and the approved Construction Plans. Minor adjustments to the above requirements, as well as to the Executive Director approved Plans, which do not require a CDP amendment or a new CDP (as determined by the Executive Director), may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

3. **Garibaldi Protection.** Construction of project components in or near coastal waters, including the installation of the new well and removal and resetting of riprap, shall occur outside of the March 1 through July 31 breeding and spawning season for Garibaldi damselfish (Hypsypops rubicundus).

4. **Marine Mammal Protection.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Permittee shall prepare a Marine Mammal Protection Plan for review and approval by the Executive Director. The Permittee shall implement the Plan during all construction activities. The Plan shall include the following elements:

   (a) Prior to the start of construction, the Permittee shall provide awareness training to all Project-related personnel on the types of marine mammals that could be encountered in the Project area during construction and the types of activities that have the most potential for adversely affecting the animals.
   (b) A qualified biological observer shall be present at the project site during all project construction activities to monitor for the presence of marine mammals. The Plan shall identify any scenarios that require additional observers and, in these cases, make recommendations as to where they should be placed to ensure complete coverage of the surrounding marine and terrestrial environments.
   (c) The observer(s) shall have the appropriate safety and monitoring equipment adequate to conduct their activities (including night-vision equipment, if applicable).
   (d) The observer(s) shall have the authority to temporarily halt any project activity that could result in harm to a marine mammal and to suspend those activities until the animals have left the area.
   (e) For monitoring purposes, the observer(s) shall establish an avoidance zone of at least 200 feet in radius around the construction area for the protection of marine mammals. The observer(s) shall closely monitor any marine mammal entering within the avoidance zone and shall temporarily suspend any project activities which could result in harm to the animal until it has left the avoidance zone. If any “take” involving harassment or harm to a marine mammal occurs, the observer shall immediately notify the Executive Director, National Marine Fisheries Service and any other required regulatory agency.
   (f) A final report summarizing the results of monitoring activities shall be submitted to the Executive Director within 90 days of completing project construction. The report shall include an evaluation of the effectiveness of monitoring, reporting of the marine mammal sightings (species and numbers), a description of any observed wildlife behavioral changes, and any project delays or cessation of operations due to the presence in the project area of marine mammals.

5. **Assumption of Risk, Waiver of Liability, and Indemnity.** By acceptance of this permit, the Applicant acknowledges and agrees (i) that the site may be subject to hazards from tsunami, storm waves, surges, and erosion; (ii) to assume the risks to the Applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) 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 (iv) 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. In addition, by acceptance of this permit, the Applicant agrees to reimburse the California 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, which the Coastal Commission may incur in connection with the defense of any action brought by a party other than the Applicant against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval, issuance, and implementation of this CDP. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

6. **Final Project Plans.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, final plans and analyses approved by a licensed civil or structural engineer showing the locations and external dimensions of all project components and illustrating that all project components will be built, to the extent feasible, to meet applicable Structural Risk Category standards adequate to withstand the expected degree of seismic, flooding, and other hazards to which the project may be subject. For purposes of these analyses, the proposed project shall be considered a "critical facility" subject to Structural Risk Category IV standards (as described in the California Building Standards Code), where applicable. The plans shall be based on site-specific geotechnical and seismic hazards analyses that identify expected levels of fault rupture, ground shaking, liquefaction, and tsunami runup elevations based on current building codes, ASCE guidelines, and other relevant laws and regulations (e.g., Alquist-Priolo Act, Seismic Hazard Mapping Act, etc.) and the current best available science.

   The analyses shall also:
   - Describe conditions under which the wellheads, subsurface well components, and any related infrastructure could be exposed or damaged due to current and future erosion, wave runup, and flooding, accounting for storm scenarios and sea level rise (including high and extreme sea level rise projections)
   - Describe adaptation strategies that would be implemented, if necessary, to address future anticipated coastal hazards risks. Identified strategies shall include any feasible alternatives to the proposed development as well as

removal, relocation, or other modifications that will not require the use of shoreline protective devices, and which will ensure protection of coastal resources consistent with the Coastal Act. The discussion shall also describe the amount of time various adaptation strategies would need to be implemented, including associated funding, permitting, and construction. Any future modification to project components would require submittal of an application to amend this permit.

The Permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required.

7. **Disaster Response Plan.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval a Disaster Response Plan that describes all structural and operational measures to be implemented as part of the proposed development that will ensure the facility can maintain operations and be accessible during and immediately after any projected hazardous events that may occur at the project locations (e.g., an extreme tsunami, coastal storm, or earthquake). This Plan shall include:

   a) A description of how the Final Project Plans required pursuant to Special Condition 6 minimize the risks of extreme hazards to the project.

   b) A description of all structural and operational disaster response measures/activities that will be implemented to ensure the project can operate and will not result in negative impacts to coastal resources during or quickly following extreme hazard events including how access to the site will be maintained or quickly restored following a disaster.

8. **Permit Term.** Unless extended by action of the Commission pursuant to a CDP amendment application submitted prior thereto, this permit shall terminate and be of no further force and effect on July 1, 2032. No later than twelve months before that date, the Permittee shall apply for an amendment to this coastal development permit to retain, remove, or relocate the approved riprap and the other components of this Project. This application shall be supported by a report that updates and evaluates any current and future coastal hazards described in the analyses required pursuant to Special Condition 6 of this CDP and updates the merits and feasibility of available alternatives to the continued presence of the development.

9. **Energy Minimization and Greenhouse Gas Reduction.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Permittee shall submit, for Executive Director review and approval, an Energy Minimization and Greenhouse Gas Reduction Plan that provides the following:

   a) The Plan shall identify the expected annual amount of indirect greenhouse gas ("GHG") emissions resulting from the first year of the upgraded desalination facility's electricity use and shall identify how the expected annual amount of these emissions will be updated during each subsequent year of operations. These

amounts shall be based each year on the electricity supplier's most recent emission factor for delivered electricity as reported to the California Air Resources Board ("CARB") and/or Climate Action Registry ("CAR") that identifies the tonnes of GHG emissions per megawatt of electricity generated.

b) For all indirect GHG emissions resulting from facility operations, the Plan shall provide that the Permittee will submit an annual report for each year of facility operations that identifies all measures the Permittee will implement to ensure that the facility operates as "net carbon neutral" on an annual basis. These measures may include carbon offsets or Renewable Energy Credits purchased through CARB or CAR or approved by a California Air Pollution Control District, with reductions achieved using these measures documented by these entities as being "real, permanent, quantifiable, verifiable, and enforceable," pursuant to CARB regulations. Each year's annual report shall be submitted for Executive Director review and approval within 90 days of the electricity supplier's annual documentation to CARB or CAR of its most recent emission factor for delivered electricity. The Permittee may purchase more than one year's worth of offsets or credits, if deemed prudent, to use in subsequent years, but at no time shall the facility be operating with its annual amount of indirect GHG emissions greater than its purchased offsets or credits for a given year. Any offsets or credits shall, to the extent feasible, address impacts or provide benefits to nearby affected communities.

c) The Plan may also identify any on-site and project-related measures the Permittee implements to avoid or reduce the facility's indirect GHG emissions – for example, installation of a solar photovoltaic system, use of a fuel cell system, etc. - and describe the amount of emissions avoided through these measures.

10. Assurance of Minimal Environmental Justice Effects -- Ratepayer Proposal. SCE shall notify the Executive Director of the California Public Utilities Commission's ("CPUC") final decision (including CPUC's approval of any settlement) regarding rates in CPUC Proceeding No. A-10-018 within ten days after CPUC serves notice of the final decision. If the CPUC decision differs from SCE's October 30, 2020 CPUC application with respect to SCE's cost-sharing proposal, SCE shall additionally identify in its notification to the Executive Director the average monthly cost increase to affected ratepayers (and using 550 kilowatt hours per month for the cost calculation if CPUC adopts cost sharing across an electric ratepayer base) as a percentage and dollar increase. In that event, if the Executive Director determines that the CPUC-approved rate is significantly higher than what SCE proposed in its CPUC application, SCE shall submit a complete application for a CDP amendment that includes proposed measures it will implement to lessen, to the maximum extent feasible, the impact of rate increases for affected ratepayers with low income. The criteria for "low income" shall be the same as set out in Cal. Health & Safety Code Section 39713(d).

