CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

See addendum to this report posted on May 7.

Th12c

Filed: August 10, 2007
49th Day: September 28, 2007
Staff: C. Teufel-SF
Staff Report: April 24, 2008
Hearing Date: May 8, 2008

STAFF REPORT: APPEAL
DE NOVO REVIEW

COMMISSION APPEAL NO.:	**A-4-OXN-07-096**
LOCAL GOVERNMENT:	City of Oxnard
LOCAL DECISION:	Denied
APPLICANT:	**Southern California Edison Company**
SUBSTANTIVE ISSUE:	On September 6, 2007, the Commission found that the appeal of the local government action on this project raised substantial issue.
PROJECT DESCRIPTION:	Construction and operation of a 45-megawatt "peaker" power plant.
PROJECT LOCATION:	251 North Harbor Boulevard, Oxnard, Ventura County.
APPELLANT:	Southern California Edison Company
LIST OF EXHIBITS AND SUBSTANTIVE FILE DOCUMENTS:	See Appendix A
STAFF RECOMMENDATION:	Approval with Conditions

EXECUTIVE SUMMARY

Project Summary. In this application, Southern California Edison (SCE) proposes to construct and operate a 45-megawatt natural gas fired "peaker" power plant on the former tank farm site of the Mandalay Generating Station in the City of Oxnard, Ventura County. The project also includes additional electrical transmission lines and poles, a 1,800 foot long six-inch diameter natural gas pipeline along the east side of Harbor Boulevard, transformers, an electrical substation, storage tanks, access roads, security gates and fences.

Jurisdiction. The proposed project is located within the City of Oxnard's certified Local Coastal Program (LCP) jurisdiction and therefore requires a coastal development permit from the City. In July 2007, the City of Oxnard denied SCE's request for a coastal development permit to construct and operate the peaker plant at the proposed location on the basis that the project is inconsistent with the zoning designation. Denial of a major energy facility by a local government is appealable to the Coastal Commission, however. On August 10, 2007, SCE filed a timely appeal to the Coastal Commission. On September 6, 2007, the Coastal Commission found that SCE had raised a substantial issue regarding the conformance of the City of Oxnard's permit denial with the LCP.

This report constitutes the Commission's de novo review of SCE's application to obtain a coastal development permit for the peaker plant and ancillary facilities. The standard of review of the City of Oxnard's LCP and the public access and recreation policies of the Coastal Act.

Zoning Designation.
The project site is located within an area identified in the City of Oxnard's LCP as a Coastal Energy Facility Sub-zone. The City's denial of the proposed project was based on its determination that the proposal did not conform to the designated zoning for the parcel on which the project was to be located. The City's rationale for denying the proposal is that the zoning designation requires any energy facility on the site to be coastal dependent.[1] SCE contends that this zoning designation allows non-coastal dependent facilities and that the City therefore erred when it determined the proposed project would have to be coastal-dependent to be sited at this location. SCE appealed the City's permit denial to the Coastal Commission. On September 6, 2007, the Commission determined that SCE's appeal raised a substantial issue regarding the conformance of the City of Oxnard's denial of a coastal development permit with applicable LCP policies. As described within Section B of this staff report, the Commission finds the proposed project in conformance with the project site's Coastal Energy Facility Sub-zone based on the following:

- The key subsection of the Coastal Energy Facility Sub-zone (Coastal Zoning Ordinance Section 17-20), states that "coastal dependent energy facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable

[1] Both the City's LCP at Section 17-3(12) and Section 30101 of the Coastal Act define a "coastal-dependent development or use" as "any development or use which requires a site on, or adjacent to, the sea to be able to function at all."

long-term growth, where consistent with this article." This subsection is the only one that specifically refers to "coastal-dependent" facilities, and it only "encourages" such facilities to locate within this zoning designation and does not prohibit non-coastal dependent facilities;

- Other subsections of Coastal Zoning Ordinance Section 17-20 apply generally to "energy related developments," not exclusively to "coastal-dependent" developments. Additionally, these subsections are all subject to the overarching provision of Section 17-20(A), which states that this zoning designation allows "power generating facilities and electrical substations" and is therefore not limited to "coastal-dependent" facilities[2];

- One of the four types of developments that can be conditionally permitted within the Coastal Energy Facility Sub-zone is an "Electrical power generating plant and accessory uses normally associated with said power generating facility," such as the project proposed by SCE.

Key LCP/Coastal Act Issues. The key issues of concern for this project are potential impacts to biological resources, adverse visual effects and greenhouse gas emissions.

Biological Resources. Several sensitive habitat areas are known to exist adjacent to or nearby the proposed project site, and a variety of special status species are known to occupy these habitats either seasonally or year-round. Those species with the highest likelihood of being negatively affected by the proposed project include the western snowy plover, California least tern, and burrowing owl as well as rare dune plant species such as Ventura marsh milk vetch, salt marsh bird's-beak, red sand-verbena, dunedelion, estuary seablite, and wooly seablite. During local review of this project, the US Fish and Wildlife Service (FWS) raised concerns about the effect of SCE's proposed landscape plan on western snowy plovers and California least terns and the sensitive nesting habitat for these species located in close proximity to the project site (approximately 1000 feet to the west and northwest). The concerns raised by FWS focused on the substantial increase in the number of trees within the project area that would result from SCE's proposed landscaping plan (an increase from less than 10 trees in the area currently to more than 140 at the completion of landscaping activities) and the potential increase that this change in the area's vegetation profile would have on the local predatory bird populations. Birds such as crows, ravens, owls and raptors use trees as nesting habitat and large numbers of these predators in proximity to snowy plover and least tern nesting areas have been identified by FWS as a primary threat to tern and plover population recovery. Given the proximity of the project site to important western snowy plover and California least tern nesting areas within McGrath and Mandalay State Beaches, an increase in the number of predatory birds within the area is anticipated to adversely affect the reproductive success of snowy plover and least terns and therefore degrade the quality of sensitive nesting habitat. As

[2] Further, the LCP's definition of "energy facility" does not specify that such facilities must be coastal-dependent. LCP Section 17-3(25) defines an "energy facility" as "any public or private processing, producing, generating, storing, transmitting or recovering facility for electricity, natural gas, petroleum, coal or other sources of energy."

such, the Commission finds it necessary to include **Special Condition 3(a)** which requires that SCE substitute all tall and medium sized tree species in the proposed landscaping plan (Exhibit 4) with a selection of native bush and shrub species that will provide maximum visual screening of the project site without providing nesting habitat for birds known to prey on western snowy plovers, California least terns or their eggs, nestlings or fledglings.

The Commission is also requiring in **Special Conditions 4** and **3(c)** that biological surveys be conducted and avoidance measures be implemented to ensure that 1) proposed activities within the degraded dune scrub habitat to the east of Harbor Boulevard do not adversely impact sensitive dune plant species that may exist in this area; and 2) burrowing owls that may nest or winter in the project area are not adversely impacted by project construction activities.

As conditioned, the Commission staff believes the project will be carried out consistent with the LCP policies that provide for the protection of biological resources and sensitive habitat areas.

Visual Resources. The project would be primarily developed within a brownfield site that has previously supported energy-related infrastructure and neighbors the existing Mandalay Generating Station and several functioning oil wells. As demonstrated by the photographs in Exhibit 3, the existing views of and around the project site are primarily industrial and energy related in nature and no significant visual or aesthetic resources are apparent. The peaker plant will therefore be sited in an area surrounded by other industrial development. The plant's stack and some transmission poles would be visible to beach users from certain areas along Mandalay State Beach, but this section of coast is already visually dominated by the Mandalay Generating Station and some oil wells. SCE has proposed a landscaping plan for the project site that would provide visual screening from Harbor Boulevard and adjacent areas. As noted above, **Special Condition 3(a)** requires revising that plan to avoid the use of trees that may adversely affect some of the area's sensitive biological resources. Nevertheless, the Commission finds that implementing a modified landscaping plan will minimize the plant's adverse visual effects.

Greenhouse Gas Emissions. According to SCE, the peaker plant will emit up to 51,000 metric tonnes of CO_2 each year from the combustion of natural gases in its turbine and emergency generator. However, SCE submitted a greenhouse gas emission analysis that concludes that operation of the peaker plant will result in a slight *decrease* in CO_2 emissions across SCE's generation portfolio. SCE therefore believes no offsets or mitigation of greenhouse gases is warranted. Prior to completion of this report, Commission staff did not have adequate time to evaluate SCE's emission analysis and conclusions. SCE has agreed it will provide funding for the Commission to hire an independent consultant to review the emission calculations and analysis. SCE has also agreed that if the independent assessment concludes that operation of the peaker plant will result in a net increase in greenhouse gas emissions it will, by September 1, 2008, submit to the Commission a Greenhouse Gas Reduction and Mitigation Plan to address those emissions until the electricity sector requirements of AB32, The California Global Warming Solutions Act of 2006, are implemented. The Commission in **Special Condition 6** requires that if the independent assessment concludes that operation of the

peaker plant results in *no net increase* in greenhouse gas emissions, it will hold a public hearing regarding the assessment at the next feasible meeting. If the Commission disagrees with the assessment, it may require preparation of a mitigation plan. If a mitigation plan is required, SCE is not to commence commercial operation of the peaker plant until the Commission approves a plan after public hearing.

The Commission finds that, as conditioned, the adverse effects to a variety of coastal resources (e.g., marine resources, wetlands, ESHA, public access) that could result from the release of greenhouse gas emissions will be mitigated.

Staff Recommendation. For the reasons described above, staff recommends the Commission **approve, with conditions,** coastal development permit application A-4-OXN-07-096.

I. MOTION, STAFF RECOMMENDATION *DE NOVO*, AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit No. A-4-OXN-07-096 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 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 certified City of Oxnard LCP and the public access and recreation policies of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because 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 SCE or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration**. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation**. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment**. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

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

III. SPECIAL CONDITIONS:

1. **Liability for Costs and Attorneys Fees.** SCE shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees -- including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the applicant against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit., the interpretation and/or enforcement of permit conditions, or any other matter related to this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

2. **Mitigation Measures.** This permit incorporates those mitigation measures identified in the May 11, 2007, Mandalay Peaker Project Mitigated Negative Declaration concerning air quality, biological resources, cultural resources, hazards and hazardous materials, transportation and traffic that are attached to this staff report as Exhibit 8.

3. **Landscaping.** Prior to issuance of this coastal development permit, SCE shall submit, for Executive Director approval, a revised Landscaping Plan that includes:

   (a) Replacement of all tall and medium sized tree species noted on the proposed landscaping plan included as Exhibit 4 with a selection of native bush and shrub species that provide maximum visual screening of the project site without providing nesting habitat for birds known to prey on western snowy plovers, California least terns or their eggs, nestlings or fledglings;
   (b) Installation of an underground drip irrigation system;

(c) Avoidance of landscaping or construction activities within 50 feet of Mandalay State Beach and 100 feet of Mandalay Canal;
(d) Measures to minimize water use and the application of fertilizers, pesticides and herbicides;
(e) Provisions for documenting and reporting the physical and biological "as built" condition of the project site within 30 days of completion of the initial landscaping activities;
(f) Provisions for interim monitoring and maintenance that shall include a schedule for planting and maintenance activities, interim performance standards, a description of field activities, and specify a monitoring period (typically 5 years);
(g) A provision for submission of annual reports of monitoring results to the Executive Director for the duration of the monitoring period and beginning the first year after submission of the "as built" report. These reports shall document the condition of the landscaping with photographs taken from the same fixed points in the same directions. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the landscaping in relation to the interim performance standards and final success criteria;
(h) A narrative description of the goals and final success criteria that shall be used to evaluate the completion of and maintenance of landscaping;
(i) A provision for the submission of a final monitoring report to the Executive Director at the end of the final monitoring period. The final report shall evaluate whether the landscaping conforms to the goals and success criteria set forth in the approved final landscaping plan.

If after receiving the final monitoring report the Executive Director determines that SCE did not satisfy the plan's success criteria, SCE shall within 90 days of the Executive Director's determination submit to the Commission in the form of a permit amendment a revised landscaping plan to address those elements of the original approved plan that did not satisfy the success criteria.

4. Sensitive Biological Resources.

(a) All "indirect impact" minimization measures described within the Mandalay Peaker Project Biological Resources Assessment, dated February 2007, prepared by Keane Biological Consulting, shall be strictly adhered to and incorporated into all final project design plans, construction methodologies and management practices.
(b) Following final designation of specific locations for all project activities to the east of Harbor Boulevard, SCE shall consult with the City of Oxnard and the California Department of Fish and Game to retain the services of a botanist with experience identifying the Ventura marsh milkvetch, salt marsh bird's-beak, red sand-verbena, dunedelion, estuary seablite, and wooly seablite to conduct a focused survey for these plants in those locations. If any individuals of these species are detected, the botanist shall provide notification to the Executive Director of the Coastal Commission as well as the local offices of the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (FWS) and no project activities

shall be conducted to the east of Harbor Boulevard until consultation with these agencies is carried out and an impact avoidance plan that includes fencing and any re-location or re-routing of project activities necessary to avoid sensitive plant species has been reviewed and approved by the Executive Director. If the Executive Director determines, after consultation with FWS and CDFG, that impacts to sensitive plant species are unavoidable SCE shall submit for the Executive Director's approval a Habitat Restoration Plan to mitigate impacts to sensitive plant species. The plan shall provide for no less than 1:1 mitigation for all impacts to the aforementioned species affected during project-related activities. The plan shall describe mitigation to be implemented for these effects, including location, planting plans, quantitative performance standards, mitigation time lines, monitoring requirements, and funding to be provided for implementation. The submitted plan shall first be approved by the FWS. If a Habitat Restoration Plan is required, project activities cannot commence until the Executive Director approves the Habitat Restoration Plan.

(c) No more than 30 days prior to the initiation of ground disturbing activities, SCE shall conduct a pre-construction survey for burrowing owls throughout all portions of the project area (including the peaker plant site, construction staging areas, landscaping areas and transmission line and pipeline corridor to the east of Harbor Boulevard). If any burrowing owls are observed or burrows are found to be actively used within the project area, prior to the initiation of construction or ground disturbing activities, SCE shall submit an Impact Avoidance and Mitigation Plan for the Executive Director's approval. The plan shall include implementation of specific disturbance avoidance measures based on current CDFG guidelines including the avoidance of project activity within a minimum of 160 feet of occupied burrows during the non-breeding season of September 1 through January 31 or within a minimum 250 feet during the breeding season of February 1 through August 31 and the maintenance of a 300 foot foraging radius around each occupied burrow. If destruction of occupied burrows and/or disturbance within the 160-250 foot buffer distance is unavoidable, mitigation guidelines described within the California Burrowing Owl Consortium's April 1993, "Burrowing Owl Survey Protocol and Mitigation Guidelines" (Exhibit 9), shall be adhered to.

5. Geologic Hazards. SCE shall incorporate all recommendations contained in the Geotechnical Investigation, dated December 13, 2006, prepared by Kleinfelder, Inc. into all final design and construction plans. Prior to issuance of this coastal development permit, SCE shall submit evidence of Kleinfelder, Inc.'s review and approval of all project plans. Evidence shall include affixation of the consulting geologists' stamp and signature to the final project plans and designs. If implementation of Kleinfelder's recommendations result in project modifications, an amendment to this coastal development permit may be required.

6. Greenhouse Gas Emissions: If the independent assessment of SCE's April 9, 2008, McGrath Beach Peaker Project Greenhouse Gas Emission Discussion Report concludes that operation of the peaker plant will result in a net increase in greenhouse gas

emissions, SCE shall by September 1, 2008, submit to the Commission a Greenhouse Gas Reduction and Mitigation Plan. If the independent assessment concludes that operation of the peaker plant results in no net increase in greenhouse gas emissions, the Commission shall hold a public hearing regarding the assessment at the next feasible meeting. If the Commission disagrees with the assessment, it may require preparation of a Greenhouse Gas Reduction and Mitigation Plan. If a Greenhouse Gas Reduction and Mitigation Plan is required, SCE shall not commence commercial operation of the peaker plant until the Commission approves a Greenhouse Gas Reduction and Mitigation Plan after a public hearing.

IV. FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

A. Project Description and Background

The proposed project is a 45-megawatt natural gas fired "peaker" power plant and ancillary facilities to be constructed and operated by Southern California Edison (SCE) at a site within the coastal zone in Ventura County and subject to the City of Oxnard's certified Local Coastal Program. SCE historically used the site as a tank farm to store fuel oil before converting the nearby Mandalay Generating Station to natural gas. The proposed site is in close proximity to the Mandalay Generating Station and adjacent to the Mandalay Canal on the north, Harbor Boulevard on the east, an existing oil processing facility and two operating oil pumps on the west and the undeveloped sand dune habitat of Mandalay State Beach on the south (as shown in Exhibit 1).

SCE proposes this project in response to an order by the California Public Utilities Commission (CPUC) (Rulemaking #06-02-013 – attached as Exhibit 2) directing the SCE "…to expand its Air Conditioning Cycling Program[3] (ACCP, also referred to as Summer Discount Plans) to target an additional 300 megawatts of program capacity for the summer 2007 season." The Order further states, "In addition, SCE should pursue the development and installation of up to 250 megawatts of black-start, dispatchable generation capacity within its service territory for summer 2007 operation." In response to this CPUC order, SCE recently brought on line four other 45 megawatt peaker plants outside of the coastal zone in southern California for an estimated 180 megawatts of generating capacity. Despite the fact that the summer 2007 deadline specified in CPUC Rulemaking #06-02-013 has passed, SCE proposes the Oxnard peaker plant to augment existing generating capacity in southern California and more fully satisfy the CPUC's order. SCE states that the proposed peaker plant "will be operated primarily during periods of peak power demand when the electrical grid system needs additional usable electric power capacity or when local voltage support is required" and that "the unit can be started on short notice to respond to demand peaks."

