DOCKETED

Docket Number:	15-AFC-01
Project Title:	Puente Power Project
TN #:	213681
Document Title:	City of Oxnard PSA Comments
Description:	N/A
Filer:	Patty Paul
Organization:	Shute, Mihaly & Weinberger LLP
Submitter Role:	Intervenor Representative
Submission Date:	9/15/2016 4:14:05 PM
Docketed Date:	9/15/2016

SHUTE, MIHALY & WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

ELLISON FOLK
Attorney
folk@smwlaw.com

September 15, 2016

Via Online Docket

Shawn Pittard
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Re: The City of Oxnard's Comments on the Preliminary Staff Assessment for the Puente Power Project (15-AFC-01)

Dear Mr. Pittard:

On behalf of the City of Oxnard, we submit these comments on the Preliminary Staff Assessment prepared for NRG's proposed Puente Power Project ("Project") (15-AFC-01). While the City appreciates the effort that went into preparing the Preliminary Staff Assessment ("PSA"), the City's review has revealed numerous omissions, misstatements, and other deficiencies throughout the document that require correction in a revised PSA and in the Final Staff Assessment.

As staff knows, the City of Oxnard is already burdened with a history of disproportionately-sited industrial and other polluting resources. In addition to the three power plants located on the City's coast, the City faces the ongoing legacy of three now-shuttered landfills and a large Superfund site. These polluting resources have negatively impacted the health and welfare of the City's predominantly minority and low-income residents.

The City has long been working to remedy this historic environmental injustice, and promote habitat and wetland restoration along its coast. Most relevant to this Project, before NRG submitted its application for certification to the Commission, the City adopted a moratorium against the location of new gas-fired power plants along its coast. The moratorium's purpose was to implement existing General Plan policies, allow for the restoration of ecological and recreational uses on Oxnard's coast, and adapt the coastline to expected sea level rise and other coastal hazards. The City recently carried this land

use regulation forward to its General Plan, which it amended to clarify that it is no longer appropriate to site large, non-coastal dependent power plants—like the proposed Project—in hazard-prone areas of the City.

In the face of these efforts, the PSA gives little consideration to the glaring inconsistency between the Project and the City's ongoing coastal planning efforts. The PSA also fails to consider that the Project would run directly counter to coastal planning by other public agencies, including the California Coastal Conservancy.

Nor does the PSA provide an adequate assessment of the Project's foreseeable environmental impacts in many other impact areas. For instance, the PSA relies on a draft sea level rise methodology with known shortcomings to assert that the Project site is not exposed to future coastal hazards. In doing so, it goes out of its way to criticize a more robust and widely-accepted model that The Nature Conservancy prepared specifically to identify coastal hazards along the Ventura coast.

The PSA's evaluation of the Project's air quality impacts also contains multiple flaws. Especially troubling is the decision to calculate Project emissions by assuming that the power plant would operate only 876 hours per year even though NRG has proposed operations of up to 2,150 hours per year. The PSA also fails to conduct any independent analysis of NRG's obligation to obtain a federal prevention of significant deterioration permit even though Project emissions would require such a permit.

Finally, the PSA lacks a robust and substantiated consideration of Project alternatives. City staff has proposed numerous alternative Project sites—both within and outside of the City—that would avoid the significant land use and coastal hazard impacts of the Project. But the PSA improperly rejects or fails to evaluate each of these alternative sites.

The collective result of the PSA's analysis is to substantially downplay the significant impacts that the Project will create for the environment, as well as the health and welfare of the citizens of Oxnard and Ventura County. The City therefore requests that staff revise its assessment to correct the numerous errors described below, and to acknowledge the Project's significant impacts.

I. The PSA's Project Description Is Incomplete.

To adequately evaluate the environmental impacts of a project, agencies must first provide a comprehensive description of the project itself. "An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *San Joaquin Raptor/Wildlife Rescue Center v. County of*

Stanislaus (1994) 27 Cal.App.4th 713, 730 (quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193). As a result, courts have found that even if a CEQA analysis is adequate in all other respects, the use of a "truncated project concept" violates CEQA and mandates the conclusion that the lead agency did not proceed in the manner required by law. *San Joaquin Raptor*, 27 Cal.App.4th at 729-30. Furthermore, "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *Id*. at 730 (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable.

Here, the PSA's project description falls short of these established legal standards. Key Project components and operations are omitted from discussion or analysis in the PSA, making evaluation of potential Project impacts exceedingly difficult. For the City and the public to adequately comment on these Project elements, staff should revise and recirculate the PSA with an analysis of the entire Project, including impacts related to all regulatory permits that NRG must acquire to operate the Project.

A. The PSA Does Not Adequately Consider Continued Operation of the Mandalay Generating Station Beach Outfall.

Although the Project is expected to reduce the volume of wastewater and stormwater discharged through the existing beach outfall compared to current Mandalay Generating Station operations, the PSA's description of continued use of the outfall for another 30 years is incomplete. *See* PSA 3-7. The PSA suggests that project activities will be limited to the Mandalay Generating Station property boundary (PSA 3-3 through 3-5), but continued outfall use will create additional foreseeable environmental impacts that will occur outside of the Project site.

First, the existing outfall and associated structures impair horizontal public beach access along Oxnard's coast. *See* Exhibit 1 (Images of Mandalay Generating Station Outfall and Channel). In addition to the outfall itself, riprap and fences extend from the outfall toward the ocean, blocking much of the beach in front of Mandalay Generating Station. *Id*. Moreover, to maintain the channel for wastewater flow between the outfall and the ocean, NRG has historically bulldozed this section of the beach. The resulting trench creates a sudden, several-foot drop off along the beach and further limits public beach access. *Id*., Figure 1. Impairing beach access in this manner is inconsistent with the City's coastal Land Use Plan. *See* Oxnard LUP, Policy 54 ("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.") available at http://www.oxnard.org/wp-

content/uploads/2016/03/CoastalLandUsePlan.pdf. The PSA fails to consider the impact that continued outfall operation will have on public beach access.

Second, outfall operations and maintenance create unevaluated biological impacts near the Project site. During winter storms, sand frequently blocks this outfall channel, causing discharged water to pond southward in the back beach area towards nesting sites for Snowy Plovers and Least Terns. Exhibit 1, Figure 3. Additionally, bulldozing activity needed to maintain the channel further impacts the beach and dune ecosystem. Grooming the beach can create substantial declines in the infaunal community living near the beach outfall, and consequently reduce snowy plover foraging opportunities. Driving bulldozers onto the beach to maintain the channel also could disturb the sensitive dune habitat near the Project site. None of these environmental impacts are considered in the PSA.

Finally, bulldozer sand maintenance operations use a public right of way—the Mandalay Beach Road—which is part of the California Coastal Trail.[1] The PSA must acknowledge the use of this coastal trail and evaluate the bulldozer operations' potential interference with public access along this trail.

B. The PSA Fails to Account for All Regulatory Permits Needed to Build and Operate the Project.

Continued operation of this outfall is not possible absent additional permitting actions by numerous agencies:

> (1) Discharges from the outfall are not permitted to operate past December 31, 2020 and would otherwise be expected to end with cessation of Unit 1 and 2 operations. *See* LA RWQCB Order No. R4-2015-0201 (which expires on December 31, 2020).
>
> (2) NRG has obtained emergency coastal permits from the City to bulldoze the beach channel. *See, e.g.*, Exhibit 3. But the Coastal Commission has determined that a separate coastal development permit (CDP) is required for the sand management necessary to maintain the trench between the outfall and the ocean.

[1] *See* Exhibit 2 (Mandalay Beach Road – Public Right of Way Documents); California Coastal Trail, Ventura Section 6 (available at http://californiacoastaltrail.info/hikers/hikers_main.php?DisplayAction =DisplaySection&CountyId=16&SectionId=88.)

(3) The outfall and its discharges likely also encumber public trust tidelands and would separately require a lease from the State Lands Commission.

(4) The outfall structure itself is 50 years old and has significant structural damage. The City has therefore required NRG to provide a structural evaluation of the outfall. Exhibit 4. The outfall will likely require repair and/or reconstruction to operate until 2050. That work will require a CDP from the City.

(5) The outfall is considered by the City, under the Oxnard Local Coastal Plan and Chapter 17 Coastal Zoning Code, to be a legal nonconforming structure. The City cannot issue a permit for the outfall for a new or intensified nonconforming use.

Given both the numerous permits required to continue operating the outfall, and the impacts associated with continuing its operation, the PSA should evaluate alternative discharge options for wastewater and stormwater from the Project site. Two potential alternative discharges include discharging into the Edison Canal, or into the City's stormwater or sanitary sewer system. Discharging into the sanitary sewer system carries the potential benefit of recycling the Project's wastewater, as the City is currently recycling about 6,000 afy of wastewater and has the capacity to increase recycling to about 20,000 afy.

The PSA should likewise consider impacts related to other regulatory permits that NRG will likely need to operate the Project. Those permits foreseeably include incidental take permits from the U.S. Fish & Wildlife Service and the California Department of Fish and Wildlife for impacts to special-status species near the Project site. Additionally, the Project may require a permit from the Ventura County Watershed Protection District if reduced water intake from the Edison canal will degrade water quality in the canal. The PSA should list these and any other required regulatory permit in its Project description.

II. The PSA Fails to Acknowledge Conflicts Between the Project and State and Local Land Use Regulations.

CEQA requires an analysis of a project's inconsistency with "any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance)

adopted for the purpose of avoiding or mitigating an environmental effect." CEQA Guidelines, Appendix G, Xb. A project that is inconsistent with an applicable plan has a potentially significant environmental impact that must be addressed in an EIR. *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 936.

As set forth below, the Project conflicts with both City regulations and plans by state agencies for the protection and restoration of the beach and wetlands that comprise the Mandalay site. These conflicts should have been addressed by the PSA.

A. The Project Is Inconsistent With the City's Land Use Regulations.

Notwithstanding the clear obligation to assess the Project's inconsistency with local regulations, the PSA ignores critical conflicts between the Project and the City's land use regulations. Most significant, the PSA fails to address the conflict between the City's recent General Plan amendments and the Project. Although these amendments were known before the PSA's release and they implement the City's preexisting 2-year moratorium on new power plants, the PSA treats the amendments as if they had not been adopted. A proper assessment would have acknowledged the conflict between the Project and the City's land use regulations.

First, the Project directly conflicts with the recent amendments to the City's General Plan that were adopted on June 7, 2016. These amendments prohibit new power plants of 50 MW or greater capacity in areas subject to environmental hazards, including seismic hazards, sea level rise, or flooding. TN# 211847 (Oxnard City Council Resolution 14.925, General Plan amendments). The City has documented that the Mandalay site is subject to coastal hazards from sea level rise and coastal flooding, and therefore the Project could not be permitted under the City's land use policies. *Id.*; City of Oxnard, SLR Atlas (available at http://nebula.wsimg.com/64b81b1805381307f1e6492bf187b6d9?AccessKeyId=D91312DA8FC16C8BCDB9&disposition=0&alloworigin=1; *see also* TN# 204942 and TN# 204943 (City of Oxnard PUC Testimony).

The City's General Plan amendments also require any new or expanded power plants within the coastal zone to be consistent with the Coastal Commission's recent Sea Level Rise Guidance. *See* California Coastal Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* ("Coastal Commission SLR Guidance"); TN# 211847 at ICS-17.1 As detailed below, the Coastal Commission has found that the Project is at risk from coastal hazards and that the Energy Commission should have evaluated the risk the plant would face over a 100 year period, as required by the SLR Guidance. Therefore, the Project is not consistent with this guidance.

Energy Commission staff was aware of the City's amendments to its land use policies prior to the release of the PSA. *See* TN# 210291 (staff's April 14, 2016 Status Report acknowledging that the City "is moving forward on amending their General Plan and local coastal plan to designate several coastal areas, including Mandalay Beach and the P3 site, as coastal hazard areas."). However, the PSA takes the position that it did not need to address the amendments until they became effective—just 3 weeks after the PSA was released. This hyper-technical rationale for not evaluating an obvious conflict between the Project and the City's land use regulations renders the PSA inadequate and deprives the public of information necessary to evaluate the costs and benefits of the Project.

The PSA compounded its failure to address the City's General Plan amendments by ignoring the City's moratorium on any new power plant construction in the City. *See* Exhibit 5 (City of Oxnard, Moratorium Ordinances Nos. 2882, 2884, and 2891). As stated in these ordinances,

> It is the intent of the City Council that any proposal for new or modified non-coastal dependent electrical generating facilities within the City's coastal zone during the period of the moratorium shall be considered inconsistent with this Ordinance and with the City's land use policies and zoning regulations for all purposes, and by all agencies charged with reviewing any application for such use.

Id. (Ordinance No. 2882 at 3, Ordinance No. 2884 at 3, Ordinance No. 2891 at 3).

The Project clearly conflicts with the City's moratorium, which was adopted before Southern California Edison sought PUC approval of the Puente contract and was still in effect when the PSA was released.[2] The Project also conflicts with polices in the

[2] At the recent PSA workshop in Oxnard, Energy Commission staff suggested that there was no need to evaluate consistency with the City's moratorium. Staff stated that the moratorium did not fall within the definition of LORS because the Energy Commission had exclusive land use permitting authority over the Project. This position is incorrect. The Warren-Alquist Act requires the Commission to evaluate a Project's consistency with any "applicable state, *local*, or regional standards, *ordinances*, or laws . . . ." Pub. Res. Code § 25525 (emphasis added). As a local land use ordinance, the moratorium adopted by the City falls squarely within the definition of LORS. Despite the Commission's ultimate permitting authority, the Warren Alquist Act still requires an evaluation of consistency with the moratorium as it does with any other applicable

City's 2030 General Plan, which was adopted in 2011 (available at **Error! Hyperlink reference not valid.**):

> **Policy CD-21.1 – Modify non-Coastal Dependent Energy Uses**. When the LCP is being updated, clarify that non Coastal-dependent energy facilities are not allowed in the Energy Coastal zone with exceptions for renewable energy installations such as solar panels and wind turbines under certain conditions and consistent with the Coastal Act.
>
> **Policy CD-21.2 – Future Use of Coastal Power Plants**. Initiate an update to the Oxnard LCP that has the intent and effect of eventual decommissioning of the SCE Peaker Plant, Mandalay and Ormond Beach power generation facilities by: 1) land use designation change, 2) amortization, 3) revised development standards, 4) transferable development rights and/or other methods.

The PSA fails to discuss the clear inconsistency between these policies and NRG's proposal to site the Project in the coastal zone. Had the PSA analyzed these documents, it would have been clear that the Project conflicted with both the land use regulations in effect at the time of the PSA's release and with the General Plan amendments that the City adopted to replace its moratorium.

Finally, the PSA fails to address the inconsistency between the Project and other applicable city regulations. For instance, the General Plan has a six story height limit for the Public Utilities/Energy Facility land use designation. General Plan 3-17 through 3-19. The stack for the Project will exceed this height limit. This conflict should have been addressed in the PSA. The PSA also fails to acknowledge that the Mandalay outfall is a nonconforming use and cannot be used to support a new or intensified use at the Project site. *See* Section I.B, *supra.*

B. The Project Conflicts with the Coastal Act and the City's Local Coastal Plan.

The Coastal Commission's 30413(d) Report outlines the many inconsistencies between the Project and the California Coastal Act and the City's Local Coastal Plan. TN# 213337 (Coastal Commission 30413(d) Report). Among other findings, "The

---

ordinances and regulations adopted by the City (e.g. General Plan policies, zoning regulations).

Commission believes that the requirement of this policy [to address coastal hazards] can best be met through risk avoidance, that is, by the selection of an alternative inland site that is free of flooding hazards." *Id*. at 34.

The 30413(d) report validates the City's interest in continuing to adapt its coastline to climate change by preventing the development of large energy facilities in areas subject to coastal hazards. In fact, the report explicitly finds: "The Commission believes that the requirement of this policy [to address coastal hazards] can best be met through risk avoidance, that is, by the selection of an alternative inland site that is free of flooding hazards." *Id*. at 34. There are inland properties that meet all the siting criteria and avoid the impacts of the Puente Project, including inland sites in the City of Oxnard and the Mission Rock site in Ventura County. Therefore the City concurs with this Coastal Commission finding and urges the Energy Commission to adopt an alternative that avoids the inconsistencies with the Coastal Act, the City's LCP, and the City's General Plan.

The 30413(d) report also demonstrates that the Mandalay site is no longer an appropriate location for the "reasonable expansion" of existing electrical generating facilities. Although the Coastal Commission previously identified the site as such in a report issued in 1978,[3] since that time, significant new research demonstrates that this site is subject to risk from sea level rise and coastal hazards. Moreover, facilities like the Project are no longer coastal dependent because they are not designed to use (and would be prohibited from using) once through cooling systems that rely on ocean water. Given the Coastal Commission's policy to require the consideration of sea level rise when locating new or expanded electrical generating facilities, the Coastal Commission correctly concluded that it no longer makes sense to rely on a report issued over 3 decades ago to determine whether a site is appropriate for the reasonable expansion of an aging, obsolete facility.

Finally, the Project is also inconsistent with the City's interpretation of its own Local Coastal Plan policies. Specifically, to the extent that the LCP and coastal zoning would allow for a power plant at the Mandalay site, the City has interpreted its policies to allow only for coastal-dependent thermal generating power plants. Given that the Project

[3] This report was last updated in 1985 and has not been updated every five years as required by the Coastal Act. Pub. Res. Code § 30413(c). The 30413(d) report demonstrates that if the Coastal Commission had updated its report, it would no longer conclude that the Mandalay site is an appropriate location for a large power plant or the expansion of existing plants.

is not coastal dependent, it would be inconsistent with the City's interpretation of its LCP.

C. The Project Conflicts with the Use of Public Lands and Long Term Goals for Protection of Mandalay Beach.

The PSA also fails to note the Project's conflict with existing adjacent land uses, including McGrath State Beach, Mandalay Beach Park, and State tidelands along the shoreline. In fact, the Project site and Southern California Edison's facilities are otherwise surrounded by undeveloped public or agricultural land. As noted in the McGrath State Beach General Plan, the area is rich in biological diversity and provides exceptional opportunities for low intensity, public recreation in a natural area adjacent to an urban area. McGrath State Beach General Plan at 10, 17, 25 (**Error! Hyperlink reference not valid.**).

The area is most certainly not a brownfield.

For this reason, the California Coastal Conservancy has long expressed interest in the acquisition of properties in the Project vicinity for habitat protection and restoration. *See* Exhibit 6 (California Coastal Conservancy Restoration Planning Documents). However, the Project will interfere with both the public use of public lands and the Coastal Conservancy's long term restoration efforts along the Ventura coast. The PSA should have acknowledged and addressed these significant impacts.

D. The PSA Should Be Recirculated with an Analysis of Conflicts with Land Use Regulations.

Because the PSA serves as the functional equivalent of a draft environmental impact report, it should contain an analysis of all of the potentially significant impacts of the Project. The conflict between the Project and the City's land use regulations is a potentially significant impact that should have been disclosed in the PSA and circulated for public review and comment. Therefore, the Energy Commission should recirculate the PSA with a complete analysis of the Project's inconsistency with the City's land use regulations. *Joy Rd. Area Forest & Watershed Ass'n v. Department of Forestry & Fire Protection* (2006) 142 Cal.App.4th 656, 667 (significant new information added after the close of comments on a timber harvest plan prepared for a certified regulatory program required recirculation).

III. The PSA Demonstrates that the Commission Cannot Override the Project's Conflict with the City's Land Use Policies.

In addition to the requirements of CEQA, the Energy Commission must evaluate whether the Project is consistent with local laws, ordinances, regulations or other land use standards ("LORS"). However, in order to approve a project that conflicts with LORS, the Commission must make two independent findings: (1) that public convenience and necessity require the project, and (2) that there are not more prudent and feasible means of achieving public convenience and necessity. Pub. Res. Code § 25525; 20 C.C.R. §§ 1752(k), 1755(b). In addition, if the Commission finds that there is noncompliance with LORS, it must "consult and meet with the state local or regional governmental agency concerned to attempt to correct or eliminate the noncompliance." Pub. Res. Code § 25523(d)(1).

Because the Project is inconsistent with the City's General Plan, zoning, and LCP, we request that Commission representatives meet with City officials to address this noncompliance. The PSA demonstrates that there are other "more prudent and feasible means" of meeting the energy demand that Project is designed fulfill. Moreover, as discussed further in our comments on the alternatives analysis, the PSA improperly failed to consider other feasible projects that could meet the only relevant objective here: satisfying the local capacity requirements for the area. Therefore, the Commission cannot make the findings required to override the City's land use policies and the Project may not be approved.

IV. The PSA Fails to Adequately Analyze Project Alternatives.

An EIR (or its functional equivalent) must consider a "reasonable *range*" of alternatives "that will foster informed decisionmaking and public participation." CEQA Guidelines § 15126.6(a) (emphasis added); *Laurel Heights Improv. Assn. of San Francisco, Inc. v. The Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376, 404 ("An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making."); Pub. Res. Code § 21080.5(d)(3) (functional equivalent program must include consideration of project alternatives); 14 C.C.R. § 15252. The discussion of alternatives must focus on alternatives to the project that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. CEQA Guidelines § 15126.6(b). "An EIR which does not produce adequate information regarding alternatives cannot achieve the dual purpose served by the EIR . . . ." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733.

Here, the alternatives analysis is particularly important because the Project is inconsistent with the City's General Plan, zoning, the LCP, and other local ordinances. Therefore, the PSA must not only focus on alternatives that will reduce the significant effects of the Project, it must also evaluate alternatives that will avoid these inconsistencies. As set forth below, the PSA fails on both counts.

A. The PSA Improperly Excludes Feasible Alternatives from Consideration.

1. The PSA should have evaluated other feasible, off-site alternatives.

A primary flaw in the alternatives analysis is the failure to evaluate potentially feasible alternative locations that would avoid the significant impacts and land use conflicts posed by the Project. Most notably, the PSA dismisses out of hand the proposal to develop a gas-fired plant at the Mission Rock site in Ventura County, which is already undergoing review by the Commission. *See* 15 AFC-02. The Mission Rock project is located within the Moorpark subarea and would generate a comparable amount of electricity to the Puente Project. It would effectively serve the same electrical generating need that the Southern California Edison Request for Offers process was designed to address. And the Mission Rock project includes 25 MW of battery storage—an added benefit missing from the Puente Project.

The PSA provides no legal or factual basis for its rationale for rejecting the Mission Rock site—that the site is "assumed to be unavailable" to NRG for development of an alternative project. First, there is no evidence that staff has even inquired about the availability of this alternative site. Although CalPine is currently pursuing approval of the Mission Rock project, this does not necessarily mean that it would be unwilling to sell the project to NRG. At a minimum, the PSA needs to support its statement that the site is not available with evidence, not assumptions.

Even if the Mission Rock site were not available to NRG, from a legal perspective, this should not matter. The role of the Energy Commission should not be to determine the best alternative for a particular private applicant, but to determine the best alternative for the public. The Warren-Alquist Act was adopted, in part, to ensure that such private parochial concerns did not interfere with the approval of power plants that are necessary to meet electricity demands in the state. Public Resources Code §§ 25006, 25009 (emphasizing consolidated state process and competition between private parties). For this reason, local governments no longer have control over the decision to approve or deny a new power plant over 50 MW, with the exception of the requirement that the Energy Commission make specific findings before it can override any inconsistencies

with local regulations. There is no reason why the individual goals of a private power company should determine the feasibility of an alternative that meets the local capacity requirements and avoids the significant impacts and inconsistencies with state and local law presented by the Puente Project.

Finally, the PSA dismisses other potentially feasible locations from consideration. Specifically, the PSA identifies six additional alternative sites isolated from the PSA's brownfield database. PSA 6.1-18. While the PSA rejects these potential alternatives for not meeting screening criteria, it does not explain how these alternatives fail to meet this unspecified criteria. The PSA should be revised to disclose the rationale for excluding each of these alternatives from consideration.

2. The PSA should have evaluated a renewable energy alternative.

The PSA also failed to evaluate any renewable energy alternative. Instead, the PSA assumes that all feasible, preferred resources were selected as part of the PUC's action on the Edison RFO. This assumption is incorrect. As was extensively documented in the PUC proceeding, Southern California Edison's RFO process did not produce a robust response with respect to preferred resources. Preferred resources and storage comprised only 4.5 percent of Edison's Moorpark procurement. *See* Decision 16-05-050 at 5. In contrast, Edison proposed to procure 500.60 MW of energy storage and preferred resources in the LA Basin (roughly 27 percent of the total 1,882.60 MW proposed procurement for that area). *See* Decision 15-11-041.

As representatives from Edison admitted during the PUC proceeding, the lack of offers for preferred resources in the Moorpark subarea resulted from Edison's decision to conduct a single RFO process for both the Moorpark and Western LA Basin subareas. The record in the PUC proceeding demonstrated that this single RFO process drew preferred resource offers towards the Western LA Basin, handicapping potential procurement of non-gas resources in the Moorpark area. Moorpark's relatively "smaller area" made it difficult for Edison to secure preferred resource offers there, in part because the "market was focusing" on the larger LA Basin. Exhibit 11. Edison stated that when viewed together, "the Moorpark area was less attractive to source bids from, given the much smaller load opportunity as compared to the Western LA Basin." *Id.*

The availability of a larger quantity of preferred resources than Southern California Edison procured in the Moorpark subarea is demonstrated by other programs for new preferred resource generation in southern California. For instance, the SoCal Regional Energy Network has identified 200 MW of preferred projects in Ventura and Los Angeles counties. TN# 213621 at pdf 183-84 (Center for Biological Diversity Comments on Preliminary Staff Assessment). Southern California Edison recently

identified contracts for 125 MW of new preferred resources in its pilot program for renewable power in Orange County. *See* SCE, O.C. Pilot Tests Whether Clean Energy Resources Can Meet Major Metro Needs (available at http://insideedison.com/stories/orange-county-pilot-tests-whether-clean-energy-resources-can-meet-major-metro-needs). The PSA must therefore evaluate the ability of additional preferred resources in the Moorpark subarea to act as an alternative to the Project.

Even if preferred resources could not satisfy all of the LCR need in the Moorpark subarea, the Commission should evaluate alternative generating options utilizing smaller gas-fired power plants. For instance, a smaller gas fired plant, in combination with more robust renewable procurement could satisfy the identified LCR need in the Moorpark subarea. Similarly, the Commission should evaluate whether a series of smaller gas plants strategically located to provide emergency power along the Goleta to Moorpark service area could satisfy the same need.

3. The PSA should have evaluated other on-site alternatives that could reduce the Project's environmental impacts.

The only on-site alternative considered in the PSA is one designed to avoid the filling of coastal wetlands. However, the Project poses a number of other significant impacts and inconsistencies with local ordinances that should be addressed by a reconfigured project on-site. Specifically, the PSA should consider an alternative that avoids not only the wetland fill, but also complies with the City's height restriction in this zone and eliminates the outfall discharge over the beach. These changes would avoid inconsistency with the City's ordinances and state law and would minimize impacts to biological resources and public use of the beach. For example, a lower stack height would reduce the potential for raptor nesting that threatens the snowy plover. A series of lower stacks, each presumably with less vertical heat exhaust emission velocity and height, may also reduce hazards to overhead aircraft. The beach outfall currently causes significant impacts to public access along the beach, its aging infrastructure is a public hazard, and it interferes with snowy plover nesting grounds. *See* TN# 212915 (U.S. Fish and Wildlife Service Comments on Preliminary Staff Assessment). Therefore, the PSA should have considered an on-site alternative that avoids these impacts.

B. The PSA Improperly Dismisses the Benefits and Feasibility of Alternatives that Were Analyzed.

The PSA identifies a number of potentially feasible off-site alternatives that would avoid the impacts to coastal and biological resources and would avoid inconsistency with the City's land use regulations and the Coastal Act. In particular, the inland Ormond Beach site would eliminate impacts from tsunami inundation and would reduce the visual

impacts of locating a power plant on the beach in the middle of a public recreation area. The inland Ormond Beach alternative would also meet all of the critical project objectives. PSA 6.1-5, 6.1-72 (noting alternative would meet the power generating and environmental objectives.)

However, the PSA calls the benefits and feasibility of the inland Ormond Beach site into question without adequate evidence to support its assumptions. First, the PSA assumes that the soon to be retired Ormond Beach OTC units would remain and that any new power plant in the vicinity would have an incremental and adverse impact on visual resources in the area. PSA 6.1-4 and 6.1-5. The PSA also assumes that the existing OTC facilities at Mandalay would remain. PSA 6.1-70. However, the City has the ability under its nuisance abatement power to require the removal of an abandoned facility that constitutes a public nuisance. Gov. Code § 38771 (California law grants cities the authority to "declare what constitutes a nuisance" within their jurisdictions.) The City's nuisance ordinance states that abandoned buildings and structures are nuisances:

> Any person or entity owning . . . any real property maintained in such manner that any of the following conditions are found to exist thereon shall be guilty of creating a nuisance in violation of this code[:] (A) Buildings or structures that are abandoned . . . .

Oxnard Code § 7-151. Thus, the express language of the City's ordinance would render any abandoned NRG facilities at Mandalay or Ormond Beach a public nuisance per se.

Although the City has not yet made a nuisance determination because the Ormond Beach and Mandalay facilities are still operating, under the City Code it retains the discretion to determine in the future that the non-operational facilities are a nuisance based on factors such as their impact on endangered species, the visual blight associated with abandoned industrial facilities along a public beach, and the public safety concerns caused by an attractive nuisance. Therefore, it is not appropriate to assume that the OTC facilities will remain on the Oxnard coastline absent the proposed Project.

Second, the PSA does not adequately support its conclusion that the inland Ormond Beach site may not be available to NRG. The PSA indicates that NRG made a "reasonable, market-based offer to the property owner," which was rejected. PSA 6.1-72. That offer is not in the record and therefore it is impossible to evaluate whether it was an adequate offer. In fact, it is the City's understanding that the property is currently subject to a month to month lease and used only for the parking of cars.

Additionally, to the immediate east of the location of Alternative 6b are two parcels of 20 acres—the Keeler Trust property. The City has learned that the only resident business on the site at 5901 Edison Drive, Irwin Industries general contractor, may be relocating and the entire 20 acres may be available. This site is very similar to the Hansen Trust site, and is adjacent to the SCE transmission lines along Edison Drive. (See figure below, with highlighted parcels).

Finally, the PSA repeatedly assumes that any alternative power plant site must be online before the general deadline for retirement of the OTC facilities. In general, the State Water Board's OTC Policy requires OTC Power plants to either substantially

reduce potential marine mortality impacts or shut down. To continue operating, power plants must either reduce their cooling water intake by 93% ("Track 1" compliance), or use control technology to reduce impingement and entrainment of marine life "to a comparable level to that which would be achieved under Track 1" ("Track 2" compliance). State Water Board, OTC Policy at 4-5. The OTC Policy determined that the Ormond Beach and Mandalay OTC units, along with other OTC power plants, must comply with the Policy by December 31, 2020.

However, NRG and the State Board reached a settlement that preserves NRG's ability to qualify for Track 2 compliance at the Mandalay facility. Exhibit 7 (Settlement Agreement between NRG and the State Water Resources Control Board). If NRG proceeded under Track 2, Mandalay would not be required to shut down by December 31, 2020, but could continue to operate. Although the City does not want the Mandalay or Ormond Beach OTC facilities to operate indefinitely, it would not object to a short extension of time to ensure that the local capacity requirements are met while new and less impactful resources are brought online as part of a binding agreement to decommission and remove both the Mandalay and Ormond Beach facilities at some date certain.