11. Cultural Resource Monitoring During Construction. PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Permittee (or its designee) shall retain a cultural resource specialist ("CRS") that meets the minimum qualifications of the California Office of Historic Preservation standards. Prior to construction, the Permittee shall additionally retain one or more Native American Monitors representing the Tribes associated with Catalina Island and expressing interest in monitoring project construction, appointed consistent with the standards of the Native American Heritage Commission, and the Native American most likely descendent ("MLD") when state law mandates identification of an MLD. In association with the CRS and Monitor(s), the Permittee shall develop a Cultural Resource Monitoring, Treatment, and Reporting Plan acceptable to the CRS and Monitor(s). The Plan shall include, but not be limited to, the following provisions:

- The CRS and Monitor(s) shall be permitted to be present prior to and during all project ground disturbing activities, including grading, excavating, drilling, trenching, and significant vegetation removal involving ground disturbing activities.
- Prior to starting project ground disturbing activities, the CRS and Monitor(s) shall be provided the opportunity to instruct all project personnel about the potential for disturbing cultural artifacts or remains, signs or evidence of potential artifacts or remains, and measures to implement if any potential artifacts or remains are detected.
- Prior to starting each day's project ground disturbing activities, the CRS and Monitor(s) shall be provided the opportunity to observe the work site(s) and to identify any areas that may have a higher potential for the presence of artifacts or remains.
- During each day's project ground disturbing activities, the CRS and Monitor(s) shall be provided the opportunity to observe all ground disturbance conducted via mechanical or hand labor. All soil moved or disturbed during project activities shall be placed so that the CRS and Monitor(s) may inspect it and may temporarily halt construction activities to allow for the necessary inspection.
- If any cultural resources are encountered, all construction shall cease within at least 50 feet of the discovery and shall not start again until the CRS and Monitor(s) ensure that the Plan's handling and treatment measures can be implemented as needed. In the event of discovery of any cultural resources, the Monitor(s) and CRS shall have the authority to redirect ground disturbance under consultation with the project's construction manager.

The Plan shall be implemented during construction activities. If the Permittee seeks to modify the Plan, it shall present the modified Plan to the Executive Director before implementing any modifications, and the Executive Director may determine that the modifications require a CDP amendment.

IV. Findings and Declarations

A. Project Background and Description

Southern California Edison ("SCE") proposes to upgrade its existing Pebbly Beach Desalination Facility ("PBDF"), which provides much of the municipal water supplies for the City of Avalon and nearby areas of Catalina Island, located about 30 miles offshore of the City of Long Beach within Los Angeles County (see **Exhibit 1** – Project Location and Site Map). The PBDF is located adjacent to SCE's Pebbly Beach Generating Station, which provides electricity to much of the Island. The proposed upgrade includes installing an additional source water well near the shoreline to the south of Avalon and replacing an existing water storage tank with a larger tank at a site in Falls Canyon above Avalon. The proposal also seeks to authorize long-term operation of a temporary desalination unit SCE installed in 2016 at the PBDF and to authorize an increase in the facility's production capacity. The project's main objectives are to improve water supply reliability and resiliency for the Island's communities, especially in the face of drought.

Background

Since 1962, SCE has served as the water, gas, and electric utility provider for Catalina Island, with its services and rates regulated by the California Public Utilities Commission ("CPUC"). Fresh water supply sources of drinking water in and around Avalon have long been limited to precipitation or groundwater, some of which is stored in the Island's Middle Ranch Reservoir. The Island's distance from the mainland has made transporting or piping drinking water from the mainland economically infeasible, and in response to drought conditions in the 1980s and periodic water shortages on the Island, SCE proposed constructing and operating the PBDF, which the Commission initially approved in 1989. The facility started providing desalinated water in the early 1990s.[1] The original approved capacity was 132,000 gallons per day ("GPD") of fresh water, which was produced using two wells that brought in about 530,000 GPD of seawater.

SCE has since made several facility upgrades, including adding two new wells (to address contamination found in the original wells), installing a temporary desalination unit near the existing PBDF to operate in tandem with the permanent facility, and installing more efficient treatment systems and membranes.[2] These upgrades resulted in an overall production increase to about 202,000 GPD.

[1] See CDP E-89-003, September 1989.

[2] In 2002, CDP Waiver 5-02-155-W authorized the two new wells and an extended water line and other equipment. In July 2015, the Commission authorized through CDP E-89-003-A1, the temporary installation and operation of a portable desalination facility and after-the-fact authorization of development that had occurred between 1998 and 2003, including several equipment changes and the increase in production capacity to 202,000 gallons per day. A series of additional CDP amendments has provided several one-year extensions for the temporary facility to remain in place while the Los Angeles Regional Water Quality Control Board reviewed the facility for compliance with water quality and Ocean Plan requirements. In December 2016, the Commission approved CDP 9-16-0490 allowing SCE to repair and expand an area of riprap protecting the two wells that had been damaged by high waves.

The PBDF currently includes two source water wells located about a mile distant. Water is conveyed from the wells via a subsurface pipeline where it is treated and either immediately conveyed to SCE's water users or routed to storage tanks and stored for future use. The facility's effluent is discharged onto a riprap slope adjacent to the ocean where it mixes with seawater within a zone of initial dilution established by the Los Angeles Regional Water Quality Control Board.

The PDBF is part of the Middle Ranch-Avalon Integrated System, which includes several upland groundwater wells and the above-referenced Middle Ranch Reservoir. The System annually provides roughly 500 acre-feet of water to Avalon and nearby Hamilton Cove, Toyon Bay, and Middle Ranch (see **Exhibit 2** – Middle Ranch Water System). The System's primary water users are within the City of Avalon, which has a population of about 4,000, representing about 90% of the Island's residents. Growth projections for the City show an estimated 1% increase per year over the next couple of decades, although the City is also the main destination for the Island's many visitors, which totaled more than one million per year between 2014 and 2019 (i.e., pre-COVID). The historic and ongoing water limitations on the Island have led the Avalon area to implement several effective conservation measures meant to augment its water supplies. These include much of Avalon using artificial turf rather than natural grass or vegetation, using salt water in its toilets and sewer system, and reducing dishwashing water needs in local restaurants by using disposable utensils and dinnerware. SCE and the City also impose mandatory reductions when water levels in the Reservoir drop below specified elevations. As a result, the area's per capita water consumption dropped from about 100 gallons per day in 2001 to about 75 gallons per day in 2019. During most of that period, the water supplied from groundwater sources varied significantly – from less than 200 acre-feet per year to just over 600 acre-feet per year – while water supplied from the desalination facility was provided at a relatively steady rate of about 100 to 150 acre-feet per year.

Description of Proposed Project
The primary components of this proposed upgrade project include:

New source water well and replacement of existing shoreline fill: SCE would install one new well located along the private entry road to the PBDF and Generating Station. The area is not accessible to the public so work is not expected to affect public access to the shoreline. The new well would be located on a stretch of existing riprap and artificial fill about 800 feet north of the two existing wells used by the PBDF (see **Exhibit 3** – Well/Riprap Location). This shoreline area consists largely of unconsolidated quarry rock placed over the past several decades to create a road along this area of the Island between Avalon, the PBDF and Generating Station, and a quarry located just to the south. SCE would remove an area of this unengineered fill and riprap in and adjacent to coastal waters and then reset the material within the existing footprint in a manner that provides structural support for the new well. The riprap would range in size from an initial layer of backing rock of up to about two feet in diameter, topped by two layers of larger rock of up to about eight foot thick. The shoreline hardening aspects of this proposal are discussed below in Sections IV.E and IV.F.

Upgrades to the existing water storage and distribution system: SCE would add a new 125,000-gallon storage tank next to existing water storage tanks at a previously developed site in the Falls Canyon area of Avalon. The new tank would have similar dimensions to the existing tanks – about 30 feet in diameter and 24 feet tall. SCE would replace some of the existing fill at the site with compacted engineered fill soils about four feet thick. Depending on site specific characteristics to be determined at the time of construction, SCE may also add a retaining wall or gabion wall of up to 16 feet in height. SCE would also install new equipment and controls within a pressure reducing station adjacent to the tanks.

Upgrades to the desalination facility's pre- and post-treatment, filtration, piping, and other systems: SCE would install various monitoring and electronic components, pumps, and other similar infrastructure at the desalination facility.

Increase in production capacity: SCE also seeks the Commission's approval to increase the PBDF's overall production capacity. The Commission's previous CDP No. E-89-003-A1 identified a maximum fresh water production capacity of 350,000 gallons per day ("GPD") or 392 acre-feet per year, and SCE now proposes to produce up to 432,000 GPD, or 483 acre-feet per year, about a 23% increase. This proposed increase is meant to reduce the area's reliance on its other limited water sources that are dependent on precipitation and on the presence of adequate groundwater for SCE to exercise its groundwater rights. This increased capacity would remain within the range authorized by the CPUC[3] and through the facility's National Pollutant Discharge Elimination System permit.