[3] SCE's Air Conditioning Cycling Program is a demand response program designed to conserve energy during periods of peak demand by enabling SCE to remotely control and power-off the air conditioning units of participating users.

The proposed peaker plant would require the construction of numerous components and infrastructure including both a natural gas-fired emergency start-up generator and a natural gas-fired turbine generator with pollution control equipment, an 80 foot tall exhaust stack, a 10,500 gallon aqueous ammonia storage tank, a water demineralization system and 50,000 gallon de-ionized water storage tank, a 180,000 gallon fire water storage tank, gas and water supply lines and storage tanks, transformers, access roads, security gates, fences and transmission lines and poles. Additionally, the construction of an approximately 4,900 square foot electrical substation and 3,000 square foot natural gas metering station would be required to facilitate electricity generation and transmission.

Site Preparation: Site preparation activities include establishing a temporary staging areas and excavation, grading, landscaping and de-watering of construction areas. Proposed temporary staging areas would encompass approximately 4.6 acres of the project site and would be used for the storage of material and equipment during construction. In addition, much of the remainder of the project site would be used for construction office trailers and temporary parking facilities. Proposed grading and excavation activities include the placement of a 1,000 foot long, 50 foot wide and six foot tall earthen berm along the entire eastern edge of the project site (adjacent to Harbor Boulevard), the removal of roughly 408,000[4] cubic yards of soil to facilitate the installation of the peaker plant's foundation, as well as additional smaller scale earth moving activities. To enable excavation to proceed, SCE proposes to lower the water table at the construction site by between 8 and 10 feet.

Proposed de-watering activities would withdraw approximately 25 million gallons of groundwater from the project site within the first ten days and would then proceed at an estimated withdrawal rate of 2.5 million gallons per day for an estimated additional 172 days. These de-watering activities would require between 11 and 30 separate twenty-four inch diameter by 40 foot deep wells around the perimeter of the approximately two acre peaker plant foundation footprint. Groundwater withdrawn by the proposed well system would be directed to a 21,000 gallon Baker style de-sanding tank to allow suspended solid materials within the water to settle out before the water is discharged through an existing storm drain pipe into the Mandalay Canal. Based on information provided by SCE, material collected within the proposed de-sanding tank would be chemically analyzed and then either used in the proposed landscape berms or hauled away to an approved disposal site, based on the results of chemical analysis. During the proposed ten day initial de-watering period, operation of the pump system would be continuous for 24 hours per day and would then proceed at the frequency necessary to maintain the target water depth, based on the rate of ground water intrusion and return. The total estimated amount of groundwater proposed to be withdrawn and discharged into the Mandalay Canal is 455 million gallons. SCE has provided Commission staff with the results of chemical analyses conducted on groundwater samples from the project site. All pollutant levels appear to be well within applicable limits established by the California Regional Water Quality Control Board. SCE has also provided the water sample lab results to the California Regional Water Quality Control Board and has

[4] Based on information provided by SCE that estimates the size of the excavation area at 240 feet by 340 feet and the depth of the excavation at 15 feet.

submitted a Notice of Intent to comply with general waste discharge requirements and obtain a National Pollutant Discharge Elimination System (NPDES) Permit.

Proposed landscaping activities (demonstrated in the site plan included as Exhibit 4) would be concentrated within the immediate vicinity of the proposed peaker plant construction site, between the Mandalay Canal and Mandalay State Beach to the west of Harbor Boulevard. SCE proposes the placement of several dozen individuals of the following native bush, shrub and grass species: California wax myrtle, lemonade berry, toyon, quailbush, California brittlebush, golden yarrow, yarrow, sand strawberry, silver weed cinquefoil, salt grass, giant rye, alkali rye, deer grass, needlegrass. These shrub and groundcover species would be planted on and around a proposed six foot high berm which would be placed adjacent to and parallel with Harbor Boulevard as well as a various locations around the proposed project site. As described in further detail below, **Special Condition 3(a)** requires that all native and non-native tree species identified on the attached landscaping plan (Exhibit 4) be replaced by native shrub and bush species.

Transmission Lines and Poles: As shown in Exhibit 1, SCE also proposes to install approximately 1,350 circuit feet of transmission line, seven new 55-80 foot tall transmission poles and replace seven existing transmission poles with new poles that are slightly larger and taller (ranging in size from 65-85 feet tall). The routing of the transmission line would require placement of four 55-60 foot tall wood power poles within the project site to connect the peaker plant to the transmission substation and two additional 55-65 foot wood power poles south of the substation to route the line to the point where it will cross Harbor Boulevard. After the line crosses Harbor Boulevard, it will be routed along an existing transmission corridor on the east side of the street. In order to accommodate the weight of the new transmission line, provide sufficient ground clearance for safety purposes, and route the line to the appropriate junction with the existing transmission line east of the existing Mandalay Substation, approximately seven wood power poles from the current transmission corridor will be replaced by new wood power poles in the same or nearby locations, and approximately two additional wood power poles and one additional steel power pole will be added in new locations.

Apart from the proposed steel pole, the new and replacement poles will be similar in appearance but approximately five to ten feet taller than the existing poles along Harbor Boulevard, which range from 60 to 75 feet in height. Placement of these poles and their anchoring systems require the excavation of 32 augured holes, each between six and ten feet in depth with a diameter of two feet, and one concrete foundation (25 feet deep and seven feet in diameter). SCE proposes to use approximately 25,120 square feet of undeveloped land to the east of Harbor Boulevard for transmission line construction staging activities and to facilitate truck and equipment access to the proposed pole and excavation sites.

Natural Gas Pipeline and Tie-in: As previously noted, the proposed peaker plant would be powered by natural gas and would require the construction of both an approximately 40 foot by 75 foot gas metering station and a 1,800 foot long by six inch diameter natural gas pipeline. While the metering station would be constructed adjacent to the proposed peaker plant, the proposed natural gas pipeline would cross Harbor Boulevard and continue north

adjacent to the roadway before crossing the Mandalay Canal on an existing vehicle bridge and reaching a tie-in location where it would join with an existing 20 inch diameter natural gas pipeline. The proposed project site and approximate transmission line and natural gas pipeline routes are demonstrated on Exhibit 1. The pipeline would be installed at a minimum depth of 36 inches and a planned depth of 42 inches and would be trenched using a backhoe within a 30 to 54 foot wide construction easement from the edge of Harbor Boulevard – for an approximate total disturbance footprint of 1.3 acres. Approximately 1,200 cubic yards of material would be excavated during trench construction and any material remaining after backfill operations would be taken off site and disposed of at an approved facility. Pipeline construction is expected to occur concurrent with peaker plant construction and would take approximately 7 weeks to complete. Construction equipment required for pipeline installation would include pipe trucks, dump trucks, welding equipment, and backhoes as well as boring and lifting equipment. The proposed staging area for pipeline trenching and construction would be located within the project site in the same location as the peaker plant construction staging area.

SCE has committed to implement all mitigation measures identified in the Mitigated Negative Declaration prepared for this project and included within Exhibit 8.

Permit History: On June 28, 2007, the City of Oxnard Planning Commission denied the appellant's application for a coastal development permit to construct and operate the peaker plant. The Planning Commission also declined to adopt the Mitigated Negative Declaration (MND) prepared by the City pursuant to requirements of the California Environmental Quality Act. On July 10, 2007, the appellant filed a timely appeal of the Planning Commission's decision with the Oxnard City Council. On July 24, 2007, the City Council denied the appeal and also declined to adopt the MND. On July 27, 2007 the Coastal Commission received the City's Notice of Final Action and associated records to start the 10-working-day appeal period, which ended August 10, 2007. SCE filed its appeal on August 10, 2007, and on September 6, 2007, the Commission found that the appellant had raised a substantial issue regarding the conformance of the City of Oxnard's coastal development permit denial with the LCP.

Permit Jurisdiction: The proposed project would be located within the Coastal Zone in the City of Oxnard and is subject to the City's certified Local Coastal Plan (LCP). The proposed project is a "major energy facility" as defined in the Commission's regulations[5], and is therefore subject to appeal to the Coastal Commission, pursuant to Coastal Act Section 30603(a)(5).[6]

---

[5] Coastal Act Section 30107 defines "energy facility" as "any public or private processing, producing, generating, storing, transmitting, or recovering facility for electricity, natural gas, petroleum, coal, or other source of energy. 14 Cal. Admin. Code Section 13012(a) defines, in relevant part, "major energy facilities" as those "that cost more than one hundred thousand dollars ($100,000)…" Edison states that the project would cost approximately $50 million to build.

[6] Coastal Act Section 30603(a) states, in relevant part: "After certification of its local coastal program, an action taken by a local government on a coastal development permit application may be appealed to the commission for only the following types of developments: … (5) Any development which constitutes a major public works project or a major energy facility."

Standard of Review: As a "de novo" application and pursuant to Section 30604(b) of the Coastal Act, the standard of review for the proposed development is, in part, the policies, standards, and provisions of the City of Oxnard Local Coastal Program (LCP). In addition, pursuant to Section 30604(c) of the Coastal Act, all proposed development located between the first public road and the sea, including those areas where a certified LCP has been prepared, such as the project site, must also be reviewed for consistency with the Chapter 3 policies of the Coastal Act regarding public access and public recreation.

Appeal Issues Found to Raise a Substantial Issue: In its appeal, the appellant contends that the City's denial of its CDP application is based on an erroneous interpretation of its LCP. The appellant specifically contends that the City erred in determining that the City of Oxnard's Coastal Zoning Ordinance allows only "coastal-dependent" energy facilities to be located at the proposed project site. The appellant also contends that the proposed project could be permitted under the zoning designation's allowable conditional use as an "electrical power generating plant and accessory uses normally associated with said power generating facility." The question of whether or not the zoning designation of the proposed project site requires facilities developed on that site to be "coastal dependent" was found to raise a substantial issue by the Commission.

City of Oxnard Local Coastal Program Structure: The coastal development policies and standards that apply to the subject project site are found in the two documents that make up the City's LCP, namely the Coastal Land Use Plan and Coastal Zoning Ordinance. The Commission certified with suggested modifications the City of Oxnard's Coastal Land Use Plan (LUP) in July 1981. In May 1982, the City accepted modifications and the Land Use Plan was effectively certified.

There are numerous policies and discussions in the LUP that specifically address the type of development represented by SCE's proposed project. These policies generally relate to energy related development, sensitive habitat and wetlands, visual resources, public access, geologic hazards, water conservation, and land use and water quality.

The City's implementation program (Coastal Zoning Ordinance) was approved with Suggested Modifications in January 1985. In March 1985, the City accepted the suggested modifications, the Coastal Zoning Ordinance was effectively certified, and the City assumed permit authority over that portion of its Coastal Zone landward of the mean high tide line.

As described above, the coastal zoning map (Exhibit 7) shows one zone designation for all areas by which development associated with the proposed project will occur. The designation is "Coastal Energy Facilities" Sub-Zone (EC). This zoning allows only energy related uses on the property.

Expansion of Existing Power Plants. In 1985, pursuant to Section 30413(b) of the Coastal Act, the Coastal Commission adopted a report called "Designation of Coastal Zone Areas Where Construction of an Electric Power Plant Would Prevent Achievement of the Objectives of the California Coastal Act of 1976." That report identified sensitive resource areas along the California coast and designated them areas *not* suitable for power plant siting. All

designated protected areas (which include parks, sensitive plant and wildlife habitat areas, and special agricultural lands) are displayed on 162 maps of the coastal zone. The designations do not preclude "reasonable expansion" of the then 19 existing coastal power plants, including the Mandalay Power Plant. Although the proposed peaker plant is a stand-alone plant and not technically an "expansion" of the Mandalay Power Plant, its purpose is to provide an additional electric power source located on land formerly used by the Mandalay Power Plant and designated by the Coastal Commission as suitable for a power plant.

B. Zoning Designation

The project site is located within an area identified in the City of Oxnard's LCP as a Coastal Energy Facility Sub-zone. The LCP's Coastal Zoning Ordinance Section 17-20(A), describes the Coastal Energy Facilities Sub-Zone designation as follows:

> *Purpose - The purpose of the EC sub-zone is to provide areas that allow for siting, construction, modification and maintenance of power generating facilities and electrical substations consistent with Policies 51, 52, 54, 55 and 56 of the Oxnard coastal land use plan. Additionally, the EC sub-zone is designed to provide a framework for coordinating the requirements and responsibilities of applicable city, State and federal regulatory agencies vested with the authority for reviewing energy facility development. To assure consistency with the Oxnard coastal land use plan, the following coastal act provisions and land use plan policies shall apply:*
>
> *(1) Coastal dependent energy facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth, where consistent with this article. (Coastal Act, Section 30260)*
> *(2) All new energy related development shall conform to the air quality regulations set forth by the Ventura County Air Pollution Control District, the air quality management plan and new source review rule 26. (Policy 29)*
> *(3) Energy related development shall not be located in coastal resource areas including sensitive habitats, recreational areas and archeological sites. All development adjacent to these resource areas or agricultural areas shall be designed to mitigate any adverse impacts. (Policy 30)*
> *(4) All new energy related development shall be located and designed to minimize adverse effects upon public access to the beach. (Policy 54)*
> *(5) No energy related development shall be located seaward of the 100 year flood/wave run-up line as designated by the U.S. Department of Housing Insurance Program Administration and the land use map of the Oxnard coastal land use plan. (Policy 56)*
> *(6) Wastewater from any energy related facilities shall be treated as necessary and put to reuse including, but not limited to the following:*
> *(a) Re-injection into the aquifer or ground water recharge system; and*
> *(b) Recycling for industrial, agricultural or urban use. (Policy 64)*

The LCP's Coastal Zoning Ordinance Section 17-20(B) describes the types of development that can be considered for approval within the Coastal Energy Facility Sub-zone as follows:

Conditionally permitted uses - The following uses are permitted subject to the approval of a coastal development permit pursuant to the provisions of article V:

(1) Off-street public parking facility;
(2) Electrical power generating plant and accessory uses normally associated with said power generating facility;
(3) Electrical substation; and
(4) Natural gas pump and extraction facilities.

As noted in Exhibit 5, the City's denial of the proposed project was based on its determination that the proposal did not conform to the designated zoning for the parcel on which the project is to be located. Pursuant to the City LCP's Coastal Zoning Ordinance at Section 17-20, the parcel is designated as Coastal Energy Facility Sub-Zone. The City's rationale for denying the proposal is that the zoning designation requires any energy facility on the site to be coastal dependent.[7] SCE, the City and the Commission agree that the proposed peaker plant is not a coastal-dependent industrial facility because it does not rely on a site "on, or adjacent to, the sea" to function. SCE contends that this zoning designation allows non-coastal dependent facilities and that the City therefore erred when it determined the proposed project would have to be coastal-dependent to be sited at this location.

For this issue, the key subsection of this provision is Section 17-20(A)(1), which states that "coastal dependent energy facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth, where consistent with this article." The City's interpretation of this subsection is that the proposed project could not be sited at this location because it is not a coastal dependent energy facility. This subsection, however, is the only one that refers to "coastal-dependent" facilities, and it only "encourages" such facilities to locate within "existing sites." The other subsections apply generally to "energy related developments," not exclusively to "coastal-dependent" developments. Additionally, these subsections are all subject to the overarching provision of Section 17-20(A), which states that this zoning designation allows "power generating facilities and electrical substations" and is therefore not limited to "coastal-dependent" facilities.[8] Furthermore, as demonstrated in Exhibit 6, a review of other areas similarly identified with the Coastal Energy Facility Sub-zone designation reveals that at least one of these areas is not located "on, or adjacent to, the sea" and currently supports a non-coastal dependent energy use. Specifically, the location noted in Exhibit 6 supports an electrical substation, one of several non-coastal dependent conditionally permitted uses specified by the LCP's Coastal Zoning Ordinance Section 17-20(B) as potentially approvable within the Coastal Energy Facility Sub-zone. The Commission therefore finds that the City's Coastal Energy Facilities sub-zone designation is

[7] Both the City's LCP at Section 17-3(12) and Section 30101 of the Coastal Act define a "coastal-dependent development or use" as "any development or use which requires a site on, or adjacent to, the sea to be able to function at all."

[8] Further, the LCP's definition of "energy facility" does not specify that such facilities must be coastal-dependent. LCP Section 17-3(25) defines an "energy facility" as "any public or private processing, producing, generating, storing, transmitting or recovering facility for electricity, natural gas, petroleum, coal or other sources of energy."

not exclusive to "coastal-dependent" energy developments and that as an "electrical power generating plant" the proposed project is a conditionally permitted use of the proposed project site.

C. Biological Resources and Water Quality

The certified LCP contains policies that provide for the protection of biological resources and sensitive habitat areas and that establish buffer distances around wetlands and other resource protection areas. The certified LCP also includes policies that provide for the maintenance and restoration of the quality of coastal waters. Applicable LCP policies include Local Coastal Policy 6 which requires development adjacent to wetlands or resource protection areas to include a 50-100 foot buffer between any development and the wetlands or resource protection areas, Local Coastal Policy 10 which requires runoff into coastal waters to be minimized and riparian vegetation to be protected, Local Coastal Policy 52 which requires development adjacent to resource protection areas to mitigate any adverse impacts to these resource areas, and Local Coastal Policy 57 which establishes a variety of routing and design considerations for the placement of pipelines within habitat areas and coastal resources. The full text of these policies is included in Appendix B.