V. The PSA's Evaluation of Air Quality and Public Health Impacts Is Inadequate.

A. The PSA Uses an Incorrect CEQA Baseline for Evaluating the Project's Environmental Impacts.

CEQA requires agencies to measure a Project's potential impacts against the existing environmental setting. Accordingly, EIRs must provide "a description of the physical environmental conditions in the vicinity of the project, as they exist . . . at the time the environmental analysis begins." CEQA Guidelines § 15125(a). "This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." *Id*.

Here, the PSA uses an assumed average of 2012-2013 emissions from Mandalay Unit 2 as the baseline emissions from the Project site. PSA 4.1-31. This approach is erroneous for two reasons. First, no recent stack tests of this unit have been provided to establish *existing* emissions from the Project site. Instead, as Dr. Phyllis Fox noted in her comments on the PSA and PDOC,[4] except for NOx, these emissions have been calculated

[4] The City also submitted comments on the PDOC prepared by VCAPCD. Those comments have been docketed in this proceeding (TN# 212637) and are fully incorporated herein.

using an outdated and inflated emissions factor combined with fuel use records from the facility. TN# 213649 (Dr. Fox Comments on Puente PDOC and PSA). Second, 2012-2013 are the highest years of fuel use in the lookback window used by NRG to establish baseline facility emissions. *Id*. at 14-18. Records from 2012, for instance, include a period of heightened Mandalay operations that resulted in violations of permit limits for this facility. In contrast, 2014 fuel use for Mandalay Unit 2, the most recent year of data available when the Energy Commission commenced its review of NRG's application, was markedly lower. *Id*. at 16. In sum, the PSA's use of assumed emissions from before 2014 fails to establish the baseline conditions that CEQA requires for environmental analyses. In the case of PM2.5 for instance, this assumed-not-actual baseline approach has likely significantly overstated baseline emissions from Mandalay Unit 2. *Id*.

Moreover, regardless of how the PSA calculates the Mandalay Unit 2 baseline, it is improper to determine the anticipated impacts from the Puente facility by subtracting the Unit 2 emissions. Because Mandalay Units 1 and 2 are scheduled to go offline in 2020 to comply with the State's OTC Policy, the future baseline emissions from these units will be zero. In cases like this, where a future baseline more accurately reveals a Project's foreseeable environmental impacts, agencies should also evaluate the Project relative to that future baseline. *See Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439. Thus, because Mandalay Units 1 and 2 will shut down by 2020, the PSA should also evaluate the Project's impacts against a baseline that excludes emissions from these units.

B. The PSA's Analysis and Mitigation of the Project's Air Quality Impacts Is Deficient.

NRG is seeking approvals to operate the Puente plant roughly 24 percent of the year (2,150 hours per year). PSA 4.1-27. But the PSA fails to analyze the air quality impacts associated with this level of Project operations. Instead, the PSA claims that the Project is more likely to operate 10 percent of the year and therefore limits its air quality impact analysis to this 10 percent capacity factor. PSA 4.1-48. According to information within the PDOC, power plant operations could actually exceed analyzed levels by nearly 150%. TN# 211570 at pdf 11 (Notice of Preliminary Determination of Compliance).

The PSA attempts to justify its approach by reviewing the recent operating capacity of nearby gas-fired power plants to argue that this 10 percent capacity factor represents the Project's "worst case" emissions. This approach is illegal. When deciding whether to take a discretionary action, CEQA requires agencies to evaluate the entirety of the proposed action, not some assumed lesser amount. *See San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645 (EIR required to evaluate impacts of peak permitted mine operations); *see also City of Redlands v. County of San*

Bernardino (2002) 96 Cal.App.4th 398, 409 (evaluation of impacts from a general plan amendment "must necessarily include a consideration of the larger project, i.e., the future development permitted by the amendment."). Here, regardless of the PSA's assumptions about future levels of Puente operations, CEQA requires the Commission to evaluate the impacts of the full Project operations as proposed.

Moreover, as a factual matter, the Project's operating capacity will likely exceed 10 percent per year. The PSA compares Project operations to recent data for six different emission units: Ormond Beach Units 1 and 2, Mandalay Units 1 and 2, NRG's Ellwood plant (which, according to NRG, requires refurbishment), and Southern California Edison's McGrath peaker. Of these units, only the McGrath peaker can be anticipated to operate in a similar manner to the proposed Project—as a modern gas-fired peaking plant. The other cited facilities are either very old boilers or a very old gas turbine (NRG Ellwood, 1974). As the PSA shows, the operating capacity of McGrath has risen steadily every year since it came online in 2012. *See* PSA 4.1-47 (McGrath capacity factor rising annually and reaching 9.69% in 2015). With continued infiltration of intermittent renewable energy into the market, the operating capacity factors of peaking units like McGrath and the proposed Project will increase past the nearly 10 percent level that McGrath has already achieved.

Consequently, unless the PSA is revised to evaluate and mitigate air quality impacts from the full-level of proposed permitted operations, its evaluation will fail to disclose the Project's potential air quality and public health impacts. If the PSA is not revised in this manner, the only way to ensure that the air quality impact analysis is adequate is to limit Project operations to the evaluated 10-percent capacity level (876 hours per year). Thus, absent a legally adequate environmental analysis of the Project as proposed, the Commission should impose a Condition of Certification limiting total Project operations to 876 hours per year.

C. The PSA Fails to Evaluate Impacts to the Sensitive Receptors that Will Live Closest to the Power Plant.

The PSA acknowledges that in the near future, a new residential development—the North Shore or Beach Walk development—will be built less than a mile from the Project site. *See, e.g.*, PSA 4.7-7. This development is fully entitled and is closer to the Project site than the Oxnard Shores mobile home park or the Leite Family daycare (which the PSA's Public Health section uses to evaluate sensitive receptor impacts). PSA 4.8-24. This new development will contain 292 housing units with approximately 800 to 1,000 residents, including sensitive receptors (young children and elderly) by the time the Project is operational. Other sections of the PSA evaluate impacts to future residents of this development, but they are improperly excluded from the PSA's Public Health

analysis. *See* PSA 4.7-7 (considering noise impacts to sensitive receptors in this development). The Public Health analysis should be revised to evaluate impacts on the Oxnard residents that will live closest to the Project site. Further, the Public Health analysis should consider the impact of the Project's many proposed startups and shutdowns, as emissions of many hazardous air pollutants, such as formaldehyde and acrolein, are significantly elevated during these periods.

D. The PSA Fails to Evaluate the Project's Consistency with Federal PSD Permitting Requirements.

The PSA acknowledges that federal Prevention of Significant Deterioration (PSD) permitting regulations should be considered as part of the LORS analysis. PSA 4.1-3. But while the PSA asserts that the Project will not trigger PSD permitting, it fails to conduct any independent analysis to support this assertion. Instead, like VCAPCD's Preliminary Determination of Compliance, the PSA simply relies on NRG's argument that PSD permitting does not apply to the Project. This approach is inappropriate both because the PSA identifies the PSD program as a LORS that requires evaluation, and because the PSA attempts to justify use of an unapproved adjusted U* beta option in its air modeling analysis by claiming that the Project does not require a PSD permit. PSA 4.1-39. As Dr. Fox's expert analysis has demonstrated, the Project would be required to obtain a PSD permit for its PM2.5 emissions. *See* TN# 213649 (Dr. Fox Comments on Puente PDOC and PSA). The PSA must therefore be revised to both acknowledge the Project's need for a federal PSD permit and evaluate the Project's air quality impacts through EPA-approved modeling, not the unapproved adjusted U* beta option.

VI. The PSA Fails to Adequately Analyze Risks from Sea Level Rise and Coastal Hazards.

The PSA relies on a number of unsupported assumptions and its own limited analysis to dismiss the risks posed by sea level rise and other coastal hazards. As a result, the PSA fails to disclose and mitigate significant risks associated with the decision to locate the Project along the beach.

First, the PSA assumes that the facility is not critical infrastructure and therefore evaluates risks to the facility only through 2050. PSA 4.10-50. This limited time period is contrary to the Coastal Commission's SLR Guidance. That guidance instructs that sea level rise planning should use a 100-year or greater lifespan for "critical infrastructure," which includes "power plants and energy transmission infrastructure." SLR Guidance at 80, 99, 138. The Coastal Commission has also found that the PSA's 30-year timeframe is too short for this Project, and recommended that the Energy Commission evaluate risks to

the Project over a longer timeframe. TN# 213337 (Coastal Commission 30413(d) Report at 26).

The PSA claims that the Puente Project is not critical infrastructure, relying exclusively on the critical facility definition in the FEMA Community Rating System manual. PSA 4.10-98 through 4.10-99. Although the PSA attempts to distinguish peaking power plants as "non-critical," the FEMA manual includes no such distinction and instead states that critical facilities include "utilities." *Id.* This recognition that energy utilities, regardless of type, are critical infrastructure is consistent with the understanding of critical infrastructure recognized elsewhere in the PSA (*id*. 4.5-15, ["The energy generation sector is one of 14 areas of critical infrastructure listed by the US Department of Homeland Security"]), by the Coastal Commission SLR Guidance, and in the Cal EMA and the California Natural Resources Agencies' climate adaptation guidance.[5] None of these documents support, or even suggest, the PSA's attempt to carve out peaking power plants from the definition of critical infrastructure.

Indeed, such an approach is inappropriate for new gas-fired peaking facilities. As the state moves towards a 50 percent renewable portfolio, there will be an increased reliance on gas-fired generation to provide baseload power when intermittent renewable generation is offline. *See* PSA 3-5 (describing project objective to aid "efficient integration of renewable energy sources in the California electrical grid"). The PSA ignores this potential role of the Project, instead asserting that the Project "would run only occasionally, during periods of high energy demand." PSA 4.10-99. Additionally, at the PSA workshop in Oxnard, Commission staff acknowledged that if the Moorpark-Pardee transmission line were to fail in any of several possible events, then the Project would be needed to provide baseload generation for the subarea until the line was restored. Staff's assessment should therefore be revised to consider the Project's full proposed function in serving future electrical demand.

The PSA's conclusion that that Project is not critical infrastructure is also contrary to the basis upon which this new generation was procured and approved by the PUC. While NRG intends to operate the facility as a peaker, an asserted need for the facility is to meet local capacity requirements and PUC stated that the Project would "provide important grid support services." Decision 16-05-050 at 9. In other words, in addition to accommodating the grid's integration of renewable generation, the facility would provide necessary backup generation in the Moorpark subarea. Although the Project is not the

[5] California Adaptation Planning Guide at 25 (with funding from FEMA and the Energy Commission) (available at http://resources.ca.gov/docs/climate/APG_Defining_Local_and_Regional_Impacts.pdf).

only alternative that would meet the need identified for the Moorpark subarea, it is the project currently proposed to meet this need. Therefore, the Energy Commission must evaluate the facility under the standards established by the California Coastal Commission for critical energy facilities.

The PSA must also consider the Project's potential to operate past NRG's asserted 30-year lifespan. As has been noted throughout this proceeding, the existing Mandalay Units 1 and 2 have operated for far longer than 30 years. Indeed, a recent study of new gas-powered proposals found that the average new gas-fired plant is expected to operate well past the stated 30-year economic lifespan. Exhibit 8 (Center for Sustainable Energy, Natural Gas as a Bridge Fuel—Measuring the Bridge). For this reason as well, it is inappropriate to limit the evaluation of coastal hazards to a 30-year timeframe. If the PSA intends to truncate its evaluation of the Project's coastal hazard exposure in such a way, then it should recommend a Condition of Certification requiring that the Project actually cease operation and be removed after this 30 year period.

The PSA must also evaluate the extent to which approval of the Project will interfere with adaption efforts along the coastline. Adaptive management relies on long-term planning to ensure that critical facilities are not built in areas subject to coastal hazards and sea level rise. The Project relies on existing infrastructure that also must be moved in the face of rising sea levels (e.g. roads and transmission lines). Even if the Project were not subject to undue risk over a 30 year lifespan—a conclusion that is not supported by the best available science—time is needed to implement a managed retreat of infrastructure from coast. It makes no sense to wait until the problem is upon us before altering planning practices.

The PSA also fails to conduct an adequate analysis even during the 30-year period that it does address. The comments of Dr. David Revell (Exhibit 9), which are fully incorporated herein, address many of the failings of the analysis and must be addressed in a revised PSA. Among other issues, the PSA relies solely on a preliminary methodology for assessing sea level rise—COSMOS 3.0—that cannot be adequately peer-reviewed because it lacks publicly available technical documentation, and has not been specifically adapted to the Ventura coast. By contrast, the approach relied upon by the City—the TNC Coastal Resilience Ventura report—has been endorsed by the state as an appropriate method for evaluating coastal hazards and sea level rise risks. *Id.* at 3. TNC developed that report with input from numerous stakeholders, including "city, regional, state, and government agencies," and tailored its methodology to known conditions along the Ventura coast. Exhibit 10 (TNC Letter to the City of Oxnard),

The PSA also fails to adequately address coastal erosion and fails to include any historical events to verify its assumptions. Assessing the potential for erosion of the

dunes that front the Project site is critical because the Project relies entirely on these dunes for protection from any coastal hazards. However, the COSMOS 3.0 model does not account for long-term shoreline changes and storm-driven erosion. *Id*. at 4. The PSA's analysis should be revised to take into account coastal erosion. The analysis must also take into account the combined effect of shoreline erosion, flooding, storm erosion, and sea level rise.

The PSA also omits any analysis of impacts from dune migration that will occur with sea level rise. As seas rise, beach and dune structures retreat inland. *Id*. at 2. Here, dune retreat will result in sand encroachment into the site that must be managed. Sand removal necessary to respond to dune migration would undermine the integrity of the dune structure and reduce its ability to protect against future storms and sea level rise. The PSA must be revised to address the impacts of dune retreat and any measures needed to manage it.

The PSA must also be revised to address the issues raised by the Coastal Commission in its 30413(d) report. As the Commission noted, the PSA's sea level rise analysis fails to adequately assess risks from coastal hazards and must be revised.

The Coastal Resilience model used by the City to assess coastal hazards assumed a moderate estimate of sea level rise. However, since that analysis was conducted, it has become clear that sea level rise is projected to be far greater.[6] Thus, if anything, the threats from sea level rise will be even greater than modelled and must be addressed before the Project can be approved.

Finally, taking a precautionary approach to resource siting is especially important because the City of Oxnard has been found to have a high-level of social vulnerability to climate change.[7] It is inappropriate to burden a community that already faces a disproportionate share of climate-related impacts with another facility that is exposed to these same impacts.

---

[6] *See* http://www.atmos-chem-phys.net/16/3761/2016/acp-16-3761-2016.pdf; http://www.cnn.com/2015/08/27/us/nasa-rising-sea-levels/index.html

[7] *See* http://www2.pacinst.org/reports/climate_vulnerability_ca/maps/; http://pacinst.org/app/uploads/2014/04/social-vulnerability-climate-change-ca.pdf

VII. The PSA Does Not Analyze the Full Range of Impacts Related to Tsunami Hazards.

The PSA attempts to evaluate the potential for a tsunami to impact the project site by discussing the site relative to Cal EMA tsunami hazard mapping, as well as recently disclosed local-source tsunami events (most significantly, the Goleta 2 landslide) and simultaneous ruptures along the Pitas Point and Lower Red Mountain faults. PSA 5.2-28 through 5.2-29, 5.2-33. The PSA fails to discuss, however, how the combination of sea level rise and local landslide or seismic events might inundate the site. The PSA must be revised to include this analysis.

Additionally, all of these inundation models may under-predict the actual site risk from tsunamis to the extent that they ignore the ability for initial tsunami waves to erode the dune and berm bordering the Project site. Because tsunamis are multi-wave events, the PSA must evaluate the ability of such erosion to create hydrologic connections between the project site and the ocean at lower dune elevations than existed before a tsunami event.

Even using the lowest potential inundation scenario—Cal EMA mapping—the PSA acknowledges that after accounting for sea level rise, the Project site may still be inundated during a tsunami. PSA 5.2-35. The PSA proposes a Tsunami Hazard Management Plan as a Condition of Certification to mitigate potential tsunami-related impacts. PSA 5.2-36. The proposed plan would require visitors and workers to receive evacuation information and training. While the City agrees that a site evacuation protocol is a necessary protection in the event of a tsunami, an evacuation protocol alone is inadequate to protect Project workers and visitors. In the case of local-source tsunami events (either earthquakes or submarine landslides), there is likely to be little warning before the tsunami waves reach the Oxnard coast.[8] Without additional mitigation measures to protect from local source tsunami impacts, this significant safety impact remains unmitigated.

Additionally, while the PSA acknowledges the need to develop an evacuation protocol to protect Project workers and visitors in the event of a tsunami (PSA 5.2-35-36), it does not account for the potential for a tsunami to halt Project operations. If power plant operations cease because the plant is impacted by tsunami waves or worker safety requires site evacuation, the Project will not be available to provide power during that period. The PSA should evaluate the impact of losing Project power on residents and

[8] *See* http://archive.vcstar.com/news/new-state-tsunami-maps-show-smaller-area-would-be-hit-in-county-ep-370231678-350302731.html; TN# 204943.

essential services in the Moorpark subarea. Loss of power from the Project, and likely the neighboring Mandalay Unit 3 and McGrath peaker plant, is especially concerning in the case of a local seismic event where power will be needed for emergency services and transmission infrastructure might be damaged. The PSA should evaluate the public health and safety risks associated with losing power from the Puente plant during these periods.

VIII. The PSA's Analysis of the Project's Visual Impacts Is Inadequate.

The PSA's evaluation of the Project's visual impacts concludes that the Project will have a net beneficial impact on visual resources because Mandalay Units 1 and 2 will be demolished. As previously discussed, however, once these units cease operation by 2020 they require removal because they will be a nuisance per se under the City's Code and will provide "nuisance nesting and perching opportunities for raptors and other predatory birds, which could lead to predation of the federally endangered western snowy plover and the California least tern nests . . . ." PSA 6.1-77. Because these retiring once-through-cooling facilities would require removal, the Project would create 30 years of additional visual blight on Oxnard's waterfront, directly adjacent to McGrath State Beach. The PSA must acknowledge and evaluate this significant visual impact.

Moreover, the PSA does not account for the significant short term cumulative visual impacts of the Project *combined with* Mandalay Units 1 and 2. In the years between the commencement of Project construction and ultimate demolition of these old once-through-cooling units, all of these structures would be visible on Oxnard's coast. CEQA requires evaluation of such short term environmental impacts. *See* CEQA Guidelines § 15126.2(a) (requiring consideration of both a Project's short term and long term environmental impacts).

The PSA also fails to adequately apply the identified thresholds of significance for determining the Project's visual impact. For instance, the PSA states that no scenic vista or resource will be impacted even though the Project will visibly mar views of the coastline from Mandalay County Park and McGrath State Beach. Indeed, the entire viewshed from 10 miles across Oxnard Plain is a scenic vista of the coastline and Channel Islands National Park. The staff assessment should therefore be revised to consider the Project's long term and short term impacts to these resources.

Additionally, the Project is inconsistent with numerous City regulations for visual resources in the coastal zone. For instance, as previously discussed, the Project exceeds the General Plan's six-story height limit for this property. The City's LCP also requires all new development in the coastal zone to *minimize* impacts to visual resources, but the PSA provides no evidence suggesting that NRG has minimized the visual profile of the

Project. *See* LCP Policy 37 (available at http://www.oxnard.org/wp-content/uploads/2016/03/CoastalLandUsePlan.pdf). Nor does the Project comply with the City's General Plan Policy ER-6.2 to "Protect and enhance the scenic resources of the beaches." Instead, the PSA attempts to avoid these policies by quoting a section of the LCP that states that the ocean is not visible from a section of Harbor Boulevard. This fact, however, provides no analysis of the Project's impact on views of the ocean, the beach, and the surrounding coastal dunes from other nearby vantage points. Any such analysis would find the Project inconsistent with the City's General Plan and LCP.

The PSA should also consider feasible mitigation measures to reduce the Project's long term and short term visual impacts, as well as inconsistency with applicable LORS. Such mitigation should include redesigning the Project to reduce the size of the proposed stack to minimize its visual profile along the beach.

IX. The PSA Should Evaluate Impacts to Special Status Bird Populations Near the Project.

The U.S. Fish & Wildlife Service has observed that Project operations would have the potential to impact multiple special-status bird populations near the Project site—the Least Bell's vireo, California least tern, and Western snowy plover. TN# 212915. The Project could harm these species in multiple ways, including degrading critical nesting and foraging habitat and offering perching opportunities for raptors that prey on these species. *Id.* As a result, the applicant may be required to obtain an incidental take permit before proceeding with the proposed Project.[9] *Id.* The PSA does not fully consider any of these significant operational impacts of the Project and must be revised to do so.

X. The PSA Should Fully Disclose the Project's Potential Construction and Demolition-Related Transportation Impacts.

The PSA's evaluation of transportation impacts does not fully account for impacts associated with Project construction and demolition of Mandalay Units 1 and 2. Most concerning is NRG's proposal transport the majority of the heavy equipment needed to construct the new power plant, including the combustion turbine itself, from the Union Pacific switchyard located in downtown Oxnard. PSA 4.11-16. NRG would use heavy-haul trucks to transport this equipment, but the PSA does not disclose the route that would be used to travel to the Project site. It is not clear that heavy-haul trucks can transport materials to the Project site by using only designated truck routes (for instance, Harbor Boulevard is not a designated truck route). Moreover, if the applicant is limited

[9] Notably, California's fully-protected species legislation prohibits any take of the California least tern. Fish & Game Code § 3511.

to using designated trucking routes, as condition TRANS-1 would require, this truck traffic may still require removal of traffic signals or trees to accommodate the power plant's heavy equipment. The PSA should provide the exact traffic routes from the rail switchyard to the Project site and disclose the precise amount and size of heavy equipment that will be transported. Without this information, the City cannot fully evaluate these potential impacts.

The PSA also fails to evaluate whether heavy-haul trips through the center of Oxnard will worsen traffic conditions or create traffic safety hazards within the City. Using designated trucking routes alone is not sufficient to mitigate these potential impacts. Again, without a proposed trucking route, it is impossible for the City or members of the public to understand the transportation impacts associated with this proposal. The PSA must fully disclose and evaluate these traffic impacts.

Additionally, the PSA should require full development of the proposed Traffic Control Plan now instead of relying on it as deferred mitigation. Aspects of the final Traffic Control Plan could create secondary traffic impacts that have not been evaluated in the PSA. For instance, the current Traffic Control Plan proposal states that it will require all trucks exiting the Project site to turn right (south) onto Harbor Boulevard, but the PSA's traffic analysis suggests that truck traffic would not travel south of the Project site (PSA 4.11-10) and does not appear to evaluate the impacts of such southbound truck traffic. CEQA requires that agencies consider secondary impacts associated with proposed mitigation. *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986. Consequently, the PSA should fully described the necessary elements of the Traffic Control Plan and assess any secondary impacts associated with implementing this plan.

XI. Conclusion

The City of Oxnard appreciates staff's consideration of its comments on the PSA. The City looks forward to reviewing a recirculated PSA that fully addresses the concerns raised in these comments.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

for

Ellison Folk

List of Exhibits

Exhibit No.

1. Images of Mandalay Generating Station Outfall and Channel
2. Mandalay Beach Road – Public Right of Way Documents
3. City of Oxnard, Emergency Coastal Permit (April 16, 2015)
4. City of Oxnard, Request of Structural Evaluation and Reinspection of the Mandalay Generation Station Beach Outfall Structure (April 21, 2016)
5. City of Oxnard, Moratorium Ordinances Nos. 2882, 2884, and 2891
6. California Coastal Conservancy Restoration Planning Documents
7. Settlement Agreement and Release Regarding Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling Between the State Water Resources Control Board and NRG (October 9, 2014)
8. Center for Sustainable Energy, Natural Gas as a Bridge Fuel—Measuring the Bridge (March 2016)
9. David Revell, PhD., Memorandum to the City of Oxnard re Review of Puente PSA (September 9, 2016)
10. The Nature Conservancy, Letter to the City of Oxnard re Coastal Impacts to Infrastructure from Sea Level Rise (June 24, 2014)
11. City of Oxnard, Opening Brief CPUC Application 14-11-016 (July 22, 2015)

EXHIBIT 1

Photographs of Mandalay Generating Station Outfall and Channel
(Source: City of Oxnard)

Figure 1 MGS beach outfall discharge trench.

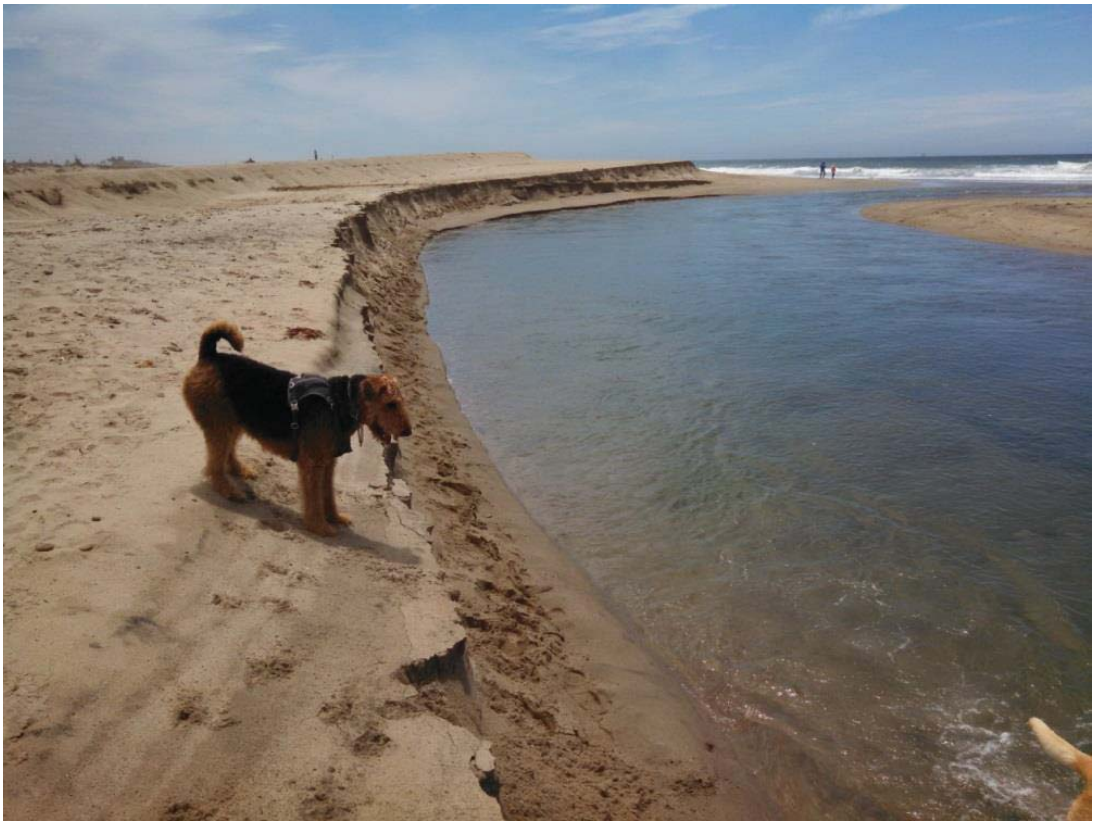


Figure 2 Outfall channel blocked by sand accumulation

Figure 3 – Outfall backbeach ponding southward towards ESA bird nesting areas

Figures 4 and 5 – Outfall work area crosses into State Tidelands/MHTL


Project Area
Mandalay Generating Station
Legend
Results - Mean High Tide Line

EXHIBIT 2

MARK A. LUNN

County Clerk and Recorder
800 South Victoria Ave
Ventura, CA 93009 -1260
(805) 654-3665
Fax (805) 654-2392

If this document contains any restriction based on race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, familial status, marital status, disability, genetic information, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to Section 12956.2 of the Government Code.

Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

described in said Grant of Easement, tendered to the City Council of said City, is hereby accepted and the City Clerk is hereby authorized and directed to attach a certified copy of this Resolution to such deed and to record the same in the office of the County Recorder of Ventura County.

STATE OF CALIFORNIA,)
County of Ventura.) SS.
CITY OF SAN BUENAVENTURA)

I, RUTH E. MEILANDT, City Clerk of the City of San Buenaventura, do hereby certify that the above and foregoing Resolution is a full, true, and correct copy of a resolution adopted by the City Council of said City of San Buenaventura at a regular meeting thereof held on the 12th day of June, 1933, by the unanimous affirmative vote of all of the members of said Council present at said meeting, and that said Resolution is entered at length upon the Minutes of said Council.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City this 12th day of June, 1933.

(SEAL)

RUTH E. MEILANDT
City Clerk of said City of San Buenaventura, California.

RECORDED AT REQUEST OF CITY CLERK JUN. 15, 1933 AT 5 MIN. PAST 9 A.M.
No:3377
TYPED BY [illegible]
COMPARED BY [illegible]

R.N. HAYDON....Recorder
By Daisy Best...Deputy

-°o°-

THIS INDENTURE, Made this second day of June, in the year nineteen hundred and thirty-three between Dominick McGrath Estate Company, a corporation, of the County of Ventura, State of California, the party of the first part, and VENTURA COUNTY, a body corporate and politic in the State of California, the party of the second part:

W I T N E S S E T H :

That the party of the first part, for and in consideration of One Dollar to it in hand paid by the party of the second part, the receipt whereof is hereby acknowledged, does by these presents, grant, bargain, sell, convey and confirm unto the said party of the second part, and its successors forever, all that certain strip or parcel of land situate within said Ventura County, and described as follows:

A portion of Subdivision One (1) of the Rancho Colonia as said Subdivision is designated and delineated upon that certain map entitled, "Map of the Rancho El Rio de Santa Clara o' La Colonia, partitioned by order of the District Court", and filed in the office of the County Clerk of Ventura County in that certain action entitled "Thos. A. Scott, et al. Plffs. vs. Rafael Gonzales, et al. Defts.", brought for the purpose of partitioning said Rancho El Rio de Santa Clara o' la Colonia,

Also a portion of Lots 118, 119, 146 and 147 of the Patterson Ranch as said lots are designated and delineated upon that certain map entitled "Map of a Subdivision of the Patterson Ranch", and recorded in the office of the County Recorder of

Ventura County in Book 8 of Miscellaneous Records (Maps) at page 1 et seq., said real property described as Parcel "A" and Parcel "B".

PARCEL "A".

A strip or parcel of land eighty (80) feet wide lying equally on each side of the following described center line:

Beginning at a point on the line common to Rancho Colonia and Rancho San Miguel from which a 1½" iron pipe set at the southeast corner of that certain parcel of land described in the deed of Old Adobe Gun Club to Max C. Fleischman, dated January 19, 1933, and recorded in the office of the County Recorder of Ventura County in Volume 392 of Official Records at page 148, bears North 87° 05' 30" East 486.80 feet and running thence from said point of beginning.

1st- South 9° 45' East 2480.75 feet to the beginning of a curve; thence,

2nd- Southerly along said curve concave to the east (having a radius of 5000 feet and a central angle of 9° 37' 30") a distance of 839.94 feet to the end of curve; thence tangent to said curve,

3rd- South 19° 22' 30" East 5733.14 feet to the beginning of a curve; thence,

4th- Southerly along said curve concave to the east (having a radius of 4000 feet and a central angle of 5° 28' 30") a distance of 382.23 feet to the end of curve; thence tangent to said curve,

5th- South 24° 51' East 4657.25 feet to the beginning of a curve; thence,

6th- Southeasterly along said curve concave to the northeast (having a radius of 1100 feet and a central angle of 64° 59' 30") a distance of 1247.75 feet to a point in the center line of that certain County Road 60 feet wide locally known as and called Fifth Street, as described in Parcel "A" of the deed of Dominick McGrath Estate Company to Ventura County, dated April 30, 1927, and recorded in the office of the County Recorder of Ventura County in Volume 160 of Official Records at page 56, said point being distant North 89° 50' 30" West 726.72 feet from the southeast corner of said Lot 118 of the Patterson Ranch Subdivision.