Cost: SCE estimates the proposed project costs to be about five million dollars, which, if borne entirely by its Catalina ratepayers, could represent a significant economic burden. However, SCE is proposing as part of the project that these costs be recovered from its broader ratepayer base throughout Southern California instead of by Catalina ratepayers alone. SCE's proposal would result in an approximately 0.2% increase in monthly bills (or about $0.23 per month in 2022 dollars (based on an average monthly usage rate of 550 kilowatts per hour) for its entire Southern California electric ratepayer base. As a privately owned utility, SCE is regulated by the CPUC, which has exclusive jurisdiction to set rates for regulated water utilities. SCE is currently seeking CPUC authorization for this rate recovery proposal in a rate setting proceeding and the CPUC is expected to make its final determination in late 2023.[4] This specific proposal, and a Special Condition needed to address its potential environmental justice implications, are described below in Section IV.H.

[3] See SCE's Santa Catalina Island Water Tariffs: Rate Schedules, Water Schedules FWY that allows for up to about 600 acre-feet per year.

[4] CPUC No. A2010018 (filed Oct. 20, 2020). SCE's proposal to the CPUC is part of a larger proposal SCE is pursuing as part of a CPUC rate-setting proceeding that would allow SCE to recover costs for this project along with various other upgrades and deferred costs on its utility services on Catalina Island.

Timing of project construction: SCE expects project construction to occur during daylight hours over an approximately six-month period, with in-water work to remove and reset riprap taking about four or five weeks within that time period.

B. Standard of Review

Consolidated permit review: Portions of the proposed project located below the mean high tide line are within the Commission's retained jurisdiction where the standard of review consists of the applicable Chapter 3 policies of the Coastal Act. Other project components would be within the certified Local Coastal Program ("LCP") jurisdictions of the County of Los Angeles and of the City of Avalon, where the standards of review would be the applicable policies of the LCPs and the public access provisions of the Coastal Act.

For this project, SCE, the County and City, and the Executive Director have agreed to conduct review under the Coastal Act's consolidated coastal development permit process pursuant to Coastal Act Section 30601.3. This provides the Commission with the authority to act upon a consolidated permit for proposed projects that require a coastal development permit from both a local government with a certified local coastal program and the Commission. This is authorized if the applicant, local government and Executive Director (or Commission) consent to consolidate the permit action. As part of its CDP application, SCE provided documentation from the local governments concurring with the consolidated permit approach, and the Executive Director agreed to consolidate permit action for aspects of the proposed project that would be carried out in the LCP jurisdiction with aspects of the proposed project that would be carried out within the Commission's retained jurisdiction, consistent with Coastal Act Section 30601.3. As a result, the standard of review for this consolidated coastal development permit application is the Coastal Act, with the relevant LCP policies used for guidance.

C. Consultations and Other Agency Approvals

Tribal Consultation
In accordance with the Commission's Tribal Consultation policy, staff contacted representatives of Tribes with known interests in the project area, as identified by the Native American Heritage Commission. Section IV.I below summarizes this consultation process and describes the main perspectives and concerns expressed. Consultation resulted in a special condition (**Special Condition 11**) to address Tribal concerns regarding potential discovery of cultural resources at the project site.

Other Permits and Approvals

- **California State Lands Commission ("CSLC"):** Portions of the project are within State tidelands and are subject to CSLC lease #8330 approved on June 5, 2023. The lease term extends until July 1, 2032, and the permit term established through **Special Condition 6** of this CDP is consistent with that term. The CSLC also determined that for CEQA purposes, the project was subject to a categorical

exemption under Section 15300.2 of the CEQA guidelines, as it concluded there was no reasonable possibility the activities would have a significant effect on the environment.

- **Los Angeles Regional Water Quality Control Board ("Regional Board"):** The existing desalination facility and this proposed upgrade are subject to Regional Board Order #R4-2019-0145 and NPDES Permit #CA0061191 approved on December 12, 2019.

- **U.S. Army Corps of Engineers:** The U.S. Army Corps of Engineers ("ACOE") has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Pursuant to Section 307(c)(3)(A) of the Coastal Zone Management Act ("CZMA"), any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Commission's concurrence in a certification to the permitting agency that the project will be conducted consistent with California's approved coastal management program. Issuance of a coastal development permit by the Commission also serves to meet this requirement of the CZMA. As such, consideration of permitting by ACOE will occur subsequent to Commission review.

D. 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.

Seawater desalination projects can potentially result in four main types of adverse effects to marine life and water quality: 1) those resulting from the entrainment or impingement[5] of marine life resulting from the intake method used to provide seawater to the facility; 2) those associated with how the facility's effluent is discharged back into the ocean; 3) those that occur during project construction; and 4) those that occur during facility operations. As described below, this proposed project's intake system is not expected to result in any marine life effects and its discharge system is expected to result in no more than de minimis effects. However, this particular proposal additionally involves resetting and placing riprap on and near the shoreline during construction, which could result in adverse marine life impacts. These types of adverse effects are described below.

Intake method: Both the existing facility and this proposed upgrade rely on wells to draw in seawater from beneath the shoreline. SCE's use of wells to obtain seawater eliminates potential intake-related effects on marine life and water quality, as these wells, when properly designed and sited, pull in seawater through nearby substrates at an almost imperceptible rate and cause virtually no entrainment or impingement. Two monitoring studies conducted as part of the Regional Water Quality Control Board's ("Regional Board") review confirmed that the facility's existing wells were not resulting in losses of marine life, and the studies demonstrate that the proposed well's intake would also not cause any significant adverse impacts.

Discharge method and facility operations: Both the existing facility and the proposed upgrade would involve discharging the facility's effluent onto a riprap apron near the shoreline where it would mix rapidly with ocean water. The Regional Board has determined that the effluent would meet the required water quality standards well within a standard "zone of initial dilution" established as part of the facility's waste discharge and National Pollutant Discharge Elimination System permits. The discharge is therefore not expected to cause any significant adverse effects on nearby marine life. Additionally, the discharge system does not require any high velocity diffusers, so the discharge system is not expected to create the types of shear forces that often result in mortality of organisms subject to high velocities. Facility operations are also subject to a facility spill prevention plan, which would encompass operations of the components reviewed as part of this upgrade. Regarding operations, the Regional Board permits also establish maximum allowable effluent concentrations and operational control measures for marine life and water quality protections.

Construction-related effects: The proposed new well would be located within about 50 feet of the shoreline and would be installed using standard well-drilling equipment and other heavy machinery. Use of this type of equipment and vehicles involves the

[5] Entrainment occurs when smaller organisms are pulled with the ocean water through an intake screen where they are killed due to the stressors within the intake system and facility, such as temperature or pressure changes, chemicals, shearing forces, or others. Impingement occurs when the velocity of water being pulled into an intake traps fish or other large marine organisms against the intake screen where they are killed or injured.

risk of spills or releases of fuel, oil, and other hazardous materials into coastal waters. To avoid or minimize the potential for spills, **Special Condition 1** requires SCE to submit a Spill Prevention and Response Plan that identifies all measures that will be implemented to avoid potential spills and to properly respond to any that do occur. To further avoid or minimize the risk of water quality and marine life impacts, the project's construction activities are subject to the Best Management Practices detailed in **Special Condition 2**, which requires SCE to implement measures for proper debris and trash removal, proper equipment fueling and maintenance done in a way to avoid spills, training of project personnel, and other similar measures.

Construction also includes removing an area of existing riprap from along the shoreline and within coastal waters, then re-setting and replacing it in a manner that provides structural stability for the new well (the structural aspects of this project component are described below in Section IV.E – Seismic and Coastal Hazards). The existing and the replaced riprap are considered to provide no more than incidental habitat value, and the construction BMPs required through **Special Condition 2** are designed to avoid or minimize potential impacts to nearby natural habitats. However, prior biological surveys observed that nearby areas of the shoreline are used by Garibaldi damselfish (Hypsypops rubicundus), a state-protected fish that lives in shallow, rocky shoreline habitats.[6] Although adult Garibaldi and adult fish of other species would be expected to avoid the area during construction, young Garibaldi are known to take refuge in interstitial spaces of rocky habitat such as riprap. To ensure protection of this species, **Special Condition 3** allows construction to occur only outside the Garibaldi's breeding season, which runs from March 1 through July 31 each year. This nearshore area is also known to be used by several marine mammal species, including harbor seal (Phoca vitulina) and California sea lion (Zalophys californianus), both of which have rookeries at a site about 1.2 miles south of the project site. Construction activities and noise are not likely to affect these species at that distance; however, both are likely to be present in the nearshore waters closer to the construction area. To reduce the potential for harm or disturbance to these protected species, **Special Condition 4** requires SCE to develop and implement a Marine Mammal Protection Plan that is to include measures to protection marine mammal species that may occur in the project area. The Plan is to provide for establishment of a 200-foot radius marine safety zone around the project site that will be monitored for the presence of marine mammals by a qualified observer and to ensure that the observer will have the authority to temporarily suspend project activities in the event that a marine mammal enters the safety zone and is at risk of harm.