Biological Features of Project Area: The proposed project site was once a tank farm that provided fuel oil storage for the Mandalay Generating Station. This former tank farm site has subsequently been graded flat, covered by fill material and vacated of structures and above ground utilities. Reports from biological surveys of the site conducted by Keane Biological Consulting on the mornings of September 20, 2006, and February 15, 2007, have noted that "no amphibian or fish species are expected to occur on the project site, which supports no aquatic or marine habitat" and "no reptile species were observed during the survey, although several species including the side-blotched lizard, western fence lizard, southern alligator lizard, San Diego coast horned lizard [a federal species of concern], western rattlesnake, and gopher snake are expected to occur in the project vicinity." Furthermore, the biological survey notes that "very few bird species were present on the site during the survey" with the most abundant species being the non-native European starling and additional observed species including American kestrel, black phoebe, American crow, house finch and belted kingfisher (heard offsite in the adjacent Mandalay Canal). Additional wildlife was observed indirectly, with tracks of coyote or grey fox, Botta's pocket gopher and Audubon's desert cottontail present.

Despite the apparently sparse biological resources noted during the biological surveys, the southern border of the proposed project site[9] is adjacent to a segment of Mandalay State Beach that supports one of the two remaining stretches of coastal sand dunes that exist within Ventura County. This inland portion of Mandalay State Beach has been identified in the City of Oxnard's certified LCP as an environmentally sensitive habitat area and designated as a Resource Protection sub-zone in the City of Oxnard's Coastal Zoning Ordinance. As noted in the LCP, this "26-acre area of dunes at the intersection of Fifth Street and Harbor Boulevard is an excellent example of this increasingly rare habitat" and has thus been provided with protected status due to the rarity and diversity of plant and animal life it supports. Among

[9] Please note discussion on the following page regarding the Commission staff's delineation of the project site.

those species that have been observed foraging or inhabiting the dune habitat within or near Mandalay State Beach, several have been granted special protection status. These species include several designated as state and/or federal threatened or endangered species: western snowy plover, California least tern, peregrine falcon, Belding's savannah sparrow, and Ventura marsh milkvetch (the only known natural population of which is located to the east of Harbor Boulevard – outside the State Park and project site). The area also supports several species included in the California Native Plant Society's list of rare native plants - red sand-verbena, dunedelion, estuary seablite, and wooly seablite - and several designated as federal species of concern - the sandy beach tiger beetle, globose dune beetle, wandering skipper butterfly, silvery legless lizard, San Diego horned lizard, and California horned lizard.

In addition, the northern border of the proposed project site is adjacent to the Mandalay Canal, a five mile long engineered coastal waterway that is linked to Channel Islands Harbor and provides the Reliant Mandalay Generating Station with ocean water for its cooling system. Although the Mandalay Canal has not been specifically identified by the certified LCP as a wetland area,[10] it does contain brackish marine waters and is known to provide habitat and forage for a number of marine, estuarine and riparian species. Among those species that have been observed foraging within the Mandalay Canal are several that have been recognized with state and/or federal protection including the California least tern (state and federal endangered species), osprey (California species of special concern), and double-crested cormorant (California species of special concern). The 1998 Draft Environmental Impact Report for the nearby Northshore at Mandalay Bay residential development discusses the Mandalay Canal and notes that it "provides saltwater habitat, sheltered from ocean surge and winds, that is idea for supporting large schools of juvenile topsmelt, the primary forage species of least terns. As such, it can be reasonably be expected that least terns will regularly forage along the [Mandalay] Canal…" Comments submitted to the City of Oxnard in a June 1, 2007, letter from the Ventura County Watershed Protection District have also suggested that the federally endangered tidewater goby may be present in this canal. In response to these comments, SCE's biological consultants conducted a survey of the Mandalay Canal on January 9, 2008, to test for the presence of tidewater gobies. As noted in the report submitted to SCE upon completion of this survey:

> *In the Mandalay channel itself, seven hauls were taken with seines that were set with a small inflatable boat. This latter net measured 50 x 8 feet with one eighth inch mesh. All fishes were counted and sizes estimated.*
> …
> *While fish were more numerous in the Mandalay Canal, the species encountered were only a small subset of the fish diversity expected in southern California bay and harbor habitats (Allen et al. 2006; Allen and Pondella 2006). Our fine-meshed net thoroughly swept approximately 8400 square meters of the canal during a relatively low tide including the whole width and depth of the canal. Since no significant obstructions to the sweep of the nets were encountered and most of the potential*

[10] The LCP notes that "The wetlands occurring in the city are located in the Ormond Beach area and a portion of the Santa Clara River mouth area covering approximately 131 acres."

> *hiding places were exposed above the level of the low tide, our samples were strongly representative of the fishes present…*
>
> *…No tidewater gobies were taken in the Mandalay Canal and the habitat is largely mud which is not a preferred substrate for the tidewater goby. Little or no freshwater influence exists in this canal so the water maintains a marine salinity or nearly so, which is undesirable for tidewater gobies.*

Although the occasional presence of small numbers of individual tidewater gobies within the Mandalay Canal may be possible, this area is located approximately 12 miles away from the nearest known potential source population of tidewater gobies (at the Santa Clara River lagoon) and is characterized by salinity levels and substrate types that are not within the tidewater goby's ideal habitat parameters. As such, the habitat within the Mandalay Canal does not appear well suited to support these fish.

On its west side, the proposed project site is approximately 750 feet from the Pacific Ocean, a lesser distance from the dunes of Mandalay State Beach and approximately 1,000 feet from McGrath State Beach. Mandalay and McGrath State Beaches contain wetland, dune, backdune and riparian habitats. These State Parks also support significant breeding populations of both the state and federally endangered California least tern and the federally threatened western snowy plover. While McGrath State Beach, which is farther from the project site and located to the north of the Reliant Mandalay Generating Station, has been known to support a larger number of nesting individuals of these species over the past decade, records from the last several years have indicated that the dunes of Mandalay State Beach also support a number of western snowy plover nests each year (over four nests per year on average between 2003 and 2006 according to information provided by SCE and confirmed by the U.S. Fish and Wildlife Service). The U.S. Fish and Wildlife Service also notes that in this area the breeding season for the western snowy plover is from March 1 through September 15 and from mid-April through late-September for the California least tern.

SCE also proposes development activities east of Harbor Boulevard, both to the north and south of Mandalay Canal. East of Harbor Blvd. is a coastal dune scrub community dominated by California encelia (*Encelia californica*), beach sand verbena (*Abronia umbellata umbellata*), ice plant (*Carpobrotus sp.*), lemonade berry (*Rhus integrifolia*), California sagebrush (*Artemisia californica*), and coastal prickly-pear (*Opuntia littoralis*), in addition to some of the species mentioned above including California cudweed aster (*Lessingia filaginifolia filaginifolia*), beach morning glory (*Calystegia macrostegia*), sea rocket (*Cakile maritima*), coastal lotus (*Lotus salsuginosus*), myoporum (*Myoporum laetum*), and a few mulefat (*Baccharis salicifolia*). In the coastal dunes east of the proposed peaker site, there is the possibility that Ventura marsh milkvetch (*Astragalus pycnostachyus* var. *lanosissimus*) could occur within the transmission line portion of the project. However, SCE's biological survey did not locate any individuals of this species.

The dune scrub habitat within this portion of the project area contains species representative of southern dune scrub, a habitat type that has been granted special-status by several resource agencies due to its scarcity and declining status in southern California. The remnant dunes

within and surrounding the project area to the east of Harbor Boulevard form portions of the Mandalay dune complex, which was designated as a sensitive habitat by the Ventura County Environmental Resource Agency in 1979. The City of Oxnard has also designated portions of the Mandalay dune complex, specifically those areas within Mandalay State Beach, as sensitive habitat. In addition, southern dune scrub habitat is ranked by the California Department of Fish and Game as S1.1, which is described as "very threatened," and is of high priority for conservation. It is estimated that less than 2,000 acres of this habitat remain.

However, the southern dune scrub habitat present within this portion of the project's disturbance limits is substantially degraded. Chronic disturbance from infrastructure (road, pipeline and transmission lines) installation and maintenance activities and the proximity to Harbor Boulevard has altered the topography, eliminated many native species from this area and allowed the introduction of numerous non-native species such as ice plant and myoporum. Due to the proximity of this area to more intact southern dune scrub habitat to the east of the transmission line corridor and across Harbor Boulevard at Mandalay State Beach, characteristic native dune species continue to colonize and exist within the proposed project footprint. The plant communities onsite are difficult to categorize because of this overlap and mixture between exotic and native vegetation types. In their current form and distribution, these plant communities have minimal ecological function and value because of their disturbed and dispersed nature. The continuing and chronic nature of disturbance within this area also greatly diminishes the biological and ecological value of these plant communities.

Potential Project-Related Biological Impacts: As noted above, several sensitive habitat areas are known to exist adjacent to or nearby the proposed project site and a variety of special status species are known to occupy these habitats either seasonally or year-round. Among those special status species with habitats in the vicinity of the proposed project site, those with the highest likelihood of being negatively affected by the proposed project include the western snowy plover, California least tern, and burrowing owl as well as rare dune plant species such as Ventura marsh milk vetch, salt marsh bird's-beak, red sand-verbena, dunedelion, estuary seablite, and wooly seablite. Potential adverse project affects on these species and their sensitive habitats will be discussed below.

Western Snowy Plover. Western snowy plovers nest in the foredune and forage along the shoreline at Mandalay State Beach. The western snowy plover is a small shorebird that uses sandy beaches for nesting and roosting from southern Washington to Baja California. At most, approximately 2,000 snowy plovers may breed along the U.S. Pacific Coast with a similar number breeding along the Baja California coast (USFWS 2001 citing Page et. al. 1995a). Research has indicated that there has been a general decline in the West Coast population of snowy plover, including a substantial decrease between 1962 and 1984 in the abundance of wintering snowy plovers in southern California (Lafferty 2000 citing Page et al. 1986). Information provided by Page et al. (1991) indicated that between 1981 and 1991, snowy plovers experienced at least an 11 percent decline in abundance. Lafferty (2000) further reports that more recently, there has been a population decline of about 30% throughout the region (in the late 1990s). Among the factors linked to the regional decline in snowy plovers includes predation, beach erosion, encroachment of exotic vegetation and disturbance from recreation (Lafferty 2000 citing Page et al. 1995).

During local review of this project, the US Fish and Wildlife Service (FWS) raised concerns about the effect of SCE's proposed landscape plan on western snowy plovers and California least terns and the sensitive nesting habitat for these species located in close proximity to the project site (approximately 1000 feet to the west and northwest). In a June 18, 2007, letter to the City of Oxnard the FWS states:

> *Our concerns lie with the proposed row of trees. It is likely that this row of trees will provide habitat for American crows (Corvus brachyrhynchos) and ravens (Corvus corax) that prey on the California least tern and western snowy plover chicks and eggs located on the adjacent beaches. Specifically, we are concerned that these species are known to take up residence in areas with suitable breeding habitat and that are adjacent to food sources (e.g. California least tern colonies).*

Predation by corvids (the family of birds that includes American crows and ravens) is noted in U.S. Fish and Wildlife Service's August 2007, Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (Recovery Plan), as a substantial threat to snowy plovers and is identified as a primary impediment to the recovery of this species. The Recovery Plan cites numerous examples of snowy plover nesting sites within California that have experienced nest failure rates of up to 69% as a result of corvid predation (Hickey et al. 1995). The Recovery Plan further notes that "Raven populations in coastal California have significantly increased in recent decades (Leibezet and George 2002), and as their range expands they are becoming increasingly significant as a nest predator on western snowy plovers" often counting as "the single most limiting factor on western snowy plover reproduction (Colwell et al. 2006)."

While the 2007 Recovery Plan and earlier 2001 Draft Recovery Plan for the Pacific Coast Population of the Western Snowy Plover both note that a limited amount of predation on snowy plovers from native corvid species is natural, this amount of predation can often be augmented to unnatural levels through human induced landform and land use alteration that allows predator species to exist at locally elevated abundances. The Recovery Plan notes that "Elevated predation pressures result from landscape-level alterations in coastal dune habitats which, in turn, now support increased predator populations within the immediate vicinity of nesting habitat for snowy plovers." Paramount among the "landscape-level alterations" identified in the Recovery Plan as key to an area's support of increased predator populations are "Unnatural habitat features such as landscaped vegetation (e.g., palm trees), telephone poles, fences, buildings, and landfills near snowy plover nesting areas…". The Recovery Plan concludes with a consideration of predator management as a means for controlling such factors as corvid populations and notes that

> *In heavily-developed areas in particular, habitat protected for sensitive species may be a "magnet" to native predators that have lost foraging habitat elsewhere. Continuing to remove predators from these areas effectively creates a "sink," such that the need for ongoing predator removal never ends and negative ecological consequences occur over large areas beyond the boundaries of snowy plover nesting areas.*

There appears to be a strong positive correlation between the number of trees in coastal dune areas and the population of corvids in those areas (i.e. an increase in the number of trees is met with a corresponding increase in the number of corvids) as well as a negative correlation between local corvid numbers and snowy plover abundance (i.e. as the number of corvids increases, the abundance of snowy plovers declines).

Due to the abundance of dune scrub habitat and lack of landscaping in the area (the only landscaped parcel within the area, the Mandalay Generating Station, is sparsely landscaped with predominantly large shrub species such as juniper and myoporum), implementation of SCE's landscaping plan, as currently proposed, would significantly augment the current number of trees in the area. As discussed in Section C – Visual Resources - of this report, implementation of a landscaping plan is important to minimize the adverse visual effects of this industrial project. The Commission must, however, balance the need for project screening with protection of the sensitive species such as the Western snowy plover.

It appears that SCE's proposal would increase the number of trees in the immediate project area from less than 10 currently to more than 140 if SCE's landscaping plan were implemented as proposed – an increase of approximately 1400%. This dramatic increase in available nesting habitat for corvids, owls and raptors – all of which are known to prey on least tern and snowy plover adults, chicks and eggs – has the potential to substantially increase predation in the vicinity of the project site and would therefore reduce the habitat value of the existing nesting sites for California least terns and snowy plovers in the vicinity of the proposed project. To address the potential impact to sensitive species and habitats, the Commission is requiring in **Special Condition 3(a)**, that SCE revise its landscaping plan to substitute proposed trees with native shrub species that are <u>not</u> known to support nesting corvids, owls or raptors. The revised landscaping plan must be approved by the Executive Director of the Commission and contain performance standards and ongoing monitoring. If the landscaping plan is modified as described above, the Commission believes the western snowy plover will be adequately protected from project-related activities.

<u>Burrowing Owl</u>. The burrowing owl (*Athene cunicularia*) is listed by the California Department of Fish and Game as a Bird Species of Special Concern. Although present throughout much of the western United States and Florida, the burrowing owl has been listed as a species of special concern in the majority of states that comprise its range. In addition, this species has been listed as endangered in Canada and threatened in Mexico. The primary threats to the conservation of this species in California are associated with habitat destruction from land development and predation from feral cats and domestic pets. As noted by SCE's biological consultant:

> *This species is found in open areas of usually sparse vegetation. It occupies rodent burrows, most often of California ground squirrels (Spermophilus beechyi). There are historic records of the owl occurring in the project area, however only marginal habitat is present for this species in the project area. SCE has conducted surveys for the burrowing owl around the Mandalay Substation just to the northeast of the peaker unit location and near the transmission line portion of the project, but the results of these surveys were negative for the owl. No burrowing owls or burrows were*

> *observed during the* [biological] *survey for this project; however, one burrowing owl was observed on the project site during soil testing for the project on February 8, 2007. It is likely the owl was a winter visitor, since no burrows were located on the project site during the survey. However, a focused survey for burrowing owls will occur prior to project construction.*

SCE's biological consultant has concluded that the project area provides only marginal habitat for burrowing owls and no burrows that could feasibly support burrowing owls were observed during the various biological surveys of the project area that SCE has conducted. Nevertheless, due to the strong site fidelity of burrowing owls and the fact that an owl was observed at the project site during the breeding season, to ensure that this special status species and its habitat is not adversely affected by the proposed project, the Commission is requiring in **Special Condition 4(d)** that SCE no more than 30 days prior to the initiation of ground disturbance activities conduct a pre-construction survey for burrowing owls throughout all portions of the project area. This condition also requires that if any burrowing owls are observed during this survey or if burrows are found to be actively used within the project area, prior to the initiation of construction or ground disturbing activities, SCE shall submit an Impact Avoidance Plan for the Executive Director's review and approval. This plan shall include the implementation of specific measures to minimize disturbance including the avoidance of project activity within a minimum of 160 feet of occupied burrows during the non-breeding season of September 1 through January 31 or within a minimum 250 feet during the breeding season of February 1 through August 31 and the maintenance of a 300 foot foraging radius around each occupied burrow. If destruction of occupied burrows and/or disturbance within these 160-250 foot buffer distances is unavoidable, mitigation guidelines described within the California Burrowing Owl Consortium's April 1993, "Burrowing Owl Survey Protocol and Mitigation Guidelines" (detailed in Exhibit 9), shall be adhered to. Mitigation measures described in the California Burrowing Owl Consortium document include protocols for the establishment of alternate burrows as well as both on-site and offsite mitigation strategies.

Adjacent Sensitive Habitat Areas. LCP Policy 6 requires that "New development adjacent to wetlands or resource protection areas shall be sited and designed to mitigate any adverse impacts to the wetlands or resource." LCP Policy 6 also requires that "A buffer of 100 feet in width shall be provided adjacent to all resource protection areas" and "The buffer may be reduced to a minimum of 50 feet only if the applicant can demonstrate the large buffer is unnecessary to protect the resources of the habitat area."