PARCEL "B".

A strip or parcel of land eighty (80) feet wide lying equally on each side of the following described center line:

Beginning at the terminus of the 5th course in center line of Parcel "A" hereinabove described and running thence from said point of beginning.

1st- South 24° 51' East 23.06 feet to the beginning of a curve; thence,

2nd- Southerly along said curve concave to the west (having a radius of 2000 feet and a central angle of 8° 26' 30") a distance of 294.67 feet to the end of curve; thence tangent to said curve,

3rd- South 16° 24' 30" East 45.32 feet to the beginning of a curve; thence,

4th- Southerly along a curve concave to the east (having a radius of 2000 feet and a central angle of 8° 26' 30") a distance of 294.67 feet to the end of curve; thence tangent to said curve,

5th- South 24° 51' East 22.28 feet to a point in the center line of Fifth Street as described in Parcel "A" in the said deed to Dominick McGrath Estate Company to Ventura County, distant North 89° 50' 30" West 1482.55 feet from the southeast corner of said Lot 118 of the Patterson Ranch Subdivision, said point of terminus being also on the center line of that certain strip or parcel of land designated as Parcel "J" upon that

map entitled "Mandalay Unit No. 1", and recorded in the office of the County Recorder of Ventura County in Book 13 of Miscellaneous Records (Maps) at page 58 et seq.

TO HAVE AND TO HOLD the said premises unto the said party of the second part, to its successors and assigns forever, as a public road or highway.

IN WITNESS WHEREOF, the said party of the first part has caused these presents to be executed and to be signed by its president and secretary and its corporate seal to be affixed hereto the day and year first above written.

DOMINICK MC GRATH ESTATE COMPANY (SEAL)
JOSEPH D. McGRATE.....President (SEAL)
(CORPORATE SEAL) T. F. McGRATH.....Secretary (SEAL)

STATE OF CALIFORNIA, } ss.
County of Ventura }

On this second day of June, in the year nineteen hundred and Thirty-three, before me, W. Mark Durley, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared Joseph D. McGrath known to me to be the president of Dominick McGrath Estate Co., and T. F. McGrath known to me to be the Secretary of Dominick McGrath Estate Co., the corporation that executed the within instrument, and they acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office in said County, the day and year in this certificate first above written.

W. MARK DURLEY
(NOTARIAL SEAL) Notary Public in and for the County of Ventura, State of California

In the Matter of the Acceptance of the Deed of Dominick McGrath Estate Company, a corporation, for Public Road Purposes.

A good and sufficient deed having been presented to this Board of Supervisors by Dominick McGrath Estate Company, a corporation wherein and whereby certain real property therein described is conveyed to the County of Ventura for public road purposes and it appearing to the Board that said deed is regular and in due form, upon motion of Supervisor Butts, seconded by Supervisor Clark, it is ordered that said deed be, and the same is hereby accepted for and on behalf of the County of Ventura and that said deed be recorded.

A true copy of the minutes.

ATTEST: L. E. HALLOWELL, Clerk. (SEAL)
By Mildred Blasdell, Deputy Clerk.

Entered in the minutes of the Board of Supervisors this 16th day of June, 1933.

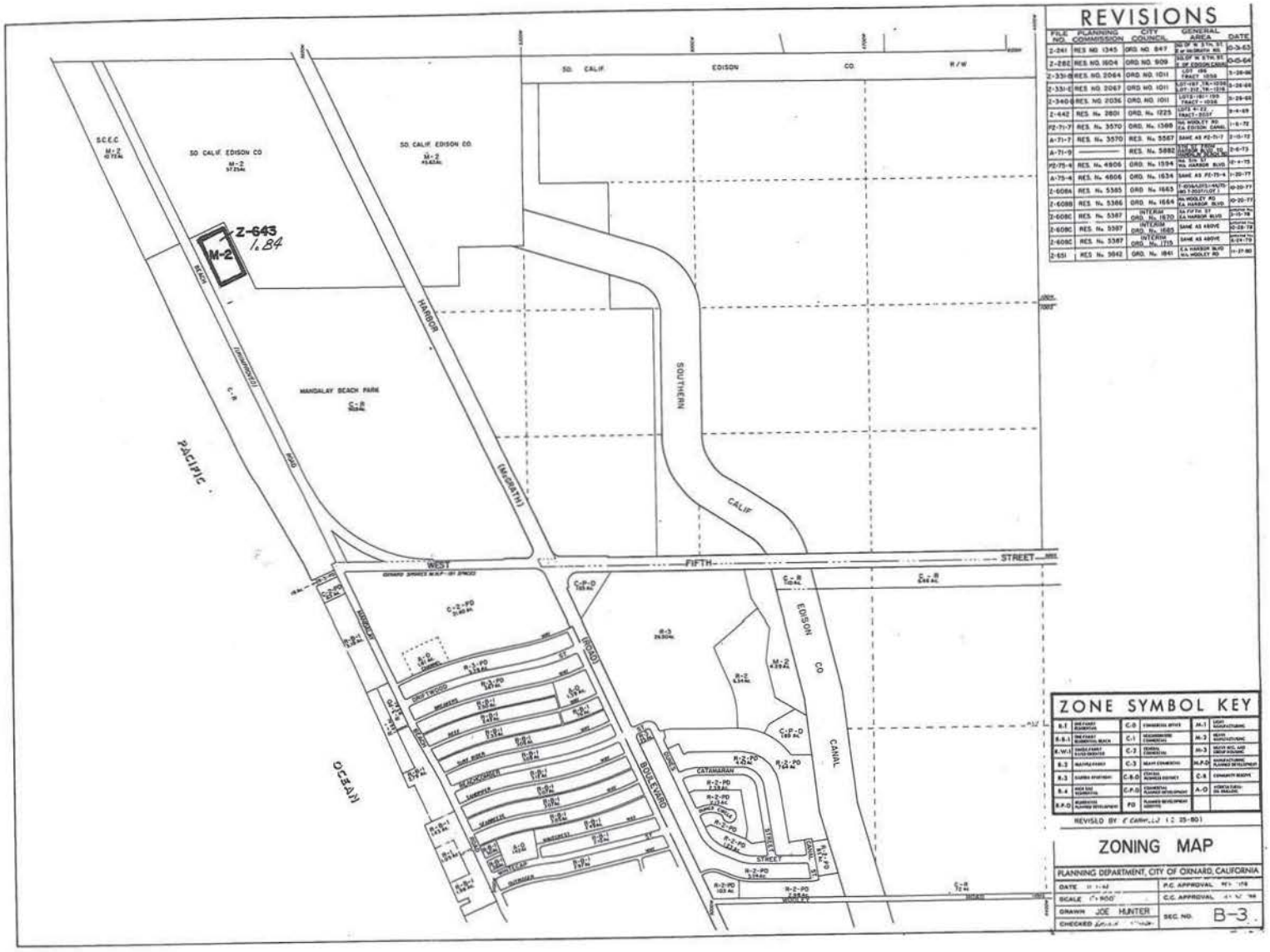
RECORDED AT REQUEST OF COUNTY CLERK, JUN 20, 1933, at 30 Min. Past 2 P. M.

No...3491
R. N. HAYDON.....Recorder
Typed By Idora Weitfle
Compared By [illegible]
By Idora Weitfle,.....Deputy.

---oOo---

This is a true certified copy of the original record if it bears the seal, imprinted in purple ink, of the County Clerk and Recorder.

MARK A. LUNN DEC 16 2015
County Clerk and Recorder
Ventura County, California



REVISIONS

FILE NO.	PLANNING COMMISSION	CITY COUNCIL	GENERAL AREA	DATE
Z-241	RES NO. 1345	ORD NO. 847		10-3-63
Z-282	RES. NO. 1604	ORD. NO. 909		10-15-64
Z-331-B	RES. NO. 2064	ORD. NO. 1011		3-28-66
Z-331-E	RES. NO. 2067	ORD. NO. 1011		3-28-66
Z-340-B	RES. NO. 2036	ORD. NO. 1011		3-28-66
Z-442	RES. No. 2801	ORD. No. 1225		9-4-69
PZ-71-7	RES. No. 3570	ORD. No. 1368		1-5-72
A-71-7	RES. No. 3570	RES. No. 5567	SAME AS PZ-71-7	2-10-72
A-71-9	———	RES. No. 5882		2-8-73
PZ-75-4	RES. No. 4806	ORD. No. 1394		11-4-75
A-75-4	RES. No. 4806	ORD. No. 1634	SAME AS PZ-75-4	1-20-77
Z-608A	RES. No. 5385	ORD. No. 1663		10-20-77
Z-608B	RES. No. 5386	ORD. No. 1664		10-20-77
Z-608C	RES. No. 5387	INTERIM ORD. No. 1670		2-15-78
Z-608C	RES. No. 5387	INTERIM ORD. No. 1685	SAME AS 480VC	10-28-78
Z-608C	RES. No. 5387	INTERIM ORD. No. 1715	SAME AS 480VC	8-24-79
Z-651	RES. No. 5942	ORD. No. 1841		11-27-80

ZONE SYMBOL KEY

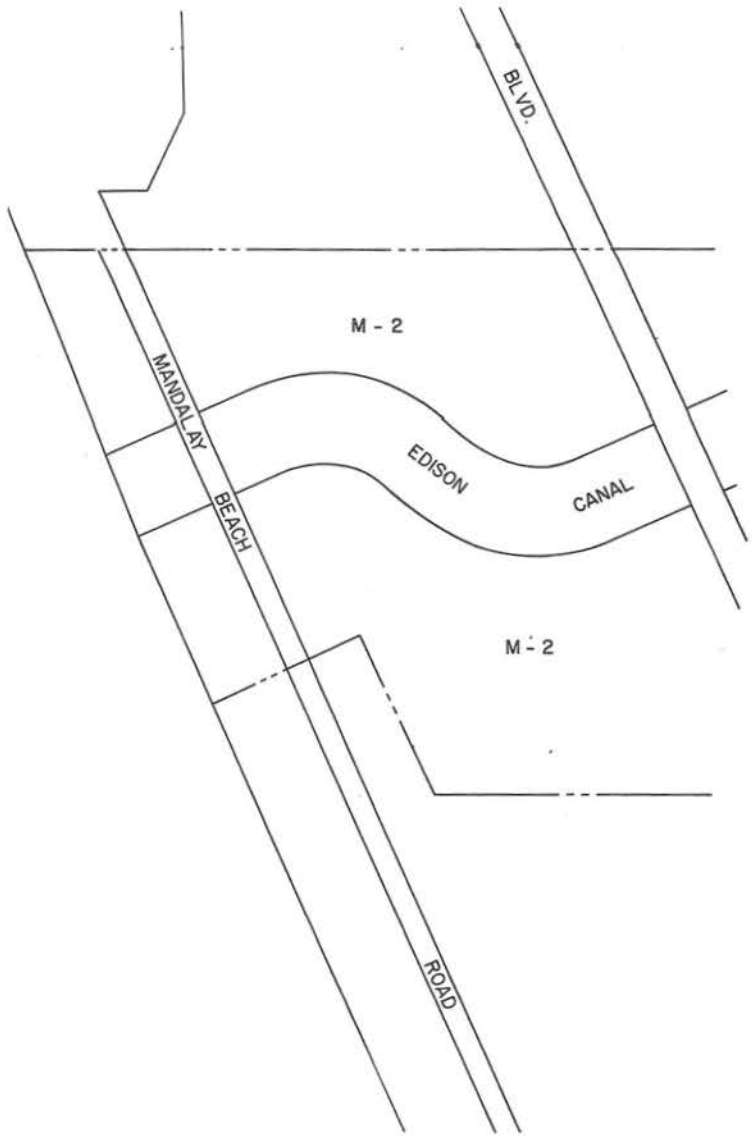
R-1	ONE-FAMILY RESIDENTIAL	C-O	COMMERCIAL OFFICE	M-1	LIGHT MANUFACTURING
R-B-1	ONE-FAMILY RESIDENTIAL BEACH	C-1	NEIGHBORHOOD COMMERCIAL	M-2	HEAVY MANUFACTURING
R-W-1	SINGLE-FAMILY WATER ORIENTED	C-2	GENERAL COMMERCIAL	M-3	HEAVY IND. AND GROUP HOUSING
R-2	MULTIPLE-FAMILY	C-3	HEAVY COMMERCIAL	M-P-D	MANUFACTURING PLANNED DEVELOPMENT
R-3	GENERAL APARTMENT	C-R-D	RESIDENTIAL BUSINESS DISTRICT	C-R	COMMUNITY RESORT
R-4	HIGH RISE APARTMENTS	C-P-D	COMMERCIAL PLANNED DEVELOPMENT	A-O	AGRICULTURAL-OIL ANALOG
R-P-D	RESIDENTIAL PLANNED DEVELOPMENT	P-D	PLANNED DEVELOPMENT DISTRICT		

REVISED BY E CARROLL 12-15-80

ZONING MAP

PLANNING DEPARTMENT, CITY OF OXNARD, CALIFORNIA

DATE	11-1-62	P.C. APPROVAL	[illegible]
SCALE	1"=100'	C.C. APPROVAL	[illegible]
DRAWN	JOE HUNTER	SEC. NO.	B-3
CHECKED	[illegible]		



ZONE SYMBOL KEY

R-1	SINGLE FAMILY RESIDENTIAL	C-1	NEIGHBORHOOD COMMERCIAL	M-1	LIGHT MANUFACTURING
R-B-1	SINGLE FAMILY RESIDENTIAL BEACH	C-2	GENERAL COMMERCIAL	M-2	HEAVY MANUFACTURING
R-2	TWO FAMILY RESIDENTIAL			M-3	HEAVY MFG. AND GROUP HOUSING
R-3	MULTIPLE FAMILY RESIDENTIAL	C-P-D	COMMERCIAL PLANNED DEVELOPMENT	M-P-D	MANUFACTURING PLANNED DEVELOPMENT
R-4	UNRESTRICTED MULT. FAMILY, PROFESSIONAL			A-1	AGRICULTURAL
R-P-D	RESIDENTIAL PLANNED DEVELOPMENT			A-O	AGRICULTURAL-- OIL DRILLING

ZONING MAP

PLANNING DEPARTMENT, CITY OF OXNARD, CALIFORNIA

DATE 11-1-62	P.C. APPROVAL RES. NO. 1156
SCALE 1" = 500'	C.C. APPROVAL ORD. NO. 798
DRAWN JOE HUNTER	SEC. NO. A-2 & 3
CHECKED Donald F. Johnson	

ORDINANCE NO. 731

AN ORDINANCE OF THE CITY OF OXNARD ALTERING THE BOUNDARIES OF THE CITY, ANNEXING THERETO CERTAIN CONTIGUOUS UNINHABITED TERRITORY KNOWN AS "ANNEXATION 61-10A (SOUTHERN CALIFORNIA EDISON);" ESTABLISHING TEMPORARY INTERIM ZONING; AND PROVIDING FOR THE TAXATION THEREOF.

The City Council of the City of Oxnard does ordain as follows:

PARAGRAPH 1. That pursuant to Government Code Section 35310, the City Council on October 10, 1961, did adopt Resolution 2565, initiating proceedings to annex certain uninhabited territory contiguous to the boundaries of the City; that said resolution contained the description of the territory set forth below and set forth the Council's reasons for desiring the annexation; that the number of registered voters residing in the territory is less than twelve; that pursuant to Government Code Section 35002 the Ventura County Boundary Commission did report as to the proposed boundaries.

PARAGRAPH 2. That as required in the Annexation of Uninhabited Territory Act of 1939, the Council in said Resolution 2565 gave notice of proposed annexation of said territory, and pursuant to Government Code Sections 35307 and 35311 gave notice that on Tuesday, November 21, 1961, at 8:00 P.M. in the Council Chambers, the Council would hold a hearing to consider any protests against the annexation; that Resolution No. 2565 identifies the territory under the title "Annexation 61-10A (Southern California Edison);" that said resolution and notice were duly published and duly mailed to owners of property within the territory.

PARAGRAPH 3. That the hearing was duly held by the Council at the time and place specified above; that at said time there was an opportunity for protests to said annexation to be duly heard; that said City Council did hear and pass upon all protests made to the proposed annexation, and did determine that protests had not been made by the owners of one-half of the value of the privately owned territory proposed to be annexed as shown by the last equalized assessment roll, nor by public owners of one-half of the value of the publicly owned territory proposed to be annexed as determined by said legislative body.

PARAGRAPH 4. That the City Planning Commission has considered

the proposed annexation and has recommended that all or any part of such annexation be approved by the Council.

PARAGRAPH 5. That the boundaries of Annexation 61-10A are specifically:

That certain real property in the County of Ventura, State of California, described as follows:

Being a portion of the Patterson Ranch, as per map recorded in Book 8, page 1, of Miscellaneous Records (Maps) in the office of the County Recorder of said County and a portion of Subdivision One as said Subdivision is shown on Map of Rancho El Rio de Santa Clara o'La Colonia, partitioned by order of Dist. Court, 1st Judicial District, California, filed in the office of the County Clerk of Ventura County in that certain action entitled "Thomas A. Scott, et al., Plffs. vs. Rafael Gonzales, et al., Defts." and as described as "Parcel C" in the Final Order of Distribution No. P-44268 of the Superior Court of the State of California in and for the County of Ventura, filed January 16, 1956, in book 1369 Official Records of said county at page 191, described as a whole as follows:

BEGINNING at a point in the north line of annexation to the City of Oxnard 59-11 recorded as Document No. 40891, records of said county, said point being at the mean high water line 158.00 feet, more or less, bearing South 65° 13' 04" West from the intersection of said North line of Annexation 59-11 and the Southwesterly line of Parcel J of Mandalay Subdivision Unit No. 1 recorded in Book 13, pages 58 to 61, inclusive, of Maps, in the office of said county recorder; thence,

1st - South 65° 13' 04" West to a point in the southwesterly boundary line of Ventura County; thence,

2nd - Northwesterly along the southwesterly boundary line of said Ventura County to a point on the Southwesterly prolongation of the southerly line of the Fleishmann Addition to the City of Ventura per Ordinance No. 1012 filed July 24, 1958; thence,

3rd - North 79° 45" East along said southerly line to a point, said point being the northwest corner of Subdivision One of said Rancho El Rio de Santa Clara o'La Colonia, said point also being on mean high water line (USGS-1951) thence, for the next twenty-two courses following the land described in Book 2004, pages 224, 230, records of said county,

4th - North 86° 56' 55" East 2,610.72 feet to a point in the westerly line of the public road known as Harbor Boulevard; thence along the westerly boundary of said Harbor Boulevard for the next four courses.

5th - South 2° 16' 17" East 2,240.97 feet; thence,

6th - North 87° 46' 16" East 40.00 feet; thence,

7th - South 2° 16' 30" East 2,051.72 feet; thence,

8th - Southeasterly along a curve concave to the northeast 601.05 feet, said curve having a radius of 3,060 feet and a central angle of 11° 15' 15", to a point; thence,

9th - South 72° 51' 54" West 1,011.49 feet to a point; thence,

10th - South 17° 59' 56" East 1,302.63 feet to a point; thence,

11th - South 18° 00' 01" East 2,130.71 feet to a point; thence,

12th - North 85° 52' 24" East 147.71 feet to a point; thence,

13th - North 0° 08' 59" West 206.60 feet to a point; thence,

14th - North 06° 49' 21" West 446.16 feet to a point; thence,

15th - North 07° 51' 54" West 141.55 feet to a point; thence,

16th - North 17° 06' 52" West 481.48 feet to a point; thence,

17th - South 63° 23' 49" East 1,034.68 feet to a point; thence,

18th - South 16° 48' 21" East 1,105.14 feet to a point; thence,

19th - North 71° 29' 49" East 392.06 feet to a point in the westerly boundary of said Harbor Boulevard; thence along said westerly line one course,

20th - South 24° 53' 21" East 201.25 feet to a point; thence,

21st - South 71° 29' 49" West 765.25 feet to a point; thence,

22nd - South 01° 14' 57" East 541.23 feet to a point; thence,

23rd - South 24° 51' 59" West 289.22 feet to a point; thence,

24th - North 89° 53' 00" West 162.97 feet to a point; thence,

25th - South 24° 49' 30" East 219.93 feet to a point in the north line of Lot 147 of said Patterson Ranch Subdivision; thence along the land described in Book 1468, page 194, records of said County, for the next seven courses,

26th - East 3,324.75 feet, more or less, along the north line of said Lot 147 and Lot 148 of the said Patterson Ranch Subdivision to the northeast corner of Lot 148; thence southerly along the east line of said Lot 148 and Lot 145 of the said Patterson Ranch Subdivision,

27th - South 1,483.97 feet to a point; thence,

28th - South 89° 59' 45" West 500.00 feet to a point; thence,

29th - South 0° 00' 15" West 300.00 feet to a point; thence,

30th - South 89° 59' 45" West 1,560.41 feet to a point; thence,

31st - North 25° 00' 05" West 569.21 feet to a point; thence,

32nd - South 64° 59' 55" West 546.31 feet, more or less, to a point in the mean high tide line (USGS-1951); thence,

33rd- Southeasterly along said mean high tide line 2,800.00 feet, more or less, to the point of beginning and containing 413.00 acres of land area.

PARAGRAPH 6. That the proposed annexation is determined by the Council to be in the best interest of the City; that any and all protests are overruled; that "Annexation 61-10A (Southern California Edison)" is hereby approved; that the territory is hereby annexed to

the City of Oxnard, and that the boundaries of the City are hereby altered in accordance herewith.

PARAGRAPH 7. That the City Planning Commission intends to hold hearings and conduct studies within a reasonable time for the purposes of recommending to the Council the adoption of an original zoning ordinance for the above described territory; that the Planning Commission has conducted preliminary studies and by its Resolution No. 998 recommended to the Council that interim zoning as herein provided be established for the above described territory; that, therefore, pursuant to Government Code Section 65806 the City Council, to protect the public health, safety and welfare adopts as an urgency measure, this temporary zoning ordinance; that the Council finds the public necessity, convenience and general welfare to require the above property be zoned and it is hereby zoned during the interim period as delineated on the map entitled "Interim Zoning of Annexation 61-10A (Southern California Edison)", which map is on file in the office of the City Clerk and is incorporated herein; that uses permitted within and regulations governing said zones shall be as specified in the Oxnard Ordinance Code; that any other uses in conflict therewith are prohibited; that the temporary interim zoning ordinance embodied in this paragraph shall be effective immediately upon annexation.

PARAGRAPH 8. That the Council finds that prior to final adoption of this ordinance none of the owners of property within the territory to be annexed, did file with the City Clerk written consent that property within the annexed territory shall be taxed to pay indebtednesses and liabilities of the City contracted prior to or existing at the time of annexation, and, therefore, the property within the annexed territory shall not be taxed to pay any indebtedness or liability of the City contracted prior to or existing at the time of annexation.

PARAGRAPH 9. That the City Clerk is instructed to cause this ordinance to be published one time, within fifteen days after passage, in the Press-Courier; that when the ordinance becomes effective, the City Clerk will prepare under seal certified copies of the ordinance, showing the date of its passage, and transmit it to the Secretary of State, to the State Board of Equalization (together with three copies

of a map of the annexation), to the Board of Supervisors of Ventura County, to the County Clerk and to the County Assessor.

In accordance with Government Code Section 34080, after filing of said certified copy by the Secretary of State, the City Clerk shall also then file with the Recorder of Ventura County an affidavit that there has been compliance with all the requirements of law pertaining to said annexation. Ordinance 731 was first read on November 21, 1961, and finally adopted on November 28, 1961, to become effective December 28, 1961.

C. E. Davidson, Mayor

ATTEST:

Ethel Dale, City Clerk

BOUNDARY COMMISSION, COUNTY OF VENTURA, STATE OF CALIFORNIA
FRIDAY, OCTOBER 6, 1961, AT 9:00 O'CLOCK A.M., PST

* * * * * *

234. (BC 61-79)

APPROVING BOUNDARIES OF ANNEXATION NO. 61-10-A
TO CITY OF OXNARD, SUBJECT TO CORRECTIONS

The matter of Annexation No. 61-10-A, to the City of Oxnard, located from 5th Street, Oxnard to the City Limits of San Buenaventura, west of Harbor Boulevard, submitted by Steven R. Thurston, City Engineer, now comes regularly before the Commission for consideration at this time.

The Commission having duly considered said proposed annexation, upon motion of Mr. Branch, seconded by Mr. Mageors and duly carried, finds, reports and recommends as follows:

1. The County Clerk-Elections Department reports that the territory to be annexed is mostly within San Pedro #1 and that portion in San Pedro #5 is the Pacific Ocean.

2. The County Assessor reports that the proposal will affect Assessors map books 138 and 183 causing extensive changes throughout. New tax rate areas will be created. Districts involved are Oxnard Union High School, Colonia Municipal Water District, Anacapa Municipal Water District, United Water Conservation District and County Fire District.

3. The County Surveyor orally reports that in order that the boundaries of the proposal would conform to the existing boundary of the City of San Buenaventura, the 2nd source should be amended to terminate in the southwesterly prolongation of the southerly line of the Fleishmann Addition to the City of San Buenaventura per Ordinance No. 1012 filed July 24, 1958, and the 3rd course amended to follow said southerly line to the mean high tide line.

   Since the sequence of documents numbers are repeated each year, record references should be included for those numbers used in the description.

   With these amendments the descriptions would be definite and certain.

4. That, with the corrections noted in item 3 above, the boundaries are definite and certain.

5. That, with the corrections noted in item 3 above, the boundaries are hereby approved as to definiteness and certainty and the Secretary is instructed to forward a copy of this report to the City Clerk of the City of Oxnard.

STATE OF CALIFORNIA)
County of Ventura) ss.

I, ROBERT L. HAMM, County Clerk and Secretary of the Boundary Commission of the County of Ventura, State of California, do hereby certify the above and foregoing to be a full, true and correct copy of an excerpt from the minutes of said Boundary Commission for the meeting of the date first above indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 6th day of October, 19 61.

ROBERT L. HAMM, County Clerk and
Secretary of the Boundary Commission,
County of Ventura, State of California.

By SHIRLEY WEEKS, Deputy.

John Todd
Oxn City Clerk
Oxn City Atty
Oxn City Eng.
Port Hue City Clerk
Port Hue City Atty
Assessor
Surveyor
Plann. Dir.
Election Clerk
Ven. City Clerk
Co. Bldg. Insp.
Files (2)
Doc. 61-510.

Sup. Carty
Item BC-4
10/6/61

BS-71

BOUNDARY COMMISSION, COUNTY OF VENTURA, STATE OF CALIFORNIA

FRIDAY, OCTOBER 6, 1961, AT 9:00 O'CLOCK A.M., PST

* * * * * *

234. (BC 61-80)

APPROVING BOUNDARIES OF ANNEXATION 61-10-B TO CITY OF OXNARD; RECOMMENDING AGAINST ANNEXATION

The matter of Annexation No. 61-10-B, to the City of Oxnard, located from 5th Street, Oxnard to the City Limits of San Buenaventura, west of Harbor Boulevard, the portion lying 200 feet below the surface, submitted by Steven R. Thurston, City Engineer, now comes regularly before the Commission for consideration at this time.

The Commission having duly considered said annexation, upon motion of Mr. Branch, seconded by Mr. Mageors and duly carried, finds reports and recommends as follows:

1. The County Clerk-Elections Department report that the territory to be annexed is mostly within San Pedro #1 and the ocean area is in San Pedro #5.

2. The County Assessor reports that this proposal affects the same maps and parcels as 61-79, only in a different manner. This is a three dimensional boundary concept, which would require vertical tax rate areas as well as horizontal. This would multiply the mapping and clerical administration of tax rate areas by 200%. We better be prepared to pay the tab.

3. The County Surveyor orally reports that in order that the boundaries of the proposal would conform to the existing boundary of the City of San Buenaventura, the 2nd source should be amended to terminate in the southwesterly prolongation of the southerly line of the Fleishmann Addition to the City of San Buenaventura per Ordinance No. 1012, filed July 24, 1958, and the 3rd course amended to follow said southerly line to the mean high tide line.

   Since the sequence of documents numbers are repeated each year, record references should be included for those numbers used in the description.

   With these amendments the descriptions would be definite and certain.

4. That, with the corrections noted in item 3 above, the boundaries are definite and certain.

5. That the Boundaries are hereby approved as to definiteness and certainty, but the Boundary Commission recommends to the City that the land not be annexed on this basis due to the fact that this proposal will create insurmontable taxing and assessment problems and will set an undesirable precedent for other districts and city annexations.

STATE OF CALIFORNIA)
County of Ventura) ss.

I, ROBERT L. HAMM, County Clerk and Secretary of the Boundary Commission of the County of Ventura, State of California, do hereby certify the above and foregoing to be a full, true and correct copy of an excerpt from the minutes of said Boundary Commission for the meeting of the date first above indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 6th day of October, 19 61.

ROBERT L. HAMM, County Clerk and
Secretary of the Boundary Commission,
County of Ventura, State of California.

By SHERLEY WEEKS, Deputy.

John Todd
Oxn City Clerk
Oxn City Atty.
Oxn City Eng.
Port Hue City Clerk
Port Hue City Atty
Assessor
Surveyor
Plann. Dir.
Election Clerk
Ven. City Clerk
Co. Bldg. Insp.
Files (2)
Doc. 61-510.

Sup. Carty
Item BC-5
10/6/61

BS-71

BOUNDARY COMMISSION, COUNTY OF VENTURA, STATE OF CALIFORNIA
FRIDAY, OCTOBER 6, 1961, AT 9:00 O'CLOCK A.M., PST

* * * * * *

234. (BC 61-85)

APPROVING BOUNDARIES OF ANNEXATION NO. 61-10-C
TO CITY OF OXNARD, SUBJECT TO CORRECTIONS

The matter of Annexation No. 61-10-C, to the City of Oxnard, located from 5th Street, Oxnard to the City Limits of San Buenaventura, west of Harbor Boulevard, submitted by Steven R. Thurston, Oxnard City Manager, now comes regularly before the Commission for consideration at this time.

The Commission having duly considered said proposed annexation, upon motion of Mr. Branch, seconded by Mr. Mageors and duly carried, finds, reports and recommends as follows:

1. The County Clerk-Elections Department reports that this territory lies in San Pedro Precincts #1 and #5.

2. The County Assessor reports that the proposal will affect Assessors map books 138 and 183 causing extensive changes throughout. New tax rate areas will be created. Districts involved are Oxnard Union High School, Colonia Municipal Water District, Anacapa Municipal Water District, United Water Conservation District and County Fire District.

3. The County Surveyor orally reports that in order that the boundaries of the proposal would conform to the existing boundary of the City of San Buenaventura, the 2nd source should be amended to terminate in the southwesterly prolongation of the southerly line of the Fleischmann Addition to the City of San Buenaventura per Ordinance No. 1012, filed July 24, 1958, and the 3rd course amended to follow said southerly line to the mean high tide line.

   Since the sequence of documents numbers are repeated each year, record references should be included for those numbers used in the description.

   With these amendments the descriptions would be definite and certain.