Conclusion

The Commission finds that the proposed project has the potential to adversely impact marine resources, water quality, and the biological productivity of coastal waters; however, with implementation of **Special Conditions 1** through **4**, the project would be carried out in a manner in which marine resources and water quality are maintained,

[6] See Keane Biological Consulting, Habitat Assessment, Catalina Quarry Seawater Wells Riprap Repair Project. Prepared for Southern California Edison, September 15, 2016.

species of special biological significance are given special protection, the biological productivity of coastal waters is sustained, and healthy populations of all species of marine organisms will be maintained. In addition, the proposed project, as conditioned, would maintain the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms. The Commission therefore finds that the proposed project, as conditioned, is consistent with the relevant marine resource and water quality protection provisions of the Coastal Act.

E. Seismic and Coastal Hazards

Coastal Act Section 30250 states, in relevant part:

> New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

Coastal Act Section 30253 states, in relevant part:

> New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Coastal Act Section 30270 states:

> The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise.

Coastal Act Section 30250 requires that new development such as this proposed project be located within or near existing developed areas that can accommodate the new development and where it will not have significant adverse effects on coastal resources. This proposed project is meant to improve public services to local communities and would be located adjacent to, and consolidated with, other developed areas at the Pebbly Beach Desalination Facility and its existing storage tanks.

Coastal Act Section 30253 requires that new development not involve construction that would substantially alter natural landforms along bluffs and cliffs. The proposed project would be consistent with these aspects of Section 30253 as it represents relatively minor additional development within an existing developed area that does not involve

ground disturbance that could lead to instability and does not involve alteration of natural landforms. Section 30253 also requires that new development minimize risks in areas of high geologic and flood hazard, that it ensure structural integrity, and that it not contribute significantly to erosion or geological instability. This proposed project would be located in an area subject to several types of coastal, seismic, sea level rise, and other hazards and requires several Special Conditions to allow conformity to these Coastal Act requirements. Additionally, because it is considered a critical facility, it must be designed and constructed so that it can continue functioning and providing water to the area if these hazards occur.

These hazards are described below, along with an evaluation of design and measures included in the project and those necessary to allow for Coastal Act conformity. To generally address the risks associated with these hazards, **Special Condition 5** provides, among other things, that SCE acknowledges and assumes the risk of siting its project at locations subject to these potential hazards.

Seismic

Like most of coastal Southern California, the project is in an area subject to earthquakes and relatively severe seismic hazards. This area of Catalina Island is subject to substantial seismic events, as there are several major regional active faults capable of producing large earthquakes and strong ground-shaking in the project area. The closest major fault is the Santa Cruz – Santa Catalina Fault, located just offshore, which is estimated as being capable of producing an earthquake of up to magnitude 7.3 or greater.[7, 8] The project area could also be affected by earthquakes on the Newport-Inglewood Fault Zone, which is also located offshore but closer to the mainland, and is estimated to be capable of at least a magnitude 7.6 earthquake. These and other regional faults represent seismic hazards that could result in any of several seismic phenomena in the project area, including ground shaking or dynamic settling. Unless the project includes suitable design and construction measures, these events could damage the project or render it inoperable. However, because the proposed project would serve as a key source of water supply to the community, the Commission considers it to be a critical facility, which requires it to be designed and constructed to withstand these hazards.

[7] Seismic hazards are often discussed in terms of the strength or intensity of ground shaking rather than earthquake magnitude. Measures of ground-shaking account for the attenuation of seismic waves due to distance from a rupture and amplification or damping due to substrate types (e.g., soft sediments vs. hard rock) and thus provide a better estimate of the amount of damage that may occur at a given site. Ground shaking is often expressed as the *acceleration* experienced by an object during an earthquake. The *spectral acceleration* occurs at different oscillation frequencies, which can be plotted to form a ground shaking *response spectrum*. The *peak ground acceleration* ("PGA") is a measure of is the maximum force (expressed as a % of the acceleration of gravity, *g*) experienced by a small mass located at the surface of the ground during an earthquake. PGA is often used in seismic design as a hazard index for short, stiff structures.

[8] This fault is not fully mapped and may be associated with another – the San Diego Trough Fault – which could increase the potential magnitude. See, for example, the Southern California Earthquake Data Center, CalTech, at https://scedc.caltech.edu/earthquake/santacatalina.html

Project components would be subject to relevant elements of the California Building Code (CBC 2022) meant to ensure that all buildings, structures and non-structural components (e.g., architectural, mechanical, electrical and plumbing equipment) be designed and constructed to resist the effects of earthquake motions in accordance with design loads and other requirements contained in the most current version of the American Society of Civil Engineers ("ASCE") standards. These standards specify how to determine seismic design criteria for different site classes (determined by soil properties) and structure/component risk categories based on probabilistic and deterministic analysis of seismic loading (i.e., ground acceleration) for a specific location. The CBC also mandates quantitative analysis of and design for potential liquefaction hazards at a project site. Such an analysis would require SCE to conduct a site-specific, design-level geotechnical study to inform the seismic and structural design of the proposed components prior to construction, and to identify necessary measures to avoid or minimize the identified site-specific seismic hazards. For example, in general terms, some seismic hazards can be addressed through measures such as increasing a building's structural shear strength and using more robust foundations. Additionally, and as noted above, because this proposal involves a critical facility, its design and construction methods are to be informed by the standards applicable to Structural Risk Category IV, which are meant to allow facilities such as this to continue operating in the face of the severe seismic hazards it might experience.[9] These standards generally require that design analyses for such facilities more fully consider the severity of potential hazards, which generally results in more robust construction.

To assure stability and structural integrity of project structures and minimize hazards from seismic ground shaking and ground settlement, the Commission is requiring through **Special Condition 6** that SCE submit, for the Executive Director's review and approval, final project plans that include the following elements: depictions of final locations of all proposed development; descriptions of the projected seismic hazards at the project sites based on current building codes, ASCE guidelines, and best available science; engineering analyses demonstrating that project structures would be designed and constructed to withstand expected levels of ground shaking and ground settlement, as determined in the geotechnical analysis; and descriptions of specific design elements and measures to be used to assure the integrity of each structure. These required elements are to assume that the proposed project represents a critical facility (Structural Risk Category IV) and apply those standards in the analysis and design of the project components, where applicable.[10] Given the potential that seismic events and other hazards described below could affect the facility, **Special Condition 7** also requires SCE to prepare a Disaster Response Plan that identifies measures it will implement to assure the facility can continue to operate and that project personnel can access the facility and appropriately respond to any coastal resource impacts that may occur.

[9] Structural Risk Categories" ("SRCs") assign design and construction requirements to buildings based on their occupancy, their importance to the community in the event of hazards, and other factors. There are four tiers of SRCs, with Category IV applying to projects such as this that provide critical public services and are meant to operate during and after emergencies and hazardous events.

[10] There may be some project components for which SRC IV standards have not been developed or do not apply, and the Plan is to identify when this is the case.

Tsunami-related hazards

Most tsunamis are generated by earthquakes and therefore represent a different type of seismic hazard to the project area. Over the millennia, Catalina Island was formed primarily due to uplift caused by regional faulting, with some of these events likely resulting in severe tsunamis at and near the project site. The project site is also subject to "far-field" tsunamis – i.e., tsunamis generated from more distant locations around the Pacific Rim.[11] The Pebbly Beach Desalination Facility is at an elevation of about 25 feet (using the NAVD88 vertical datum) and within the Tsunami Hazard Area defined by the California Geological Survey ("CGS"). The proposed new wellpad and pipeline are at slightly lower elevations and the proposed riprap would extend into the expected inundation area.