The project site borders Mandalay State Beach, a portion of which is designated in the LCP as a Resource Protection Area. Although the peaker plant would be sited 700 feet from the border of the State Park, the placement of landscaping plants and berms as well as the construction of the main access and entry road for the proposed facility would be located closer to Mandalay State Beach. As required by **Special Condition 3(c)**, these project related activities will occur at least 50 feet from the State Park border and the designated Mandalay State Beach resource protection area described in the LCP. Although a 100 foot buffer area is preferred, this 50 foot separation distance satisfies the minimum distance required by LCP Policy 6. As LCP Policy 6 states that the preferred 100 foot buffer width "may be reduced to a

minimum of 50 feet only if the applicant can demonstrate the large buffer is unnecessary to protect the resources of the habitat area." In support of the establishment of this minimum buffer area, SCE states:

> *SCE believes that a 50-foot buffer is appropriate to protect resources within the state parcel south of our site. The southern boundary of the SCE development is currently designed closer than this requirement allows, with landscaping, driveway and access road encroaching into the 50-100' buffer. I've attached a real estate parcel map that shows that the State resource protection area starts 22 feet south of SCE's fence line, to the south of the road parcel. Since this is a permanent road, the state partitioned their land to separate the right of way from the rest of the parcel. The map also shows clearly shows the oil drilling equipment that's half way down the road and all the dirt tracks that the oil trucks use to drive across the parcel. Because of the existing use of the land immediately south of the SCE parcel for oil drilling and access for large truck traffic, SCE believes that the 50' buffer should be adequate to protect resources on the state owned land south of SCE's land.*

The backdune portion of Mandalay State Beach designated as a Resource Protection area and adjacent to the project site is not known to support nesting western snowy plovers. Although snowy plovers do nest within the vicinity of the project site, as discussed previously, all known nesting sites are to the west and northwest of the project area and well over 1,000 feet distant. Nevertheless, the dune scrub habitat of Mandalay State Beach located adjacent to the project site is known to support a variety of other sensitive plant and animal species and is specifically designated as ESHA by the LCP. However, given the existing 20 foot wide dirt access road that currently separates the proposed project site from this ESHA area, as well as SCE's commitment to locate all proposed development and construction activities an additional 30 feet to the north of this road, the Commission finds that the establishment of a 50 foot buffer in this area provides an appropriate level of protection for the sensitive resources located within the inland portion of Mandalay State Beach. As specified under LCP policy 6, SCE has committed to apply this 50 foot wide buffer to the entire southern boundary of the project site that is adjacent to the inland parcel of Mandalay State Beach that has been identified in the LCP as a resource protection area. The Commission therefore finds that with the establishment of the 50 foot buffer along the southern border of SCE's proposed project site, as committed to by SCE and further required under **Special Condition 3(c)**, the proposed project activities in this area conform to the provisions and buffer distance requirements of LCP Policy 6.

The provisions of LCP Policy 6 also require the establishment of a 50 to 100 foot wide buffer area between new development and wetland areas. Although not specifically identified by the LCP as a wetland area, the Mandalay Canal meets the LCP definition of wetland contained within LCP Policy 9. Specifically, LCP Policy 9 defines a wetland as "Land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes." The Mandalay Canal in this area contains coastal waters during all times of the year and supports a variety of hydrophytic plant species. As such, LCP Policy 6 requires that a maximum 100 foot buffer is maintained between

proposed development and this wetland area. As demonstrated in Exhibit 4, the northern border of the SCE property proposed as the project location is located approximately 100 feet from the Mandalay Canal. Additionally, in an effort to ensure that the use of this location does not adversely affect the resources of the Mandalay Canal, SCE has proposed to install a raised bioswale/biofilter along the northern and northwestern borders of the proposed peaker plant site. According to SCE's proposed landscaping plan, this bioswale would be vegetated with native salt grass (*Disticlis spicata*) as well as native shrub species. The Commission therefore finds that considering the distance of the SCE property line from the Mandalay Canal and the inclusion of a vegetated bioswale along the northern edge of the proposed project site, project activities proposed for this area are not likely to adversely affect the wetland habitat provided by the Mandalay Canal. To further protect the resources of this canal, **Special Condition 3(c)** requires that all project development remain more than 100 feet from the Mandalay Canal. With the inclusion of this condition, the Commission finds that the proposed project is in conformance with the provisions and buffer distance requirements of LCP Policy 6.

Biological Resources East of Harbor Boulevard. As noted above, the portion of the project area to the east of Harbor Boulevard consists of degraded and disturbed southern dune scrub habitat that supports a mix of plants comprised of both invasive species and native coastal dune species. In this dune scrub area, SCE proposes the installation and removal of transmission poles and lines as well as the trenching and placement of an approximately 1,800 foot long natural gas pipeline. These activities and the staging areas, equipment and vehicle access routes and excavation and trenching footprints that they would require, include the proposed use of nearly two acres to the east of Harbor Boulevard. The majority of this proposed disturbance area would be within approximately 30 feet of the road itself and would be used to facilitate natural gas pipeline trenching and installation.

Although this two acre site is in a disturbed and degraded condition and does not provide the same level of ecological and habitat value as more intact southern dune scrub areas, it is nevertheless located in close proximity to several of those more intact dune scrub areas and rare plant communities (i.e. Mandalay State Beach and the Ventura marsh milkvetch population at the Northshore at Mandalay Bay site). Given this proximity, the potential exists for sensitive plant species to exist within the two acre proposed project disturbance limits. To provide for the protection of these sensitive species, **Special Condition 4(c)** would require a botanical survey of the proposed disturbance areas once they have been designated. If individual Ventura marsh milkvetch, salt marsh bird's-beak, red sand-verbena, dunedelion, estuary seablite, and wooly seablite plants are recorded by this survey within the project's disturbance limits, SCE shall consult with the Commission, California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (FWS) to develop an impact avoidance plan to avoid and minimize impacts to these species. This plan shall include the use of flags and protective fencing to ensure that project activities remain outside of sensitive plant areas and it shall consider re-routing of proposed transmission lines and pipeline if necessary to avoid sensitive species. Approval of this plan by the Executive Director shall be obtained prior to the initiation of construction or ground disturbance activities to the east of Harbor Boulevard. If impacts to sensitive plant species are determined to be unavoidable after consultation with the Commission, FWS, and CDFG, necessary take permits shall be obtained

from FWS and/or CDFG by SCE and SCE shall submit for Executive Director review and approval a habitat mitigation and restoration plan for impacts to sensitive plant species. The plan shall provide for no less than 1:1 mitigation for all impacts to the aforementioned species affected during project-related activities. The plan shall describe mitigation to be implemented for these effects, including location, planting plans, quantitative performance standards, mitigation time lines, monitoring requirements, and funding to be provided for implementation. The submitted plan shall first be approved by the U.S. Fish and Wildlife Service.

Additional Mitigation Measures. In addition to those measures described above and required through **Special Condition 4**, SCE has committed to implement several additional measures identified in the Mitigated Negative Declaration to further minimize the project's potential to adversely affect the biological resources and water quality of the project area. These measures are included in Exhibit 8 as biological resource and hazardous materials mitigation measures. SCE will hire a qualified biologist to conduct a pre-construction survey of each construction area to identify occupied nests of native birds prior to grubbing or grading activity. This measure requires a minimum buffer distance of 100 feet to be established between occupied nests and the limits of construction and would prohibit construction activities within this buffer area until a subsequent biological survey revealed the nest(s) to no longer be occupied. If work within the established buffer cannot be avoided, SCE shall consult with CDFG and FWS to determine if there are appropriate measures that may be taken to continue work in these areas. To further protect water quality and sensitive biological resource areas through avoidance of potential hazardous materials spills, the hazardous materials mitigation measure described in Exhibit 8 requires hazardous materials stored on-site to be limited to small quantities of paint, coatings, and adhesive materials, and emergency refueling containers. These materials would be stored in their original containers inside a flammable materials cabinet and shall be transported to the construction site on an as-needed basis by equipment service trucks.

Conclusion: With implementation of the Special Conditions, the proposed project is not expected to cause significant adverse impacts to sensitive biological resources. The Commission therefore finds that the project, as conditioned, is consistent with the applicable provisions of LCP Policies 6, 9, 10, 52 and 57.

D. Visual Resources

> ***Local Coastal Policy 37 states:*** *All new development in the coastal zone shall be designed to minimize impacts on the visual resources of the area. Particular care should be taken in areas of special quality, such as those identified in the LCP.*

The proposed project would be primarily developed within a brownfield site that has previously supported energy related infrastructure and is in close proximity to the existing Mandalay Generating Station and several functioning oil wells.

As demonstrated by the photographs in Exhibit 3, the existing views of and around the project site are primarily industrial and energy related in nature and no significant visual or aesthetic

resources are apparent. Currently, the most dominant aspects of the proposed site are the adjacent Mandalay Generating Station and the approximately 10 foot high screened chain-link and barbed-wire fence that surrounds the vacant and graded site.

The LCP notes that the project area lacks significant or notable visual resources. The ocean is generally not visible from Harbor Boulevard, limiting the visual resources north of Fifth Street. (The project site is located approximately ¾ of a mile north of Fifth Street). The LCP does, however, reference the tall sand dunes south of Fifth Street and south of Wooley Road, the lower dunes in the Mandalay Beach County Park (now referred to as Mandalay State Beach) north of Fifth Street, and the wetlands in the Ormond Beach area. Of these three designated visual resource areas, "the lower dunes" of Mandalay State Beach are the closest to the project site. These dunes extend from south of the project site to the intersection of Harbor Boulevard and Fifth Street.

Some elements of the project – the 80-foot tall exhaust stack, the seven new power poles and seven new transmission poles – would be visible from Mandalay State Beach. However, constructing the peaker plant at this site will add another industrial facility to an area that is already dominated by industrial development. The Mandalay Power Plant, which is sited directly landward of a stretch of Mandalay State Beach, dominates the visual profile of this stretch of coastline. The peaker plant, however, would be sited further inland and south of the existing power plant. The project Mitigated Negative Declaration states that:

> *Views of the proposed project site from the beach and shoreline would be essentially blocked by the intervening topography and the existing oil processing structures. Recreational users at the Mandalay State Beach Park located approximately 1,000 feet southwest of the proposed project site would be able to view the tallest project structure (i.e. the 80-foot exhaust stack). However, the intervening land between the Mandalay State Beach Park and the proposed project site is dotted with existing oil processing structures, which are approximately 70 feet high, and the stack at the Mandalay Power Generating facility which is 203 feet high. The existing oil derricks would be the main visual element of the view looking north from the Park and would overshadow the more distant, and therefore smaller and less intrusive, view of the proposed project elements.*

To minimize the adverse visual effects of the project, SCE considered reducing the height of the exhaust stack and poles and using alternate paint colors. However, the proposed color was considered to have the least visual impact when accounting for all lighting conditions and vantage points and, as noted by SCE, reducing the height of the stack would cause other undesirable results.

> *Reducing the height of the stack is not feasible, and could result in additional undesirable impacts such as change in emission characteristics. The height of the stack has already been minimized to the maximum extent feasible and cannot be reduced further.*

Similarly, a reduction in the height of the proposed transmission poles is not feasible due to the size and weight of the proposed transmission lines and the safety and design requirements placed on transmission infrastructure. The Commission therefore finds that the required height of the proposed peaker plant's exhaust stack and transmission poles preclude efforts to screen these features from all nearby vantage points. As previously noted, however, the vantage points within the project vicinity that would be affected by the proposed project do not include visual resource areas that have been identified in the LCP as sensitive or protected under the LCP's visual resource policy, Policy 37.

Nevertheless, to enhance the proposed project's visual profile, SCE has proposed implementing a landscaping plan to provide visual screening of the project site. The proposed landscaping plan (shown in Exhibit 4) includes construction of a 1,000 foot long, six foot tall earthen berm within the project site along the west side of Harbor Boulevard and the placement of various indigenous and non-native plant species around and atop this berm to provide additional visual screening. To promote visual continuity, proposed plant species include a selection of those previously approved for use within the Northshore at Mandalay Bay development – native tree and shrub species such as Monterey cypress, Torrey pine, California wax myrtle, California bay, lemonade berry, toyon, qualibush and California brittlebush as well as two faster growing non-native tree species, the New Zealand Christmas Tree and Australian red flowering gum. As described in the Biological Resources section above, due to the potential for the placement of substantial numbers of trees on the project site to significantly degrade the viability of nearby sensitive habitat areas, including snowy plover and least tern nesting sites, the Commission finds that this landscaping plan should be revised to eliminate the proposed tree species. As required in **Special Condition 3(a)**, these tree species are to be replaced by native bush and shrub species that will provide a maximum level of visual screening while remaining unsuitable as nesting habitat for corvid, owl and raptor species that may prey on local tern and plover populations.

To ensure the successful screening of the peaker plant for the life of the project, the Commission is also requiring in **Special Condition 3(e)** through **(i)** that SCE add to its revised landscaping plan periodic monitoring and the development of success criteria, contingency plans and maintenance standards. If after five years, the Executive Director determines that SCE has not fully met the success criteria of the approved plan, SCE must submit to the Commission in the form of a permit amendment a revised landscaping plan to address those elements of the original approved plan that did not satisfy the success criteria.

With implementation of the landscaping plan, as conditioned, the Commission finds that the project's adverse visual effects will be minimized and therefore will be consistent with LCP Policy 37.

E. Hazards

The certified LCP contains policies that provide for the consideration and minimization of potential threats posed by natural hazards. Applicable LCP policies include:

> ***Local Coastal Policy 39 states:*** *All applications for grading and building permits and subdivisions shall be reviewed for threats from hazards such as seismic activity,*

liquefaction, tsunami run-up, seiche, beach erosion, flood, storm wave run-up, and expansive soils. Geologic reports may be required in known hazard areas. Appropriate mitigation measures shall be applied to minimize threat from any hazards.

Local Coastal Policy 56 states: *No industrial or energy-related development shall be located seaward of the 100-year flood/wave run-up line as designated by the U.S. Department of Housing Insurance Program Insurance Program Administration and the Land Use Map.*

Regarding potential hazards posed by natural events and geologic features at the site, the project Mitigated Negative Declaration states:

The proposed project will be constructed in an area of known seismic activity. Approximately 38 active faults are known to exist within a 60-mile radius of the project site. Of primary concern is the Oak Ridge Fault (Blind Thrust Offshore), approximately 3.9 miles southwest of the project site which represents the most significant potential source of strong seismic ground shaking at the project site. The fault trends in an east-west direction and extends from offshore in the Pacific Ocean toward the Ventura-Oxnard coastline. This fault is considered capable of generating a 6.9 magnitude earthquake. Based on the California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion Page (2006), there is a 10 percent probability of earthquake ground motion exceeding 0.582 times the acceleration of gravity (g) at the project site over a 50-year period.

…

Because the proposed project is located in a seismically active region, there is the potential for damage to the new project structures in the event of an earthquake. According to the latest geotechnical report for the proposed site, (Kleinfelder, 2006), differential seismic settlements at the site could be on the order of ¼ inch. New structures must be designed to comply with the recommendation presented in the geotechnical report (Kleinfelder, 2006), the California Building Code (CBC)(2001 edition) and the Uniform Building Code (UBC) Zone 4 requirements because the project is located in a seismically active area. The CBC and UBC are considered to be standard safeguards against major structural failures and loss of life. The goal of the codes is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The UBC bases seismic design on minimum lateral seismic forces ("ground shaking"). The UBC requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. SCE will design all structures to meet the latest UBC codes. With adherence to proper design and construction practices, no significant impacts from seismic ground shaking would be expected.

…

There is the potential for liquefaction induced impacts at the project site. The appropriate parameters for liquefaction exist at the project site, including unconsolidated granular soils and a high water table. In addition, Seismic Hazard

> *Zone maps prepared by the State of California (Division of Mines and Geology 2002) indicate that the site is in an area with the potential for liquefaction. In addition, the site has a high potential for liquefaction to occur during seismic event based on subsurface soil conditions observed during the most recent geotechnical study (Kleinfelder, 2006). If liquefaction should occur at the site, there is the potential for up to approximately two to three inches of lateral displacements to occur towards the adjacent channel (Kleinfelder, 2006). The CBC and UBC requirements consider liquefaction potential and establish more stringent requirements for building foundations in areas potentially subject to liquefaction. Therefore, compliance with the CBC and UBC requirements is expected to minimize the potential impacts associated with liquefaction. Thus, liquefaction impacts are expected to be less than significant.*
>
> …
>
> *The uppermost 10 feet of soil at the project site is generally composed of loose, fine to medium-grained sand with gravel. The USDA Soil Conservation Service (1970) classifies these soils as having a low potential for expansion and are not considered an expansive soil as defined in Table 18-1-B of the UBC (1994), and thus, the proposed project would not be expected to create substantial risks to life or property due to expansive soils.*

Because SCE proposes to site the peaker plant near the northwestern edge of the project site, within approximately 150 feet of the southern bank of the Mandalay Canal, one of the potential consequences of seismically induced liquefaction at this site is the lateral movement of soil towards this un-reinforced canal. This type of soil movement is referred to as lateral spreading and has a potential to occur up to two to three inches. While this level of lateral spreading has the potential to substantially affect the structural integrity of the proposed facility, it is within the range that can be addressed and mitigated by engineering and design modifications.

SCE prepared a geotechnical report addressing the high potential for seismic activity, liquefaction and lateral spreading at this site. The report recommends a number of design changes to ensure the structural integrity of the facility. If the structural design of the facility cannot tolerate the potential 2 to 3 inches of lateral spreading that may occur at the site due to liquefaction, the report recommends pile foundations, a soil-mixing wall to cut off the lateral spreading and stone columns to mitigate the liquefaction. The report also recommends that the plant be supported on shallow mat foundations underlain by engineered fill and that the upper native soil materials and any existing artificial fill below the foundations be over-excavated and replaced with reinforced engineered fill with three layers of geogrid sheets.

The Commission's staff geologist reviewed the geotechnical report and agrees with the recommendations it contains. **Special Condition 5** requires that SCE implement the recommendations detailed in the project's geotechnical report (Kleinfelder, 2006) as well as the relevant policies of the Uniform Building Code and California Building Code. As conditioned, the Commission finds the proposed project consistent with LCP Policy 39.