4. That, with the corrections noted in item 3 above, the boundaries will be definite and certain.

5. That, with the corrections noted in Item 3 above, the boundaries are hereby approved and the Clerk is instructed to forward a copy of this report to the City Clerk of the City of Oxnard.

STATE OF CALIFORNIA)
County of Ventura) ss.

I, ROBERT L. HAMM, County Clerk and Secretary of the Boundary Commission of the County of Ventura, State of California, do hereby certify the above and foregoing to be a full, true and correct copy of an excerpt from the minutes of said Boundary Commission for the meeting of the date first above indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 6th day of October, 1961.

ROBERT L. HAMM, County Clerk and
Secretary of the Boundary Commission,
County of Ventura, State of California.

By SHIRLEY WEEKS, Deputy.

BS-71

John Todd
Oxn City Clerk
Oxn City Atty
Pt. Hue City Clerk
Pt. Hue City Atty.- City Eng.
Mr. Carty
Surveyor
Assessor
Planning
Elections
Ven City Clerk
Bldg. Insp.
Files (2)
Doc. 61-561
Item BC-6 , 10/6/61

RESOLUTION NO. 2565

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OXNARD INITIATING PROCEEDINGS TO ANNEX CERTAIN CONTIGUOUS UNINHABITED TERRITORY DESIGNATED ANNEXATION 61-10A (SOUTHERN CALIFORNIA EDISON); GIVING NOTICE OF THE PROPOSED ANNEXATION, AND SETTING FORTH THE COUNCIL'S REASONS FOR DESIRING THE ANNEXATION.

The City Council of the City of Oxnard does hereby resolve as follows:

1. That pursuant to the provisions of the Annexation of Uninhabited Territory Act of 1939, and Government Code Section 35310, proceedings have been initiated by the Council of the City of Oxnard, on its own motion, to annex to the City of Oxnard all that uninhabited territory situate in the County of Ventura, State of California, hereby designated as "Annexation 61-10A (Southern California Edison)", and described as follows:

That certain real property in the County of Ventura, State of California, described as follows:

Being a portion of the Patterson Ranch, as per map recorded in Book 8, page 1, of Miscellaneous Records (Maps) in the office of the County Recorder of said County and a portion of Subdivision One as said Subdivision is shown on Map of Rancho El Rio de Santa Clara o' La Colonia, partitioned by order of Dist. County, 1st Judicial District, California, filed in the office of the County Clerk of Ventura County in that certain action entitled "Thomas A. Scott, et al, Plffs. vs. Rafael Gonzales, et al., Defts." and as described as "Parcel C" in the Final Order of Distribution No. P-44268 of the Superior Court of the State of California in and for the County of Ventura, filed January 16, 1956, in book 1369 Official Records of said county at page 191, described as a whole as follows:

BEGINNING at a point in the north line of annexation to the City of Oxnard 59-11 recorded as Document No. 40891, records of said county, said point being at the mean high water line 158.00 feet, more or less, bearing South 65° 13' 04" west from the intersection of said north line of Annexation 59-11 and the southwesterly line of Parcel J of Mandalay Subdivision Unit No. 1 recorded in Book 13, pages 58 to 61, inclusive, of Maps, in the office of said county recorder; thence,

1st - South 65° 13' 04" West to a point in the southwesterly boundary line of Ventura County; thence,

2nd - Northwesterly along the southwesterly boundary line of said Ventura County to a point on the Southwesterly prolongation of the southerly line of the Fleishmann Addition to the City of Ventura per Ordinance No. 1012 filed July 24, 1958; thence,

3rd - North 79° 45" East along said southerly line to a point, said point being the northwest corner of Subdivision One of said Rancho El Rio de Santa Clara o' La Colonia, said point also being on mean high water line (USGS-1951) thence, for the next twenty-two courses following the land described in Book 2004, pages 224, 230, records of said county,

4th - North 86° 56' 55" East, 2,610.72 feet to a point in the westerly line of the public road known as Harbor Boulevard; thence along the westerly boundary of said Harbor Boulevard for the next four courses,

5th - South 2° 16' 17" East 2,240.97 feet; thence,

6th - North 87° 46' 16" East 40.00 feet; thence,

7th - South 2° 16" 30" East 2,051.72 feet; thence,

8th - Southeasterly along a curve concave to the northeast 601.05 feet, said curve having a radius of 3,060 feet and a central angle of 11° 15' 15", to a point; thence,

9th - South 72° 51' 54" West 1,011.49 feet to a point; thence,

10th - South 17° 59' 56" East 1,302.63 feet to a point; thence,

11th - South 18° 00' 01" East 2,130.71 feet to a point; thence,

12th - North 85° 52' 24" East 147.71 feet to a point; thence,

13th - North 0° 08' 59" West 206.60 feet to a point; thence,

14th - North 06° 49' 21" West 446.16 feet to a point; thence,

15th - North 07° 51' 54" West 141.55 feet to a point; thence,

16th - North 17° 06' 52" West 481.48 feet to a point; thence,

17th - South 63° 23' 49" East 1,034.68 feet to a point; thence,

18th - South 16° 48' 21" East 1,105.14 feet to a point; thence,

19th - North 71° 29' 49" East 392.06 feet to a point in the westerly boundary of said Harbor Boulevard; thence along said westerly line one course,

20th - South 24° 53' 21" East 201.25 feet to a point; thence,

21st - South 71° 29' 49" West 765.25 feet to a point; thence,

22nd - South 01° 14' 57" East 541.23 feet to a point; thence,

23rd - South 24° 51' 59" West 289.22 feet to a point; thence,

24th - North 89° 53' 00" West 162.97 feet to a point; thence,

25th - South 24° 49' 30" East 219.93 feet to a point in the north line of Lot 147 of said Patterson Ranch Subdivision; thence along the land described in Book 1468, page 194, records of said County, for the next seven courses,

26th - East 3,324.75 feet, more or less, along the north line of said Lot 147 and Lot 148 of the said Patterson Ranch Subdivision to the northeast corner of Lot 148; thence southerly along the east line of said Lot 148 and Lot 145 of the said Patterson Ranch Subdivision,

27th - South 1,483.97 feet to a point; thence,

28th - South 89° 59' 45" West 500.00 feet to a point; thence,

29th - South 0° 00' 15" West 300.00 feet to a point; thence,

30th - South 89° 59' 45" West 1,560.41 feet to a point; thence,

31st - North 25° 00' 05" West 569.21 feet to a point; thence,

32nd - South 64° 59' 55" West 546.31 feet, more or less, to a point in the mean high tide line (USGS-1951); thence,

33rd - Southeasterly along said mean high tide line 2,800.00 feet, more or less, to the point of beginning and containing 413.00 acres of land area.

2. That said proceedings have been initiated by the City Council, and the following reasons are set forth for the City Council desiring the annexation:

That the territory is contiguous to the City of Oxnard and its proposed annexation will contribute to and facilitate the orderly growth and development of both the City and the territory proposed to be annexed; that the proposed annexation will facilitate and contribute to the proper and orderly layout, design and construction of streets, gutters, sidewalks, sanitary and storm water sewers and drainage facilities, both within the City and within the territory proposed to be annexed; and that said proposed annexation will provide and facilitate proper overall planning and zoning of lands and subdivision of lands in said City and said uninhabited territory in a manner most conducive to the welfare of said City and said uninhabited territory.

3. That Annexation 61-10A is contiguous to the boundaries of the City, and the Council determines that such territory was inhabited by less than twelve registered voters at the time of initiation of these proceedings on motion of the City Council.

4. That the Boundary Commission of Ventura County has reported on the boundaries of the proposed annexation as provided in Government Code Section 35002 and has approved said boundaries as to definiteness and certainty.

5. That it is proposed to alter the boundaries of the City of Oxnard and to annex thereto and incorporate therein the uninhabited

territory above described; that notice is hereby given that on Tuesday, the 21st day of November, 1961, at 8:00 p.m. in the Council Chambers of the City Hall, the Council will hold a hearing to consider any protests against the proposed annexation. That at any time before the hour set for hearing objections, any owner of property within the territory may file a written protest against the annexation, which protest must be in writing and shall state the name of the owner of the property affected and the description and area of the property in general terms; and may be filed at any time before the hour set for hearing objections to the proposed annexation; that at the hearing the Council will pass upon such protests and any other authorized protests.

6. That the City Clerk is instructed to cause a copy of this resolution to be published twice, not more often than once a week, in the Press-Courier and the Ventura County Star-Free Press, such publication to be completed at least twenty days prior to the date set for the hearing.

7. That also in accordance with Government Code Section 35311 and at least twenty days prior to the date set for the hearing, the City Clerk is instructed to consult the last equalized assessment roll of Ventura County and to cause a written notice of the proposed annexation to be mailed to each person to whom land within the territory proposed to be annexed is assessed in said roll, at the address shown on the Assessment Roll or as known to the Clerk, and to any person who has filed with the City Clerk that he has any interest, legal or equitable, in said land; that also in accordance with said Government Code, the City Clerk shall cause a written notice of the proposed annexation to be mailed to the State Lands Commission, to the State of California, Division of Beaches and Parks, to the Board of Supervisors of Ventura County and to the Boards of Trustees of the Oxnard Elementary School District, El Rio Elementary School District and the Oxnard Union High School District.

8. That pursuant to Government Code Section 35313.1, the State Lands Commission is requested to fix the value of tide and

submerged lands owned by the State and within the annexation, and said Commission is further requested to notify the City Council in writing of its determination.

Passed and adopted this 10th day of October, 1961.

R. F. Howlett, Mayor Pro Tem

ATTEST:

Nelle R. Waller, Deputy City Clerk

RESOLUTION NO. 998

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF OXNARD RECOMMENDING THAT THE CITY COUNCIL PROCEED WITH THE ANNEXATION OF THE TERRITORY DESIGNATED ANNEXATION 61-10A, SOUTHERN CALIFORNIA EDISON COMPANY, AND RECOMMENDING THAT TEMPORARY INTERIM ZONING FOR THE LAND COMPRISING SAID ANNEXATION BE ESTABLISHED AS M-2, A-1 AND A-O ZONES.

WHEREAS: the owners of certain uninhabited land contiguous to the boundaries of the City of Oxnard have petitioned the City Council that the territory designated Annexation 61-10A, Southern California Edison Company, be annexed to the City of Oxnard, such petition stating in detail the reasons for requesting annexation and describing said property, and

WHEREAS: the Planning Commission of the City of Oxnard has reviewed said petition and map, and has studied the compatible land use of the area and finds that:

1. No planning problems appear concerning said proposed annexation.

2. The location and topography of the proposed annexation is such that it is within the natural area of development of the City of Oxnard for industrial and recreational purposes.

3. The proposed annexation conforms in extent and purpose to the Master Plan of the City of Oxnard.

4. The Boundary Commission of Ventura County has reported on the boundaries of the proposed annexation as provided in the State of California Government Code Sec. 35002 and has approved said boundaries as to definiteness and certainty.

NOW, THEREFORE, BE IT RESOLVED: that the Planning Commission of the City of Oxnard recommends that the City Council proceed with the annexation of said property designated Annexation 61-10A, Southern California Edison Company, and that temporary interim zoning for the land comprising said annexation be established as M-2, A-1 and A-O zones as shown on Exhibit A, attached hereto.

PASSED AND ADOPTED by the Planning Commission of the City of Oxnard on the 16th day of November, 1961, by the following vote:

Ayes: Commissioners Houston, Stubblefield, Laubacher, Tolmach, Stoll, Stubblefield.

Noes: Commissioners None.

Absent: Commissioners Levy, Nelson.

A. Elliott Stoll

ATTEST: Donald F. Johnson

Donald F. Johnson, Secretary

Revised Legal

(For Detachment From
Anacapa Municipal Water District)

Annexation 61-10A

First Fringe Area

That certain real property in the County of Ventura, State of California, described as follows:

Being a portion of the Patterson Ranch, as per map recorded in Book 8, Page 1, of Miscellaneous Records (Maps) in the office of the County Recorder of said County and a portion of Subdivision One as said Subdivision is shown on Map of Rancho El Rio de Santa Clara o' La Colonia, partitioned by order of Dist. Court, 1st Judicial District, California, filed in the office of the County Clerk of Ventura County in that certain action entitled "Thomas A. Scott, et al., Plffs. vs. Rafael Gonzales, et al., Defts." and as described as "Parcel C" in the Final Order of Distribution No. P-44268 of the Superior Court of the State of California in and for the County of Ventura, filed January 16, 1956, in Book 1369 Official Records of said County at Page 191, described as a whole as follows:

Beginning at the northwest corner of Subdivision One of said Rancho El Rio de Santa Clara o' La Colonia, said point also being on mean high water line (USGS-1951) thence, for the next twenty-two courses following the land described in Book 2004, pages 224, 230, records of said county,

1st - North 86° 56' 55" East 2.610.72 feet to a point in the westerly line of the public road known as Harbor Boulevard; thence along the westerly boundary of said Harbor Boulevard for the next four courses.

2nd - South 2° 16' 17" East 2,240.97 feet; thence,

3rd - North 86° 46' 16" East 40.00 feet; thence,

4th - South 2° 16' 30" East 2,051.72 feet; thence,

5th - Southeasterly along a curve concave to the northeast 601.05 feet, said curve having a radius of 3,060 feet and a central angle of 11° 15' 15", to a point; thence,

6th - South 72° 51' 54" West 1,011.49 feet to a point; thence,

7th - South 17° 59' 56" East 1,302.63 feet to a point; thence,

8th - South 18° 00' 01" East 2,130.71 feet to a point; thence,

9th - North 85° 52' 24" East 147.71 feet to a point; thence,

10th - North 0° 08' 59" West 206.60 feet to a point; thence,

11th - North 06° 49' 21" West 446.16 feet to a point; thence,

12th - North 07° 51' 54" West 141.55 feet to a point; thence,

13th - North 17° 06' 52" West 481.48 feet to a point; thence,

14th - South 63° 23' 49" East 1,034.68 feet to a point; thence,

15th - South 16° 48' 21" East 1,105.14 feet to a point; thence,

16th - North 71° 29' 49" East 392.06 feet to a point in the westerly boundary of said Harbor Boulevard; thence along said westerly line one course,

17th - South 24° 53' 21" East 201.25 feet to a point; thence,

18th - South 71° 29' 49" West 765.25 feet to a point; thence,

19th - South 01° 14' 57" East 541.23 feet to a point; thence,

20th - South 24° 51' 59" West 289.22 feet to a point; thence,

21st - North 89° 53' 00" West 162.97 feet to a point; thence,

22nd - South 24° 49' 30" East 219.93 feet to a point in the north line of Lot 147 of said Patterson Ranch Subdivision; thence along the land described in Book 1468, Page 194, records of said County, for the next seven courses,

23rd - East 3,324.75 feet, more or less, along the north line of said Lot 147 and Lot 148 of the said Patterson Ranch Subdivision to the northeast corner of Lot 148; thence southerly along the east line of said Lot 148 and Lot 145 of the said Patterson Ranch Subdivision,

24th - South 1,483.97 feet to a point; thence,

25th - South 89° 59' 45" West 500.00 feet to a point; thence,

26th - South 0° 00' 15" West 300.00 feet to a point; thence,

27th - South 89° 59' 45" West 1,560.41 feet to a point; thence,

28th - North 25° 00' 05" West 569.21 feet to a point; thence,

29th - South 64° 59' 55" West 546.31 feet, more or less, to a point in the mean high tide line (USGS-1951); thence,

30th - Northwesterly along said mean high tide line to the point of beginning.

CITY OF OXNARD, CALIFORNIA

ANNEXATION 61-10

APPROVED BY S.R. Thurston 9-26-61 CITY ENG. DATE

APPROVED BY _____ DATE

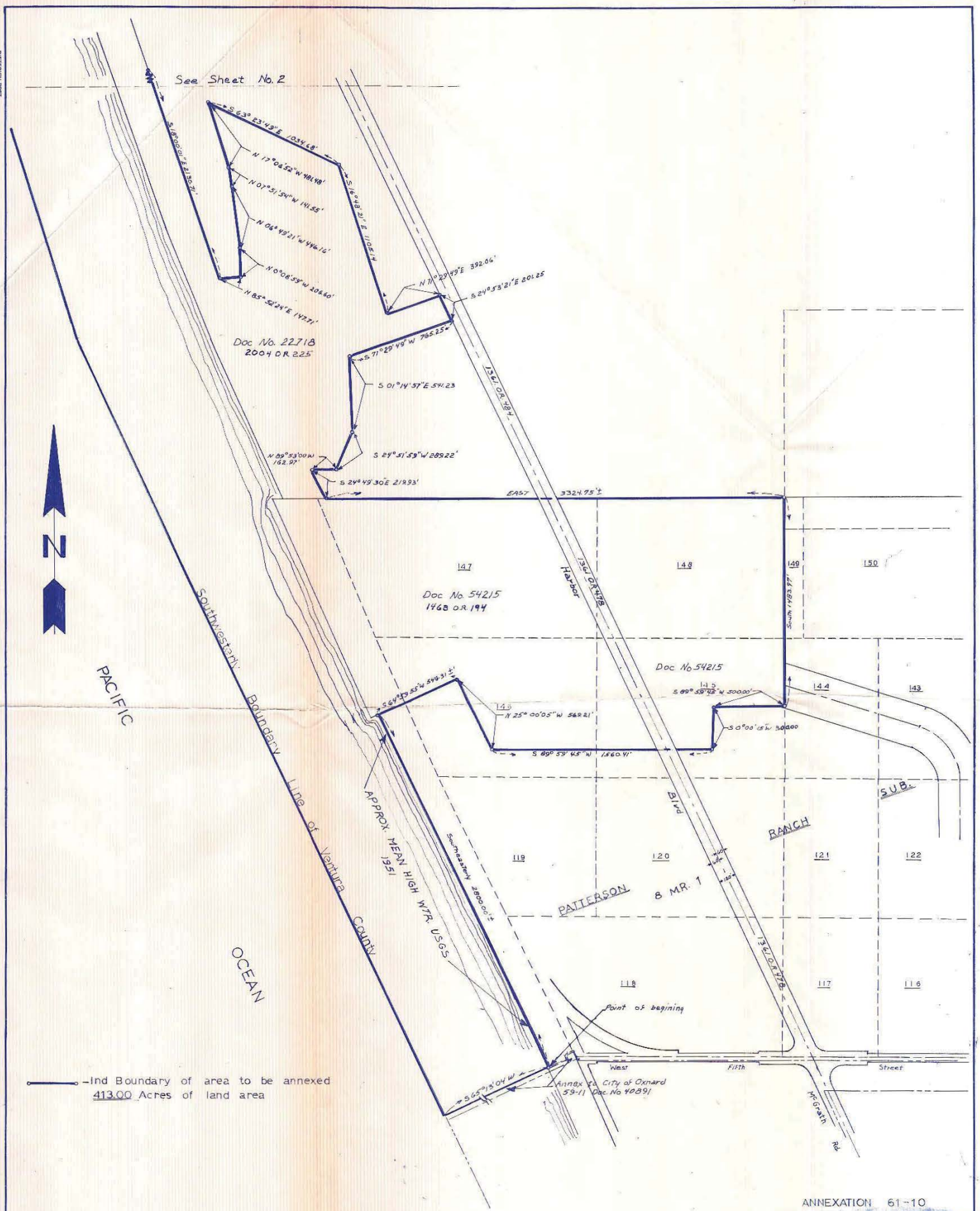
SCALE 1" = 400' PR. FIELD BOOK REFERENCE SHEET NO. 2 OF 2 SHEETS

DRW. BY [illegible] 9/26/61 CHK. BY [illegible] 9/26/61

DRAWING NUMBER AN-155

DIETERICH-POST

1961-106B



ANNEXATION 61-10

APPROVED BY	S R Thurston 9-26-61 CITY ENG.	DATE	
APPROVED BY		DATE	
SCALE 1" = 400'	PR.	FIELD BOOK REFERENCE	SHEET No. 1 OF 2 SHEETS
DRW. BY 5297 9/22/61		DRAWING NUMBER	A-N-155
CHK. BY 5297 9/22/61			

1961-106B

EXHIBIT 3

Ashley Golden
Planning Manager

CITY OF OXNARD CALIFORNIA

Development Services

214 South C Street
Oxnard, CA 93030
(805) 385-7858
www.ci.oxnard.ca.us

Emergency Coastal Permit
No Public Hearing Required
City of Oxnard, Ventura County

April 16, 2015	Prepared by: Chris Williamson, Principal Planner
Application Filing Date:	April 6, 2015
Permit No.:	PZ 15-000-17
Applicant:	NRG Mandalay Generating Station 393 North Harbor Blvd, Oxnard, CA
Assessor Parcel Number:	183002301
Project Location:	Westward of the Mandalay Beach Rd ROW
Description:	Periodic removal of sand barrier that obstructs the proper flow of the generating station discharge, and minor repairs to the existing fence for safety and plant facility security
Time Period:	To be completed within 30 days, and extended upon request as needed up to 180 days until a Coastal Development Permit is issued for same ongoing beach and fence management.

This letter constitutes approval of the emergency work requested by Mr. Thomas Di Ciolli, Plant Manager for the NRG Mandalay Generating Station located at 393 North Harbor Blvd, in his letter dated April 6, 2015 to this office. The periodic relocation of sand that naturally berms and partially or completely blocks the permitted power plant cooling water discharge is required for the safe operation of the power plant and to prevent ponding of the discharge laterally on the beach to the north and south, potentially flooding Least Tern and Snowy Plover nesting areas and creating a hazard to the public utilizing the beach. Berming can occur within days depending on the offshore littoral current, storm surge, and other naturally occuring events. The power plant, a peaker facility that does not run continuously, may be called on to run at any time which, then, requires the discharge channel to be open to the ocean.

After review of the facts, upon receipt of an application for an emergency permit and verification of facts including the existence and the nature of the emergency to assure the emergency is a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public service, I find that the unknown and periodic blocking of the discharge channel is an emergency situation that requires prompt action to prevent or mitigate loss or damage to life, health, property, and an essential public service (peaker power plant operation dispached by the ISO), pursuant to Section 30624(a) and 30611 of the Coastal Act and City Code Section 17-57(C)(3).

The Planning Manager hereby determines that:

(a) An emergency exists which requires action more quickly that permitted by the procedures for administrative or ordinary permits, and the development can and will be completed within 30 days, and repeated within 180 days as needed upon request and approval of an extension pending processing of the Coastal Development Permit for same actions;

(b) Public notice is not required; and

(c) As conditioned, the work proposed would be consistent with the requirements of the Oxnard certified Local Coastal Plan.

The as-needed emergency sand relocation and fence repair work is hereby approved, subject to the conditions of approval. This emergency permit is statutorily exempt from CEQA under Public Resource Code 21080(b)(2).

Chris Williamson - Principal Planner

Ashley Golden
Planning Manager

PROJECT CONDITIONS

1. This permit is granted for the property described in the application on file with the Planning Division, and may not be transferred from one property to another.

2. This permit shall automatically become null and void 30 days months from the date of its issuance, or upon approval and issuance of an extension in a period not to exceed 180 days pending approval of a superseding Coastal Development Permit for the same project.

3. This permit shall be acknowledged by the Applicant and returned to the Planning office within 5 working days from date of issuance.

4. Only the work described herein and for the specific property listed is authorized. Any additional work requires a separate authorization from the Development Services Department and/or the Coastal Commission, depending on the location and type of project. The applicant is advised that the work authorized by this permit has undergone minimal review to address immediate Applicant-stated needs, and portions of the project may need to be revised after review of the Coastal Development Permit. Other potential issues include, but are not limited to, geologic stability, biological resources, and public safety and access.

5. The applicant shall ensure that no debris shall remain on the beach or wash into the Pacific Ocean.

6. The Applicant shall submit an application for a Coastal Development Permit pursuance to City Code Section 17-57 within 14 working days from the date of this permit for sand relocation and fence repair work.

7. Developer agrees, as a condition of adoption of this resolution, at Developer's own expense, to indemnify, defend and hold harmless the City and its agents, officers and employees from and against any claim, action or proceeding to attack, review, set aside, void or annul the approval of the resolution or any condition attached thereto or any proceedings, acts or determinations taken, done or made prior to the approval of such resolution that were part of the approval process.

8. Applicant shall take all reasonable care to avoid crushing dune grass and other habitat in traveling to and from the work site.

9. If people are observed walking the beach in the vicinity of the work area, applicant shall take reasonable efforts to ask the public to avoid the work area. If a member of the public refuses and appears ready to enter the work area, the applicant shall cease work until the public has left the work area.

10. If, during any work period, questions arise as to the appropriateness of specific activities and/or interaction with members of the public, the applicant should cease operations if feasible, contact the Planning Division at 805-385-7858 on the next City work da, and request the Planning Manager or senior staff on duty for direction.

PERMIT ACCEPTANCE ACKNOWLEDGEMENT

Emergency Coastal Permit PZ 15-000-17

"By signature below, I attest that I represent the Applicant and understand all the conditions of approval for the emergency permit herein being issued and agree to abide by them. I understand the emergency permit is not to exceed six months and requires a Coastal Development Permit application be filed within 10 calenday days"

GEORGE N. MURR [printed]

George N. Murr [signature]

Authorized Representative
NRG Mandalay Generation Station

April 20, 2015
Date

Mandalay Generating Station
393 North Harbor Blvd.
Oxnard, CA 93035

April 6, 2015

Chris Williamson, AICP, Principal Planner
City of Oxnard Planning Division
214 South C Street Oxnard, CA 93030

Re: Coastal Emergency Permit

Please see the attached Land Use Application Form and payment for a Coastal Emergency Permit at the NRG Mandalay Generating Station, 393 North Harbor Blvd., Oxnard, Ca. 93035. The primary assessor's parcel number for this location is 000-0-491-114.

The City of Oxnard granted Mandalay Generating Station a standing authorization, dated January 10, 2007, for periodic removal of sand barriers which accumulate and obstruct the proper flow into the ocean from the saltwater discharge system. The California Coastal Commission rescinded this standing authorization in a letter, dated March 26, 2015, to the City of Oxnard Planning Division. A Coastal Emergency Permit is being requested to supersede the City of Oxnard standing authorization while a Coastal Development Permit (CDP) can be initiated. The Emergency Permit should also include minor fence repairs required for safety and security purposes.

The ideal situation is for the generating station outfall flow to exit the plant and go straight to the ocean. However, the tidal conditions along with weather can influence the shoreline and change the flow of our outfall to turn either north or south. The allowance of timely maintenance, under an emergency permit, regarding the movement of sand assures an effective generating station outflow performance and helps minimize potential impacts to public use of the beach and to sensitive bird species. The remedial, protective, or preventative excavation and sand relocation will be confined only to those areas necessary to maintain the outflow at the discharge. Every effort will be taken to avoid disturbing the existing dune vegetation and bird species.

Feel free to contact George Murr at (805)212-2853 or (805)984-5217 with questions.
Email address: George.murr@nrg.com

Thank you,

Thomas Di Ciolli
Plant Manager
NRG Mandalay Generating Station

CITY OF OXNARD CALIFORNIA

LAND USE APPLICATION FORM

APPLICATIONS ARE ACCEPTED BY APPOINTMENT ONLY - PLEASE TYPE OR WRITE LEGIBLY

Type of Permit Requested

- ☐ Annexation
- ☐ Coastal Admin Modification to CDP, DRP
- ☐ Coastal Development Permit (CDP)
- ☐ CBD Design Review Permit
- ☐ Development Design Review Permit (DDR)
- ☐ Final Parcel Map
- ☐ Final Subdivision Map
- ☐ General Plan Amendment
- ☐ Lot Line Adjustment
- ☐ Major Modification to SUP or PD
- ☐ Minor Modification to SUP or PD
- ☐ Planned Development Permit (PD)
- ☐ Pre-Application
- ☐ Special Use Permit (SUP)
- ☐ Specific Plan Review/Amendment
- ☐ Tentative Parcel Map
- ☐ Tentative Subdivision Map
- ☐ Zone Change
- ☐ Zone Variance
- ☒ Other Coastal Emergency Permit

Description of Proposed Project

(Include type of development, number of residential units, number of affordable units/request for payment of in-lieu fee, parcel size, square feet of building area, etc. If this application is for a modification, describe the requested change. Attach more pages if required.)

Periodic removal of sand barriers which accumulate and obstruct the proper flow into the ocean from the saltwater discharge system. Also, fence repairs should there be any safety or security issues.

Property Information

Name of Project: Sand barriers/fence repairs (optional)

Property Location: 393 North Harbor Blvd. Oxnard, Ca. 93035

Assessor's Parcel Number(s): 000-0-491-114

Additional Info:

Current Zoning: _____ Proposed Zoning: _____

Current General Plan: _____ Proposed GP: _____

Property Owner Information

Name: NRG California South LP

Address: 211 Carnegie Center Princeton, NJ 08540

Phone: 415-627-1639

Email: sean.beatty@nrg.com

I hereby certify that I am the owner of record of the subject project property(ies) described on this application and that I approve of the action requested herein.

Signature: S. P. Beatty

For additional property owners & properties, please use the back of this form and additional sheets if necessary.

Designated Agent (Attorney-in-Fact)

Designation of Agent (Attorney-in-Fact)

I, NRG California South LP *(property owner)*

hereby designate George Murr *(agent) as the Attorney-in-Fact for the Property Owner for all purposes of processing this application with the City of Oxnard.*

Signature: S. P. Beatty

For multiple property owners, use additional Land Use Application forms.

Primary Contact/Designated Agent (Attorney-in-Fact)

Name: George Murr

Address: 393 North Harbor Blvd. Oxnard, Ca. 93035

Tel: 805-984-5217 Fax: 805-984-5295

Signature: George Murr

Email: george.murr@nrg.com

Other Persons to be Notified

OFFICE USE ONLY

Fees	Amount
Permit Fee	
Env. Fees	
Total	
Verified By	

Date Received: _____
Permit No.: _____
Env Det./No.: _____
Final Action: _____
Expiration Date: _____

Related / Concurrent Permits

Rec'd By: _____
Assigned to: _____

EXHIBIT 4

Development Services
Building and Engineering Services
Paul Wendt, Interim Manager

214 South C Street
Oxnard, CA 93030
(805) 385-7430
Fax (805) 385-7595
www.ci.oxnard.ca.us

CITY OF OXNARD CALIFORNIA

April 21, 2016

NRG Mandalay Generating Station
393 North Harbor Blvd
Oxnard, CA 93036

RE: REQUEST OF STRUCTURAL EVALUATION AND REINSPECTION OF THE MANDALAY GENERATION STATION BEACH OUTFALL STRUCTURE

Dear Mandalay Generating Station Manager,

The NRG Discharge Structure, (located west of the NRG Mandalay Generating Facility) appears to have deteriorated to such an extent that the structural strength or stability "shows 33 percent or more damage or deterioration of its supporting member or members" (as defined in Abatement of Dangerous Buildings, as adopted in Chapter 14 Article V by the City of Oxnard). The attached four photos show evidence of the deterioration. The structural section of the walls have been reduced due to weathering and spalling of the concrete which has broken away exposing the rusting deteriorated rebar. The damage noted above calls into question the safety and integrity of the structure.

City Code Section 14-2, California Building Code Adopted - 340lA.2 Maintenance, states:

> Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices or safeguards which are required by this code shall be maintained in conformance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. To determine compliance with this subsection, the building official shall have the authority to require a building or structure to be reinspected.

It is requested you review the information regarding the above and provide this office with a structural evaluation of the outfall structure completed by a registered engineer. Please contact the Building and Engineering Division before **May 31, 2016** to schedule an inspection of the structure with your structural engineer. A final report and/or repair plans from the engineer will be required.

Should you have any questions concerning this matter, please contact me at **805-385-7925** at your earliest convenience.