There are several tsunami runup projections applicable to the project area, including the California Geological Survey's ("CGS's") tsunami runup map (which is based on a 975-year return period) and the American Society of Civil Engineers ("ASCE") Hazard Mapping Tool (which uses a 2,475-year return period, representing the Maximum Credible Tsunami that serves as the basis for critical infrastructure siting and design).[12] These and various studies show that the proposed facility would potentially be exposed to inundation from extreme tsunamis.[13]

The riprap that would be reset and replaced seaward of the wellpad would be placed in a manner to provide engineered stability meant to resist strong storm waves that occur along this part of the Catalina shoreline. It would extend along about 115 feet of shoreline and from the wellpad elevation down about 25 to 35 feet where it would be keyed-in to the substrate and tie into the adjacent area of riprap SCE installed in 2016 to protect the other existing wells.[14] The reset riprap would be placed in layers, with the innermost rocks up to about two feet thick and the outer rocks up to about eight feet thick. While designed specifically to resist most storm wave-generated energy, this riprap apron would also be expected to provide additional protection from potential tsunami runup, although the degree of protection is uncertain. However, the above-referenced **Special Conditions 6** and **7** applicable to seismic hazards also require SCE to provide final project plans and analyses applicable to tsunami-related hazards to which the proposed project may be subject.

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[11] For example, in recent historic times, the area experienced an approximately six-foot tsunami resulting from a 1946 earthquake in Alaska of magnitude 8.8.

[12] The CGS map is available at: https://www.conservation.ca.gov/cgs/tsunami/maps/los-angeles The ASCE Hazard Mapping Tool is available at: https://asce7tsunami.online/

[13] Other area studies have identified much higher potential runup elevations of about 15 to 30 feet, for tsunamis generated by offshore earthquakes with significant fault rupture and displacement and in areas where conditions immediately offshore result in tsunami amplification – see, for example, Legg et. al, Evaluation of Tsunami Risk to Southern California Coastal Cities, 2002.

[14] See April 11, 2023 memo from Dale Hinkle, P.E. re: Response to Coastal Commission Review, Slope Protection System Review for Pebbly Beach Well Erosion Mitigation.

Coastal Erosion and Structural Integrity
The proposed well site has long been subject to coastal erosion, even though it has been partially protected for several decades by the existing unengineered riprap. The proposed project is designed in part to address these coastal erosion issues. As noted in Section IV.F below, there are no other feasible alternative sites for the proposed well, so SCE has included in the project a redesign of the existing but unengineered riprap that currently provides only limited protection from erosion.

The well site and nearby stretches of the shoreline have been used for several decades as an access road to a nearby quarry. The road itself was created largely from quarry waste rock being disposed along the shoreline and then graded to provide a level surface. This waste rock ranges from about 20 to 30 feet thick along nearby sections of the shoreline and consists of a mix of sand, gravel, cobbles, and boulders. It extends from the top to the shoreline at about a 1 ¼: 1 slope.

As this material has not been designed or placed in a way that ensures stability, it has been subject to ongoing erosion and occasional slope failures. Most recently, SCE identified localized failures in 2023, 2018, and 2014, with the 2014 event following high surf generated by Hurricane Marie offshore of Baja California and resulting in a lateral loss of about 10 to 15 feet from the slope. SCE's preliminary engineering analysis estimates that the top of the slope is capable of moving back 20 to 30 feet during a single 10-year storm event (a storm of an intensity expected to occur about every ten years).

As described above in the analysis of tsunami runup hazards and in SCE's preliminary geotechnical assessment of the proposed design, the proposed project includes resetting riprap in a manner that provides much greater structural support and slope stability than the existing material provides. It would also tie in to similarly designed material the Commission approved in 2016 to protect the desalination facility's nearby existing wells. As noted above, **Special Condition 6** requires SCE to submit a final geotechnical study and analyses that demonstrate the project's expected stability in the face of the expected levels of hazards, including those associated with the potential coastal erosion that may occur at the site.

Sea Level Rise ("SLR")
The tsunami and coastal erosion effects and projections described above do not incorporate a predicted increase in sea level resulting from climate change. Adding any of the anticipated increases in sea level that California and the Commission rely on in assessing expected hazards to the coast would result in greater hazard levels than discussed above. Even relatively modest SLR increases over the next few decades will result in more frequent and higher energy wave action, somewhat higher tsunami runup elevations, increased coastal erosion potential, and other similar phenomena.[15]

[15] Recent Commission findings have relied on SLR projections ranging from about +2.0 to +7.1 feet occurring over the next approximately 50 years and have included a near-term projection of 3.5 feet of increase by 2050. See CoSMoS, or the "Coastal Storm Modeling System" developed by the U.S.

However, with the limited approximately 10-year permit term required through **Special Condition 8**, SLR effects during this period are expected to be relatively minimal.[16] Additionally, should SCE wish to apply to extend this permit term, **Special Condition 8** also requires any future application to include an analysis of the then-available SLR projections and their expected effects on any proposed longer-term project, along with a reconsideration of project alternatives that may be available at that time.

Conclusion
To allow conformity with relevant provisions of Coastal Act Sections 30250 and 30253, the Commission is requiring the above referenced Special Conditions to ensure that project components will continue to function while providing adequate protection, reduce coastal erosion, and resist forces associated with tsunamis, wave energy, and seismic phenomena. As conditioned, the Commission finds that the proposed project would be consistent with Coastal Act Sections 30250, 30253 and 30270.

F. Fill of Coastal Waters

Coastal Act Section 30233 (a) states, in relevant part:

> 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:
>
> (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities…

Coastal Act Section 30233 allows coastal waters to be filled only when the proposed fill meets a three-part test: 1) the proposed fill must be in support of a limited number of specified allowable uses; 2) there must be no feasible alternatives to placing the fill; and 3) the proposed project must include all feasible mitigation measures to avoid or minimize the effects of the fill. This project includes removal and replacement or resetting of about 5,800 cubic yards of riprap along the shoreline, a small portion of which would be in coastal waters, to provide structural support for the desalination facility's new intake well. The proposed project must therefore be consistent with the three-part test of Coastal Act Section 30233.

Geological Survey to make detailed predictions of several types of coastal hazards, including storm-induced coastal flooding, erosion, and cliff failures. The Commission has used CoSMoS as a tool to help identify predicted future conditions at numerous locations along the California coast and to anticipate and manage expected effects on coastal resources. The Commission has also used the most recent planning guidance from the Ocean Protection Council referencing California's expectation of up to 3.5 feet of sea level increase by 2050.

[16] In its approval of the project's State tidelands lease, the State Lands Commission noted: "The rip rap revetment will improve the resilience of the utility infrastructure and the Island's water supplies by providing protection against storm surges, wave run-up, erosion, and flooding. However, alternative strategies for the adaptation and protection of the lease premise and its improvements may be feasible and appropriate to consider in the future as flood exposure increases over time due to sea level rise."

In applying this three-part test, the Commission finds the following:

1) **Allowable use:** The new well is considered part of a coastal-dependent industrial facility, as the well is sited to draw in seawater that has intruded beneath the shoreline along this area of the coast and will serve an existing coastal-dependent facility. Coastal Act Section 30101 states that a coastal-dependent development or use means "any development or use which requires a site on, or adjacent to, the sea to be able to function at all." The project's wells use desalinated water to provide drinking water to utility customers, and the proposed infrastructure modifications for the project are necessary to support this use.

2) **No feasible less environmentally damaging alternatives:** SCE has considered several alternative locations for the new proposed well and determined that site constraints made other locations infeasible. The stretch of shoreline near PBDF where wells serving the facility could be installed consists of a narrow and low-elevation area with steep bluffs just inland that would not accommodate a well site. The entire southeastern shoreline of Catalina Island has just three level locations that could allow for construction but only the selected location has the aquifer characteristics necessary to supply adequate water for the proposed well.[17] A well could be located just offshore, though that would involve more significant adverse impacts to water quality and biological resources and would require greater volumes of fill and more extensive shoreline hardening. There are level areas further north within the City of Avalon that may have the necessary aquifer characteristics but these areas are already developed and would raise greater concerns about adverse impacts to coastal resources (e.g., public access, recreation, and visual resources).

   Other available intake options include any of several types of open water intakes that would pull in water from the water column; however, even if screened to reduce their entrainment impacts, these would result in more substantial environmental harm due to the loss of marine life and productivity, particularly in the relatively productive nearshore habitats found along nearby areas of the Catalina Island shoreline. Other water supply options considered include increased recycling; however, the nearby wastewater treatment facility on the Island is not owned or managed by SCE and, unlike most similar facilities, the water it treats is about 40-50% seawater due to Avalon using seawater to flush toilets. As such, there would be higher costs and energy requirements to use it as compared to recycling wastewater from more typical facilities.[18]

[17] See Van Horsen, Response to California Coastal Commission Comments: Engineering Geology Report Items (a) thru (b), Coastal Resources Impact Item 9a, Assessment of Tsunami Inundation Potential. Prepared for Southern California Edison, October 24, 2016.