With respect to LCP Policy 56, the 100-year wave run-up line designated in the LCP's land use map is located approximately 700 feet to the west of the proposed project site. The proposed project is therefore not located seaward of the 100-year flood/wave run-up line as designated by the U.S. Department of Housing Insurance Program Insurance Program Administration and the LCP land use map and is in conformance with LCP Policy 56.[11]

F. Water Conservation and Municipal Services

The certified LCP contains policies that require water conservation measures to be included in new development and require a consideration of municipal service capacity. Applicable LCP policies include:

> ***Local Coastal Policy 41 states:*** *All new development in the coastal zone shall employ the most recent water conservation methods, including (but not limited to):*
>
> *a. low-flow pipes and toilets;*
> *b. flow restrictions on all shower heads;*
> *c. underground drip irrigation systems; and*
> *d. use of low-water use vegetation for landscaping.*
>
> ***Local Coastal Policy 42 states:*** *Consideration of all proposed projects in the coastal zone shall include consideration of the remaining water and sewer capacities. This shall include a calculation of the proposed project's use of remaining capacity in percent. Projects shall be approved only when sufficient water and sewer services are available.*
>
> ***Local Coastal Policy 64 states:*** *It shall be a condition of approval that, wherever possible, wastewater from any industrial or energy-related facility be treated as necessary and put to reuse including, but not limited to, the following: the re-injection into the aquifer or groundwater recharge system, recycling for industrial use, agricultural use, or urban services.*

The applicable provisions of the LCP's policies directed towards water conservation and municipal services relate to three separate aspects of the proposed project, landscaping water use and low-water use vegetation for landscaping (LCP Policy 41), municipal service supply capacity (LCP Policy 42) and wastewater reuse (LCP Policy 64).

SCE's landscaping plan does not include the method of irrigation to be employed. To satisfy the provisions of LCP Policy 41 regarding the use of low-water use vegetation for landscaping, **Special Condition 3(a)** requires that native bush and shrub species be used exclusively for landscaping purposes. Given the tolerance of most native California species for low water conditions, the use of these species would ensure that the potentially elevated water requirements of non-native species and trees would be avoided. In addition, **Special Condition 3(b)** requires that the landscaping plan be revised to include the use of

[11] The Commission notes, however, that the 100-year flood/wave run-up line designated by the U.S. Department of Housing Insurance Program Insurance Program Administration does not factor in continued sea level rise.

underground drip irrigation. As conditioned, the Commission believes the project's landscaping conforms to the requirements of LCP Policy 41.

With regard to Local Coastal Policy 42, SCE states that,

> *There are adequate public services for the proposed use including, but not limited to, fire and police protection, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety. The MND concluded that the project will not impact any public services.*

The proposed project's sewer and municipal water requirements are discussed in detail in the project Mitigated Negative Declaration, which states that:

> *For at least the first year of operation, the wastewater will be collected in a tank, and hauled offsite for disposal because there is no sewer system in the site vicinity. SCE expects that a sewer connection will be installed sometime in the future, at which time the wastewater, will be discharged to the City's sewer system and will meet the City's pretreatment standards. There will be no effect on the City's physical or biological treatment processes.*
> …
> *The Oxnard Wastewater Treatment Plant (OWTP) has an average dry weather flow (ADWF) design capacity of 31.7 million gallons per day with provisions for an ultimate ADWF design capacity of 39.7 million gallons per day… The wastewater flow from the project of eight gallons per minute is insignificant compared to the capacity of OWTP.*
> ..
> *Overall, the volume of water required to operate this type of facility [the peaker plant] is very low, the main water uses are for direct injection into the turbine to control NOx emissions (50 gpm) and spraying a mist into the inlet of the combustion turbine to lower air temperature to improve efficiency 912 gpm. Daily water use during the operational phase is estimated to average 62 gpm during unit operation… The City's potable water supply is sufficient to meet the unit's water requirements.*
> …
> *The project's demand for water during construction and operation is not significant compared to the water supply available in the City of Oxnard.*

Because a portion of the proposed project's municipal water use shall be directed towards landscaping and a final revised landscaping plan has yet to be developed by SCE and provided to the Commission, it is not possible to include a specific calculation of the proposed project's total water requirements as a percentage of the remaining water supply capacity within the City of Oxnard. As noted above, however, neither the project's sewer nor water requirements are expected to be significant compared to existing supply.

As stated in SCE's appeal to the Commission in regard to Local Coastal Policy 64,

> *Wastewater produced by the Project* [during operation] *will be minimal. Eight gallons per minute of wastewater from the evaporative cooler would be produced during the limited hours that the unit will operate. This water will have elevated levels of total dissolved solids but no other added pollutants and will be collected and disposed of at a facility that complies with the above requirement* [Local Coastal Policy 64].

The limited amount of wastewater generated by the proposed project during operation (just over 1 million gallons per year based on a maximum anticipated use of the peaker plant – 2,121 hours per year) and the discharge proposal outlined above appears to satisfy the requirements of LCP policy 64. With regard to the substantially greater levels of wastewater proposed to be generated during preparation of the peaker plant site, SCE has proposed to discharge approximately 455 million gallons of wastewater associated with these activities into the Mandalay Canal during de-watering. SCE proposes such extensive de-watering to lower the groundwater level at the peaker plant site so that installation of a foundation and support pad for the facility may be achieved. The discharge of this wastewater into the Mandalay Canal also appears to be in conformance with policy 64 because the proposed wastewater discharge site in the Mandalay Canal is directly adjacent to the cooling water intake site for the Mandalay Generating Station. The proximity of these discharge and intake locations would allow the vast majority of wastewater discharged from the proposed de-watering activities would be taken-up by the Mandalay Generating Station for use as cooling water. This would allow de-watering wastewater to be recycled for an industrial type use, as specified under LCP policy 64, while offsetting the amount of coastal water extracted from the Mandalay Canal by the Mandalay Generating Station.

The Commission finds that with the development of a revised landscaping plan that is in conformance with the requirements of **Special Condition 3(a)** and **Special Condition 3(b)**, the proposed project is consistent with the water conservation and municipal service provisions of LCP Policies 41, 42 and 64.

G. Air Quality

The certified LCP contains policies that provide for the protection and management of local and regional air quality. Applicable LCP policies include:

> ***Local Coastal Policy 47 states:*** *The Ventura County Air Quality Management Plan (AQMP) is incorporated into the LCP by reference. All new development located within the coastal zone shall occur in a manner consistent with the AQMP.*

> ***Local Coastal Policy 51 states:*** *All new industrial and energy-related development shall conform to the air quality regulations set by the Ventura County Air Quality Management Plan and New Source Review Rule 26.*

The peaker plant project must conform to all the air quality regulations of the Ventura County Air Quality Management Plan and New Source Review Rule 26. The Ventura County Air Pollution Control District (VCAPCD) is requiring an Authority to Construct Permit for the project. Included in that permit will be requirements that SCE meet Best Available Control Technology (BACT) and emission offset requirements of New Source Review Rule 26.

The project will generate construction and operational air emissions. Construction emissions principally consist of equipment exhaust emissions (CO, ROC, NO_x, sulfur dioxides (SO_x) and particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), fugitive dust from grading and excavation, and ROC from painting and asphaltic paving. Emissions during construction also include exhaust emissions from worker commute trips and trucks, and emissions associated with natural gas pipeline construction (trenching, welding and paving). The Ventura County Air Pollution Control District (VCAPCD) recommends a mitigation threshold of 25 pounds per day for construction-related emissions of ozone precursors NO_x and ROC to a avoid a significant adverse impact to ozone air quality during project construction. The project Mitigated Negative Declaration concludes that the project will exceed the threshold for both pollutants. SCE has agreed to implement all mitigation measures identified in the Mitigated Negative Declaration to reduce emissions. These include:

- Controlling fugitive dust on all graded, excavated and exposed soil areas. Treatment will include periodic watering, application of "environmentally safe" soil stabilization materials and/or roll compaction. Reclaimed water is to be used, if feasible;
- Minimizing equipment idling time;
- Limiting on-site traffic to 15 miles per hour or less;
- Curtailing all grading, clearing, earth-moving and excavation operations during periods of high wind (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties; and
- Use of alternative fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), electric, or equipment meeting Tier 2 standards, if feasible.

Operation of the peaker plant due to the combustion of natural gas fuel will also result in emissions of NO_x, CO, $PM_{10,}$ ROC and SO_2. According to the Mitigated Negative Declaration, the project's unmitigated peak *daily* project operational NO_x and ROC emissions (ozone precursors) will exceed VCAPCD's significance thresholds. In an ozone non-attainment area like Ventura County, all emissions increases of ozone precursors must be offset. However, the VCAPCD provides emission offsets for permitted equipment up to 5.0 tons per year of NO_x and 5.0 tons per year of ROC. If project emissions exceed these thresholds, the applicant must provide offsets. Because this facility will operate only a limited number of hours per year (up to 2,000 hours) , the annual potential to emit from permitted equipment (the combustion turbine generator) is less than 5.0 tons per year of NO_x and less than 5.0 tons per year of ROC. Therefore, the VCAPCD will provide emission offsets for NO_x and ROC emissions from the combustion turbine generator. These offsets will reduce the project's NO_x and ROC emissions below the VCAPCD significance thresholds.

As described above, the project will be carried out consistent with the air quality regulations of the VCAPCD. The Commission thus finds the project consistent with LCP Policies 47 and 51.

H. Public Access and Recreation

The certified LCP contains policies that provide for the protection of public access to the beach. Applicable LCP policies include:

> ***Local Coastal Policy 54 states:*** *All new industrial and energy-related development shall be located and designed to minimize adverse effects upon public access to the beach. Where appropriate, an access dedication shall be a condition of approval.*
>
> ***Local Coastal Policy 72 states:*** *Public access to and along the shoreline and the Inland Waterway shall be required as a condition of permit approval for all new developments between the shoreline and the first public roadway inland from the shore, except as provided below:*
>
> 1. *Exceptions may be made when access would be inconsistent with public safety, military security, the protection of fragile coastal resources, or when agriculture would be adversely affected.*
>
> …

In addition, due to the proposed project location between the first public road and the sea, pursuant to Section 30604(c) of the Coastal Act, the proposed project must also be reviewed for consistency with the Chapter 3 policies of the Coastal Act regarding public access and public recreation. Relevant Coastal Act public access and public recreation policies include:

Coastal Act Section 30210 *states that:*

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

Coastal Act Section 30211 *states:*

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

Coastal Act Section 30212(a) *provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:*

> *(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.*
>
> *(2) adequate access exists nearby, or,*

(3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act Section 30220 *states that:*

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such use.

The project site is not located adjacent to the shoreline and is separated from the beach by an existing oil extraction and treatment facility which abuts the project site on the west side. Currently, no public beach access exists within the immediate vicinity of the project site. The closest recreational facility and beach access point is located near the entrance to Mandalay Beach State Park, at the intersection of Harbor Boulevard and Fifth Street, approximately one mile south of the project site. An additional coastal access point is located several miles to the north of the project site, at the entrance to McGrath State Beach. Lateral access from McGrath State Beach to Mandalay State Beach west of the project site is currently restricted due to the presence of the cooling water discharge canal for the Mandalay Generating Station which transects the beach and restricts passage.

During project construction, all workers shall park on-site and impacts to existing beach access parking lots (at the entrances to Mandalay and McGrath State Beaches) are not anticipated to occur. Construction of the proposed natural gas pipeline would occur within the public right-of-way on the east side of Harbor Boulevard for a distance of approximately 1,800 feet and is may necessitate the periodic closure of the northbound lane. Pipeline installation and trenching is anticipated to require approximately seven weeks to complete. Harbor Boulevard in this area does not have bicycle lanes, pedestrian walkways or on-road parking that would be affected by these land closures. Potential impacts to traffic flows along the pipeline route would be minimized by limiting the construction period to those periods specified by the City in the approved encroachment permit and through implementation of the mitigation measures identified in the Mitigated Negative Declaration (MND). The MND requires that a registered traffic control engineer prepare a Traffic Control Plan for City approval, follow the standards set forth by Caltrans, designate required traffic patterns or temporary road closures for construction, provide construction work road signs and provide safety measures to separate motorists from the construction workers and the work zone. SCE has committed to implement these measures.

The Commission therefore finds that the proposed project will not interfere with the public's access to and recreational use of the beach along this stretch of coast and therefore is consistent with the public access policies of the LCP and Coastal Act.

I. Climate Change

The City of Oxnard Coastal Land Use Plan specifically protects many of the resources that would be directly affected by global climate change resulting from increases in greenhouse gases. LUP sections and policies specific to these resources include section 3.2.2 (Habitat Areas) which contains Local Coastal Policy 6 (protection of sensitive habitat, wetlands and

resources) and Local Coastal Policy 10 (protection and restoration of coastal waters); section 3.2.3 (shoreline structures, diking and dredging) which contains Local Coastal Policy 13 (prohibition on shoreline protective devices and protection of existing beaches); section 3.3 (Hazards) which includes Local Coastal Policy 39 (minimization of threat from storm wave runup) and Local Coastal Policy 40 (development within flood and wave runup zones); section 3.6 (industrial and energy development) which contains Local Coastal Policy 52 (minimization of impacts from energy development); and section 3.8 (acquisitions), which contains Local Coastal Policy 91 (continuous protection of coastal resources).

Climate Change and the Coastal Zone: In July 2006, the California Climate Change Center released a series of reports describing ongoing and future effects of global warming on the California environment (Baldocchi and Wong, 2006; Battles et al., 2006; Cavagnaro et al., 2006; Cayan et al., 2006a; Cayan et al., 2006b; Cayan et al., 2006c; Drechsler et al., 2006; Franco and Sanstad, 2006; Fried et al., 2006; Gutierrez et al., 2006; Joyce et al., 2006; Lenihan et al., 2006; Luers et al., 2006; Luers and Moser, 2006; Medellin et al., 2006; Miller and Schlegel, 2006; Moritz and Stephens, 2006; Vicuña, 2006; Vicuña et al., 2006; Westerling and Bryant, 2006). Drawing on three projected warming scenarios (low, medium, and high), the reports projected severe impacts by the end of the century in the areas of public health, water resources, agriculture, forests and landscapes, and sea level. Many of these effects will impact the coastal zone, including impacts to air quality, species distribution and diversity, agriculture, expansion of invasive species, increase in plant pathogens, wildfires, rising sea level, coastal flooding, and coastal erosion and will affect resources specifically protected by the Coastal Act and the City's LCP. In addition, absorption of carbon dioxide by the ocean leads to a reduction in ocean pH with concomitant consumption of dissolved carbonate ions, which adversely impacts calcite-secreting marine organisms.

As identified in the 2006 Climate Change Center reports, the median emission scenario will lead to 75-85% more days in the Los Angeles area conducive to smog generation. Air quality will also be compromised by soot from wildfires, which the report predicts will increase. Coastal agriculture, already threatened by land development and habitat fragmentation, will be subject to further impacts from climate change. Impacts to coastal agricultural will include impacts to wine grapes, which will be subject to premature ripening and decreased fruit quality; impacts to fruit and nut trees, many of which require a certain number of "chill hours" per day for proper ripening; and impacts to milk production. Other threats to coastal agriculture identified by the Climate Change Center reports include the expansion of the ranges of agricultural weeds and an increase in plant pests and pathogens. Coastal forests and scrublands will be increasingly susceptible to wildfires due to longer and warmer periods of summer drying. This, together with the warmer climate itself, will lead to shifts in vegetation type, probably resulting in the loss of coastal scrub as it is converted to grasslands. Inasmuch as suitable habitat exists, species requiring cooler climates can migrate northward or to higher elevations. Their ability to do this, however, will be limited by the speed with which they are able to disperse, the suitability and interconnectivity of available habitat, and their ability to compete with non-native invasive species which, by definition, are able to disperse and exploit habitat efficiently. All of these effects will lead to a decline in forest productivity, with a concomitant loss in habitat.

The most direct impacts of global warming focused on the coastal zone are sea level rise and its associated impacts, ocean warming, and ocean acidification.

Sea Level Rise: According to tide gage data, global mean sea level has been rising at the rate of approximately 1.8 mm/yr for the past century (IPCC, 2001). Although no acceleration of this rate is apparent from the tide gage data (IPCC, 2001), satellite measurements starting in the early 1990s indicate an annual rate of approximately 2.8 mm/yr (Church and White, 2006). Sea level is clearly rising, and the rate of increase may in fact be accelerating. Since land can also change elevation due to either uplift or subsidence, global sea level change affects various coastal areas differently. Much of the California coast is rising; however the rate of uplift is, everywhere except northernmost California, lower than the rate of sea level rise. The *relative* historic rate of sea level rise (relative sea level rise is global sea level minus local land uplift or plus local land subsidence) has been calculated by Commission staff to range from a high of 2.16 ± 0.11 mm/yr in San Diego to a low of 0.92 ± 0.17 mm/yr in Los Angeles. Relative sea level is actually falling at Crescent City due to the high rates of tectonic uplift at that locality. (California Coastal Commission, 2001).