Sincerely,

Steve Newman, Deputy Building Official

Attachment: 4 photos

PHOTO 1: June 29, 2015

PHOTO 2: December 24, 2016

PHOTO 3: December 24, 2015

PHOTO 4: December 24, 2016

EXHIBIT 5

CITY COUNCIL OF THE CITY OF OXNARD

UNCODIFIED ORDINANCE NO. 2882

ORDINANCE OF THE CITY OF OXNARD, CALIFORNIA, ADOPTING AN INTERIM URGENCY ORDINANCE PROHIBITING THE EXPANSION OF EXISTING, OR DEVELOPMENT OF NEW, ELECTRICAL GENERATING FACILITIES WITHIN THE COASTAL ZONE PURSUANT TO THE SOUTHERN CALIFORNIA EDISON REQUEST FOR OFFER PROCESS PENDING STUDIES AND CHANGES IN THE LOCAL COASTAL PROGRAM AND ZONING ORDINANCES AND OTHER LAND USE REGULATIONS.

THE CITY COUNCIL OF THE CITY OF OXNARD DOES HEREBY FIND AS FOLLOWS:

WHEREAS, the California Coastal Act ("Coastal Act") was enacted to protect and preserve the California Coastal Zone as an environmental, recreational and economic resource for the benefit of all Californians; and

WHEREAS, Section 30001.5(d) of the Coastal Act states the Legislature's finding that one of the basic goals of the State for the coastal zone is to "[a]ssure priority for coastal-dependent and coastal-related development over other development on the coast"; and

WHEREAS, Section 30004(a) of the Coastal Act states the Legislature's finding that "[t]o achieve maximum responsiveness to local conditions, accountability, and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement"; and

WHEREAS, Section 30006 of the Coastal Act states the Legislature's finding that "the public has a right to fully participate in decisions affecting coastal planning, conservation, and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation"; and

WHEREAS, Section 30006.5 of the Coastal Act states the Legislature's finding that "sound and timely scientific recommendations are necessary for many coastal planning, conservation, and development decisions"; and

WHEREAS, three electrical generating facilities (Power Plants) are currently located in the City's coastal zone, two of which are once-through cooling (OTC) facilities that use ocean water for cooling and were originally built by Southern California Edison (SCE) prior to enactment of the Coastal Act and certification of the Oxnard Local Coastal Program (LCP); and

WHEREAS, on May 4, 2010 the State Water Resources Control Board adopted Resolution No. 2010-0020, generally requiring that the use of existing power plant cooling systems that rely on natural ocean waters be terminated throughout the State of California by 2020; and

WHEREAS, the expansion, alteration or addition of any Power Plant that does not require OTC would not be a coastal dependent facility within the meaning of the Coastal Act, and would therefore be inconsistent with the development policies and priorities of the Coastal Act; and

WHEREAS, the Oxnard 2030 General Plan established the City's commitment to updating the LCP with consideration of climate change, particularly to clarify that "non Coastal-dependent energy facilities are not allowed in the Energy Coastal zone with exceptions for renewable energy installations such as solar panels and wind turbines under certain conditions and consistent with the Coastal Act" (CD-21.2) and that the LCP update "has the intent and effect of eventual decommissioning of the [Power Plants] by: 1) land use designation change, 2) amortization, 3) revised development standards, 4) transferable development rights and/or other methods (CD-21.3)"; and

WHEREAS, the City has appropriated funds for, and applied for additional grant funds for, conducting a comprehensive study of the potential impacts of sea level rise (SLR) on the coastal zone, and expects to begin the SLR mapping analysis within three months and complete an update to land uses as needed based on SLR impacts and compatible uses within approximately 18 months; and

WHEREAS, based on the SLR study, the City will seek to amend its LCP and other City planning policies and land use regulations to include adaptation measures, new or revised policies, and/or ordinances that protect energy infrastructure from expected impacts of SLR or prohibit critical energy infrastructure in areas or situations where SLR adaptation measures are not available; and

WHEREAS, SCE is soliciting proposals through a Request for Offer process (RFO) for electrical generating facility projects, and the operator of the existing OTC Power Plants has indicated it will submit a proposal for a project on its property within the City's coastal zone; and

WHEREAS, in order to protect the public health, safety and welfare, it is now necessary for the City to undertake action to review and revise applicable provisions of the City's LCP and other City planning policies and land use regulations so that applications submitted pursuant to SCE's RFO process for electrical generating facilities in the City's coastal zone may be properly analyzed consistent with the policies of the Coastal Act and the Oxnard 2030 General Plan; and

WHEREAS, it is anticipated that electrical generating facility proposals submitted through the RFO process will have generating capacity above 25 MW, and that installation of other types of electrical generating facilities, such as solar panels, would have a lower generating capacity and, thus, would not be proposed through the RFO process; and

WHEREAS, an application for approval of any new electrical generating facility or alterations to any existing electrical generating facility in the City's coastal zone poses an immediate threat to the public health, safety, and welfare, in that approval of such application would result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or Tsunami inundation; and

WHEREAS, Government Code § 65858 provides that a city council may adopt by a four fifths vote as an urgency measure an interim ordinance prohibiting any uses that may be in conflict with a general plan or zoning measures that the city is considering or studying or intends to study within a reasonable time; and

WHEREAS, this urgency interim ordinance is not a project within the meaning of Public Resources Code Section 21065 and CEQA Guidelines Section 15378 because it has no potential for resulting in physical change to the environment, either directly or indirectly.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS FOLLOWS:

Part 1. There is hereby imposed a moratorium on the approval of any special use permit, coastal development permit or any other discretionary City permit or approval for the construction, expansion, replacement, modification or alteration of any facilities for the on-site generation of electricity on any property located within the coastal zone, as designated by the California Coastal Act, within the City of Oxnard.

Part 2. It is the intent of the City Council that any proposal for new or modified non-coastal dependent electrical generating facilities within the City's coastal zone during the period of the moratorium shall be considered inconsistent with this Ordinance and with the City's land use policies and zoning regulations for all purposes, and by all agencies charged with reviewing any application for such use.

Part 3. On or before 45 days following the adoption of this ordinance, the City Council shall hold a public hearing to consider extending this ordinance for 10 months and 15 days pursuant to Government Code section 65858(a). The City Clerk is directed to notice the hearings as required by Government Code section 65090.

Part 4. The City Council hereby finds that the above recitals are true and correct and incorporates the recitals herein by reference as if set forth in full.

Part 5. This ordinance is hereby declared to be an interim urgency measure to protect the public health, safety and welfare and shall take effect immediately upon its adoption. The findings constituting the urgency are set forth above in the recitals to this ordinance and represent a current and immediate threat to the public health, safety or welfare in that approval of additional development or expansion of energy generating facilities within the Coastal Zone while the City's LCP update is pending would result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or Tsunami inundation.

Part 6. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that anyone or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

Part 7. This ordinance shall be effective immediately upon passage and shall be of no further force and effect after 45 days of the date of its adoption unless extended by the City Council pursuant to Part 3.

Part 8. At least ten days prior to the expiration of this interim ordinance, the City Council shall issue a written report describing the measures it has taken to alleviate the conditions which led to the adoption of this ordinance.

Part 9. Within fifteen days after passage, the City Clerk shall cause this ordinance to be published one time in a newspaper of general circulation, published and circulated in the City.

AYES: Councilmembers Flynn, Ramirez, MacDonald, Padilla and Perello.

NOES: None.

ABSENT: None.

ABSTAIN: None.

Tim Flynn

Tim Flynn, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Interim City Attorney

CITY COUNCIL OF THE CITY OF OXNARD

UNCODIFIED ORDINANCE NO. 2884

ORDINANCE OF THE CITY OF OXNARD, CALIFORNIA, EXTENDING THE INTERIM URGENCY ORDINANCE PROHIBITING THE EXPANSION OF EXISTING, OR DEVELOPMENT OF NEW, ELECTRICAL GENERATING FACILITIES WITHIN THE COASTAL ZONE PURSUANT TO THE SOUTHERN CALIFORNIA EDISON REQUEST FOR OFFER PROCESS PENDING STUDIES AND CHANGES IN THE LOCAL COASTAL PROGRAM AND ZONING ORDINANCES AND OTHER LAND USE REGULATIONS.

THE CITY COUNCIL OF THE CITY OF OXNARD DOES HEREBY FIND AS FOLLOWS:

WHEREAS, the California Coastal Act ("Coastal Act") was enacted to protect and preserve the California Coastal Zone as an environmental, recreational and economic resource for the benefit of all Californians; and

WHEREAS, Section 30001.5(d) of the Coastal Act states the Legislature's finding that one of the basic goals of the State for the coastal zone is to "[a]ssure priority for coastal-dependent and coastal-related development over other development on the coast"; and

WHEREAS, Section 30004(a) of the Coastal Act states the Legislature's finding that "[t]o achieve maximum responsiveness to local conditions, accountability, and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement"; and

WHEREAS, Section 30006 of the Coastal Act states the Legislature's finding that "the public has a right to fully participate in decisions affecting coastal planning, conservation, and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation"; and

WHEREAS, Section 30006.5 of the Coastal Act states the Legislature's finding that "sound and timely scientific recommendations are necessary for many coastal planning, conservation, and development decisions"; and

WHEREAS, three electrical generating facilities (Power Plants) are currently located in the City's coastal zone, two of which are once-through cooling (OTC) facilities that use ocean water for cooling and were originally built by Southern California Edison (SCE) prior to enactment of the Coastal Act and certification of the Oxnard Local Coastal Program (LCP); and

WHEREAS, on May 4, 2010 the State Water Resources Control Board adopted Resolution No. 2010-0020, generally requiring that the use of existing power plant cooling systems that rely on natural ocean waters be terminated throughout the State of California by 2020; and

WHEREAS, the expansion, alteration or addition of any Power Plant that does not require OTC would not be a coastal dependent facility within the meaning of the Coastal Act, and would therefore be inconsistent with the development policies and priorities of the Coastal Act; and

WHEREAS, the Oxnard 2030 General Plan established the City's commitment to updating the LCP with consideration of climate change, particularly to clarify that "non Coastal-dependent energy facilities are not allowed in the Energy Coastal zone with exceptions for renewable energy installations such as solar panels and wind turbines under certain conditions and consistent with the Coastal Act" (CD-21.2) and that the LCP update "has the intent and effect of eventual decommissioning of the [Power Plants] by: 1) land use designation change, 2) amortization, 3) revised development standards, 4) transferable development rights and/or other methods (CD-21.3)"; and

WHEREAS, the City has appropriated funds for, and applied for additional grant funds for, conducting a comprehensive study of the potential impacts of sea level rise (SLR) on the coastal zone, and expects to begin the SLR mapping analysis within three months and complete an update to land uses as needed based on SLR impacts and compatible uses within approximately 18 months; and

WHEREAS, based on the SLR study, the City will seek to amend its LCP and other City planning policies and land use regulations to include adaptation measures, new or revised policies, and/or ordinances that protect energy infrastructure from expected impacts of SLR or prohibit critical energy infrastructure in areas or situations where SLR adaptation measures are not available; and

WHEREAS, SCE is soliciting proposals through a Request for Offer process (RFO) for electrical generating facility projects, and the operator of the existing OTC Power Plants has indicated it will submit a proposal for a project on its property within the City's coastal zone; and

WHEREAS, in order to protect the public health, safety and welfare, it is now necessary for the City to undertake action to review and revise applicable provisions of the City's LCP and other City planning policies and land use regulations so that applications submitted pursuant to SCE's RFO process for electrical generating facilities in the City's coastal zone may be properly analyzed consistent with the policies of the Coastal Act and the Oxnard 2030 General Plan; and

WHEREAS, it is anticipated that electrical generating facility proposals submitted through the RFO process will have generating capacity above 25 MW, and that installation of other types of electrical generating facilities, such as solar panels, would have a lower generating capacity and, thus, would not be proposed through the RFO process; and

WHEREAS, an application for approval of any new electrical generating facility or alterations to any existing electrical generating facility in the City's coastal zone poses an immediate threat to the public health, safety, and welfare, in that approval of such application would result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or Tsunami inundation; and

WHEREAS, Government Code § 65858 provides that a city council may adopt by a four fifths vote as an urgency measure an interim ordinance prohibiting any uses that may be in conflict with a general plan or zoning measures that the city is considering or studying or intends to study within a reasonable time; and

WHEREAS, on July 1, 2014, the City Council adopted Ordinance No. 2882, imposing a 45-day moratorium on the approval of any special use permit, coastal development permit or any other discretionary City permit or approval for the construction, expansion, replacement, modification or

alteration of any facilities for the on-site generation of electricity on any property located within the coastal zone, as designated by the California Coastal Act, within the City of Oxnard; and

WHEREAS, Ordinance No. 2882 will expire on August 15, 2014 unless extended in accordance with Government Code Section 65858; and

WHEREAS, on July 29, 2014, the City Council issued a written report describing the measures taken to alleviate the conditions which led to the adoption of Ordinance No. 2882 in accordance with Government Code Section 65858; and

WHEREAS, on July 29, 2014, the City Council held a public hearing, duly noticed in accordance with Government Code Sections 65090, to consider the extension of Ordinance No. 2882 for a period of 10 months and 15 days from the date said ordinance would otherwise expire, in accordance with Government Code Section 65858; and

WHEREAS, this extension of Ordinance No. 2882 is not a project within the meaning of Public Resources Code Section 21065 and CEQA Guidelines Section 15378 because it has no potential for resulting in physical change to the environment, either directly or indirectly.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS FOLLOWS:

Part 1. The moratorium imposed by Ordinance No. 2882 on the approval of any special use permit, coastal development permit or any other discretionary City permit or discretionary approval for the construction, expansion, replacement, modification or alteration of any facilities for the on-site generation of electricity on any property located within the coastal zone, as designated by the California Coastal Act, within the City of Oxnard is hereby extended for a period of 10 months and 15 days from the date Ordinance No. 2882 would otherwise expire; provided that the moratorium shall not apply to permits for SCE's McGrath Peaker Plant (Coastal Development Permit No. A-4-OXN-07-096) that are consistent with the Settlement Agreement between the City and SCE executed in October of 2011 (Agreement No. A-7451).

Part 2. It is the intent of the City Council that any proposal for new or modified non-coastal dependent electrical generating facilities within the City's coastal zone during the period of the moratorium shall be considered inconsistent with this Ordinance and with the City's land use policies and zoning regulations for all purposes, and by all agencies charged with reviewing any application for such use.

Part 3. The City Council hereby finds that the above recitals are true and correct and incorporates the recitals herein by reference as if set forth in full.

Part 4. This ordinance is hereby declared to be an interim urgency measure to protect the public health, safety and welfare and shall take effect immediately upon its adoption. The findings constituting the urgency are set forth above in the recitals to this ordinance and represent a current and immediate threat to the public health, safety or welfare in that approval of additional development or expansion of energy generating facilities within the Coastal Zone while the City's LCP update is pending would

result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or Tsunami inundation.

Part 5. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that anyone or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

Part 6. This ordinance shall be effective immediately upon passage and may be extended by the City Council in accordance with Government Code Section 65858.

Part 7. At least ten days prior to the expiration of this interim ordinance, the City Council shall issue a written report describing the measures it has taken to alleviate the conditions which led to the adoption of this ordinance.

Part 8. Within fifteen days after passage, the City Clerk shall cause this ordinance to be published one time in a newspaper of general circulation, published and circulated in the City.

PASSED, APPROVED, AND ADOPTED this 29th day of July, 2014

AYES: Councilmembers Flynn, Ramirez, MacDonald, Padilla and Perello.

NOES: None.

ABSENT: None.

ABSTAIN: None.

Tim Flynn

Tim Flynn, Mayor

ATTEST:

by McGraw for

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Interim City Attorney

CITY COUNCIL OF THE CITY OF OXNARD

UNCODIFIED ORDINANCE NO. 2891

ORDINANCE OF THE CITY OF OXNARD, CALIFORNIA, EXTENDING THE INTERIM URGENCY ORDINANCE PROHIBITING THE EXPANSION OF EXISTING, OR DEVELOPMENT OF NEW, ELECTRICAL GENERATING FACILITIES WITHIN THE COASTAL ZONE PURSUANT TO THE SOUTHERN CALIFORNIA EDISON REQUEST FOR OFFER PROCESS PENDING STUDIES AND CHANGES IN THE LOCAL COASTAL PROGRAM AND ZONING ORDINANCES AND OTHER LAND USE REGULATIONS.

THE CITY COUNCIL OF THE CITY OF OXNARD DOES HEREBY FIND AS FOLLOWS:

WHEREAS, the California Coastal Act (**"Coastal Act"**) was enacted to protect and preserve the California Coastal Zone as an environmental, recreational and economic resource for the benefit of all Californians; and

WHEREAS, Section 30001.5(d) of the Coastal Act states the Legislature's finding that one of the basic goals of the State for the coastal zone is to "[a]ssure priority for coastal-dependent and coastal-related development over other development on the coast;" and

WHEREAS, Section 30004(a) of the Coastal Act states the Legislature's finding that "[t]o achieve maximum responsiveness to local conditions, accountability, and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement;" and

WHEREAS, Section 30006 of the Coastal Act states the Legislature's finding that "the public has a right to fully participate in decisions affecting coastal planning, conservation, and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation;" and

WHEREAS, Section 30006.5 of the Coastal Act states the Legislature's finding that "sound and timely scientific recommendations are necessary for many coastal planning, conservation, and development decisions;" and

WHEREAS, four electrical generating facilities are currently located in the City's coastal zone, two of which are once-through cooling (**"OTC"**) facilities that use ocean water for cooling and were originally built by Southern California Edison (**"SCE"**) prior to enactment of the Coastal Act and certification of the Oxnard Local Coastal Program (**"LCP"**); and

WHEREAS, on May 4, 2010, the State Water Resources Control Board adopted Resolution No. 2010-0020, generally requiring that the use of existing OTC systems that rely on natural ocean waters be terminated throughout the State of California by 2020; and

WHEREAS, the expansion, alteration or addition of any electrical generating facility that does not require OTC would not be a coastal dependent facility within the meaning of the Coastal Act, and would therefore be inconsistent with the development policies and priorities of the Coastal Act; and

WHEREAS, the Oxnard 2030 General Plan established the City's commitment to updating the Oxnard LCP with consideration of climate change, particularly to clarify that "non Coastal-dependent energy facilities are not allowed in the Energy Coastal zone with exceptions for renewable energy installations such as solar panels and wind turbines under certain conditions and consistent with the Coastal Act" (CD-21.2) and that the LCP update "has the intent and effect of eventual decommissioning of the [electrical generating facilities] by: 1) land use designation change, 2) amortization, 3) revised development standards, 4) transferable development rights and/or other methods (CD-21.3);" and

WHEREAS, Goal SC-2 of the Oxnard 2030 General Plan states that "[s]ea level rise is routinely considered relative to coastal areas and other City decisions, as relevant" and Policy SC-2.3 implements this goal by directing the City to "[e]nsure that all planning, public works, and related decisions take rising sea level into consideration and take steps to reduce risk of damage or loss of life and property;" and

WHEREAS, the Oxnard 2030 General Plan included Figure 2-1 entitled "California Flood Risk: Sea Level Risk Oxnard Quadrangle" prepared by the Pacific Institute in 2009, which clearly shows all four electrical generating facilities as within an area mapped as "Current Coastal Base Flood (approximate 100-year flood extent)" or "Sea Level Rise Scenario Coastal Base Flood + 1.4 meters (55 inches)," clearly requiring the City to implement Policy SC-2.3 and evaluate risk of damage or loss of life and property for all decisions related to the facilities; and

WHEREAS, the California Coastal Commission prepared the "Draft Sea-Level Rise Policy Guidance, Public Review Draft" in March 2013, has received numerous public comments, and anticipates adopting a final Sea-Level Rise Policy Guidance document in 2015 that includes specific guidance to local governments to consider the highest sea level rise ("SLR") scenarios when considering plans and permits related to critical public infrastructure and electric generating facilities; and

WHEREAS, on February 13, 2013, the California Public Utilities Commission (**"CPUC"**) issued D.13-02-015 (the **"Track 1 decision"**) in the Long Term Procurement Plan proceeding; and

WHEREAS, the Track 1 decision ordered SCE to procure between 215 and 290 Megawatts (**"MW"**) of electrical capacity in the Moorpark sub-area of the Big Creek/Ventura local reliability area to meet long-term local capacity requirements by 2021, largely due to the expected retirement of OTC systems; and

WHEREAS, the Track 1 decision also ordered SCE to file an application for approval of all cost-of-service contracts entered into as a result of the procurement process for new capacity in the Moorpark sub-area; and

WHEREAS, SCE has solicited proposals through a Request for Offer process (**"RFO"**) for additional electrical generating facility projects pursuant to the CPUC's Track 1 decision, reviewed proposals and subsequently awarded the operator of the existing OTC electrical generating facilities a cost-of-service contract for the development of a new 262 MW GFG facility to be located adjacent to the existing NRG Mandalay Generating Station, which is within the City's coastal zone; and

WHEREAS, on November 26, 2014, SCE filed with the CPUC its formal request for CPUC approval of the NRG cost-of-service contract and, on December 23, 2014, the City Council adopted a resolution authorizing the Mayor to execute the City's protest and staff's preparation of a motion for the City of Oxnard to become a party in the proceedings; and

WHEREAS, based on two City-initiated sea-level rise expert studies entitled "Vulnerabilities of the Proposed Mandalay Generating Station to Existing and Future Coastal Hazards and Sea Level Rise" by Dr. David Revell, and "Sea Level Rise Vulnerability Assessment: Tsunami Analysis Mandalay Bay Generating Station" by David Cannon, M.C.E., P.E., which both studies utilize best-available data and California Coastal Commission guidance regarding sea-level rise risks to critical infrastructure such as a power plant and are consistent with the California Geological Survey's tsunami guidance using the Goleta 2 Landslide scenario for emergency evacuation and coastal planning purposes, the City prepared and filed testimony in CPUC Proceeding A.14-11-016 that will be heard at an Evidentiary Hearing on May 27 to 29, 2015, at the CPUC in San Francisco; and

WHEREAS, the City will issue a Request for Proposal in May, 2015 for expert consultants to continue the comprehensive LCP update that will almost certainly lead to changes in coastal land use designation and regulations to include adaptation measures, new or revised policies, and/or ordinances that protect energy infrastructure from expected impacts of SLR or prohibit critical energy infrastructure in areas or situations where SLR adaptation measures are not available; and

WHEREAS, at least twelve California cities and counties with LCP's have or are developing and incorporating SLR projections, adaptations, and changes to land uses and development regulations at the direction of the Coastal Commission, and

WHEREAS, on or around April 15, 2015, NRG filed an "Application for Certification" with the California Energy Commission (**"CEC"**) that begins the CEC review process for the entitling permit review process for the proposed "Puente" NRG power plant; and

WHEREAS, in order to follow specific Coastal Commission SLR evaluation policies, implement policies of the Oxnard 2030 General Plan, and protect the public health, safety and welfare it is now necessary for the City to continue to review and revise applicable provisions of

the City's LCP and other City planning policies and land use regulations so that the City may property analyze whether applications for electrical generating facilities in the City's coastal zone are consistent with the policies of the Coastal Act, Coastal Commission SLR policies, and the Oxnard 2030 General Plan; and

WHEREAS, the proposed NRG electrical generating "Puente" facility submitted through the RFO process will have generating capacity of 262 MW, and that installation of other types of electrical generating facilities, such as solar panels, would have a lower generating capacity and, thus, would not be proposed through the RFO process; and

WHEREAS, a plain interpretation of the best-available scientific information available to the City clearly indicates that development of any new electrical generating facility or alterations to any existing electrical generating facility in the City's coastal zone poses an immediate threat to the public health, safety, and welfare, in that approval of such application would result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or earthquake-generated Tsunami inundation; and

WHEREAS, Government Code section 65858 provides that a city council may adopt by a four fifths vote as an urgency measure an interim ordinance prohibiting any uses that may be in conflict with a general plan or zoning measures that the city is considering or studying or intends to study within a reasonable time; and

WHEREAS, on July 1, 2014, the City Council adopted Ordinance No. 2882, imposing a 45-day moratorium on the approval of any special use permit, coastal development permit or any other discretionary City permit or approval for the construction, expansion, replacement, modification or alteration of any facilities for the on-site generation of electricity on any property located within the coastal zone, as designated by the California Coastal Act, within the City of Oxnard; and

WHEREAS, Ordinance No. 2882 was set to expire on August 15, 2014 unless extended in accordance with Government Code section 65858; and

WHEREAS, on July 29, 2014, the City Council issued a written report describing the measures taken to alleviate the conditions which led to the adoption of Ordinance No. 2882 in accordance with Government Code section 65858; and

WHEREAS, on July 29, 2014, the City Council held a public hearing, duly noticed in accordance with Government Code section 65090, to consider the extension of Ordinance No. 2882 for a period of 10 months and 15 days from the date said Ordinance would otherwise expire, in accordance with Government Code section 65858; and

WHEREAS, on July 29, 2014, the City Council adopted Ordinance No. 2884, extending Ordinance No. 2882 for a period of 10 months and 15 days from the date Ordinance No. 2882 would otherwise expire; and

WHEREAS, Ordinance No. 2882 is set to expire on June 30, 2015 unless extended in accordance with Government Code section 65858; and

WHEREAS, on May 19, 2015, the City Council issued a written report describing the measures taken to alleviate the conditions which led to the adoption of Ordinance No. 2882 in accordance with Government Code section 65858; and

WHEREAS, on May 19, 2015, the City Council held a public hearing, duly noticed in accordance with Government Code section 65090, to consider the extension of Ordinance No. 2882 for a period of one (1) year from the date said Ordinance would otherwise expire, in accordance with Government Code section 65858; and

WHEREAS, this extension of Ordinance No. 2882 is not a project within the meaning of Public Resources Code Section 21065 and CEQA Guidelines section 15378 because it has no potential for resulting in a physical change to the environment, either directly or indirectly.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS FOLLOWS:

Part 1. The moratorium imposed by Ordinance No. 2882 on the approval of any special use permit, coastal development permit or any other discretionary City permit or discretionary approval for the construction, expansion, replacement, modification or alteration of any facilities for the on-site generation of electricity on any property located within the coastal zone, as designated by the California Coastal Act, within the City of Oxnard is hereby extended for a period of one (1) year from the date Ordinance No. 2882 would otherwise expire; provided that the moratorium shall not apply to permits for SCE's McGrath Peaker Plant (Coastal Development Permit No. A-4-OXN-07-096) that are consistent with the Settlement Agreement between the City and SCE executed in October of 2011 (Agreement No. A-7451).

Part 2. It is the intent of the City Council that any proposal for new or modified non-coastal dependent electrical generating facilities within the City's coastal zone during the period of the moratorium shall be considered inconsistent with this Ordinance and with the City's land use policies and zoning regulations for all purposes, and by all agencies charged with reviewing any application for such use.

Part 3. The City Council hereby finds that the above recitals are true and correct and incorporates the recitals herein by reference as if set forth in full.

Part 4. This Ordinance is hereby declared to be an interim urgency measure to protect the public health, safety and welfare and shall take effect immediately upon its adoption. The findings constituting the urgency are set forth above in the recitals to this Ordinance and represent a current and immediate threat to the public health, safety or welfare in that approval of additional development or expansion of energy generating facilities within the Coastal Zone while the City's LCP update is pending would result in potential placement of a critical infrastructure facility that would be subject to failure due to storm surge, wave run-up, erosion, or Tsunami inundation.

Part 5. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Ordinance. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that anyone or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

Part 6. This Ordinance shall be effective immediately upon passage.

Part 7. Within fifteen (15) days after passage, the City Clerk shall cause this Ordinance to be published one time in a newspaper of general circulation, published and circulated in the City.

PASSED, APPROVED, AND ADOPTED this 19th day of May, 2015.

AYES: Councilmembers Flynn, Ramirez, MacDonald, Padilla and Perello.

NOES: None.

ABSENT: None.

ABSTAIN: None.

Tim Flynn

Tim Flynn, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Interim City Attorney

EXHIBIT 6

Coastal Conservancy

April 8, 2009

Senator Fran Pavley
State Capitol, Room 4035
Sacramento, California 95814

Assembly Member Julia Brownley
State Capitol, Room 2163
Sacramento, CA 95814

Re: SCE Mandalay Tank Farm

Dear Senator Pavley and Assembly Member Brownley:

You have asked about the Conservancy's past and current position with regard to the remnant Edison ownership in the Mandalay dunes and wetlands. At its meeting in February, 2000, the Conservancy authorized acquisition of Edison's properties including the former tank farm property south and east of Harbor Boulevard. That authorization still stands. We remain interested in acquiring this property, and expect that funds would be available to enable the acquisition within a reasonable period of time. In fact, we have a federal grant we could use for this purpose.

The authorization was made with letters of support from numerous agencies and environmental organizations. The Conservancy Board recognized the opportunity to restore this area and integrate it with the surrounding parks, preserves, and endangered species habitat while providing continuous public management. Since that time, the Conservancy has also acted to fund acquisition of the adjoining Santa Clara River Estuary, acquisition of in holdings within McGrath State Beach, and the establishment of a Tern/Plover Restoration program in this area.

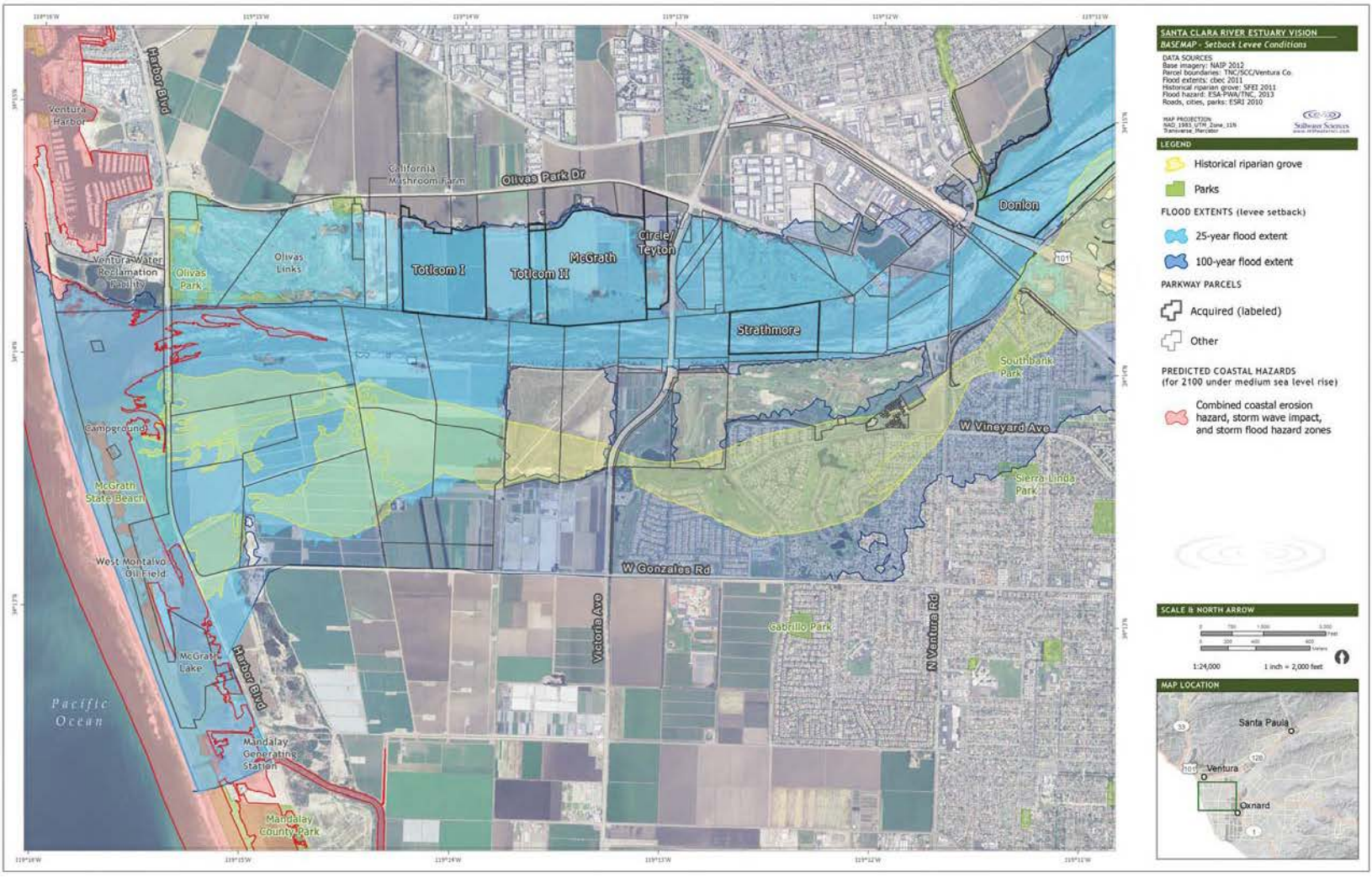
Please let me know if I can be of further assistance on this matter.