[18] Additionallly in this instance, disposal of the higher salt content discharge would likely require re-evaluation of water quality permits for both the PBDF and the wastewater facility.

3) **Feasible mitigation measures:** A key component of this proposed project is SCE's choice to use a subsurface intake to supply source water, rather than use an open water intake offshore. This selection eliminates what could be substantial and ongoing adverse effects to marine life resulting from entrainment, as described above in Section IV.D. SCE is also able to use a site where the existing riprap and the shoreline configuration are the result of many prior decades of disturbance from quarrying activities, so its re-purposing of this area avoids the potential of placing new development in undisturbed areas nearby. In addition, the proposed placement of riprap would be within the footprint of already existing riprap and would consolidate the existing riprap in a smaller and more stable configuration, thus reducing the area in which any adverse effects are occurring. Further, **Special Condition 8** establishes a limited permit term until 2032 (consistent with a lease recently issued by the California State Lands Commission) and requires SCE to submit updated information at that time describing the best available science regarding sea level rise and coastal hazards that could affect the development. Based on its review of the proposed project, the lead CEQA agency (California State Lands Commission) determined that there are no significant environmental impacts that require mitigation under CEQA and determined that the proposed project is categorically exempt from the requirement to prepare a CEQA document.

Special Conditions 1 through **8** ensure the project will be implemented with additional feasible mitigation measures that meant to avoid or minimize potential impacts that could result from construction activities, fueling of equipment and vehicles, spills of hazardous materials, and others.

Conclusion
Because the project involves coastal-dependent industrial activities, has no feasible alternatives that would have fewer adverse environmental impacts, and includes feasible mitigation measures, the Commission finds that it is consistent with relevant provisions of Section 30233(a).

G. Energy Minimization and Greenhouse Gas Reduction

Coastal Act Section 30253(4) states:

> New development shall: … (4) Minimize energy consumption and vehicle miles traveled.

Coastal Act Section 30253(4)'s requirement to minimize energy consumption can result in reduced impacts to coastal resources that result from greenhouse gas ("GHG") emissions generated by non-renewable energy sources. As described below, SCE has determined that it would be infeasible to fully use renewable and GHG-free electricity for the project; the Commission is therefore requiring SCE to obtain sufficient offsets and credits to ensure that the proposed project is "net carbon neutral," which will help minimize energy consumption and the effects of GHG emissions.

Seawater desalination facilities generally require much more electricity to produce potable water than do other water sources of water. Unless obtained from renewable energy sources, this can contribute to California's GHG emissions. The effects of GHG emissions – global warming, sea level rise, ocean acidification, and others – affect many, if not all, of the coastal resources the Coastal Act is meant to protect, including public access (Coastal Act Sections 30210-30214), recreation (Sections 30212.5, 30213, 30220-30222), marine resources (Sections 30230-30231), wetlands (Sections 30231, 30233), ESHA (Section 30240), agriculture (Sections 30241-30242), natural land forms (30251), and existing development (Sections 30235, 30253)).

On Catalina Island, SCE is the primary provider of electrical as well as water utility services. The electricity it provides is produced using six diesel generators and an array of 23 propane-powered microturbines at the Pebbly Beach Generating Station. SCE also has a battery storage system used to improve the efficiency of the existing diesel generators.[19] To the extent that SCE can add renewable energy sources over time to its Catalina electricity operations, these emissions can be reduced; however, to adequately minimize the effects of these GHG emissions resulting from desalination facility operations in the meantime, SCE will need to obtain emission offsets or credits.

Special Condition 9 therefore requires SCE to provide annual reports that provide annual accounting of the sources and amounts of electrical production used by the desalination facility. It also requires for electricity generated from non-renewable, GHG-emitting sources, that SCE obtain sufficient offsets and credits each year to be fully "net carbon neutral." With this requirement, the project will avoid or minimize its potential contributions to GHG emissions that would further exacerbate the diminishment of the coastal resources noted above and will be consistent with Coastal Act Section 30253(4).

Conclusion

With **Special Condition 9**, the project will be considered to be "net carbon neutral," which will alleviate its potential contributions to climate change due to its electrical use. The Commission therefore finds the project to be consistent with relevant Coastal Act policies regarding energy use and protection of coastal resources.

[19] In 2018, the South Coast Act Quality Management District amended its emissions regulation (Rule 1135) and set an implementation deadline of January 1, 2024. The District has proposed a further amendment to Rule 1135 to extend the implementation deadline for certain diesel units to July 1, 2025. Under either the current or the proposed Rule 1135, SCE's existing diesel generators would not meet the emission standard. SCE is currently seeking CPUC approval to replace its six diesel generators with new and more efficient diesel generators. (CPUC No. A21-10-005 (filed Oct. 15, 2021)).

H. Environmental Justice

Coastal Act Section 30604(h) states:

> When acting on a coastal development permit, the issuing agency, or the Commission on appeal, may consider environmental justice, or the equitable distribution of environmental benefits throughout the state.

Section 30604(h) allows the Commission to evaluate environmental justice considerations when making permit decisions. As defined in Section 30107.3(a) of the Coastal Act, "environmental justice" means "the fair treatment and meaningful involvement of people of all races, cultures, incomes and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."[20] Section 30107.3(b)(4) states that environmental justice includes, "[a]t a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions."

In March 2019, the Commission additionally adopted an Environmental Justice Policy ("EJ Policy") to guide and inform its implementation of Section 30604(h) in a manner that is fully consistent with the standards of, and furthers the goals of, Chapter 3 of the Coastal Act and certified local coastal programs. The EJ Policy further articulates environmental justice as the following:

> The term "environmental justice" is currently understood to include both substantive and procedural rights, meaning that in addition to the equitable distribution of environmental benefits, underserved communities also deserve equitable access to the process where significant environmental and land use decisions are made.

Ensuring access to the Commission's proceedings means making sure that those who are affected by proposed development have a meaningful and equitable opportunity to voice concerns in an open and transparent public process. Substantively, the EJ Policy describes how the Commission will work to ensure equitable access to the coast, to support measures that protect existing affordable housing, and to ensure that environmental justice communities are not disproportionately affected by climate change, water contamination, overuse, or diminished environmental services.

The Commission has determined that this proposed project could create disproportionate burdens to lower-income ratepayers within SCE's water service area on Catalina Island. Although SCE has proposed several measures to avoid or reduce

[20] Coastal Act Section 30013, which provides that the Commission is to advance the principles of environmental justice and equality, references California Government Code section 65040.12(e), which defines "environmental justice" as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

those potential burdens, those measures, or possibly others, are subject to review and approval by the California Public Utilities Commission ("CPUC"), as described below.[21] As a result, the Commission cannot fully evaluate whether or how these burdens will be avoided or reduced. Therefore, the Commission has imposed **Special Condition 10** to require SCE to notify the Commission of the CPUC's final decision on rate setting. In the event that the CPUC-approved rates differ substantially from SCE's rate setting proposal, SCE must submit an amended CDP application to address the burdens to environmental justice communities associated with those new rates.

Background

Catalina Island has long had limited water supplies that have been provided primarily from precipitation and groundwater. These limited supplies and the Island's limited available options to develop other sources of needed water led SCE to install the existing desalination facility in the early 1990s. Because seawater desalination is generally one of the most expensive types of water supplies, SCE and the Avalon community have also instituted a number of water conservation measures meant to extend the limited supplies – these include having a comparatively restrictive tiered rate structure for water use,[22] using salt water rather than freshwater to flush toilets, and prescribed use reductions tied to specified water volume declines in the system's Middle Ranch Reservoir.

The water supply issues on Catalina Island related to this proposed project involve several complicating factors. In addition to the distance from the mainland, the arid climate, and the limited available supplies, the costs of any new supplies meant to improve reliability could create a disproportionate burden to the Island's communities of concern; however, these cost-related issues will not be resolved until completion of a proceeding currently before the CPUC, which is reviewing SCE's request to recover the costs of this project in its rates (CPUC proceeding A20-10-018). The CPUC's final decision in that proceeding is expected by the end of 2023.

SCE's customer base on Catalina is relatively small, with only about 2,000 ratepayer accounts. This means a large expenditure such as the five-million dollar cost of this project can have a substantial cost impact on individual ratepayers if SCE is authorized by the CPUC to pass on the project costs to them. Additionally, as described below,

[21] See CPUC Proceeding A-20-10-018. As a regulated utility, SCE must receive approval from the CPUC before recovering project costs in the rates it charges to utility ratepayers.