Even the 0.18 to 0.59 meter rise in sea level by 2100 predicted by the IPCC will have a large impact on the California coast. The effects of a much larger increase in sea level due to large contributions from the Greenland and/or Antarctic ice sheet would be truly catastrophic. The 2001 Coastal Commission report concluded:

> *The most obvious consequence of a large rise in sea level will be changes in areas that are submerged. Lands that now are only wet at high tide could be wet most of the day. Structures that are built above the water, like docks and piers, will be closer to the water, or eventually submerged. A second consequence will be an increase in wave energy. Wave energy is a factor of wave height. Waves heights along the California coast are influenced greatly by bottom depths and for most locations along the coast, the heights of nearshore waves are "depth limited". When the water depth increases, the wave height can be higher. Thus, higher waves impact the coast during high tide than during low tide. Wave energy increases with the square of the wave height. Thus, a 2-foot (0.6-meter) wave would have 4 times the energy of a 1-foot (0.3-meter) wave. Small changes in water level can cause significant changes in wave energy and the potential for shoreline damage from wave forces. A 1-foot to 3-foot (0.3 to 0.9 meter) rise in sea level, such as projected to occur over the next 100 years, would cause enormous changes in nearshore wave energy. The consequences of a 1-foot to 3-foot (0.3 to 0.9 meter) rise in sea level are far reaching. Along the California coast, the best analogy for sea level rise is thought to be El Niño, where a significant rise in sea level will be like El Niño on steroids. One of the factors that contributed to the amount of damage caused by the 1982/83 El Niño was that several storms coincided with high tide events and the elevated water levels (from tides and low pressure system combined) brought waves further inland than would have occurred otherwise…*

> *Beaches and Coastal Bluffs: Open coastal landforms like beaches and bluffs will be exposed to greater and more frequent wave attack. There will more potential for erosion and shoreline retreat. For gently sloping beaches, the general rule of thumb is that 50 to 100 feet of beach width will be lost from use for every foot of sea level rise… Some global circulation models predict significant increases in run-off from coastal watersheds in California (Wolock and McCabe, 1999) …*

In general, erosion of the landward edge of a beach, dune, or coastal bluff creates additional beach area, and so even in a period of sea level rise such as the present, in which the seaward extent of the beach is reduced by flooding and erosion, new beach creation can result in a relatively constant beach width. However, when threats to existing development from erosion lead to the construction of shoreline protective devices that halt the landward migration of the back beach, continued flooding of the seaward beach results in a reduction in beach width. Thus, on beaches experiencing erosion due to rising sea level, the protection of threatened structures will result in the loss of beaches wherever property owners choose to harden the coast to prevent coastal erosion. This loss of beach has immense negative impacts, including loss of recreational value, tourism, marine mammal haul-out area, sandy beach habitat, and buffering capacity against future bluff erosion.

Other potential impacts of sea level rise on the California coast include inundation and conversion of coastal wetlands to intertidal and subtidal habitats and the need to enlarge breakwaters and jetties to keep up with rising sea level. Additionally, seawalls and other engineered shoreline protection would be exposed to greater scour and the main structure would be exposed to greater and more frequent wave forces. As with breakwaters and jetties, these structures would need to be reinforced to withstand these greater forces, or a lower level of protection will have to be accepted for the backshore property.

Ocean Warming: In December 2006 the Commission held the first in a series of workshops on global warming. One of the well-recognized connections between the atmosphere and the ocean is heat exchange. Global warming of the atmosphere is expected to cause an increase in ocean warming as the ocean absorbs greater amounts of thermal energy from the atmosphere. At the workshop, Dr. James Berry (Associate Scientist, Monterey Bay Aquarium Research Institute) presented a summary of observed and predicted effects of ocean warming on California coastal ecosystems. Dr. Barry inventoried intertidal animals along the Monterey coast, and compared his results to a 1932 baseline inventory. He found that species that increased in abundance in southern California had increased markedly since the baseline study. Over the same time, there was a dramatic decline in species more associated with northern California. This demonstrates that the observed warming of the ocean over the past 60 years has resulted in a shift in the geographic ranges of species. With continued warming, species can be expected to continue to migrate northward as long as suitable habitat is available.

Some instances of remarkable biodiversity are due to the fortuitous combination of suitable ocean temperature and suitable geomorphic conditions. For example, one of the most diverse shallow water habitats in California is found in the rocky-bottom waters around the northern

Channel Islands. This is a zone of mixing of species characteristic of a "southern California realm" and a "northern California realm." The abundant rocky bottom habitat in the shallow waters ringing the islands provides a niche in which this diversity is expressed. If, because of global warming, the suitable temperature zone migrates northward, it will be moved off of the abundant rocky bottom habitat and the diversity and ocean productivity might decrease significantly.

Declines in ocean productivity due to habitat shifts are an indirect consequence of ocean warming. Ocean warming can cause a direct loss of primary productivity as well. Warming of the surface of the ocean results in increased ocean stratification, limiting the upwelling of deep, nutrient-rich waters that are responsible for California's rich coastal productivity.

Ocean warming could also create a disconnect between historic feeding and breeding grounds for many species. Sockeye salmon, which spend 2-3 years in waters of the northern Pacific, migrate northwards to areas of high productivity, such as the Bering Sea, in the summer. Productivity decreases with temperature increase, however, and as the Bering Sea warms, migration routes would have to be longer. Eventually, the metabolic cost of migrating further northwards to feeding grounds could make the migration infeasible. When summer feeding grounds are disconnected from winter breeding grounds, a population crash may be anticipated. A population crash in such species would not only impact commercial fishing in California, but would ripple up through the food chain, impacting protected coastal resources such as marine mammals and birds. At the December 2006 workshop, Dr. Barry concluded that although ocean warming will be a direct consequence of global warming, and ocean warming will cause ocean communities to change, perhaps drastically, the nature of future ocean ecosystems remains unclear.

Ocean Acidification: Just as there is an exchange of thermal energy between the atmosphere and the oceans, there is an ongoing exchange of gases between the atmosphere and the ocean. Each year some 92 billion metric tonnes of CO_2 annually are directly absorbed by the ocean from the atmosphere. At the same time, approximately 90 billion metric tonnes are released back to the atmosphere (Schlesinger, 1997). The net increase in dissolved CO_2 in the ocean is a direct result of increases in the atmosphere related to changes humans are making to the carbon cycle—most notably fossil fuel burning and land use changes (deforestation, mostly in the tropics). The ocean is an enormous reservoir that can absorb a vast amount of CO_2, although the rate of ocean mixing is too slow to prevent the current buildup in the atmosphere. Without this net absorption of CO_2 by the oceans, the atmospheric buildup—and global warming—would be far greater than it is now.

Over the past 200 years, the oceans have taken up approximately half of the industrial age CO_2 emissions, substantially reducing the net atmospheric concentrations of CO_2. This effect does not come without a cost, however. When CO_2 is absorbed by the ocean, some of it combines with water to form carbonic acid (H_2CO_3). This results in only a modest decrease in ocean pH, however, because most of the carbonic acid recombines to form bicarbonate ions (HCO_3^-). However, in the process, carbonate ions (CO_3^{-2}) are consumed. The net result is that absorption of CO_2 by the ocean consumes carbonate ions and reduces the pH of the ocean. The decrease in pH is minor because of the "buffering capacity" of these carbonate reactions,

but appears to have decreased mean average surface water pH by 0.1 pH units over the past 200 years (Caldeira and Wickett, 2003). Because the pH scale is logarithmic, this decrease in ocean pH (commonly called "ocean acidification," but more properly referred to as a decrease in alkalinity) means that hydrogen ion activity (which defines acidity) has increased by some 30% in this time frame (The Royal Society, 2005).

The effects of decreasing ocean alkalinity and carbonate ion concentration are twofold. First, many species are directly affected by the reduction in pH. In his presentation before the Commission in December 2006, Dr. Barry identified several physiologic stresses to which some species are susceptible. These stresses include respiratory stress (reduced pH limits oxygen binding and transport by respiratory proteins, such as hemoglobin, leading to reduced aerobic capacity), acidosis (disruption of acid/base balance which impairs function and requires energy to restore or maintain optimal pH balance), and metabolic depression (reduced pH associated with increased environmental CO_2 can cause some animals to enter a state of torpor or semi-hibernation). In addition to these physiologic effects, calcite-secreting organisms (including many phytoplankton, zooplankton, clams, snails, sea stars, sea urchins, crabs, shrimp, and many others) have more difficulty secreting their shells or tests under reduced carbonate ion concentrations. Deep-sea species will be particularly affected because increasing CO_2 levels in seawater decreases the saturation state of seawater with respect to calcium carbonate ($CaCO_3$) and raises the saturation horizon closer to the surface. The $CaCO_3$ saturation horizon is a depth in the ocean above which $CaCO_3$ can form, but below which $CaCO_3$ dissolves. Increasing surface CO_2 levels could have serious consequences for organisms that make external $CaCO_3$ shells and plates (The Royal Society, 2005).

The consequences of reduced calcification are not fully known, but are likely to include changes to plankton communities, higher metabolic costs for water-breathing species, resulting in lower growth, survival and reproduction, and higher metabolic costs for calcite secreting organisms. The effect on food webs is unclear, but it is very likely that these effects will result in a loss of biodiversity and complexity in California's coastal marine ecosystems.

Reducing Greenhouse Gas Emissions from Electrical Generation: The State of California and the California Public Utility Commission (CPUC) have adopted numerous greenhouse gas laws, regulations and policies in order to address greenhouse gas emissions from electricity generation sources. One of the key requirements is AB32 – The California Global Warming Solutions Act of 2006 – that requires the California Air Resources Board (CARB) to promulgate regulations to reach the 2020 goal of reducing greenhouse gas emissions to 1990 levels. The regulations are to go into effect in 2012. In order to achieve AB32's stated goal of reducing greenhouse emissions to 1990 levels by 2020, CARB is in the process of developing regulations for all major contributing source categories, including the electricity industry. CARB will determine the quantity of emission reductions that will be allocated to each contributing emission segment (transportation, electricity, manufacturing, etc.) and individual emission company or source, as well as setting forth the regulatory mechanisms by which these reductions will be implemented. For the electricity sector, CARB is developing a program that will reduce CO_2 emissions on a systemwide basis in order to ensure that all emissions created to serve California's load are captured and that all generating sources, regardless of ownership or location, are being treated uniformly and equitably. CARB is

currently developing a Scoping Plan that will provide a blueprint on how AB32 will be implemented (i.e., command and control measures and market-based programs). In a recent decision (D.08-03-018), the CPUC recommended to CARB that a cap-and-trade system be used to reduce greenhouse gas emissions from the electricity sector, with sources being required to purchase at least a certain portion of the credits. The net effect is that greenhouse gas emissions from SCE's generation portfolio would be capped and would be required to be reduced as directed by CARB to meet the State's greenhouse gas reduction goals.

Peaker Plant Emissions: As part of its review of this project, Commission staff requested SCE to submit the annual quantity and sources of all greenhouse gases and that would be emitted as a result of the project and a proposal to offset or mitigate project-related greenhouse gas emissions during this interim period until CARB's systemwide greenhouse gas reduction program for the electricity sector is implemented.

On April 9, 2008, SCE submitted to the Coastal Commission its estimate of peak annual emissions of greenhouse gases from the proposed peaker plant (included as Exhibit 10). The peaker plant will emit greenhouse gases from the combustion of natural gases in its turbine and emergency generator. The principal greenhouse gases emitted from fossil fuel combustion are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (NO). According to SCE, the Ventura County Air Pollution Control District (VCAPCD) will limit combustion turbine operation to 2,121 hours per year (1,881 operating hours plus 240 hours of start up and shut down periods). The emergency generator will only operate during routine testing and maintenance activities and if there is a system blackout on the local electric grid. Reliability testing is a maximum of 50 operating hours per year. Based on these limits, SCE estimates the maximum potential to emit from the proposed peaker plant is 51,032.7 Metric Tonnes CO_2E per year. If a 30-year life is assumed, then the maximum potential to emit over the life of the project is 1,530,981 Metric Tonnes CO_2E.

Construction of the peaker plant will also generate greenhouse gases. Greenhouse gas emissions from construction activities are primarily due to CO_2 emissions from on-site construction equipment and motor vehicle trips to and from the site. SCE estimates emissions from construction activities to be 618.00 Metric Tonnes CO_2E.

In addition to emission calculations, SCE submitted an emission analysis that concludes that operation of the peaker plant will result in a slight *decrease* in CO_2E emissions across SCE's generation portfolio (due to a new, local, and cleaner electricity source and one that results in line loss benefits). SCE therefore believes no offsets or mitigation of greenhouse emissions is warranted. The Commission staff did not have adequate time to evaluate SCE's emission analysis and conclusions prior to completion of this report. SCE has agreed it will provide funding for the Commission to hire an independent consultant to review its emission calculations and analysis.

SCE has also agreed that if the independent assessment of SCE's emission analysis concludes that operation of the peaker plant will result in a net increase in greenhouse gas emissions, it shall by September 1, 2008, submit to the Commission a Greenhouse Gas Reduction and Mitigation Plan to address those emissions until the requirements of AB32 for the electricity

sector are implemented. The Commission is further requiring in **Special Condition 6** that if the independent assessment concludes that operation of the peaker plant results in no net increase in greenhouse gas emissions, it will hold a public hearing regarding the assessment at the next feasible meeting. If the Commission disagrees with the assessment, it may require preparation of a Greenhouse Gas Reduction and Mitigation Plan. If a Greenhouse Gas Reduction and Mitigation Plan is required, SCE shall not commence commercial operation of the peaker plant until the Commission approves a Greenhouse Gas Reduction and Mitigation Plan after a public hearing.

As conditioned, the Commission finds that the potential adverse effects to a wide variety of coastal resources from greenhouse gas emissions, including marine resources, natural land forms, public access, recreation, wetlands and ESHA due to operation of this peaker plant will be mitigated.

J. CEQA

Section 13096(a) of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as conditioned 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 a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned, will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

Appendix A: List of Exhibits and Substantive File Documents

List of Exhibits:

1. Project Site Plan, Transmission Line Route and Natural Gas Pipeline Route
2. California Public Utilities Commission Rulemaking No. 06-02-013
3. Photographs of Existing Visual Condition of Site
4. Proposed Landscaping Plan
5. City of Oxnard Planning Commission and City Council Resolutions
6. LCP Land Use and Zoning Map No. 3 (Example of non-coastal EC Sub-zone)
7. LCP Land Use and Zoning Map No. 2 (Project Area)
8. Relevant Mitigation Measures from project Mitigated Negative Declaration
9. Relevant Mitigation Guidelines from California Burrowing Owl Consortium's April 1993, "Burrowing Owl Survey Protocol and Mitigation Guidelines"
10. SCE's McGrath Beach Peaker Project Greenhouse Gas Emission Discussion and Construction Emission Calculations

Substantive File Documents:

City of Oxnard Coastal Land Use Plan, last updated May 2002

City of Oxnard Coastal Zoning Ordinance, last updated February 2004

City of Oxnard Mitigated Negative Declaration No. 07-02 for Coastal Development Permit No. PZ-06-400-5, SCE Peaker Plant, May 11, 2007.

City of Oxnard Planning Commission Staff Report for Coastal Development Permit No. PZ-06-400-5, SCE Peaker Plant, June 28, 2007.

City of Oxnard Planning Commission Staff Report for Appeal of the Planning Commission's Denial of Planning and Zoning Permit No. 06-400-5 (Coastal Development Permit), July 12, 2007.

City of Oxnard Planning Commission Resolution No. 2007-19, June 28, 2007.

City of Oxnard City Council Resolution No. 13,340, July 24, 2007.

City of Oxnard, Letter to Southern California Edison Company re: Coastal Development Permit PZ 06-400-5, Proposed SCE Peaker Plant, Request for Additional Environmental Analysis for the Mitigated Negative Declaration, March 15, 2007.

City of Oxnard, Letter to California Coastal Commission re: Notice of Final Decision on Coastal Development Permit No. 06-400-5, July 25, 2007.

California Coastal Commission Staff Report A-4-OXN-00-172

California Coastal Commission Staff Report OXN-MAJ-1-00

California Coastal Commission Staff Report A-4-OXN-07-096 (Substantial Issue)

California Public Utilities Commission Rulemaking Nos. 05-12-013 and 06-02-13.

California Regional Water Quality Control Board, Los Angeles Region, "Notice of Intent to Comply with General Waste Discharge Requirements and National Pollutant Discharge and Elimination System Permit," December 4, 2006.

California Department of Parks and Recreation, Letter to City of Oxnard - Planning and Environmental Services Division re: MND 07-02 Edison Peaker Plant, June 15, 2007.

United States Department of the Interior – Fish and Wildlife Service, Letter to City of Oxnard - Planning and Environmental Services Division re: Comments on the Mandalay Peaker Project, Mitigated Negative Declaration, June 18, 2007.

Ventura County Air Pollution Control District, Memorandum: Engineering Analysis of Application No. 07891-100, February 1, 2007.

Ventura County Watershed Protection District – Planning and Regulatory Disvision, Memorandum: RMA 07-027 Mandalay Peaker Project, June 1, 2007.

California Burrowing Owl Consortium, "Burrowing Owl Survey Protocol and Mitigation Guidelines," April 1993.

Northshore at Mandalay Bay Draft Environmental Impact Report, August 1998.

Northshore at Mandalay Bay Final Environmental Impact Report, March 1999.

Southern California Edison Company, Appeal from City of Oxnard CDP No. 06-400-05, August 9, 2007.

Southern California Edison Company, Letter to California Coastal Commission (with attachments), March 21, 2008.

Southern California Edison Company, Letter to City of Oxnard – Planning and Environmental Services Division, April 19, 2007.

Southern California Edison Company, Letter to City of Oxnard – Planning and Environmental Services Division, June 13, 2007.

Southern California Edison Company, Letter to City of Oxnard – Planning and Environmental Services Division, June 27, 2007.

Southern California Edison Company, Letter to City of Oxnard – Planning and Environmental Services Division, February 16, 2006.

Southern California Edison Company, Letter to California Coastal Commission, April 9, 2008.

Southern California Edison Company, Letter to California Coastal Commission, February 21, 2008.

Southern California Edison Company, Letter to Oxnard City Clerk re: Administrative Appeal of the June 28, 2007 Decision of the Oxnard Planning Commission regarding the Southern California Edison Company Mandalay Peaker Project (PZ 06-400-5) with Attachments, July 10, 2007.