Sincerely,

Sam Schuchat
Executive Officer

Cc: Peter Douglas, California Coastal Commission

1330 Broadway, 13th Floor
Oakland, California 94612-2512
510-286-1015 Fax: 510-286-0470



SANTA CLARA RIVER ESTUARY VISION

BASEMAP - Setback Levee Conditions

DATA SOURCES
Base imagery: NAIP 2012
Parcel boundaries: TNC/SCC/Ventura Co.
Flood extents: cbec 2011
Historical riparian grove: SFEI 2011
Flood hazard: ESA-PWA/TNC, 2013
Roads, cities, parks: ESRI 2010

MAP PROJECTION
NAD 1983 UTM Zone 11N
Transverse Mercator

Stillwater Sciences
www.stillwatersci.com

LEGEND

- Historical riparian grove
- Parks

FLOOD EXTENTS (levee setback)

- 25-year flood extent
- 100-year flood extent

PARKWAY PARCELS

- Acquired (labeled)
- Other

PREDICTED COASTAL HAZARDS
(for 2100 under medium sea level rise)

- Combined coastal erosion hazard, storm wave impact, and storm flood hazard zones

SCALE & NORTH ARROW

1:24,000 1 inch = 2,000 feet

MAP LOCATION

SANTA CLARA RIVER ESTUARY VISION

Dune Habitat

DUNE HABITAT

Remnant dune habitat *(240 acres)*

Existing infrastructure/private inholding

SCALE & NORTH ARROW

1:10,000 1 inch = 833 feet

DATA SOURCES

Base imagery: NAIP 2012
Parcels: Ventura County/SWS 2014
Roads, Urban areas, Rivers: ESRI 2012

MAP PROJECTION
NAD_1983_UTM_Zone_11N
Transverse_Mercator

Stillwater Sciences
www.stillwatersci.com

EXHIBIT 7

SETTLEMENT AGREEMENT AND RELEASE REGARDING WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING BETWEEN STATE WATER RESOURCES CONTROL BOARD AND NRG

THIS SETTLEMENT AGREEMENT AND RELEASE ("Agreement") is entered into by and between NRG Delta, LLC ("NRG Delta"), NRG California South, LP ("NRG South") (collectively "NRG"), and the State Water Resources Control Board ("State Water Board"), as of the last date executed below ("Execution Date"), referred to herein collectively as the "Parties" and each individually as a "Party."

RECITALS

A. WHEREAS, on May 4, 2010, the State Water Board approved Resolution 2010-0020 adopting the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (the "Policy") and related Substitute Environmental Document ("SED") for the Policy. The State Water Board subsequently amended the Policy on October 1, 2010, July 19, 2011, and June 18, 2013. A copy of the Policy, as subsequently amended, is attached to this Agreement as Exhibit A. The Policy applies to California thermal power plants that currently use a single pass cooling system also known as once-through cooling;

B. WHEREAS, the Policy requires owners and operators of existing power plants subject to the Policy to comply with "Track 1" or "Track 2" compliance alternatives as defined in section 2 of the Policy;

C. WHEREAS, the Track 1 compliance alternative contained in Policy section 2.A.(1) specifies that the intake flow rate at each unit is to be reduced, at a minimum, to a level commensurate with that which can be attained by a closed-cycle wet cooling system. The Policy, in relevant part, identifies that reduction as a minimum 93% reduction in intake flow rate for each unit, compared to the unit's design intake flow;

D. WHEREAS, the Track 2 compliance alternative contained in Policy section 2.A.(2) is available when a plant owner or operator demonstrates that the Track 1 compliance alternative is not feasible at the existing power plant. Track 2 includes a number of provisions, but two provisions allow for monitoring to demonstrate that reductions in impingement mortality and entrainment are at a comparable level to the reductions required under Track 1. The Policy defines "comparable level" as "a level that achieves at least 90 percent of the reduction[s]" required under Track 1. As a result, Track 2 compliance can be achieved by an 83.7% or greater reduction in impingement mortality and entrainment, pursuant to Policy sections 2.A.(2)(a)(ii) and 2.A.(2)(b)(ii). The 83.7% reduction is an absolute minimum that must be achieved under Track 2's "comparable level" provisions, so plants seeking compliance pursuant to this language must be designed and operated to achieve required reductions under the Policy;

E. WHEREAS, NRG Delta, LLC owns and operates the Pittsburg Generating Station, and NRG California South, LP owns and operates the Mandalay Generating Station and Ormond Beach Generating Station, all of which are subject to the Policy;

F. WHEREAS, on or about October 27, 2010, NRG, together with other owners and operators of power plants utilizing once-through cooling technologies, filed a Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief against the State Water Board in the Superior Court of California for the County of Sacramento (the "Court"), Case No. 34-2010-80000701 (the "Action") (as used in this Agreement, "Action" refers to NRG's claims against the SWRCB);

G. WHEREAS, NRG's claims in the Action relate to disputes over whether the State Water Board's adoption of the Policy and SED was within the State Water Board's discretion and legal authority and, in particular, whether the State Water Board's actions complied with the Clean Water Act, the Porter-Cologne Water Quality Control Act, the Administrative Procedure Act, the California Environmental Quality Act, the United States and California Constitutions, and other federal and state regulations as alleged in the Action;

H. WHEREAS, on April 1, 2011, NRG Delta submitted, pursuant to the Policy, an Implementation Plan for the Pittsburg Generating Station, which document states that NRG Delta may achieve compliance with the Policy under Track 1 for the Pittsburg Generating Station;

I. WHEREAS, on April 1, 2011, NRG South submitted, pursuant to the Policy, Implementation Plans for the Mandalay Generating Station and Ormond Beach Generating Station which document NRG South's position that compliance with Track 1 of the Policy is not feasible at these facilities and identify steps that NRG South may undertake to comply with the Policy, potentially including compliance with Track 2;

J. WHEREAS, the Parties wish to compromise, resolve, settle, and terminate any and all of the disputes or claims in the Action on terms and conditions set forth herein (the "Settled Disputes and Claims");

K. WHEREAS, the Parties represent that they understand they are waiving significant legal rights by signing this Agreement, each Party in no way concedes any positions taken in the Action, and this Agreement is made in a spirit of compromise for the sole purpose of avoiding the uncertainties and expenses of litigation with respect to the Settled Disputes and Claims;

NOW, THEREFORE, in consideration of the foregoing and the following, the Parties agree as follows:

AGREEMENT

1. Recitals Incorporated. The recitals set forth above, including all definitions therein, are expressly incorporated as terms of this Agreement.

2. Terms of Settlement.

2.1 Pittsburg Generating Station.

2.1.1 Implementation Plan Approval. The Track 1 compliance plan and other elements of the Implementation Plan contained in the Pittsburg Generating Station's April 1, 2011 Implementation Plan comply with the Policy's Track 1 compliance requirements.

2.1.2 Interim Mitigation. NRG Delta shall continue to employ interim mitigation measures, including but not limited to: the use of variable frequency drives ("VFDs"), fee payments to the Department of Fish and Wildlife, and measures consistent with federal and state species permits as they may be amended from time to time. The Parties agree that these measures satisfy the interim mitigation requirements in the Policy section 2.C(3)(a) and that no additional interim mitigation is necessary.

2.1.3 Track 1 Compliance.

a. NRG Delta may achieve Track 1 compliance by converting the existing once-through cooling Units 5 and 6 to utilize the closed-cycle wet cooling tower currently utilized by Unit 7 and the retirement of Unit 7, all as described in the Implementation Plan for the Pittsburg Generating Station. As an alternative to achieving Track 1 compliance through the conversion project, NRG Delta reserves the right to permanently retire Pittsburg Generating Station.

b. The State Water Board will suspend the (NPDES) renewal process for the Pittsburg Generating Station until the filing at the California Public Utilities Commission of a Power Purchase Agreement sufficient to enable NRG Delta, LLC to proceed with the conversion project described in paragraph 2.1.3(a) above, at which time the NPDES renewal process will be reactivated. If such a filing has not occurred by December 31, 2015, then the NPDES renewal process shall continue to be suspended until the compliance deadline, or upon the expiration of any extension thereof to maintain the reliability of the electric system under Policy section 2.B(2)(a) or (b), at which time NRG Delta shall permanently retire the Pittsburg Generating Station.

2.2 Mandalay Generating Station and Ormond Beach Generating Station

2.2.1 Infeasibility Determination. Track 1 is not feasible, as defined in Policy section 5, at Mandalay Generating Station and Ormond Beach Generating Station under Policy section 2.A.(2).

2.2.2 Compliance Alternatives. NRG South may comply with the Policy either by retiring its units utilizing once-through cooling and pursuing a replacement project at Mandalay Generating Station and/or Ormond Beach Generating Station or, alternatively, by pursuing Track 2 compliance as provided in paragraph 2.2.4, below.

2.2.3 Interim Mitigation. A per-million-gallon fee, as recommended in the Expert Panel Final Report dated March 14, 2012, is an appropriate basis for calculating interim mitigation payments under Policy section 2.C.(3)(b). The Parties agree that the amount of the per-million-gallon fee will be no greater than $6.50/million-gallon. The Parties further agree that NRG may seek to apply the funds to an Oxnard wetlands restoration project.

2.2.4 Track 2 Studies and Compliance Measurement.

a. Track 2 compliance can be achieved by an 83.7% or greater reduction in impingement mortality and entrainment using screens or other technology controls and operational measures pursuant to Policy section 2.A.(2)(a)(ii) and 2.A.(2)(b)(ii).

b. The existing velocity cap installed at the Ormond Beach Generating Station cooling water intake has satisfied the requisite reduction in impingement mortality under section 2.A.(2)(a)(ii) of the Policy.

c. Track 2 compliance can be achieved through a combination of (1) technology controls, such as screens, and (2) operational controls to further reduce flow, pursuant to Policy section 2.A.(2)(b)(ii). The percent reductions in entrainment achieved by the technology controls may be based on calculations of the numbers of fishes and other meroplankton of a specific age or size class that have been protected from the effects of entrainment for the species selected for analysis. As used in this Agreement, the term "fishes and other meroplankton" means ichthyoplankton and meroplankton as identified in the Policy at section 2.A.(2)(b)(ii).

d. Following initial confirmation pursuant to Policy section 4.A.(2) and 4.B.(2) that the combination of technology and operational controls will achieve the required reductions, further ongoing confirmation of compliance in the course of NPDES permit monitoring and renewal will be based on (1) the percentage reduction achieved by the technology as determined by the initial verification studies, combined with (2) the percentage reductions in entrainment from the operational controls corresponding to flow reductions, which will be reported on an annual basis, using the results of the Baseline Studies as provided in paragraph 2.2.5, below.

2.2.5 Baseline Studies. NRG South may conduct baseline studies consistent with Policy section 4.A.(1) and 4.B.(1) for Mandalay Generating Station and as needed to supplement existing data for Ormond Beach Generating Station, consistent with the understanding regarding Track 2 compliance outlined above. Prior impingement studies conducted at the Ormond Beach Generating Station accurately reflect current impacts for the purposes of Policy section 4.A.(1). NRG South will submit the plans for the proposed baseline studies to Board staff for review within 60 days of the Execution Date of this Settlement Agreement. The State Water Board will provide written confirmation within 30 days of NRG South's submittal that the baseline studies satisfy the requirements of Policy sections 4.A(1) and 4.B.(1), as applicable. The baseline studies shall be deemed to have satisfied the study design requirements of Policy sections 4.A.(1) and 4.B.(1) if the State Water Board does not respond to the study submittal within 30 days of submission.

3. Technology Evaluation. NRG South may evaluate screening or other technologies to be installed at Mandalay Generating Station and/or Ormond Beach Generating Station by conducting pilot study(ies) consistent with the agreements regarding Track 2 compliance, outlined above. NRG South will seek State Water Board approval for pilot study designs as needed.

4. Intake Flows. It may be necessary to continue intake flows even when not directly engaging in power-generating activities or critical system maintenance for short time periods while performing baseline, pilot and/or verification and confirmation studies. As needed, NRG South will provide the State Water Board with proposed testing schedules in the development of baseline, pilot and technology study plans and coordinate the study designs with the State Water Board with a goal of minimizing intake flows not associated with power-generating activities or

critical system maintenance. Upon State Water Board confirmation of the relevant study, NRG South shall be deemed to have demonstrated to the State Water Board that a reduced minimum flow is necessary for operations, pursuant to Policy section 2.C(2).

5. Updates and Other Requests. Whenever NRG South submits information to the State Water Board and requests the State Water Board's confirmation or approval, the State Water Board will respond promptly with an approval or an explanation for disapproval, including any additional information needs, but in any event no later than 60 days after receipt of the information or request. In the event the State Water Board requests additional information or other amendment, the State Water Board shall provide approval not later than 30 days after receipt of the information or amendment. These deadlines may be extended by mutual agreement in writing. The information or submittal to the State Water Board for approval shall be deemed to be approved is the State Water Board does not respond to the submittal within 30 days.

6. NPDES Permits. NPDES permits for Pittsburg Generating Station, Mandalay Generating Station and Ormond Beach Generating Station will incorporate, respectively, provisions necessary to implement the terms of this Agreement pertaining to that facility contained in Section 2 of this Agreement.

7. Implementation of Settlement.

7.1 Stay or Stipulated Dismissal without Prejudice.

7.1.1 It is the Parties' intent that NRG's claims in the Action shall be stayed while the Parties take the necessary actions to implement the terms of this Agreement. Further, it is the Parties' intent that, in the event of a breach of this Agreement, or in the event that the substantive terms of this Agreement are not incorporated into the NPDES permits for these NRG facilities consistent with Section 6 of this Agreement, the stay of the Action will be lifted and the Action may then proceed.

7.1.1.a. Within twenty-one (21) days of the Execution Date of this Agreement, NRG will seek to have the Action stayed in order to allow the Parties' intentions and the terms of this Agreement to be implemented. The State Water Board will support any motion to stay the Action in accordance with this paragraph 7.1.1.

7.1.1.b. In the event that the Parties are unable to obtain a stay of the Action, the Parties will stipulate to dismiss the Action without prejudice and with the right to re-open as set forth in paragraph 7.1.1.d. and Section 9 of this Agreement. The Parties shall enter this stipulation within twenty-one (21) days of being informed by the Court that it will not stay the Action. A dismissal without prejudice under this Section will serve to toll any applicable statutes of limitation, filing, statute of repose, laches defense, claim of waiver or estoppel, or other similar defense or claim that is applicable to any of the claims or causes of action asserted by NRG in the Action.

7.1.1.c. The stay described in paragraph 7.1.1.a. or the tolling specified in paragraph 7.1.1.b. will run so long as the Parties are pursuing the necessary steps to implement the terms of this Agreement.

7.1.1.d. In the event that the NPDES permits do not contain the provisions necessary to implement Section 6 of this Agreement, or to the extent that the State Water Board is otherwise in breach of this Agreement, the State Water Board stipulates that NRG can lift the stay, reactivate or reinstate the Action, and NRG can amend the original Action to include additional claims or causes of action consistent with applicable statutes of limitations. The tolling period provided by paragraph 7.1.1.b. shall not apply to additional claims or causes of action not asserted in the Action.

7.2 Dismissal with Prejudice. Upon re-issuance of NPDES permits for Pittsburg Generating Station, Mandalay Generating Station and Ormond Beach Generating Station that adopt the provisions of the Policy and this Agreement as provided in Section 6, NRG will file a voluntary dismissal of the Action with prejudice, or if the Action has already been dismissed pursuant to 7.1.1.b., then NRG shall not be entitled to reopen or reinstate the claims or causes of action contained in the Action and those claims are subject to the release of paragraph 7.3.

7.3 Release. Upon the conditions of paragraph 7.2, NRG fully and forever releases the State Water Board from any and all claims, demands, actions, causes of action, obligations, damages, liabilities, loss, costs or expense, including attorneys' fees, of any kind or nature whatsoever, in law, equity or otherwise, which it may now have as a result of the adoption of the Policy. The release provided by this paragraph does not extend to any subsequent actions of the State Water Board that modify the Policy in a way that imposes additional obligations on NRG or any subsequent action by the State Water Board that is in breach of this Agreement.

8. Effect on State Water Board Authorities. Except as specifically agreed to herein, nothing in this Agreement limits the authority of the State Water Board to exercise its powers provided under state and federal law, including to issue or enforce orders.

9. Default and Remedies. In the event of an alleged breach, the non-breaching Party agrees to give written notice of the alleged breach to all other Parties and to consult with the Parties within fifteen (15) days of the written notice of the alleged breach, unless otherwise agreed in writing, for the purpose of attempting in good faith to resolve any disputes prior to the initiation of litigation or court proceedings. If the Parties are unable to resolve the dispute, the non-breaching Party can move to re-open the Action, and can amend the original Action to include additional claims,

10. Attorneys' Fees and Costs. All Parties agree to bear their own fees and costs associated with the Action or any challenges by any non-party to this Agreement and related implementing documents and processes.

11. Superior Court to Enforce Agreement. The Parties agree and acknowledge that this Agreement shall be deemed to have been entered into by and between the Parties in the County of Sacramento, State of California. The Parties agree that the Superior Court of California for the County of Sacramento, in which forum the Action was filed, shall be the judicial forum for purposes of jurisdiction should any Party seek to enforce the terms of this Agreement.

12. No Admission. This Agreement and its provisions and any proceedings taken hereunder are for settlement purposes only and are not intended to be, and shall not in any event be construed or deemed to be, an admission or concession on the part of the Parties, or any of them, of any liability or wrongdoing whatsoever. This Agreement is predicated upon unique facts which exist between the Parties and none of the Parties intend this Agreement to be a waiver of any right or position in regards to any third party. Neither this Agreement nor any negotiations or proceedings in pursuance of this Agreement shall be offered or received in any action or proceeding as an admission or concession of liability or wrongdoing of any nature on the part of the Parties, or any of them, or anyone acting on their respective behalves.

13. Successors. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective representatives, successors and assigns. No Party may assign its rights under this Agreement without the prior written consent of the other Parties.

14. No Third Party Beneficiaries. This Agreement is between the Parties and is not intended to confer upon any person other than the Parties any rights or remedies.

15. Notices. All communications and notices to be given to any Party under this Agreement shall be sufficiently given for purposes hereunder if in writing and delivered by hand, courier or overnight delivery service, or certified or registered mail return receipt requested with appropriate postage prepaid, with an additional copy provided by electronic mail, and directed to the addresses below:

As to State Water Board:

Michael A.M. Lauffer
Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
michael.lauffer@waterboards.ca.gov

As to NRG:

Elizabeth P. Ewens, Esq.
Ellison, Schneider & Harris L.L.P
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816
epe@eslawfirm.com

and

West Region General Counsel
NRG Energy, Inc.
P.O. Box 192 (U.S. Mail)
696 W. 10th Street (All other deliveries)
Pittsburg, CA 94565

15.1 Any Party may change its notice recipient or address for providing notice to it by notifying the other Party in writing setting forth such new notice recipient or address.

16. Further Cooperation. The Parties, and each of them, agree to do all things reasonably necessary to implement this Agreement, including, but not limited to, executing such additional writings as may be reasonably required to carry out the intent of this Agreement. The Parties will reasonably cooperate, each with the other, to effectuate the purpose of this Agreement, to protect and defend its integrity and do what may be necessary to verify its existence and operation in such matters as may be relevant.

17. Entire Agreement. This Agreement constitutes the entire agreement between the Parties. There are no further or other agreements or understandings, written or oral, in effect between the Parties relating to the subject matter of this Agreement.

18. Modification of Agreement. It is expressly understood and agreed that this Agreement may not be altered, amended, modified, or otherwise changed in any respect whatsoever except by a writing duly executed by authorized representatives of the Parties hereto. The Parties hereby agree and acknowledge that they will make no claim at any time or place that this Agreement has been orally altered or modified or otherwise changed by oral communication of any kind or character.

19. Mutual Preparation. The Parties each cooperated in the drafting and preparation of this Agreement and thus it shall be deemed drafted by all Parties to the Agreement. The language of all parts of this Agreement shall be construed as a whole, according to its fair meaning, and not strictly for or against any Party as the drafter thereof.

20. Authority. Each Party respectively represents and warrants to each other Party that the undersigned representative for such Party has full and complete authority to execute and enter into this Agreement and bind said Party to the terms hereof.

21. Counterparts. This Agreement may be executed by facsimile and in counterparts, and each counterpart shall be considered an original, and all of which, taken together, shall constitute one and the same instrument; provided, however, that original signatures will also be provided to all counsel by mail.

22. Captions. The captions contained herein are intended solely for convenience and shall not be construed as full or accurate descriptions of the terms hereof.

23. Independent Investigation. Each Party has made such investigation of the facts pertaining to this Agreement and of all matters pertaining thereto as it deems necessary.

24. Governing Law. This Agreement has been executed and delivered in the State of California and its validity, interpretation, performance, and enforcement shall be governed by the laws of the State of California.

25. Severability. If any portion or portions of this Agreement are held by a court of competent jurisdiction to conflict with any federal, state, or local laws, and as a result such portion or portions are declared to be invalid and of no force or effect in such jurisdiction, all remaining portions of this Agreement shall otherwise remain in full force and effect and be construed as if such invalid portions had not been included herein.

26. Force Majeure. No Party to this Agreement shall be deemed in violation of it if it is prevented from performing any of the obligations hereunder by reason of boycotts, labor disputes, embargoes, shortage of material, act of God, strikes, lockouts, labor troubles, inability to procure labor or materials, fire, accident, laws or regulations of general applicability, act of superior governmental authority, weather conditions, sabotage, or any other cause or circumstances for which it is not responsible and beyond its control (financial inability excepted). Any Party intending to assert force majeure shall notify the other Party(ies) in writing as soon as practicable following the date the Party first knew, or by the exercise of reasonable diligence should have known, of the force majeure event.

///

///

///

///

///

///

///

///

///

///

///

///

///

///

///

///

///

27. Voluntary and Knowing Execution. Each Party respectively represents and warrants to each other Party that it has thoroughly read and considered all aspects of this Agreement, that it understands all provisions of this Agreement, that it has had the opportunity to consult with counsel, and that it is voluntarily and knowingly entering into this Agreement without duress or coercion of any kind.

SO AGREED:

Dated: ~~September~~ October 9, 2014

STATE WATER RESOURCES CONTROL BOARD

By: _____
Thomas Howard
Executive Director

Dated: September ____, 2014

NRG CALIFORNIA SOUTH, LP

By: _____
John Chillemi
President, NRG California South GP LLC

Dated: September ____, 2014

NRG DELTA, LLC

By: _____
John Chillemi
President, NRG Delta LLC

27. Voluntary and Knowing Execution. Each Party respectively represents and warrants to each other Party that it has thoroughly read and considered all aspects of this Agreement, that it understands all provisions of this Agreement, that it has had the opportunity to consult with counsel, and that it is voluntarily and knowingly entering into this Agreement without duress or coercion of any kind.

SO AGREED:

Dated: September ____, 2014 STATE WATER RESOURCES CONTROL BOARD

By: _____
Thomas Howard
Executive Director

Dated: ~~September~~ October 9, 2014 NRG CALIFORNIA SOUTH, LP

By: _____
John Chillemi
President, NRG California South GP LLC

Dated: ~~September~~ October 9, 2014 NRG DELTA, LLC

By: _____
John Chillemi
President, NRG Delta LLC

EXHIBIT 8

Natural Gas as a Bridge Fuel

Measuring the Bridge

By Steve Weissman
Senior Policy Advisor
Center for Sustainable Energy

Contributors

Sachu Constantine
Director of Policy

Paul Hernandez
Energy & Transportation Policy Manager

Ciaran Gallagher
Policy Intern

With the exception of a few bumps and starts, the nation's history with natural gas use has been one of constant growth. As far as fossil fuels go, natural gas is cheap, plentiful, versatile and comparatively clean. As a nation, when we have perceived the existence of plentiful natural gas supplies — as we do now — our policy has been simple: Let's use as much of it as we can, as quickly as possible.

Natural gas cannot play a long-term role in creating our desired carbon-constrained future, as its benefits are not enough to support our carbon reduction goals.

Looking to the future, the growth in natural gas use appears to continue, unabated. Natural gas has a significant near-term role to play in helping us reduce reliance on coal-fired electricity and smooth the transition to intermittent renewable sources such as solar and wind. Yet, natural gas cannot play a long-term role in creating our desired carbon-constrained future, as its benefits are not enough to support our carbon reduction goals.

In recent years, there has been a surge of investment in natural gas facilities (power plants, pipelines, gathering equipment, wells, etc.). Investors in these facilities will want to maximize their investment return by sustaining natural gas markets as long as possible. The golden question is how will the pressure to allow for high returns on capital investment affect our ability to move away from the use of natural gas, as we must, to meet long-term greenhouse gas reduction goals?

Center for Sustainable Energy®

It is commonly understood that in order to stabilize climate change, we must achieve dramatic reductions in global greenhouse gas emissions. For years, the accepted target has been to reduce greenhouse gas emission to 80% below 1990 levels by the year 2050. To do this, we must eliminate almost all use of fossil fuels, including natural gas.

A power plant on the drawing boards today could still be operational in 2050 and well beyond. With each passing year, the likely life span of new natural gas power plants moves further beyond 2050.

When policies might constrain the domestic natural gas markets, investors will inevitably push back. And as domestic markets shrink, investors will act to develop offshore sales. In fact, investors are not even waiting for a reduction in U.S. demand for gas before looking to sell elsewhere. They are doing it now. All of these factors will contribute to pressures to keep developing and using natural gas long after it becomes a luxury we cannot afford.

Natural gas advocates characterize it as a bridge fuel. The implication is that we will use it now, to achieve short-term greenhouse gas reductions by replacing coal-fired power, then reduce or end reliance on natural gas over some time period to lock in long-term greenhouse gas reductions. But how long is the bridge? When should we stop developing new natural gas infrastructure? How do we make our use of natural gas beneficial without turning it into a long-term problem? There are several things policy makers can do.

1. Regulators can develop long-range plans to shape natural gas development and use. Both state and federal regulators make decisions every day that affect our reliance on natural gas without having a clear view of the big picture. Quantifying our current gas use and understanding trends is a first step. Then, regulators can develop scenarios that will support a reasoned retreat from natural gas use.

2. Lawmakers and regulators can set a final date beyond which no new natural gas power plants can be approved.

3. Policy makers can develop an explicit plan to phase out the use of natural gas for existing power plants and for other domestic uses.

4. The good news is that we don't have to wait for new technologies or better options before we reduce our dependence on natural gas. We have the tools to do it now. To maintain grid reliability, lawmakers and regulators must require the strategic selection of renewable power sources (both in terms of type and location), increase the range of demand response tools, act to increase the adoption of energy efficiency measures by focusing on the transformation of energy markets, increase reliance on regional power swings through the use of Energy Imbalance Markets, and require the retrofit of existing natural gas power plants to add flexibility in their operation.

A power plant on the drawing boards today could still be operational in 2050 and well beyond. With each passing year, the likely life span of new natural gas power plants moves further beyond 2050.

Natural Gas Cannot Play a Major Long-term Role in Our Carbon-constrained Future

Meeting our ambitious long-term greenhouse reduction goals will require major changes across all sectors of energy use. This is perhaps most clearly

demonstrated in a recent study produced by a number of authors affiliated with the Lawrence Berkeley National Laboratory, the Energy and Resources Group at the University of California at Berkeley, the Monterey Institute of International Studies and the Energy and Environmental Economics (E3) consulting group.[1]

The authors find that it is possible to achieve deep greenhouse gas reductions by 2050 with little change in life-style (although the potential for life-style change deserves further study). The logical sequence of deployment for the main components of this transformation is EE [energy efficiency] first, followed by decarbonization of generation, followed by electrification. This transformation will require electrification of most direct uses of oil and gas.[2]

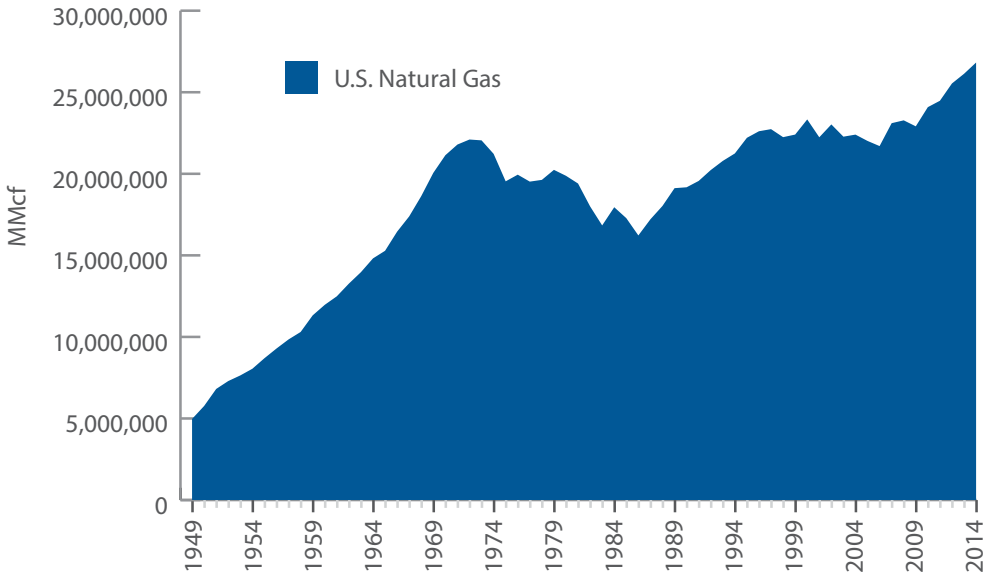
Creating a virtually carbon-free supply of electricity becomes a critical part of the process. The authors looked at various ways to decarbonize the grid, including relying on a heavy dose of nuclear power, renewable energy or carbon capture and storage.[3] Regardless of the scenario adopted, the authors suggest that all nonelectric generation uses of fossil fuels must be eliminated and the use of fossil fuel for electric generation (including natural gas) must be almost entirely eliminated.

Regardless of the scenario adopted, the authors suggest that all nonelectric generation uses of fossil fuels must be eliminated and the use of fossil fuel for electric generation (including natural gas) must be almost entirely eliminated.