[22] SCE's residential rates include several tiers with costs that increase with water use. The Tier 1 rate accounts for the first 2,000 gallons used each month (i.e., about a bathtub full each day), the Tier 2 rate is about twice the Tier 2 rate and accounts for use of the next 2,001 to 6,500 gallons per month, and the Tier 3 rate is about a third more than the Tier 2 rate and accounts for water use above 6,500 gallons per month. For comparison, applicants for the Commission's two most recent municipal desalination projects have much less restrictive rate structures – the South Coast Water District's Tier 1 accounts for the first 7,500 gallons per month, its Tier 2 rate is about 25% higher and accounts for use between 7,500 and 12,000 gallons per month, and its Tier 3 rate is only about 2% higher for use above 12,000 gallons per month. California-American Water in Monterey has a similar rate structure, though its Tier 1 accounts for the first 20,000 gallons per month.

there are many residents within SCE's service area that are considered low-income, have existing housing-related burdens, are not proficient in the English language, or have other environmental justice-related concerns. Another issue is that there are two distinct categories of SCE ratepayers on Catalina – one is the businesses that primarily serve the Island's approximately one million visitors each year and the other is SCE's residential ratepayers, all of whom expect and need a reliable water supply every day and a large proportion of which are relatively low-income service workers at the Island's visitor-serving businesses. Determining how the project's costs are apportioned between these groups will have a significant effect on whether new rates create a disproportionate burden on the lower-income residents. Another complicating factor is that SCE's business is focused almost entirely on providing electricity to much of Southern California, as its Catalina water service is the only aspect of its business operations focused on water supply. SCE does not have a water division or employees dedicated to providing water services; it instead uses personnel in its electrical service workforce to run the water utility.[23] This can create difficulty in determining how much of the costs paid by Catalina ratepayers can be assigned to electrical use or to water use.

Identifying Communities of Concern

The Commission's EJ Policy was created to provide a framework to consider fair outcomes and requires staff to reach out to and include the voices of environmental justice community members[24] who have been historically marginalized in the governmental review process and whose households have been disproportionately burdened by environmental hazards often stemming from industrial development. The goal is to make sure these voices are thoughtfully considered by the Commission during the process.

In this section, staff used socioeconomic, demographic, and environmental indicators to identify communities of concern and the environmental burdens among them to evaluate the distribution of the project's environmental burdens and benefits, as well as cumulative patterns. Staff evaluated various quantitative and qualitative sources of information for SCE's service area on Catalina Island and analyzed data in the City of Avalon's single census tract to identify low-income communities (either through the low-income definition from AB 1550 or at two times the federal poverty level[25]), populations

[23] According to an October 30, 2020, brief filed in the CPUC proceeding by the City of Avalon and associated parties, SCE's water utility generates just 0.000294% of SCE's revenue and is operated by just 13 employees whose workloads include both water and gas services.

[24] In this staff report, the terms "underserved communities" and "environmental justice communities" are used interchangeably with the term "communities of concern." All these terms refer to low-income communities, communities of color, and other populations with higher exposure and/or sensitivity to adverse project impacts due to historical marginalization, discriminatory land use practices, and/or less capacity to mitigate adverse impacts.

[25] AB 1550 identifies "Low-income communities" as census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low-income by HCD's State Income Limits adopted pursuant to Section 50093 of

of color,[26] populations with limited English proficiency,[27] and communities with high exposure to pollutants, adverse environmental impacts, or sensitivities to pollution. The data was extracted using CalEnviroScreen 4.0[28] and EPA's EJScreen,[29] which has higher resolution data for areas with low population.

Avalon is a unique resort community with a relatively small resident population (about 4,000 people) and a substantially greater number of annual visitors (up to about one million per year). The largest industries and employment base are visitor-serving retail, accommodation, and entertainment. The majority of residents are renters and nearly 60% of total residents are individuals of color, particularly of Latin American or Hispanic descent.[30] There is a large population of individuals with limited English proficiency.[31] As shown on **Exhibit** 4, the entire city's census tract is considered low-income and housing burdened, ranking in the 76th percentile. Housing burdened is defined as low-income households who are paying more than 50% of their household income towards housing and utilities.[32] Increasing utility rates for housing-burdened ratepayers would exacerbate these existing cost burdens. Additionally, the census tract for the City of Avalon ranks among the highest in the state for diesel particular matter pollution (96th percentile) according to CalEnviroScreen 4.0.

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the Health and Safety Code. This provides a more reliable measure of low-income communities due to higher costs and wages in California than the Federal Poverty Level.

[26] Population of color refers to anyone that identifies as Hispanic (of any race) and anyone who identifies as non-Hispanic but as a race other than white on the Census, such as Black or African American, Asian, or American Indian.

[27] Households where no one over age 14 speaks English very well.

[28] CalEnviroScreen 4.0 (CES) ranks census tracts in California based on potential exposures to pollutants, adverse environmental conditions, socioeconomic factors and the prevalence of certain health conditions. Data used in the CES model come from national and state sources with high sensitivity to pollution.

[29] For certain indicators, staff used EJScreen, an EPA's environmental justice mapping and screening tool that combines environmental and demographic socioeconomic indicators and displays them using different geographies that use census blocks, a smaller form of geography than census tracts used in CES.

[30] U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

[31] National percentile based on EPA EJScreen's "limited English speaking"; statewide percentile based on "linguistic isolation" from CalEnviroScreen 4.0.

[32] The housing burden indicator from CalEnviroScreen 4.0 is the percent of households in a census tract that are both low income (making less than 80% of their county's median family income) and severely burdened by housing costs (paying greater than 50% of their income for housing costs).

While staff was unable to identify members or representatives of Avalon's environmental justice community, staff reached out to representatives of several organizations including the Environmental Justice Chair of the Sierra Club's Los Angeles Chapter, Azul, as well as some concerned community members that have expressed interest in the project.

Based on qualitative and quantitative information, staff concludes that there are several communities of concern that may be disproportionately burdened by adverse project impacts, particularly low-income ratepayers in SCE's service area. Potential impacts to those communities and the Commission's ability to mitigate those impacts warrant additional consideration pursuant to Section 30604(h) of the Coastal Act.

Environmental Justice Coastal Act Analysis

Substantive Concerns
The primary substantive concerns are rate increases and cumulative impacts of intensified energy use.

Rate increases: Project costs, if borne entirely by SCE's Catalina ratepayers, would result in a substantial increase in monthly water bills and would represent a significant burden to its low-income ratepayers. Parties to the current CPUC proceeding estimate the water connection fee for residential users could increase from a current average of about $43 per month to about $228 per month (a 400% increase) and adjustments to the tiered rate structure could increase by about 600%.[33]

SCE has taken several steps to address this potential burden. It applied for, and received, a $2.1 million grant from the California Department of Water Resources to help with project costs. SCE has also included some proposed mitigating measures in its above-referenced CPUC proceeding that could substantially reduce these potential burdens. Although SCE's rate recovery request to the CPUC includes "bundling" other costs for utility services on the Island, thereby increasing the overall request to about $29 million,[34] it proposes that the CPUC allow it to recover these costs from the entirety of its customer base for its Southern California electricity service, not just its Catalina ratepayers. The effect of spreading the costs to this larger customer base would be to create a rate increase estimated at about 0.2% per month, or about $0.23 for most Southern California households, instead of the potential several hundred dollar per month rate increase for Catalina residents referenced above.

[33] The above-referenced October 30, 2020 brief notes that SCE's proposed rate recovery, if limited to Catalina Island customers, would increase the average water connection fee for water from about $43 per month to $228 per month (a more than 400% increase) and would increase the tiered water use rates by about 600%. It calculates that for a residential customer using just 67 gallons per day, rates over a five-year period would increase from the current $93 per month to $568 per month.