Southern California Edison Company, "Fact Sheet: Mandalay Peaker Unit Project," January 2007.

Southern California Edison Company, "Responses to Public Comments from the June 28, 2007, Oxnard Planning Commission Hearing on Planning and Zoning Permit Number 06-400-5," August 30, 2007.

Southern California Edison Company, "Environmental Soil Investigation Results," March 21, 2008.

Southern California Edison Company, "McGrath Beach Peaker Project Greenhouse gas Emission Discussion," April 9, 2008.

Southern California Edison Company, "Construction Emission Calculations ," April 9, 2008.

Keane Biological Consulting, "Mandalay Peaker Project Biological Resources Assessment," February, 2007.

Keane Biological Consulting, Letter to SCE, December 1, 2007.

Keane Biological Consulting, Letter to Southern California Edison re: McGrath Peaker Project: Responses to California Coastal Commission comments, March 18, 2008.

Entrix, Inc., "Fish survey of waters in the vicinity of Mandalay Generating Station, including the intake area on Mandalay Canal, the discharge basin and the associated beach pond, with special reference to the federally endangered tidewater goby, *Eucyclogobius newberryi*." February 4, 2007.

Dale Hinkle, P.E. Inc., "Dewatering Plan Mandalay Generating Station Peaking Unit," June 11, 2007.

Weck Laboratories, Inc., "Mandalay Groundwater – Certificate of Analysis," August 27, 2007.

Weck Laboratories, Inc., "McGrath Beach Soil Testing – Certificate of Analysis," April 9, 2007.

Southern California Gas Company, Letter to Southern California Edison re: Natural Gas Pipeline Construction and Installation, March 17, 2008.

Kleinfelder, Inc., "Geotechnical Investigation Proposed Peaker Unit Project Mandalay Beach Steam Station Oxnard, California," December 13, 2006.

Federal Register, Volume 67, Number 196, Pages 62926-62945, "Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for Astragalus pycnostachyus var. lanosissimus, a Plant from the Coast of Southern and Central California," October 9, 2002.

Baldocchi, D., and S. Wong. 2006. "An assessment of the impacts of future CO2 and climate on California agriculture." California Climate Change Center. 34 pp.

Battles, J.J., T. Robards, A. Das, K. Waring, J.K. Gilless, F. Schurr, J. LeBlanc, G. Biging, and C. Simon. 2006. "Climate change impact on forest resources." California Climate Change Center. 28 pp.

Bindschadler, R. 2006. "Hitting the ice sheets where it hurts." Science. v. 311: 1720-1721.

Caldeira, K., and M.E. Wickett. 2003. "Anthropogenic carbon and ocean pH." Nature v. 425: 365.

California Coastal Commission. 2001. "Overview of Sea Level Rise and Some Implications for Coastal California."

Cavagnaro, T., L. Jackson, and K. Scow. 2006. "Climate change: Challenges and solutions for California agricultural landscapes." California Climate Change Center. 107 pp.

Cayan, D., P. Bromirski, K. Hayhoe, M. Tyree, M. Dettinger, and R. Flick. 2006a. "Projecting future sea level." California Climate Change Center. 53 pp.

Cayan, D., A.L. Luers, M. Hanemann, G. Franco, and B. Croes. 2006b. "Scenarios of climate change in California: An overview." California Climate Change Center. 47 pp.

Cayan, D., E. Maurer, M. Dettinger, M. Tyree, K. Hayhoe, C. Bonfils, P. Duffy, and B. Santer. 2006c. "Climate scenarios for California." California Climate Change Center. 44 pp.

Church, J.A., and N.J. White. 2006. "A 20th century acceleration in global sea-level." Geophysical Research Letters. v. 33.

Drechsler, D.M., N. Motallebi, M. Kleeman, D. Cayan, K. Hayhoe, L.S. Kalkstein, N. Miller, S. Sheridan, J. Jiming, and R.A. VanCuren. 2006. "Public health-related impacts of climate change in California." California Climate Change Center. 80pp.

Ekström, G., M. Nettles, and V.C. Tsai. 2006. "Seasonality and increasing frequency of Greenland glacial earthquakes." Science. v. 311: 1756-1757.

Franco, G., and A.H. Sanstad. 2006. "Climate change and electricty demand in California." California Climate Change Center. 9 pp.

Fried, J.S., J. K. Gilless, W.J. Riley, T.J. Moody, C.S. de Blas, K. Hayhoe, M. Moritz, S. Stephens, and M. Torn. 2006. "Predicting the effect of climate change on wildfire severity and outcomes in California: Preliminary analysis." California Climate Change Center. 47 pp.

Friedrich, A., F. Heinen, F. Kamakaté, and D. Kodjak. 2007. "Air Pollution and Greenhouse Gas Emissions from Ocean-going Ships: Impacts, Mitigation Options and Opportunities for Managing Growth." International Council on Clean Transportation. 101 pp.

Gutierrez, A.P., L. Ponti,, C.K. Ellis, and T. d'Oultremont. 2006. "Analysis of climate effects on agricultural systems." California Climate Change Center. 30 pp.

Heede, R. 2006. "LNG supply chain greenhouse gas emissions for the Cabrillo Deepwater Port: Natural gas from Australia to California: Snowmass, Colorado." Climate Mitigation Services. 28 pp.

Howell, D.G. 1993. "The future of energy gases." Professional Paper: Washington, D.C., U.S. Geological Survey Professional Paper 1570. 890 pp.

Joughin, I. 2006. "Greenland rumbles louder as glaciers accelerate." Science. v. 311: 1719-1720.

Joyce, B., S. Vicuña, L. Dale, J. Dracup, M. Hanemann, D. Purkey, and D. Yates. 2006. "Climate change impacts on water for agriculture in California: A case study in the Sacramento Valley." California Climate Change Center. 76 pp.

Kerr, R. 2006. "A worrying trend of less ice, higher seas." Science. v. 311: 1698-1703.

Laws, E.A. 1997. *El Niño and the Peruvian Anchovy Fishery: Sausalito, California.* University Science Books. 58 pp.

Lenihan, J.M., D. Bachelet, R. Drapek, and R.P. Neilson. 2006 "The response of vegetation distribution, ecosystem productivity, and fire in California to future climate scenarios simulated by the MC1 dynamic vegetation model." California Climate Change Center. 19 pp.

Luers, A.L., D.R. Cayan, G. Franco, H. Hanemann, and B. Croes. 2006. "Our Changing Climate: Assessing the Risks to California." California Climate Change Center. 16 pp.

Luers, A.L., and S.C. Moser. 2006. "Preparing for the impacts of climate change in California: Opportunities and constraints for adaptation." California Climate Change Center. 41 pp.

Medellin, J., J. Harou, M. Olivares, J. Lund, R. Howitt, S. Tanaka, M. Jenkins, K. Madani, and T. Zhu. 2006. "Climate warming and water supply management in California." California Climate Change Center. 32 pp.

Miller, N.L., and N.J. Schlegel. 2006. "Climate change--Projected Santa Ana fire weather occurrence." California Climate Change Center. 11 pp.

Moritz, M.A., and S.L. Stephens. 2006. "Fire and sustainability: Considerations for California's altered future climate." California Climate Change Center. 6 pp.

Nezlin, N.P., W.M. Hamner, and L.D. Zeidberg. 2005. "Influence of El Nino 1997-1998 on the pelagic ecosystem off California: Remote-sensed analysis, in Magoon, O.T." Converse, H., B. Baird, B. Jines, and M. Miller-Henson, eds. California and the World Ocean '02: Revisiting and revising California's Ocean Agenda. Reston, Virginia. American Society of Civil Engineers. 1233-1252 pp.

Schlesinger, W.H. 1997. *Biogeochemistry: An Analysis of Global Change*. San Diego, Academic Press. 587 pp.

The Royal Society. 2005. *Ocean acidification due to increasing atmospheric carbon dioxide*. London. The Royal Society. 60 pp.

Vicuña, S. 2006. "Predictions of climate change impacts on California water resources using CALSIM II: A technical note." California Climate Change Center. 24 pp.

Vicuña, S., R. Leonardson, J.A. Dracup, M. Hanemann, and L. Dale. 2006a. "Climate change impacts on high elevation hydropower generation in California's Sierra Nevada: A case study in the Upper American River." California Climate Change Center. 36 pp.

Westerling, A., and B. Bryant. 2006. "Climate change and wildfire in and around California: Fire modeling and loss modeling." California Climate Change Center. 28 pp.

Wolock, D., and G. McCabe. "Climate Research." 1999. "Explaining spatial variability in mean annual runoff in the conterminous United States." Climate Research. v. 11: 149-159.

Appendix B: Applicable Local Coastal Policies

Local Coastal Policy 6 states, in relevant part: *As a part of the Phase III Implementation portion of the LCP process, a resource protection ordinance was created, defining the only uses permitted in areas designated on the land use map with the Resource Protection Zone. The ordinance incorporated the following policies which the City will implement to the extent of its legal and financial ability:*

a. …
b. …
c. …
d. *New development adjacent to wetlands or resource protection areas shall be sited and designed to mitigate any adverse impacts to the wetlands or resource.*

A buffer of 100 feet in width shall be provided adjacent to all resource protection areas. The buffer may be reduced to a minimum of 50 feet only if the applicant can demonstrate the large buffer is unnecessary to protect the resources of the habitat area. All proposed development shall demonstrate that the functional capacity of the resource protection area is maintained. The standards to determine the appropriate width of the buffer area are:

1) biological significance of the area
2) sensitivity of the species to disruption
3) susceptibility to erosion
4) use of natural and topographical features to locate development
5) parcel configuration and location of existing development
6) type and scale of development proposed
7) use of existing cultural features to locate buffer zones

When a development is proposed within an environmentally sensitive habitat or a resource protection area, or within 100 feet of such areas, a biological report shall be prepared which includes applicable topographic, vegetative and soils information. The information shall include physical and biological features existing in the habitat areas. The report shall be prepared by a qualified biologist, and shall recommend mitigation measures to protect any impacted resources. All recommendations shall be made in cooperation with the State Department of Fish and Game. When applicable, restoration of damaged habitats shall be a condition of approval.

e. *When a development is proposed within or near an environmentally sensitive habitat area, applicable topographic, vegetative and soils information shall be provided. The information shall include physical and biological features existing in the habitat areas.*

Local Coastal Policy 9 states: *Wetlands shall be defined as:*

Land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes. In certain types of wetlands, vegetation is lacking and soils are poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, waterflow, turbidity or high concentrations of salts or other substances in the water or substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during the year, and their location within, or adjacent to, vegetated wetlands or deep-water habitats.

Local Coastal Policy 10 states, in relevant part: *The water quality of the City's coastal waters shall be maintained and, where feasible, restored by the following:*

a. The effects of wastewater discharges which release toxic substances into coastal waters, streams, wetlands, estuaries and lakes shall be minimized, and, where feasible, toxic substances should be removed. Wastewater discharges which do not contain toxic substances and which are necessary to sustain the functional capacity of streams, wetlands, estuaries and lakes shall be maintained.
b. …
c. The effects of increased amounts of runoff into coastal waters, streams, wetlands, estuaries and lakes due to development shall minimize through, among other means, grading and other site development controls, and buffer zones.
d. …
e. Naturally occurring vegetation that protects riparian habitats shall be maintained and, where feasible, restored.
f. …
g. …

Local Coastal Policy 52 states, in relevant part: *Industrial and energy-related development shall not be located in coastal resource areas, including sensitive habitats, recreational areas, and archaeological sites. All development adjacent to these resource areas or agricultural areas shall be designed to mitigate any adverse impacts…*

Local Coastal Policy 57 states: *If it is not possible to reroute pipelines around coastal resource areas, including habitat, recreational and archeological areas, they shall be permitted to cross the areas with the following conditions:*

a. Pipeline segments shall, in case of break, be isolated by automatic shut-off valves or with other safety techniques approved by the City. If the City determines it is necessary, the valves may be located at intervals less than the maximum required by the Department of Transportation.
b. Any routing through resource areas shall be designed to minimize the impacts of a spill, should it occur, by considering spill volumes, durations and trajectories. Plans for appropriate measures for cleanup shall be submitted with permit applications for all pipeline project proposals.
c. Except for pipelines exempted from coastal development permits under Sections 30610(c) and (e) of the Coastal Act as defined by the State Coastal Commission's

Interpretive Guidelines, a survey shall be conducted along the route of any proposed new pipeline in the coastal zone to determine what, if any, coastal resources may be impacted, by construction and operation of the proposed pipeline. The costs of this survey shall be borne by the applicant. This survey may be conducted as part of environmental review if an EIR is required.

d. The survey shall be conducted by a consultant selected jointly by the applicant, the City, and the Department of Fish and Game. If it is determined that the area to be disturbed will not re-vegetate naturally or sufficiently quickly to avoid erosion or other damage, the applicant shall submit a re-vegetation plan. The plan shall also include provisions for the restoration of any habitats disturbed by construction or operation of the proposed pipeline.

e. For projects where a re-vegetation plan and/or habitat restoration plan has been required, the area crossed by the pipeline shall be re-surveyed one year after completion of construction to determine the effectiveness of the plan. This survey shall continue on an annual basis to monitor progress in returning the site to preconstruction conditions until the City has determined that the vegetation restoration is complete.

f. The City shall require the posting of a performance bond by the applicant to ensure compliance with these provisions.

g. Herbicides shall not be used during pipeline construction. The sidecasting of soil may be restricted where the City deems necessary by removal of excess soil to an approved dumping site after the excavation has been backfilled and compacted. The City may require that the trenches be filled by replacing the soil horizons in sequence.

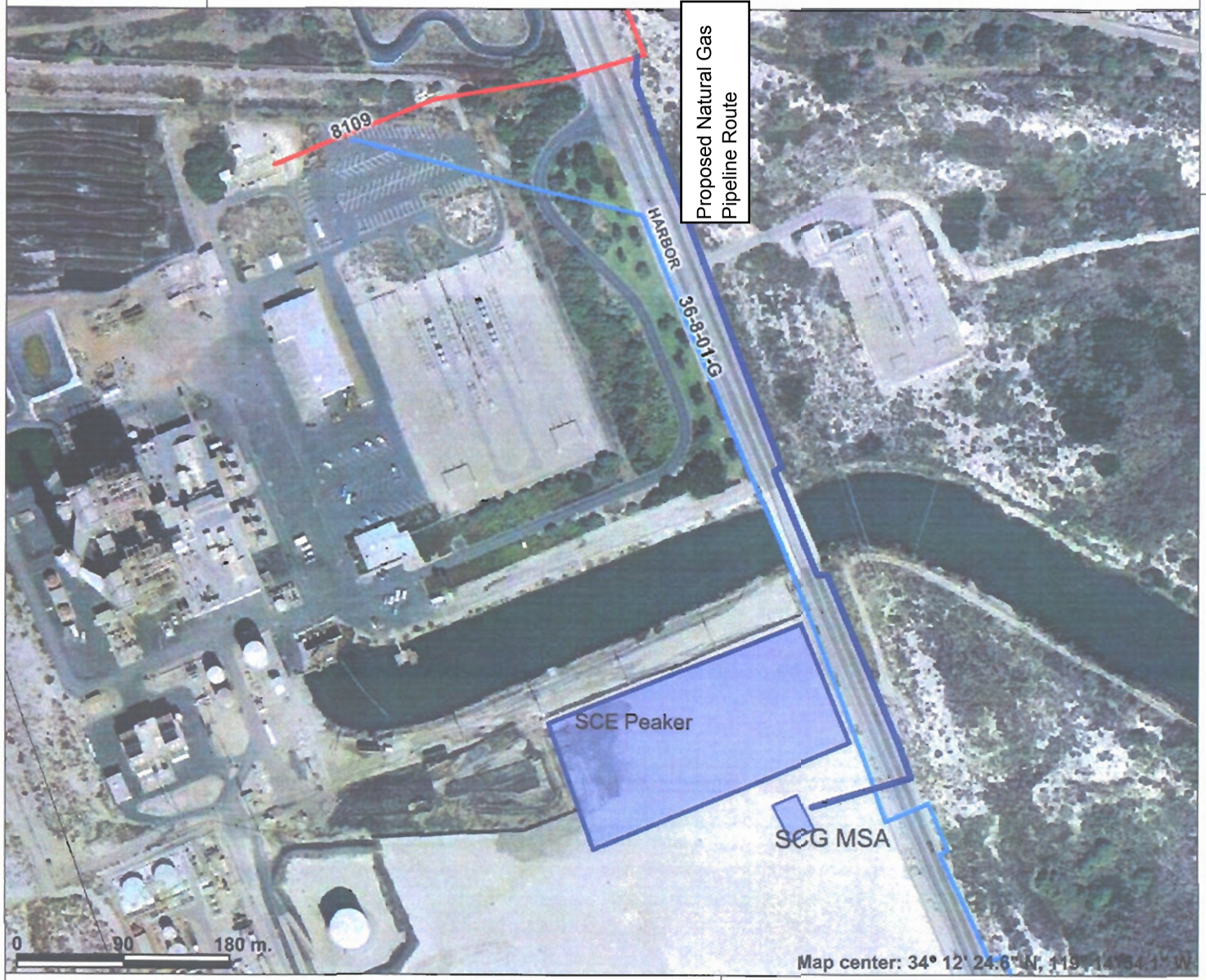
Project Site

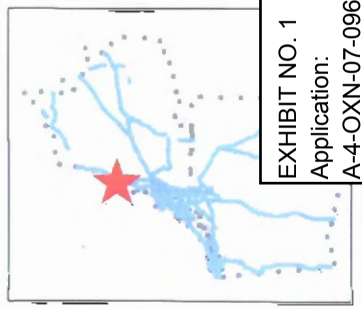
EXHIBIT NO. 1
Application:
A-4-OXN-07-096
So. Cal. Edison