Domestic Use of Natural Gas Continues to Grow

The nation's history with natural gas use has been one of almost constant growth. In 2014, businesses and individuals in the United States used five times the amount of natural gas used 65 years earlier (see Figure 1).

Figure 1: U.S. Natural Gas Total Consumption (MMcf)



Data source: U.S. Energy Information Administration (EIA), 2015

Data source: U.S. Energy Information Administration (EIA), 2015.

1 *Pathways to Deep Decarbonization in the United States*, James H. Williams, et al., (2015).
2 Ibid., p. xi.
3 Carbon capture and storage involves separating carbon dioxide and other greenhouse gases from a fossil fuel source either before or after combustion and permanently storing those gases – usually underground.

On average, natural gas consumption grew 2.78% for each year between 1950 and 2014, despite the fact that there was a period of reduced demand from 1973-1986 (driven by a temporary natural gas shortage and a growing reliance on nuclear and coal-fired electric generation). The current rate of growth (2.65% per year on average) is consistent with the historical average (see Table 1).

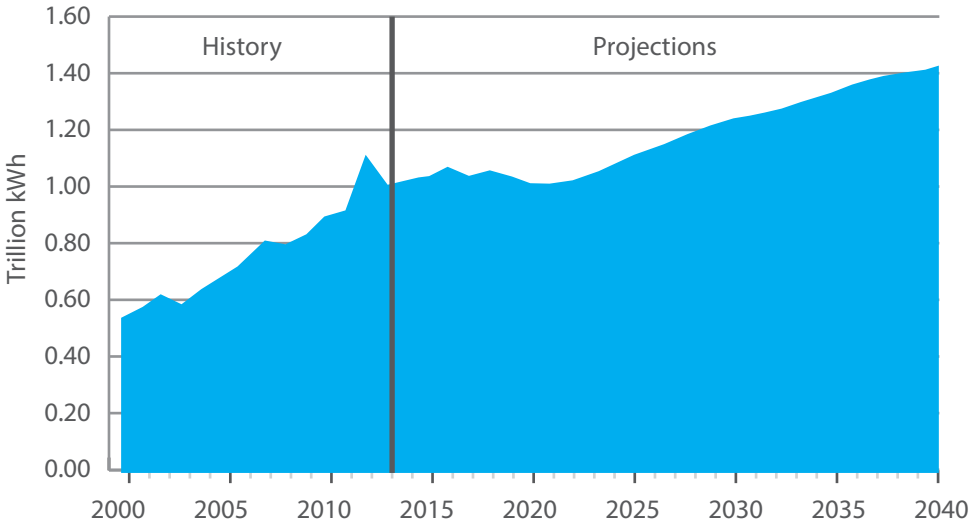
Table 1: Periods of Growth in U.S. Consumption of Natural Gas

Number of Years	Range of Years	Average Percentage of Natural Gas Increase
22	1950 to 1972	6.76%
14	1987 to 2000	2.66%
8	2007 to 2014	2.65%

Few have identified a time when the growth of domestic demand for natural gas will be reversed. The large-scale introduction of hydraulic fracturing in the United States has dramatically increased domestic supplies, contributed to low prices and encouraged greater consumption. In the eight years from 2005 to 2013, the total dry natural gas production in the U.S. increased by 35%, with natural gas's share of total U.S. energy consumption rising from 23% to 28%. In 2013 alone, dry natural gas accounted for 30% of total U.S. energy production.[4] The generation of electric power with natural gas has shown dramatic growth, as well (see Figure 2). The adoption of the U.S. Environmental Protection Agency's Clean Power Plan should, if anything, increase the pressure to build more natural gas-fired electric generating capacity, as substituting gas for coal is an option for compliance with the plan's requirements.

The adoption of the U.S. Environmental Protection Agency's Clean Power Plan should, if anything, increase the pressure to build more natural gas-fired electric generating capacity, as substituting gas for coal is an option for compliance with the plan's requirements.

Figure 2: Natural Gas Electricity Generation: EIA AEO2015 Reference Case, 2000–2040



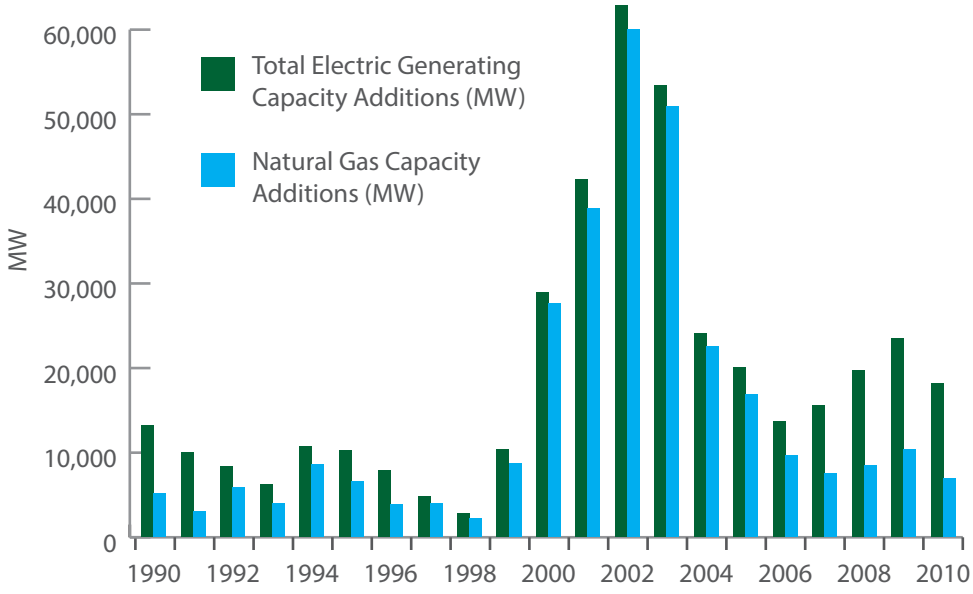
Data source: U.S. Energy Information Administration (EIA), 2015.

The growth in natural gas consumption is in step with the dominant role that new natural gas generation has played in recent years. The majority of the electric generating capacity additions from (2000 to 2010) were natural gas-fired. At the

4 *Annual Energy Outlook 2015* (AEO2015): **http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf**.

end of 2010, natural gas-fired generators constituted 39% of the nation's total electric generation capacity of 1,042 gigawatts (GW). Nearly 237 GW of natural gas-fired generation capacity was added between 2000 and 2010, representing 81% of total generation capacity additions over that period.[5] Figure 3 depicts this activity for the 1990 to 2010 period, over which natural gas capacity additions were a standard practice.

Figure 3: U.S. Power Plant Additions from 1990–2010



Data source: U.S. Energy Information Administration (EIA), **Most electric generating capacity additions in the last decade were natural gas-fired**, July 5, 2011.

Isn't Natural Gas Better Than Coal?

Natural gas is not always as clean as people wish it were. Due to methane leaks and energy required during extraction and production, the greenhouse gas savings are often much less than half of coal's emissions.

At the power plant, natural gas burns cleaner than coal, as it emits half the carbon dioxide emissions.[6] But natural gas is still a fossil fuel and it still emits carbon dioxide into the atmosphere, at a rate of about 117 lbs. of CO_2 per MMBtu.[7] And natural gas is not always as clean as people wish it were. Due to methane leaks and energy required during extraction and production, the greenhouse gas savings are often much less than half of coal's emissions.

Methane is the primary component of natural gas. During extraction, transportation, storage and use, natural gas often leaks. This is cause for concern as methane is a much more potent greenhouse gas than carbon dioxide. Methane has a shorter residence time in the atmosphere — only about 12 years[8] compared to about 100 years for carbon dioxide.[9] Nonetheless, over the long haul, methane is still at least 25 times as potent as carbon dioxide.[10]

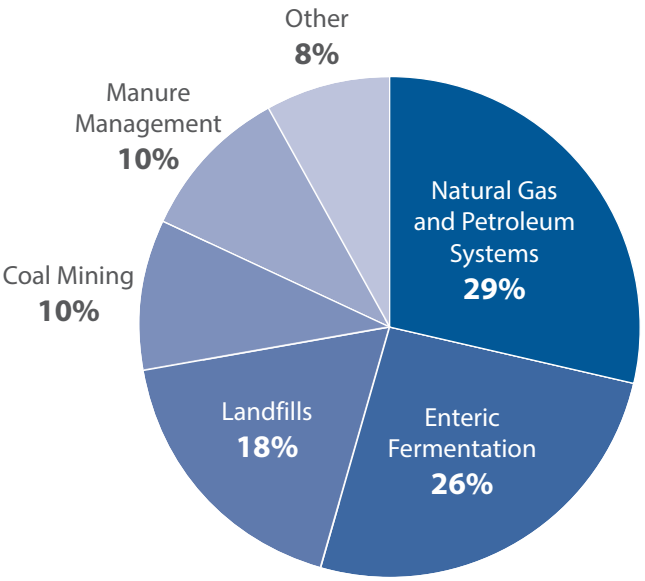
5 U.S. Energy Information Administration (EIA), **Most electric generating capacity additions in the last decade were natural gas-fired**, July 5, 2011.
6 EPA 2013.
7 EIA 2015b.
8 EPA 2011.
9 The IPCC gives 5-200 years residence time in atmosphere, depending on different uptake rates, IPCC 2014.
10 EPA 2015a.

Another complicating factor when evaluating natural gas's cleanliness is uncertainty about the actual methane leakage rates. In 2012, the EPA estimated a 1.3% leakage rate (methane emitted per unit of gas produced), using industry data. However, a recent report from the California Public Utilities Commission finds that estimates in peer-reviewed literature for downstream emission of methane from natural gas systems range from 0.07% to 10%.[11] These emissions are from transmission and distribution pipelines and do not include emissions at the wellhead or those occurring during the processing of the gas. A catastrophic release of natural gas, such as the major failure at California's Aliso Canyon gas storage facility, suggests that the day-to-day downstream emission rates only begin to tell the story. A new rule from the EPA will mandate that industries report all greenhouse gas emissions from hydraulic fracturing, compressor stations and pipelines, including methane emissions.[12] But these emissions will be self-reported, leading to the potential of continued underestimation of methane leaks. Most scientific papers that focus on the methane emissions of natural gas production conclude that there is a need for better data, more monitoring of leaks and more stringent regulations.[13]

A catastrophic release of natural gas, such as the major failure at California's Aliso Canyon gas storage facility, suggests that the day-to-day downstream emission rates only begin to tell the story.

Natural gas system operators are likely incapable of entirely eliminating methane leaks, and the detection and elimination of minor or occasional leaks may seldom be cost-effective. But as part of its inventory of greenhouse gas emissions (for calendar year 2012, released in 2014, referred to as the EPA 2012 GHG NEI), the EPA estimates that more than 60,000 natural gas wells in the United States regularly vent methane into the atmosphere as part of what is referred to as liquid unloading. Altogether, oil and natural gas systems account for the largest share of methane emissions in the United States (see Figure 4).

Figure 4: Percentage of Total Estimated Methane Emissions



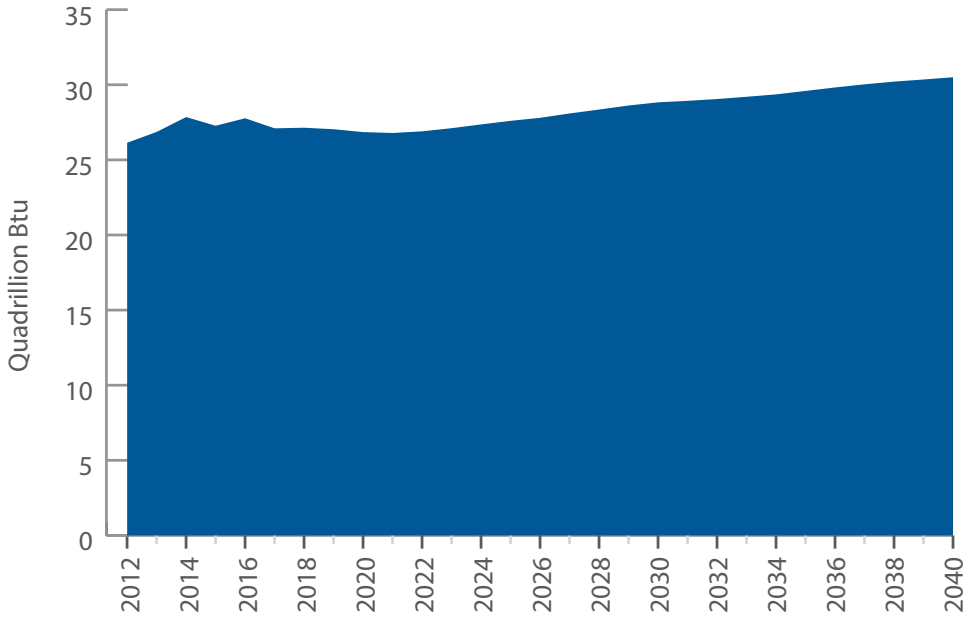
Data source: U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013.

11 *What Gets Measured: A Summary of Recent Policies, Studies and Pilot Projects Related to Methane Emissions From California's Natural Gas Transmission and Distribution System*, Martin Kurtovich, **http://www.cpuc.ca.gov/NR/rdonlyres/B4CE3B9A-7291-4A7F-9672-9C09C99A7456/0/PPDIntrotoMethaneemissionmeasurements.pdf** at p. 7, citing other studies.
12 EPA Federal Registrar 2014.
13 Alvarez et al., 2012.

At a time when we should be dramatically reducing our use of all fossil fuels, EIA has found that business as usual supports continued growth in the use of natural gas.

The U.S. Energy Information Administration (EIA) currently projects that a continuation of existing policies will result in natural gas demand of 20.88 quadrillion Btu by 2040, representing 10% growth in gas consumption between 2015 and 2040 (see Figure 5). At a time when we should be dramatically reducing our use of all fossil fuels, EIA has found that business as usual supports continued growth in the use of natural gas.

Figure 5: Total Natural Gas Consumption (in quadrillion Btu), 2012–2040

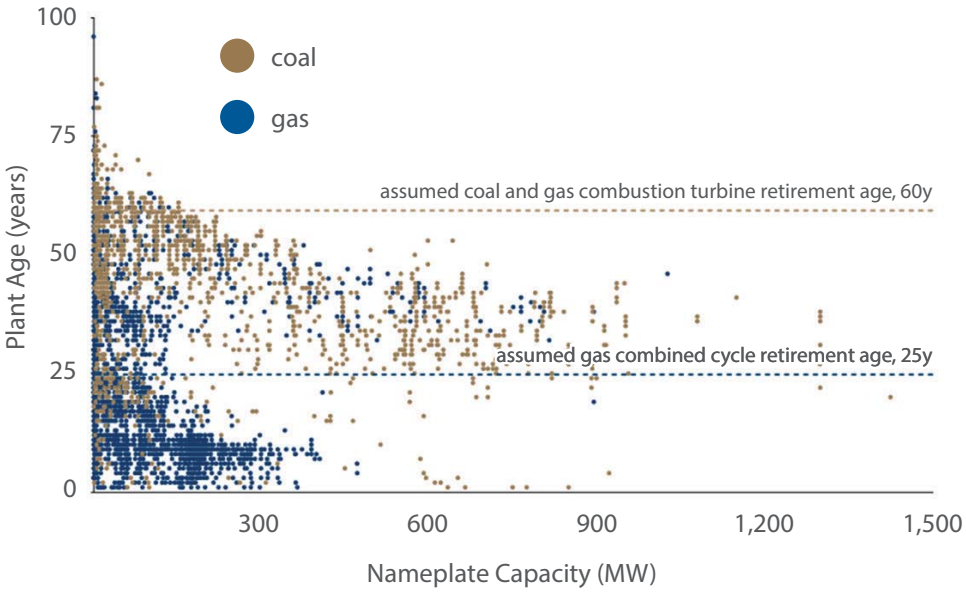


Data source: U.S. Energy Information Administration (EIA), 2015.

Natural Gas Facilities Can Remain Useful for 30-60 Years

Natural gas power plants can continue to produce revenue 60 years after initial commercial operation (see, for instance, Figure 6 in which the Rocky Mountain Institute plots the natural gas plants in operation in fall 2011).

Figure 6: Age and Capacity of Operating U.S. Coal and Gas-fired Generators, Fall 2011



Source: Rocky Mountain Institute © 2011. For more information see www.RMI.org/ReinventingFire.

By way of example, the average age of retired natural gas power plants in California is about 35 years,[14] longer than the usual 30-year predicted lifespan. And in California, 14 natural gas-fired power plants still in operation were built in the 1950s.[15] In the United States, a total of 111,360.2 MW of natural gas capacity, or 27% of all natural gas capacity, is more than 30 years old.[16] Other natural gas infrastructure can live a long, revenue-producing life. For instance, natural gas pipeline can continue to operate for at least 50 years.[17]

A Power Plant on the Drawing Boards Today Could Still Be Operational in 2050 and Well Beyond

Achieving long-term greenhouse gas emission reduction goals not only requires eliminating virtually all natural gas use by 2050, it would necessitate phasing out natural gas use (as well as the use of coal and oil) over the years between now and then. This will become increasingly difficult as the nation encourages more and more investment in natural gas development and infrastructure. Consider, for instance, the amount of time it takes to seek and achieve a permit to build a new natural gas power plant, construct the power plant and bring it into commercial operation. This is a multiyear process. Once the plant comes online, it begins a useful operating life which is (on average) 35 years. A plant that goes online in 2016 could easily still be in operation in 2050. One that begins the permitting process in 2016 would extend several years beyond 2050. The further out from 2016 the nation continues to license new gas-fired power plants, the longer beyond 2050 investors will seek to

Achieving long-term greenhouse gas emission reduction goals not only requires eliminating virtually all natural gas use by 2050, it would necessitate phasing out natural gas use (as well as the use of coal and oil) over the years between now and then.

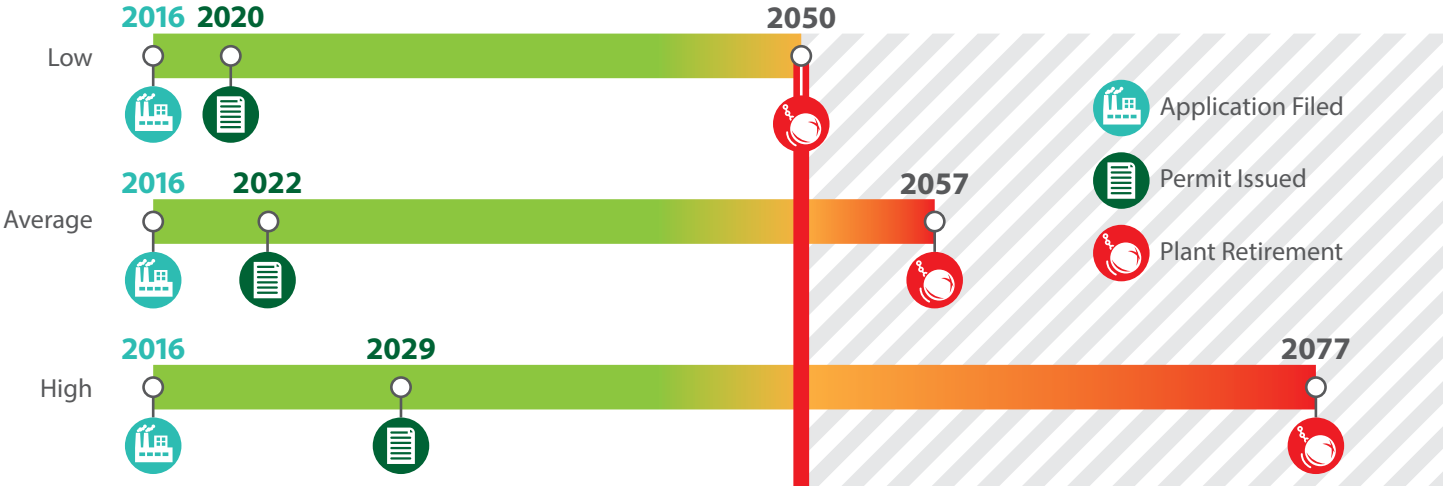
14 State of California, Energy Almanac 2008.
15 State of California, Energy Almanac 2015.
16 EIA 2011.
17 See, for instance, the website of the Interstate Natural Gas Association of America, **http://www.ingaa.org/file.aspx?id=10929**.

keep plants in operation. An analysis of short, average and long time frames for these milestones indicates the challenge that policymakers will face in phasing out natural gas usage as more and more power plants are approved for construction.

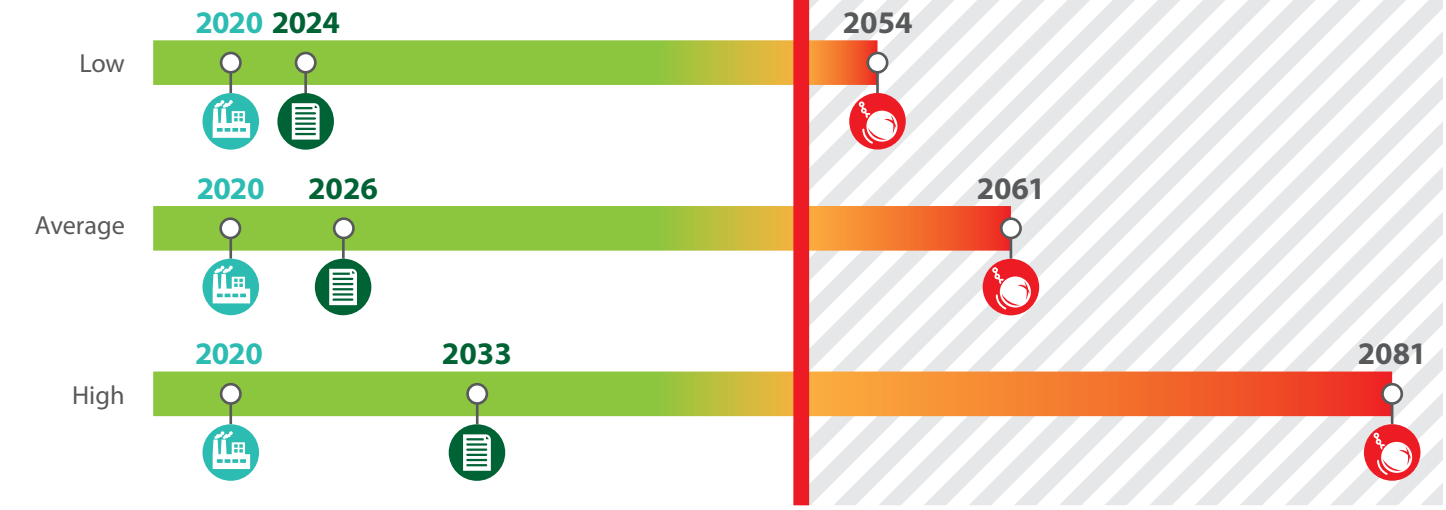
For this report, we examined California's recent history related to permitting and constructing new, large gas-fired generating facilities (500 megawatts or larger).[18] The average length of time from permit application to commercial generation was six years. The shortest was four years, while the longest period was 13 years. Considering low, medium and high estimates for permitting, construction and commercial operation, we looked at the potential years of operation for plants for which applications might be filed in 2016 or 2020. The results are included in Figure 7.

Figure 7: Typical Timelines for Natural Gas Power Plants

Application Filed in 2016



Application Filed in 2020



18 See California Energy Commission, Status of All Projects http://www.energy.ca.gov/sitingcases/all_projects.html.

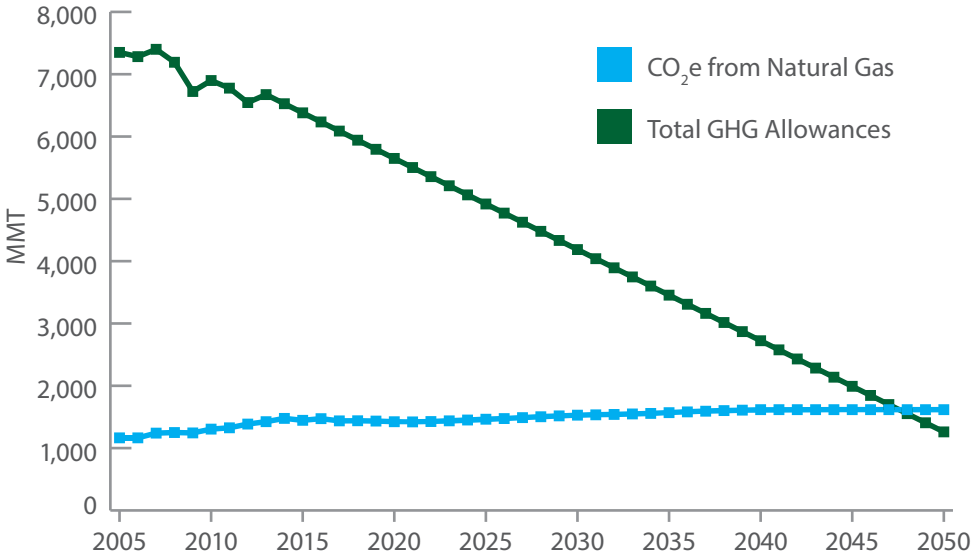
The numbers continue to grow. A permit application in 2025 could lead to a plant still in operation in 2086. An application in 2030 could lead to a plant in operation in 2091. As more people and institutions invest in natural gas, political pressure to sustain its use grows. It will become more and more difficult to achieve long-range greenhouse gas reduction goals.

The U.S. Cannot Accommodate Business-as-Usual Natural Gas Use and Meet Long-term Greenhouse Gas Reduction Goals

Policymakers and advocates have long suggested that, in order to stabilize climate change, the world must reduce its greenhouse gas emissions 80% below 1990 levels by the year 2050. If the U.S. were to adopt this standard and if natural gas use throughout society remained at the EIA's projected 2040 levels, natural gas emissions would more than exhaust the country's entire greenhouse gas allotment by 2050 (See Figures 8 and 9). That means that unless the U.S. adopts and enacts policies to reduce reliance on natural gas over the next 35 years, the country would fail to meet the target, even if it eliminated 100% of all other greenhouse gas emissions. As researchers cited earlier concluded, almost any remaining use of natural gas in 2050 threatens the country's ability to achieve such long-term goals.[19]

Unless the U.S. adopts and enacts policies to reduce reliance on natural gas over the next 35 years, the country would fail to meet the target, even if it eliminated 100% of all other greenhouse gas emissions.

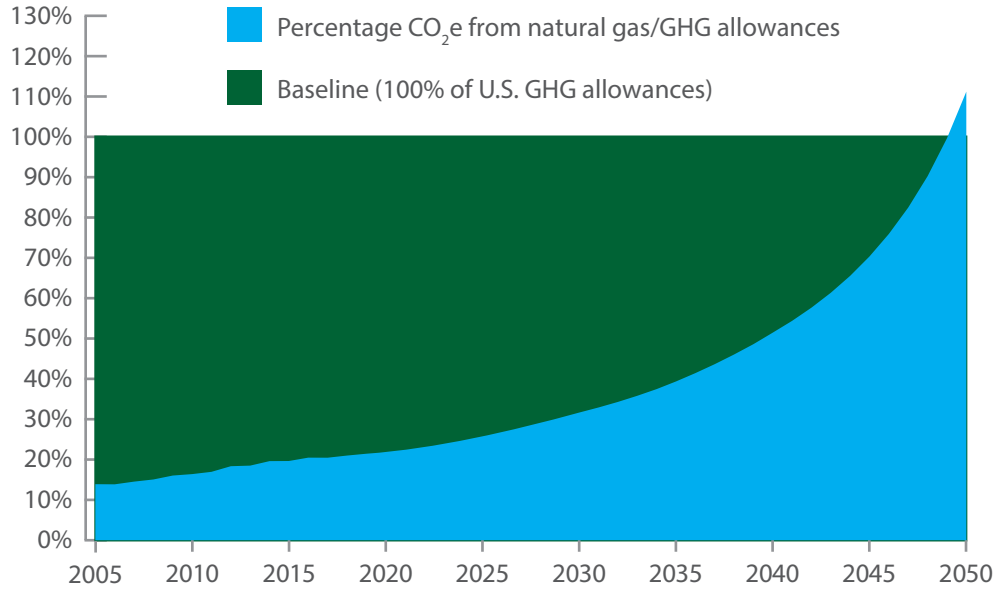
Figure 8: CO_2e from Natural Gas vs. Total Greenhouse Gas Allowances*



*The total natural gas consumption rate (CO_2e) is derived from EIA data for National Energy Consumption by Sector and Source. The conversion factor used to determine MMT is 0.1 mmBtu/1 therm × 14.46 kg C/mmBtu × 44 kg CO_2/12 kg C × 1 metric ton/1,000 kg = 0.005302 metric tons CO_2/therm. The excel data is provided by the EIA Annual Energy Outlook 2015: Website access: **http://www.eia.gov/forecasts/aeo/**.

19 See Footnote 1.

Figure 9: GHG Emissions Reductions Allowances*



*The data to express the greenhouse gas emissions reductions allowances was derived from the EPA's Greenhouse Gas Inventory Data Explorer. Barring other factors, the data projection assumes the national goal of achieving 80% below 1990 levels greenhouse gas emissions reductions by 2050 (1990 levels were 6,301.05 MMT CO_2e). This implies the need to arrive at approximately 1260 MMT by 2050. The excel data is provided at the following link. Website access: **http://www3.epa.gov/climatechange/ghgemissions/inventoryexplorer/#allsectors/allgas/gas/all**.

Solutions

One of the key roles played by natural gas is to hasten the retirement or reduced use of coal-fired power plants. It is evident that strategies built around this premise have met with some success, and the trend should continue with the enactment of the U.S. EPA's mercury rule (after it is reaffirmed) and Clean Power Plan. The need to eliminate the combustion of coal remains critical. However, an increased reliance on natural gas can only be an interim solution. Nonetheless, in most if not all jurisdictions, the length and character of that interim phase is ill-defined and the unraveling of the growing natural gas dependence is unplanned. There are several steps that legislators and regulators can take to improve the likelihood that we can break this dependence when we need to.

Quantifying our current gas use and understanding trends is a first step. Then, regulators can develop scenarios that will support a reasoned retreat from natural gas use.

1. Make Plans

Regulators can adopt long-range plans to shape natural gas development and use. Both state and federal regulators make decisions every day that affect our reliance on natural gas without having a clear assessment of long-term implications. Quantifying our current gas use and understanding trends is a first step. Then, regulators can develop scenarios that will support a reasoned retreat from natural gas use.

2. Create Deadlines

With the benefit of well-developed plans, lawmakers and regulators can set a final date beyond which no new natural gas power plants can be approved.

3. Schedule a Phaseout of Natural Gas Use

Policymakers can develop an explicit plan to phase out the use of natural gas for existing power plants and for other domestic uses.

4. Use Other Tools

The good news is that we don't have to wait for new technologies or better options before we reduce our dependence on natural gas. We have the tools to do it now. To maintain grid reliability, lawmakers and regulators must require the strategic selection of renewable power sources (both in terms of type and location), increase the range of demand response tools, act to increase the adoption of energy efficiency measures by focusing on the transformation of energy markets, increase reliance on regional power swings through the use of Energy Imbalance Markets, and require the retrofit of existing natural gas power plants to add flexibility in their operation.

These are examples of the steps legislators and regulators can take to ensure that our natural gas use serves as a bridge, rather than a new, permanent pathway. The most critical step is to change the public conversation. We must acknowledge that our use of all fossil fuels, including natural gas, must have limits. Those limits are unlikely to be achieved, within any acceptable time frame, without careful planning and consideration of all proposed interim actions in the context of adopted plans.