[34] As noted above, SCE estimates the costs of this desalination facility upgrade to be about five million dollars. It has also asked in its CPUC request to recover a total of $29 million, which includes additional deferred costs for increased pumping during recent drought years,

SCE supports this proposed approach by noting that the majority of the approximately one million visitors to Catalina each year that would benefit from the additional reliable water supply are SCE customers from Southern California. It therefore contends that it would be reasonable for SCE's full customer base to help pay a relatively small amount for the water reliability benefits that many of them will experience, if they visit Catalina—although visiting the island has its own set of affordability issues for low-income mainland populations. Other parties to the CPUC proceeding, however, contend that the CPUC may not assign costs to ratepayers who cannot be shown to experience the benefits. Some parties have suggested, too, that the CPUC consider approving other funding mechanisms, such as adding a fee to the ferry service between Catalina and the mainland or others. Other parties contend that SCE has not shown adequate support for the need to recover some of these costs in its water rates and suggest that the CPUC require SCE to return with an alternative proposal to change its current rate structure and to reconsider how costs are to be borne by its water users.[35]

The CPUC, which has exclusive rate setting authority, will decide these questions and is currently scheduled to complete its review by the end of 2023. The CPUC's practice is to allow for "reasonable" cost recovery, so it may choose from among the above recommended options, or others. However, it will not be known until then what cost recovery mechanisms it will authorize. With the current potential cost increases ranging from about $0.29 per month to several hundred dollars per month, it is not clear at this point what burdens will be borne by the environmental justice communities living and working in the Avalon area or elsewhere. The Commission is therefore not able at this time to evaluate fully whether SCE's proposed project will result in an equitable distribution of benefits, as stated in the Commission's Environmental Justice Policy and 30604(h), or in a disproportionate burden to those communities.

With the limited water supply options currently available in this area of Catalina Island, this proposed desalination upgrade appears to be the primary feasible option to provide sufficient and reliable water. Although potentially costly and overly burdensome to many members of the community, SCE's proposed cost-sharing approach or other potential approaches the CPUC might consider and approve could result in a relatively de minimis cost burden to SCE's customer base. In recognition, the Commission is requiring through **Special Condition 10** that SCE report back to the Commission after the CPUC's determination and notify the Commission of the CPUC's final decision on rate setting. In addition, SCE shall identify the average rate increase (if any) approved by the CPUC. In the event that the CPUC-approved rates substantially differ from SCE's rate setting proposal, SCE must submit an amended CDP application to include measures to lessen, to the maximum extent feasible, the impact of rate increases to affected ratepayers with low income.

[35] See, for example, the June 10, 2022 Reply Brief of the CPUC Public Advocates Office.

Cumulative impacts

As stated in Section IV.G above, the island's electricity is provided largely by diesel generators that create a considerable amount of diesel pollution. The intensification of energy usage by the proposed project, in its construction and operation, will increase cumulative impacts in what is an environmental justice community. The company published the Catalina Island Repower Feasibility Study in 2020, which outlines the next steps in updating the facilities SCE uses to provide electricity to the island.[36] In connection with the South Coast Air Quality Management District's proposed amended emission regulation for diesel generators, the District is currently reviewing SCE's proposed replacement of the existing diesel generators with more efficient diesel generators. If approved, the replacement is expected to reduce NOx emissions by up to 63%. Additionally, the company states that it will take steps to engage stakeholders in Catalina Island regarding the study. Concerns remain, however, regarding engagement with the City's environmental justice community on the transition to cleaner energy.

Procedural Concerns

To inform its ratepayers, SCE has conducted some online and mail outreach to its customers, in both English and Spanish, that describes the CPUC proceeding and the opportunities to comment on that proceeding. There were virtual forums held on March 30, 2021, at two separate times, with interpreters available upon request and the CPUC is currently planning an additional technical workshop to allow additional public involvement and comment. Some of the other parties to the proceeding represent interest groups on the Island that are also conducting various forms of outreach.[37] The majority of organizations that staff contacted expressed a concern for the lack of information available on SCE's website regarding the proposed expansion and the rate increases.

Conclusion

The increasing drought conditions in recent decades have only intensified the need for maximizing existing sources of water for Catalina Island. There is a sizeable environmental justice community in the City of Avalon that can stand to benefit from increased water supply but may be burdened by higher rates. Many interested parties had difficulty understanding the project expansion and the rate increases; however, the applicant has performed some outreach and offered interpretation for rate proposals. The City currently has high levels of diesel pollution that are expected to be reduced through installation of new and more efficient generators, even with the increased electrical use resulting from operating the PBDF and its upgrades. Until the new generators are approved and installed, it is unclear how much of a reduction will result and what the effects or benefits will be to the environmental justice communities. Due to the uncertainty described in this report, it is not possible to fully evaluate the

[36] See NV5, Santa Catalina Island Repower Feasibility Study, prepared for Southern California Edison, in conjunction with U.S. EPA and National Renewable Energy Laboratory, August 2020

[37] For example, a coalition of intervenors referred to in the proceeding as "Catalina Parties" includes the City of Avalon, the Catalina Island Chamber of Commerce, the Santa Catalina Island Company, Guided Discoveries, and the Hamilton Cove Homeowners Association.

environmental justice implications of this project. However, **Special Condition 10** allows for further review of additional measures to protect Avalon's most burdened ratepayers in the event that the CPUC-approved rates differ substantially from what SCE has proposed in this CDP application and in the pending CPUC proceeding.

I. Tribal Consultation and Cultural Resources

Coastal Act Section 30244 states:

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

In addition to Coastal Act Section 30244 regarding Tribal cultural resources, the Commission in 2018 adopted a Tribal Consultation policy meant to help establish meaningful and respectful consultation with California's tribal governments and representatives.[38] The policy includes several guiding principles regarding communication with the tribes, acknowledging tribal interests and resources, and assessing the effects that Commission actions may have on tribal interests. California has also established consultation requirements and guidelines through AB52 and SB18 that provide specific measures, timing requirements, and other provisions meant to ensure that interested Tribal representatives are informed of proposed work within their traditional areas of interest and are provided adequate opportunity to consult with permitting agencies during review of proposed projects.

After submittal of SCE's CDP application, Commission staff sent letters to local Tribal governments identified by the Native American Heritage Commission as having ties to the project area. The goal of these letters was to determine if any Tribal governments would be interested in formal or informal consultation or if they would like additional information about the proposed project. After receiving expressions of interest, staff met on May 8, 2023, with Chair Robert Dorame, Chair of the Gabrielino Tongva Indians of California, on whose ancestral lands the proposed project would be located and with Christina Conley, the Tribe's Cultural Resource Administrator.

As part of informal consultation, Chair Dorame provided background and history about the Tribe's long presence on Catalina Island, which is, and was, known as "Pimu" to its Native inhabitants and their descendants. He noted that there had been settlements located throughout the Island, and that along with its many resources that supported the population, Pimu was a source of soapstone used by the Tongva to make various objects and that served as an important trade resource with tribes on the mainland. He also described the significant and substantial disruption and destruction of Tribal resources that have occurred on the Island since European contact. The island has a long and unfortunate history of disturbance, of "pot hunting" where culturally significant artifacts were haphazardly removed and discovered ancestral remains did not receive respectful treatment.

[38] See Coastal Commission's Adopted Tribal Consultation Policy, August 8, 2018.

Chair Dorame explained that the Tribe considers all of the project's main work sites to be highly sensitive, even where previous construction projects have already caused disturbance. Much of the previous development in or near these sites occurred well before there were suitable measures in place to avoid disturbing potential cultural resources or to recognize those resources if they were disturbed. The Chair stated that the potential for discovery still exists at each of the sites and that any ground disturbance would need to have an approved monitor/consultant present.

Ms. Conley provided staff with the Tribe's Tribal Monitoring and Treatment Plan (see **Exhibit 5** – Gabrielino Tongva Indians of California – Tribal Monitoring and Treatment Plans), which describes the Tribe's recommended practices when conducting development within its traditional territory. These practices include having a qualified Tribal member on site for any ground disturbing activities, providing for periodic inspections of the sites and any disturbed soils to detect and identify possible cultural artifacts, and establishing appropriate practices for handling and treating any cultural artifacts or remains. To allow for consistency with Coastal Act Section 30244 and to further the respectful implementation of the Commission's Tribal Consultation Policy, the Commission is requiring through **Special Condition 11** that SCE conduct monitoring and reporting as identified in the Tribe's Tribal Monitoring and Treatment Plan before and during all construction activities.

Conclusion

With the inclusion of **Special Condition 11**, the Commission finds the project will be consistent with the requirements of Coastal Act Section 30244.

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 the California Environmental Quality Act ("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 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.

APPENDIX A – Substantive File Documents

Coastal Commission Adopted Findings for CDP E-89-003, as amended, CDP 9-16-0490, and CDP Waiver 5-02-155-W

Coastal Development Permit Application No. 9-23-0055.

California Public Utilities Commission General Order 103-A, II.1.A

California Public Utilities Commission Proceeding A-20-10-018 – General Rate Case, Southern California Edison

California State Lands Commission – State Tidelands lease #8330

Los Angeles Regional Water Quality Control Board Order #R4-2019-0145 and NPDES Permit #CA0061191