EXHIBIT NO. 1
Application:
A-4-OXN-07-096
So. Cal. Edison

LAND SERVICES GIS
http://gis.sempra.com

SCE McGrath Beach Peaker





Legend

- Counties
- Gas Pipelines
- SCG LDS
- SCG TS
- SDGE LDS
- SDGE TS
- STORAGE
- Road Centerlines
- Pacific Ocean

Scale: 1:5,071

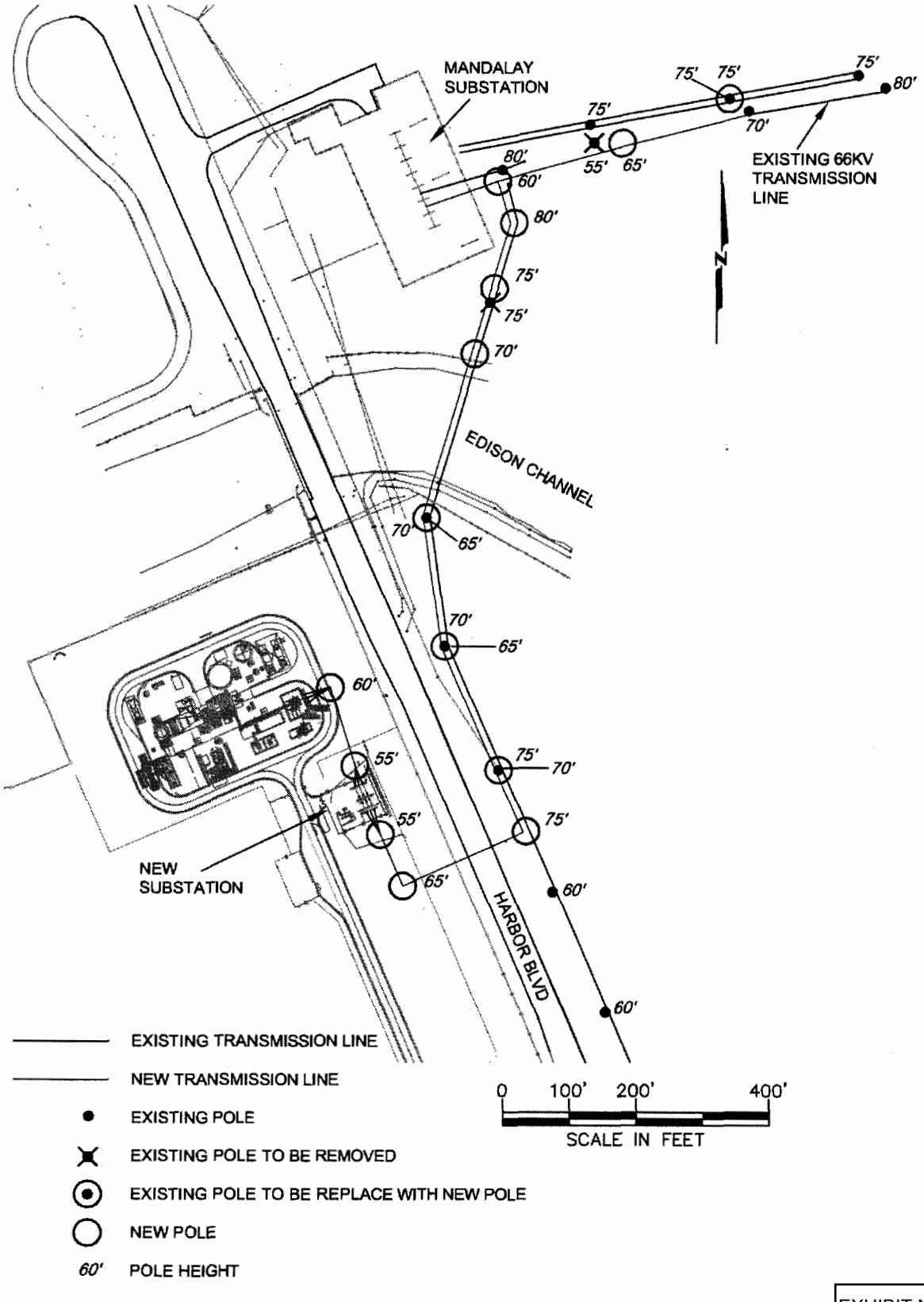


Figure 5. Conceptual Layout of Transmission Line

EXHIBIT NO. 1
Application:
A-4-OXN-07-096
So. Cal. Edison

MP1/MSW/sid 8/15/2006

FILED
08-15-06
02:49 PM

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission's Resource Adequacy Requirements Program.	Rulemaking 05-12-013 (Filed December 15, 2005)
Order Instituting Rulemaking to Integrate Procurement Policies and Consider Long-Term Procurement Plans.	Rulemaking 06-02-013 (Filed February 16, 2006)

ASSIGNED COMMISSIONER'S RULING ADDRESSING ELECTRIC RELIABILITY NEEDS IN SOUTHERN CALIFORNIA FOR SUMMER 2007

1. Summary

In the captioned dockets and in other pending proceedings, this Commission is working with partners including the California Independent System Operator (CAISO), the California Energy Commission (CEC), regulated entities, and other stakeholders to develop and enhance the electric infrastructure so that it meets California's growing need for reliable, cost-effective, and environmentally sound electric service. Significant progress has been achieved since the electric market disruptions of 2000-2001, and the procedural steps needed to maintain this progress are well under way.

In light of recent events, I find it is necessary to take additional action. The heat storm that hit California in July 2006, and the surprising growth in electricity demand throughout the state that had become evident even before the heat storm, have exposed certain vulnerabilities in the electric generation and

EXHIBIT NO. 2
Application:
A-4-OXN-07-096
So. Cal. Edison

transmission infrastructure that require immediate attention to assure reliability in 2007, particularly in parts of southern California. Accordingly, as set forth in more detail below, I direct Southern California Edison Company (SCE) to expand its Air Conditioning Cycling Program (ACCP, also referred to as Summer Discount Plans) to target an additional 300 megawatts (MW) of program capacity for the summer 2007 season. In addition, SCE should pursue the development and installation of up to 250 MW of black-start, dispatchable generation capacity within its service territory for summer 2007 operation. In connection with this added generation capacity, I invite SCE to file an advice letter to establish a memorandum account in which it would record the acquisition and installation costs.

2. Background

In the captioned rulemaking dockets and in predecessor proceedings initiated in the wake of the energy crisis of 2000-2001, this Commission has established policies for procurement of electric generation by investor-owned utilities (IOUs) and by other load-serving entities (LSEs) subject to the Commission's jurisdiction.[1] Throughout these proceedings, a fundamental goal of the Commission has been assuring that Californians served by these LSEs receive reliable electric service through cost-effective, environmentally sound, sustainable, and competitive procurement of electric generation capacity. Key elements of this procurement regime include the following:

[1] The Commission has found that the service territories of the three largest electric IOUs in California account for approximately 80% of California's electricity usage.

- The California Energy Action Plan (EAP II), which establishes a preferred loading order of resources, beginning with energy efficiency and demand response.
- Review and approval of the IOUs' Long Term Procurement Plans (LTPPs) in conjunction with the CEC's demand forecast.
- Establishment of Resource Adequacy (RA) procurement obligations whereby each jurisdictional LSE must acquire the resources needed to serve its own customer load plus a 15%-17% planning reserve margin.

3. Discussion

I am confident that the adopted procurement regime, described above, is successfully meeting California's electric system needs and will continue to do so. I recognize, however, that the LTPP and RA programs are still under development and that the adopted program elements have not been in place for sufficient time to bear full fruit. Despite the Commission's ongoing efforts to assure that adequate operating resources are made available to the CAISO at the times and places the CAISO needs those resources for electric grid operations, it is critical that we continually monitor system developments and be prepared to act as necessary.

Last month's heat storm, and the evident and surprising growth in demand that had occurred even before the heat storm, give rise to the need for further action. The CAISO's assessment for the summer of 2006 indicated that it could handle a demand in excess of 48,000 MW, close to what demand was forecasted to be under extreme temperatures that materialize once every

10 years, with limited to no impact on firm load customers.[2] However, the CAISO reports, the peak demand during that heat wave was 51,000 MW, well above any of the scenarios it had assumed in its assessment.[3] As the CAISO notes, that was over 12% higher than last year's record, 6% higher than the worst case scenario the CAISO analyzed in its assessment, and 38% higher than the peak demand of the crisis year 2001; it represents the demand forecasted not to appear until five years from now.[4] Across the CAISO's service area, weighted average temperatures ranged between 106 and 110 degrees Fahrenheit on various days, something California and the West have not experienced in recent history; these temperatures were higher than anything recorded in the 30-year history of the temperature models used by the CAISO.[5] Also, staff informs me, the demand forecasts used to plan for resource needs in California may not have fully incorporated the impacts of recent population growth in the warmer inland areas of California.

The good news for California is that the right policies were put in place in recent years, and all parties pulled together during the recent heat storm with the result that the CAISO was able to meet the resulting reliability challenge. Looking ahead to next summer, however, I am persuaded that additional steps should be taken now to assure reliability. While there is no way at this time to determine whether the unusually high temperatures experienced this summer in

---

[2] *See* Prepared Statement of Yakout Mansour, President and Chief Executive Officer of CAISO, before the California State Senate Committee Governmental Organizations, dated August 9, 2006. The statement is available at the CAISO's website.

[3] *Id.*

[4] *Id.*

[5] *Id.*

California and much of the nation are the product of global climate change trends, it is prudent to go forward with the expectation that a repeat of this summer's experience, and/or a continuation of the unexpectedly high growth in overall demand, are possible in 2007. The CAISO advises that the situation is particularly severe in southern California.[6] Recognizing that time does not allow for development of large new projects between now and next summer, the CAISO recommends that the Commission take steps to direct IOUs to develop

> ... a combination of quick-start generation and demand response opportunities that can be developed over the next six to twelve months to increase available supply at the peak hours and enhance grid reliability.[7]

Accordingly, in response to critical near-term needs in southern California that have been recently identified by the CAISO, I take the following actions.

First, consistent with the preference to be accorded to demand response programs under EAP II, I direct SCE to target an additional 300 MW of ACCP program capacity for the summer 2007 season. SCE is directed to determine if shifting existing demand response funds can cover the costs of the additional 300 MWs or if additional funds (incremental to those previously approved in D.06-03-024) are necessary. SCE is directed to provide this information to the Commission via the process outlined in A.05-06-006, *et al.*[8]

---

[6] *See* letter from Yakout Mansour, President and Chief Executive Officer of CAISO, dated August 9, 2006. A copy of the letter is attached to this ruling.

[7] *Id.*

[8] On August 9, 2006 I issued an Assigned Commissioner Ruling in A.05-06-006, *et al.*, directing the IOUs to submit proposals August 30, 2006 to expand their existing demand response programs.

Second, I direct SCE to pursue new utility-owned generation that can be online in time for summer 2007. I take this action out of concern that SCE's current, ongoing Request for Offer (RFO) process may not be completed in time for summer 2007 needs. As I noted earlier, competitive IOU procurement processes are key elements of the Commission's procurement regime. As it goes forward with its RFO, SCE should not reduce the amount of capacity it contracts for through the RFO due to development of generation specified in this ruling. Additionally, SCE should promptly evaluate any offers of resources similar to those covered in this ruling that may be online by August 1, 2007. Should SCE consider any such offers potentially viable, it should make best efforts to reach agreement with the bidders and file a request for contract approval with the Commission by November 15, 2006. The Commission will target action on any such requests not later than January, 2007. Offers considered by SCE but not deemed August 1-capable, and offers SCE is unable to reach agreement on before November 15, 2006, should continue to follow the schedules and procedures laid out in the RFO. I would expect contracts filed by SCE pursuant to this section to contain financial guarantees of operation on or before August 1, 2007.

To avoid undue impacts on the ongoing RFO process, SCE should pursue development of not more than five non-RFO generation units. Such units should be black-start capable and dispatchable, and should bring collateral benefits to SCE's transmission and distribution system as well as the CAISO grid.

It does not appear possible for SCE to develop and for the Commission to consider proposals for ratemaking treatment of the costs of developing and installing the utility-owned generation described above prior to the time such generation would be installed. Accordingly, I invite SCE to file an advice letter to establish a memorandum account to record the acquisition and installation

costs of such generation facilities. Because of the urgent need for capacity for summer 2007 and the unusual steps being taken in this ruling, SCE may choose in its later rate application to request, and the Commission may wish to consider, for resources built pursuant to this ruling, different ratemaking treatment than that established in D.06-07-029 for utility-owned resources.

In this ruling I have focused on actions that are to be undertaken by SCE in light of the CAISO's stated concern about reliability in southern California. As a precaution to assure reliability throughout the service territories of all of the IOUs, I will direct Pacific Gas and Electric Company and San Diego Gas & Electric Company to submit reports in the LTPP proceeding addressing the need for similar actions in their territories, particularly with respect to air conditioning cycling.

This ruling is being issued in R.05-12-013 and R.06-02-013 because of the related subject matter; however, these proceedings are not consolidated.

IT IS RULED that:

1. In order to address and resolve potential resource inadequacies that could affect reliability in southern California in the summer of 2007, Southern California Edison Company (SCE) is directed to take necessary steps to expand its demand response programs and to develop black-start, dispatchable resources in accordance with the foregoing discussion.

2. Not later than 15 days from the date of this ruling, Pacific Gas and Electric Company and San Diego Gas & Electric Company shall file reports in Rulemaking 06-02-013 addressing the need for actions in their territories similar to those addressed in this ruling with respect to SCE, particularly with respect to air conditioning cycling.

3. In addition to the service lists in the captioned dockets, a copy of this ruling shall also be served on the service list in Application (A.) 05-06-006, A.05-06-008, and A.05-06-017.

Dated August 15, 2006, at San Francisco, California.

/s/ MICHAEL R. PEEVEY
Michael R. Peevey
Assigned Commissioner

EXHIBIT NO. 3
Application:
A-4-OXN-07-096
So. Cal. Edison

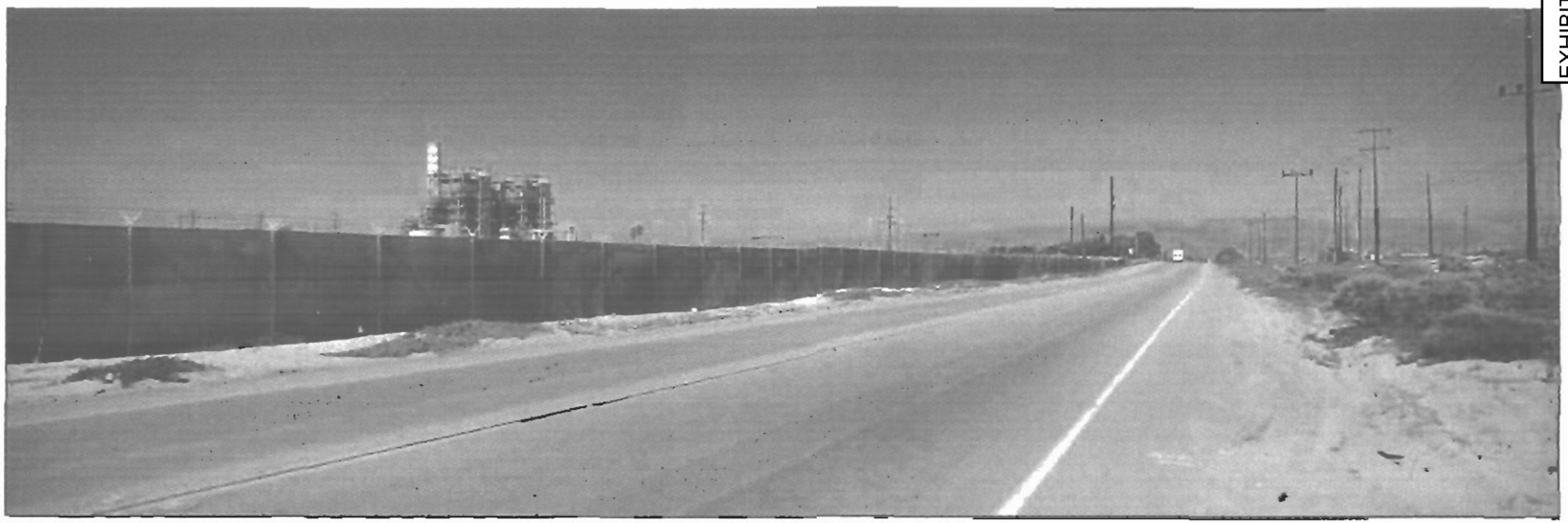
VP1 - Project view from northeast corner of the SCE property - before

NOT APPLICABLE

VP1 - Project view from northeast corner of the SCE property - after

FILENAME: Project-Viewpoint 1.dwg

EXHIBIT NO. 3
Application:
A-4-OXN-07-096
So. Cal. Edison



VP2 - Project view from midpoint of the SCE property - before

NOT APPLICABLE

VP2 - Project view from midpoint of the SCE property - after

FILENAME: vp 1.dwg

EXHIBIT NO. 3
Application:
A-4-OXN-07-096
So. Cal. Edison

VP3 - Project view from southeast corner of the SCE property - before

NOT APPLICABLE

VP3 - Project view from southeast corner of the SCE property - after

FILENAME: vp 3.dwg

EXHIBIT NO. 3
Application:
A-4-OXN-07-096
So. Cal. Edison

VP4 - View of transmission lines from the north - **before**

NOT APPLICABLE

VP4 - View of transmission lines from the north - after

PLOTTING: vp 4.dwg

EXHIBIT NO. 3
Application:
A-4-OXN-07-096
So. Cal. Edison

VP5 - View of transmission lines from the south - before

NOT APPLICABLE

VP5 - View of transmission lines from the south - after

FILENAME: vp 5.dwg