Lawmakers and regulators can still do much to reduce the need for new natural gas plants, now and in the future, by expanding and modifying existing programs.

For more information on this report, visit **www.energycenter.org/policy** or contact **policy@energycenter.org**.

Center for Sustainable Energy

The Center for Sustainable Energy® (CSE) operates where energy and climate policies and the marketplace converge — providing integrated consumer education and incentive programs as well as facilitating research and program guidance for regional and state sustainable energy planning and policymaking.

Center for Sustainable Energy®

This report is available online at energycenter.org/policy/research-reports.

Natural Gas as a Bridge Fuel – Measuring the Bridge, Center for Sustainable Energy, San Diego, CA

Offices

San Diego (Headquarters)
9325 Sky Park Court, Suite 100
San Diego, CA 92123
Phone: 858-244-1177

Los Angeles
617 West 7th Street, Suite 305
Los Angeles, CA 90017
Phone: 213-481-6115

Oakland
426 17th Street, Suite 700
Oakland, CA 94612
Phone: 415-692-1500

Boston
50 Milk Street, 16th Floor
Boston, MA 02109
Phone: 857-243-2021

www.energycenter.org

EXHIBIT 9

MEMORANDUM

Date: September 9, 2016

To: The City of Oxnard

From: David Revell, PhD

Subject: Review of Puente PSA

Upon review of the Preliminary Staff Assessment for the proposed Puente project on Mandalay Beach in Oxnard, several topics arise that deserve consideration by the California Energy Commission Staff as they revise their staff assessment. These comments relate to the following categories – sediment supply, sea level rise models (USGS vs. TNC), FEMA flood maps, and analysis methods.

Sediment Supply

Sediment supply to the beaches and dunes is critical to maintaining the protective buffering capacity of the Coastal beach and dunes because changes to sediment supply or sediment management may reduce the ability of the beaches and dunes to provide storm protection to the proposed site. The staff report incorrectly states that the P3 site is adjacent to sand dunes (4.10-7), when in fact the P3 site is situated in the middle of the sand dunes and just inland of the primary frontal dune. The National Research Conservation Service has mapped the soils at the proposed location as "Coastal Beaches", indicating that this site was formed by coastal processes (4.10-13).

The discussion of the Santa Barbara littoral cell budget and the sediment contributions to the beach and dune fronting the proposed P3 site is lacking a thorough discussion of the variability of sediment supply. Variability arises from both the Ventura Harbor dredging (and upcoast sources within the Santa Barbara littoral cell) and from river discharge on the Santa Clara River. While the staff assessment notes that there is variability in the sand sources, it focuses on the yearly average for sediment-supply calculations. By relying on average sediment supplies, the staff assessment misses significant variability in sediment fluxes from year to year. For example, during drought years, little sediment is discharged from the Santa Clara River, while during major flood events, such as in 1969, sediment discharges can be up to 27x greater than normal.

Figure 8 (4.10-44) shows the total sediment yield from the Santa Clara River. It is clear the sediment flux from the watershed to the coast is extremely variable and in more years than not, remain well below the average sediment yield. In addition, the staff assessment relies on a coarse sand sediment fraction of 0.0625 mm, which is too small to be considered as sand remaining on the beach. The littoral cell cut-off diameter or minimum size of sediment making up the beaches is ~0.125 mm (Mustain 2007, USGS 2009). By assuming that all sediment over .0625 mm will be available for beach replenishment, Figure 8 overstates the volume of sediment supply available to replenish the beach and dunes. This area of the Oxnard Plain near the Project site recieves substantial wave energy from both west and south directions (USGS 2009) and the coarse fraction identified in Figure 8 are likely to be pulled from the beach and flushed out to sea. Sediment grains under 0.125 mm in diameter are not likely to replenish the beach, and the staff assessment analysis should be corrected to fix this error.

More fundamentally, the staff assessment fails to address whether the ~1.2MCY/year of sediment discharged from the Santa Clara to the beaches is a sustainable trend. The answer is likely "no." The long term precipitation projections show a decline over the coming century (i.e., we will experience longer and more severe droughts) (Cayan et al 2012).

Especially when coupled with urbanization of the upper watershed, the sediment discharge trend is more likely to decrease.

In addition to natural variations in sediment supply, dredging in the area also affects the source of sand for the beach. While the staff report focuses primarily on dredging of the Ventura Harbor, it doesn't consider the impact of NOT dredging Channel Islands which backs sand upcoast to the site, especially following large river flow years on the Santa Clara River. Changes to either harbor dredging could impact the stability of the fronting beach and dunes at the P3 site and should be considered when assessing the longterm reliability of the dunes as protection for the P3 project.

Finally, while continuing sand supply is necessary to maintain the fronting sand dunes, even with continued supply, sea level rise and increasing coastal hazards will likely cause the dune to migrate inland onto the P3 site. Such dune transgression or landward advance will cause more windblown sand onto the site and require additional sand management activities. If the managed sand is removed from the dune system, this sand management practice over time could further expose the dunes to erosion and the P3 site to coastal flooding. The staff assessment should be revised to consider anticipated frontal dune migration towards the P3 site that will accompany expected sea level rise.

Analysis Methods

The technical and CEQA analysis has two primary shortcomings. First, staff assessment relies on an inoperable tide station (Rincon Island). This station has been out of service for over 25 years and lies on the opposite side of the Red Mountain Fault. As a result, the staff assessment ignores actual tide and buoy data. Instead, the analysis should be tied to the Los Angeles or Santa Monica gages (4.10-51 2nd paragraph), which are both still active and closer to the P3 site.

The second and perhaps larger flaw in the CEQA analysis is the use of only a 30 year planning horizon which is inconsistent with the California Coastal Commission Sea Level Rise policy guidance which recommends 100 year horizon for energy infrastructure. There are two reasons why this time horizon should be reevaluated. First, the existing Mandalay Generating Station has been in operation for ~60 years, and it seems flawed not to consider this as a possible if not probable outcome should the Puente project go online. Secondly, the subjective interpretation of the definition of critical infrastructure from Appendix 1 avoids this designation which would require more robust analysis over longer time frames.

The failure to evaluate the impacts of the P3 project over a longer time frame also has implications for climate adaption efforts in surrounding communities. Besides the facility itself, all of the communities, infrastructure and utilities that rely on the existing power plant (from Moorpark to Goleta) are forced to make long term community decisions based on these existing utility alignments rather than considering more progressive forms of adaptation (e.g. Surfer's Point managed retreat, dune management at Pierpont, etc). Community adaptation choices based on current energy utility alignments will narrow the ability to think outside the box and likely lead to climate maladaptation. This interference with the ability of communities to implement climate adaption policies is a significant long term cumulative impact throughout the region but particularly to the adjacent communities of Oxnard and Ventura County.

Sea Level Rise Models

USGS

The analysis of sea level rise impacts focused solely on the DRAFT preliminary analysis of COSMOS 3.0 (4.10-58-59). There are several problems with this approach. First, the model itself is a downscaled global climate model that is not specifically adapted to the Ventura coast and does not use any local historic events to verify its assumptions. The model includes four separate modules: shoreline erosion, flooding, storm erosion, and sea level rise, but does not evaluate the combined impact of these events working together. Further, technical documentation for this draft model is non existent aside from some "fact sheets" and powerpoint presentations, which prevents an assessment of the validity of the model's methods and assumptions. Furthermore, the integration of the USGS modeling modules between erosion, shoreline evolution and coastal flood hazards comes from marketing materials and does not have any technical documentation. The complementary COSMOS modules have NOT been integrated into the evaluated Preliminary

COSMOS results. I have had two separate conversations with USGS staff working on COSMOS (on 7/15/16 and 8/5/16) and they confirmed that the technical hurdles to completing the model are proving problematic to the point that the release of the final model has been delayed by another 1.5 month delay (now anticipated release 10/15/2016).

In light of only having DRAFT unintegrated data, best practices would require analysis of all available information, including the COSMOS 1.0 results, and any other models (e.g. TNC work, Pacific Institute, etc.) relevant to assessing coastal hazards in the area. As a result, the section on shoreline change and shortcomings of the modeling (4.10-112 to 4.10-114) is not well documented. The reliance on a draft model and failure to integrate other tested approaches suggests a lack of due diligence that likely overlooks some of the potential significant impacts.

Finally if the CEC in the FSA will be continuing to focus solely on COSMOS 3.0, but will be updated with the FINAL COSMOS results, then it should be clearly stated which of the 40 scenarios of sea level rise and recurrence intervals will be evaluated by the CEC and why those specific scenarios were selected. The PSA does not contain this information.

Coastal Resilience Ventura

One of the leading state of the art models was partially developed and calibrated as part of the Nature Conservancy (TNC) Coastal Resilience Project. This model was completed in final form in 2013 and is publicly available along with a substantive technical documentation report. On page 4.10-108 the PSA incorrectly states that the purpose of the TNC modeling was to support updates to the City of Oxnard LCP. It is not clear where the CEC staff received this misinformation. The TNC AND Ventura County (not the City of Oxnard) funded the modeling work to support regional adaptation planning, decision support, site specific conservation acquisitions, and sea level rise planning. In short, the model was designed to address exactly the factors that are implicated by the consideration of the P3. The PSA however disregards the TNC modeling work saying it is a worst case scenario approach and not warranted since the P3 site is not a critical facility (see discussion above). Regardless of the ultimate critical facility designation, the TNC model was not limited to critical facilities but was developed to inform all coastal planning and siting decisions in Ventura County.

The staff assessment also mischaracterizes the TNC modelling work and dismisses it based on flawed reasoning. For example, Appendix SW1- Figure 1 incorrectly attributed the TNC modeling work as “FEMA overtopping model used results projected against topographic surface composite”. While the TNC model does use FEMA overtopping methods (NHC 2005), it adds in the long term shoreline change component (which COSMOS 3.0 Preliminary does not) and the impact of a 100 year storm of record. Mapping of all of the hazard models (USGS, FEMA, and TNC) all use the exact same topographic data for mapping.

The rationale set forth in the staff assessment (at page 4.10-108) for ignoring the final TNC modeling results is flawed for following reasons:

Bullet 1 asserts that the TNC model is “too conservative” because it incorporates “historic event”data. However, the TNC modelling is recognized by the state as an appropriate method for assessing risk from coastal hazards. Moreover, the draft COSMOS 3.0 model does not analyze *any* storm events based on observed data. COSMOS 3.0 is completely derived from statistical downscaling of global climate models to the Ventura area. By relying solely on COSMOS 3.0, the staff assessment therefore ignores 35+ years of measured data and the well acknowledged storm of record in the project area in favor of Preliminary downscaled modeled data that is not designed to account for local storm events or data).

Bullet 2 criticizes the TNC model for relying on a “maximum storm wave of unlimited duration”. However, this method is consistent with the FEMA Pacific Coast Flood guidelines using the modified Komar and Allan approach to evaluating storm induced dune erosion (NHC 2005). Presently the COSMOS results utilizes a synthetic time series of waves and tides (XBeach) to drive its hypothetical beach and dune erosion model. The challenge with the XBeach model approach is that if you alter the time series of waves and tides you get very different results. 100 year storm events (i.e. 1982-83 and 1997-98 and 2015-16 El Niños), were not single events, but rather a sequence of events. Assuming that, with SLR, increased water level elevations during storms is longer than

current conditions seems a prudent choice when facing so many uncertainties associated with futre SLR conditions.

Bullet 3 criticizes the assumption that “areas eroded assumed flooded”. However, this conclusion is completely rational. During any event that causes dune erosion, the entire beach must be underwater at some point and thus flooded. It is physically impossible for a dune to erode from waves and for the beach to remain dry.

Bullet 4 asserts that the TNC model treatment of “flood connectivity”. However, the TNC method of mapping is consistent with the same method that NOAA uses for mapping of coastal flooding in their SLR viewer with the added improvement of better topographic information and a smaller distance for assuming connection (only 10 feet in the TNC model). The Preliminary COSMOS data doesn’t provide any technical documentation for how they map and clean the resulting model outputs so it is difficult to evaluate what their approach may be. With the TNC model results, one knows what was done and can evaluate the implications in the model interpretation.

4.10-114 – To date the TNC modeling and mapping work is the only modeling that incorporates shoreline change from sea level rise with coastal erosion and storm hazards. The vast differences between the TNC, COSMOS 3.0, and FEMA are largely that the FEMA and USGS work either don’t include sea level rise or coastal erosion (FEMA), or don’t account for long term shoreline evolution with short term coastal flooding hazards (COSMOS 3.0). Given uncertainties associated with each modeling approach, each model should be evaluated and incorporated into the project analysis.

FEMA

As correctly stated in the PSA, FEMA’s purpose is to provide rating of hazards for flood insurance and community floodplain management. There is no consideration of sea level rise in FEMA’s regulatory mapping. It is important to note that while the effective map for the P3 site is 2010, the coastal science used to generate the Wave Velocity (VE zone) was based on scientific analysis completed in the 1980s. Current and DRAFT FEMA maps do not consider coastal erosion, nor do the new DRAFT maps follow the 2005 FEMA Pacific Coast flood guidelines (NHC 2005) which recommend using an eroded winter profile to evaluate potential flood damage. The reason for using the most likely winter profile is to directly address multiple storms in sequence during a large storm year. However, the new maps rely on 2009-2011 CA LIDAR flown in the Fall when beaches were at a maximum (same as USGS and TNC). In summary, the new DRAFT FEMA maps underpredict existing hazard potential now and in the future.

On December 11, 2015, a ~25 year storm event hit the California coast and did substantial damage to the Ventura pier just up the coast from the P3 site (among other places in California). Based on City and personal review of the preliminary maps and photos collected during this December 11, 2015 event, the Preliminary 1% annual chance FEMA maps underpredicted flood extents all over Ventura County, especially when validated against the actual flooding occuring during the 12-11-2015 storm event. The City and Revell Coastal submitted comments to this effect and await the revised FEMA maps.

Finally, the PSA incorrectly dismisses the TNC modeling results in favor of PRELIMINARY and undocumented modeling by other entities. This very likely downplays the significance of the impacts to the P3 site. The FSA should take a more robust approach to evaluating the exposure from FINAL model results with a much better understanding of the technical assumptions and methods that went into mapping the hazard zones.

References

Cayan et al, 2012. Climate Change and Sea Level Rise Scenarios for California Vulnerability and Adaptation Assessment. A White Paper from the California Energy Commission.

ESA PWA 2013. Coastal Resilience Ventura – Technical Report for Coastal Hazards Mapping. Prepared for the Nature Conservancy, 7/31/2013, 59 pgs. http://maps.coastalresilience.org/ventura/methods/CRV_Hazards_Mapping_Technical_Report.pdf

Mustain, N. 2007. Grain Size Distribution of Beach and Nearshore Sediments of the Santa Barbara Littoral Cell, Implications for Beach Nourishment. M.S. Thesis, University of California Santa Cruz, June 2007. 118 pgs.

USGS 2009., Coastal processes study of Santa Barbara and Ventura Counties, CA: U.S. Geological Survey Open-File Report 2009-1029, http://pubs.usgs.gov/of/2009/1029/

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

DAVID L. REVELL, Ph.D.

Principal / Chief Coastal Scientist

Dr. David Revell is a coastal geomorphologist with 20+ years of experience studying marine, coastal and estuarine processes, in particular in the science and management of coastal processes and climate change. He has been involved in a wide variety of contentious community stakeholder processes ranging from evaluating erosion hazard alternatives to climate change vulnerability impacts to lagoon and fisheries management, water quality, and marine spatial planning. Much of his work involves physical process research, and GIS to facilitate communication of science to inform decision making. Dr. Revell has been active in many ground breaking climate change projects including the technical hazards work for the Pacific Institute, The Nature Conservancy's Coastal Resilience projects, and collaborative work in the Monterey Bay region looking at adaptation economics. Dr Revell is currently engaged in many vulnerability and adaptation studies along the California Coast that are in various stages of preparation for the LCP updates. Some of these jurisdictions include: Imperial Beach, Port of San Diego, Carlsbad, Santa Monica, Oxnard, Santa Barbara (city and county), Goleta, Los Osos, Pacific Grove, Monterey (city and county), and Santa Cruz County. He has served as a technical advisor to multiple, state, federal and local jurisdictions related to ocean and coastal management especially at the intersection of how physical processes and human alterations affect hazards, habitats, and human use. David currently advises multiple local jurisdictions on climate change, beach, dune and coastal sediment management, and lagoon processes and inlet management.

Education

Ph.D., Earth Sciences, University of California, Santa Cruz 2007

M.S., Marine Resource Management, Oregon State University 2000

B.A.s, Geography and Environmental Studies, University of California, Santa Barbara 1996

Selected Work Experience

Principal and Chief Scientist, Revell Coastal, LLC ***July 2014 - Present***
Founded company to provide scientific and technical consulting services to coastal management agencies, local jurisdictions and non-profit organizations. Communicates the best available science to inform better coastal management decisions. Specific project work includes climate change vulnerability and adaptation planning, regional sediment management, and coastal lagoon management and restoration.

Senior Coastal Geomorphologist, Environmental Science Associates (formerly Philip Williams & Associates), ***Jan. 2008 –July 2014***
Managed projects and lead technical analyses on projects related to climate change, coastal lagoons, coastal restoration, sea level rise vulnerabilities, adaptation planning and coastal regional sediment management .

Adjunct Professor, Monterey Institute of International Studies, ***Aug. 2013 to May 2014***
Co-instructed graduate level courses on International Marine Science and Policy and Sustainable Coastal Management. Assist with framing the strategic planning for the Center for the Blue Economy with specific emphasis on climate change opportunities.

Project Scientist, Marine Science Institute, UC Santa Barbara – ***June 2009 – Present***
Coastal research scientist collaborating on a Seagrant investigation of changes to the sandy beach ecosystems in Southern California. Responsible for physical process field data collection, evaluation of historic trends in shoreline and sand volume changes to integrate with ecological changes. Managed graduate student researcher summer 2009 and 2010.

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

Coastal Scientist, CoastalCOMs & Business Development, Coastal Watch USA, ***Jan. 2008 – May 2012***
International business development of coastal monitoring systems for integrated coastal observation. Identification and development of coastal management data products. Applications of video imagery to nearshore processes, coastal engineering, and marine protected areas with an emphasis on integrating ocean and coastal observations. Focus on coastal processes, ports and harbors, socio-economic data collection. Supported USGS data collection efforts for projects in TRNERR, Goleta Beach, and Surfers' Point.

Postdoctoral Scholar/Research Associate – Institute of Marine Sciences, UCSC ***Apr. 2007 – April 2008***
Researched historic shoreline changez along Santa Barbara and Ventura County coasts using a variety of GIS, remote sensing and field collection techniques. Collaborated with USGS, USACE, and BEACON to assess coastal hazards and model sediment transport along the Santa Barbara coast.

Surf 2 Sea Consulting, GIS, Marine and Coastal Processes Consultant – ***Aug. 2002 – Dec. 2007***
Sole proprietor consultant. Contracted with Ecoshore International to develop a beach and groundwater monitoring plan for a passive beach dewatering system in Hillsboro FL (2007). Subconsulted with Moffat and Nichols on Coastal Processes Section of Goleta Beach Environmental Impact Report (2006). Collaborated with PWA on historic shoreline changes to Goleta Beach County Park in Santa Barbara, and helped identify alternative solutions to park protection (2004-05). Worked for oceanfront property owners to assess coastal erosion alternatives and processes affecting property boundaries (2005). Created GIS and planning databases for the City of Bandon in Oregon (2000-03). ---Completed an inventory for the Council for Environmental Cooperation on whale watch operators and guidelines (2002). --- Coordinated the Port Orford Ocean Resources Team GIS project, a community based management effort that interviewed 33 local fishermen and recreational users regarding ocean use, harvest practices, and marine conservation. Digitized interviews into GIS and facilitated socio-economic analyses with Ecotrust (2002-03).

NOAA Coastal Management Fellowship – ***Aug. 2000 – Aug. 2002***
Received a NOAA Fellowship through an extended application process working as a technical advisor to the Oregon Coastal Management Program on littoral cell management planning. Developed coastal hazard GIS inventories for five jurisdictions - Coos, Curry, Lincoln, and Tillamook Counties and City of Bandon. Conducted a hazard assessment for the Bandon Littoral cell. Worked on the Oregon Coastal Atlas project as a member of the Project Development Team. This project collects pertinent GIS and database information for ocean areas, rocky shores, sandy shores, and estuaries, and facilitates various spatial analyses such as hazard assessment through a regional Internet Map Server.

Graduate Research Assistant – Oregon State University - ***July 1998 – July 2000***
Constructed the Netarts Littoral Cell Coastal Hazard GIS inventory for Oregon Sea Grant, Oregon Parks and Recreation Department, Oregon Coastal Management Program, and Tillamook County. This involved survey fieldwork, data processing, GIS, and project management. Facilitated stakeholder workshops to educate, and receive feedback on GIS design and hazard avoidance strategies. Recommended mitigation alternatives to State Parks regarding the Cape Lookout Dune Restoration Project - Section 227 – Army Corp of Engineers.

Selected Project Experience

City of Imperial Beach California, Coastal Vulnerability and Adaptation Planning. *Project Director*
Revell Coastal is leading a consulting team including USC Seagrant and economists to evaluate future climate change impacts and to develop adaptation strategies for the City of Imperial Beach. As part of this work he has been recently been asked to advise the City on the management of the Tijuana River Estuary which closed this year following the El Niño for the first time in 30 years. This work will include technical

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

analysis and review of research being conducted by the National Estuarine Research Reserve, and to collaborate with a variety of regulatory stakeholders.

City of Goleta, Local Coastal Program Climate Change Update. ***Project Director***
Revell Coastal worked for the City of Goleta to incorporate climate change, coastal hazards, and economics into the Local Coastal Program. Technical work involved modeling, fieldwork, model interpretation, and economics. Policy work was focused on the City's Safety and Conservation Elements from their General Plan and included additional technical fieldwork and review of existing scientific literature.

City of Santa Cruz, San Lorenzo Lagoon Outlet Channel. ***Project Director***
During emergency lagoon flooding conditions amidst a regulatory stalemate, Revell Coastal provided on site guidance to construct a temporary outlet channel and reduce lagoon water levels to alleviate flooding while avoiding a rapid dewatering to the lagoon which could have resulted in take of multiple listed species. Revell Coastal continues to advise the City on lagoon mouth management, sand management and lagoon function.

Goleta Slough Management Committee. Goleta Slough Ecosystem Management Plan Update and Sea Level Rise Study, Santa Barbara, California. ***Project Manager.*** Dr. Revell working with ESA PWA conducted a sea level rise vulnerability and adaptation study for the Goleta Slough. This sea level rise study was incorporated into the Ecosystem Management Plan Update. The work consisted of evaluation of climate related impacts including identification of vulnerabilities to both infrastructure and habitats. Following a series of focus groups, a series of appropriate adaptation strategies were identified including proposed revisions to relevant policies. The entire processes included substantial outreach and education of technical information to planners, elected officials and regulatory agencies. This project was recently awarded the American Planning Association – Central Coastal Chapter award for outstanding regional planning.

The Nature Conservancy, Ventura Climate Change Ecological Vulnerability Assessment, Ventura, CA. ***Project Manager.*** Dr. Revell working with ESA PWA conducted climate change modeling that examines changes to coastal hazards of flooding and erosion from sea level rise and increased storminess on the Ventura coast. This included modeling changes to sediment yield and fluvial flooding using HEC-RAS by examining changes to precipitation. The coastal and fluvial changes were used as inputs to drive an ecological vulnerability assessment using SLAMM (Sea Level affecting Marsh Model). The technical modeling supports community adaptation planning as well as The Nature Conservancy conservation acquisition program along the Ventura County coast and Santa Clara River Parkway.

Santa Barbara County Land Trust and UCSB. Ocean Meadows Golf Course – Upper Devereux Slough Restoration, UC Santa Barbara, California. ***Project Manager.*** Dr. Revell working for ESA PWA conducted three phases of conceptual design work to inform the restoration of the Upper Devereux Slough which had been filled in the 1960s to construct a golf course. These first three phases of work improved upon a 2000 Bren School report on the restoration. The first phase evaluated the historic ecology and provided geomorphic interpretation to support restoration of an upland mesa adjacent to the golf course and to ascertain whether the volume of material estimated in the Bren report to be excavated from the golf course could be accommodated on the upland mesa site. The second phase included geomorphic interpretation and initial engineering including conceptual design and cost estimates of an initial grading plan for the upper slough restoration based on the findings that the volume of material required for excavation from the golf course were about half of that calculated in the Bren School report. The third phase focused on hydraulic analyses to specifically examine the potential impacts of the restoration both from the potential to cause scour and damages to the primary access bridge and to also model future water levels and likely functioning of the slough. This work also provided input and guidance on necessary technical studies and recommendations on consideration for future engineering and design.

REVELL COASTAL
Surf. Sand. Sustainability.

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

Monterey Bay Sanctuary Foundation, Monterey Bay Sea Level Rise Vulnerability Assessment, Monterey and Santa Cruz Counties, CA. ***Project Manager.*** With funding from the California Coastal Conservancy, the Natural Capital Project, and the City of Capitola, Dr. Revell working with ESA PWA modeled projected climate change impacts to the coast of Monterey Bay at a scale suitable for planning purposes. Projected future coastal hazards were mapped which represented an integrated approach of stepping through time eroding the coast and flooding newly eroded areas through hydraulic connectivity. The project was advised by a Monterey Bay region wide technical advisory group comprised of research institutions (UCSC, Naval Postgraduate School, Moss Landing, CSUMB and USGS), local planning agencies (Santa Cruz, Monterey Counties, Cities of Monterey, Santa Cruz, Seaside, Sand City, Capitola), and other technical experts. The is study provided estimates of future erosion rates, flood elevations and depths of flooding at various planning horizons into the future. Uncertainty in the projections was addressed by developing a variety of projected impacts then overlapping them and developing an uncertainty index that shows relative risk of impact.

Mission Creek Lagoon and Laguna Channel Restoration. Santa Barbara, CA. ***Technical Advisor***
Dr. Revell working with ESA PWA summarized the relevant regional and local site conditions to inform the conceptual level restoration design. This work included review and analysis of relevant historic, existing and future coastal processes along the Santa Barbara Waterfront.

Audubon California, the California State Coastal Conservancy and the Department of Fish and Game, Lower Santa Ynez River Estuary Restoration, Santa Barbara, CA. ***Project Manager.*** Dr. Revell working with PWA documented historic changes in land uses, hydrology and lagoon functioning to identify potential restoration opportunities to improve the ecological health of the Lower Santa Ynez River Estuary. This assessment summarized the functioning and evolution of habitats based on existing available information and field data. The goal of this project was to identify restoration opportunities to enhance the ecologic value and ensure sustainability of native habitats in the lower Santa Ynez River corridor and estuary (approx. four river miles). One of these restoration actions was funded for design and permitting to improve southern Steelhead habitat. Funding for preliminary design was acquired from California Dept of Fish and Wildlife and design completed before Vandenberg Air Force Base decided to remove support for the project.

Scott & Waddell Creeks Bridge Realignment, Santa Cruz County, CA. ***Caltrans Project Manager.***
Currently, Highway 1 crosses Scott Creek and Waddell Creek at the interface between the ocean and the creeks' lagoons in Santa Cruz County. Dr. Revell working with ESA PWA evaluated the impact of the existing bridges and various alternative bridge designs and alignments to provide recommendations to Caltrans on design criteria to reduce long term maintenance and impacts to the coastal lagoon habitats of the planned replacement of two bridges located on Highway 1.

Surfrider Foundation, Malibu Lagoon Restoration – Impact Assessment to Surfing Resources, Malibu, CA. ***Project Manager.*** Dr. Revell reviewed technical studies related to the 2012 Malibu Lagoon restoration to assess the potential impacts of the restoration on surfing and beach conditions. Assessment included review of sediment transport, coastal processes and lagoon breaching dynamics and provided recommendations to alter the project slightly to improve benefits to surfing conditions without disrupting the project permitting and schedule.

Santa Barbara County Parks and Recreation, Goleta Beach Erosion Mitigation, Goleta, CA. ***Project Manager.*** Studied coastal processes responsible for erosion hotspot at Goleta Beach County Park. Presented research results to stakeholder groups, and participated in technical discussions evaluating erosion mitigation alternatives. Reviewed and commented on Environmental Impact Report. Developed a reconfiguration alternative to avoid erosion hazards through appropriate setbacks, and reviewed technical modeling.

REVELL COASTAL
Surf. Sand. Sustainability.

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

The Association of Monterey Bay Area Governments and the Monterey Bay National Marine Sanctuary, Coastal Regional Sediment Management Plan for Southern Monterey Bay, CA. ***Project Manager.*** Development of a coastal regional sediment management (RSM) plan for southern Monterey Bay and evaluation of a range of erosion mitigation strategies. RSM plans take a system wide approach to identifying sources of sediment and implementation of strategies to ensure that sediment delivery to the beaches continues.

Neskowin Shoreline Assessment, Neskowin, OR. Tillamook County, ***Project Manager***. In response to a high rate of erosion that has diminished the beaches and now threatens homes and roads in Neskowin, OR, ESA analyzed the viability of various coastal erosion mitigation strategies to an eroding shore, utilizing existing information from local academics (Oregon State University) and agencies (including the Geology and Mineral Industries Department), as well as applying our experience completing assessments for similar high-energy wave-exposed coastal areas. The community is striving to find a balance of private property protection with maintenance of a sandy beach to support the tourist economy.

Santa Barbara and Ventura County Coastal Processes Study, CA. ***Project Manager.*** UC Santa Cruz project manager for collaborative USGS study, involving field data collection to determine historic and seasonal changes to beaches in SB and Ventura Counties.

BEACON Regional Sediment Management Plan. Dr. Revell summarized long term trends, erosion hotspots, quantified the sediment budget, recommended changes to the monitoring program and identified opportunistic project locations.

Ocean Protection Council. Coastal Infrastructure and Vulnerability Impacts Assessment. ***Project Manager.*** Mapped coastal erosion hazards resulting from sea level rise scenarios, evaluated geomorphic response of various backshore types by applying a total water level methodology, collaborated with climate change researchers at Scripps, organized and engaged peer review team on methods and results, collaborated with Pacific Institute to vulnerability assessment associated with coastal hazards. Results of this work fed directly into the Pacific Institute work called Sea Level Rise Impacts to the Coast of California.

References

Dr. Gary Griggs, University of California, Santa Cruz
griggs@ucsc.edu 831-459-5006

Rachel Couch, California Coastal Conservancy
rachel.couch@scc.ca.gov 831- 460-7556

Sarah Newkirk, J.D. , The Nature Conservancy
snewkirk@tnc.org 415-730-7437

Andrea Jones, Audubon California
ajones@audubon.org 415-388-2524 ext. 113

Scott Collins, City of Santa Cruz
scollins@cityofsantacruz.com 831-420-5010

125 Pearl Street
Santa Cruz, CA 95060
831-854-7873
revellcoastal@gmail.com
www.revellcoastal.com

Selected Publications

Garner, K.L., Chang, M.Y., Fulda, M.t., Berlin, J.A., Freed, R.E., Soo-Hoo, M.M., **Revell, D.L.**, Ikegami, M, Flint, L.E., Flint, A.L., Kendall, B.L. 2015. Impacts of sea level rise and climate change on coastal plant species: a case study in the central California coast. PeerJ Prints published online.

Weaver, C.P., C. Brown, J.A. Hall, R. Lempert, **D. L. Revell**, D. Sarewitz, and J. Shukla, 2013. Climate Modeling Needs for Supporting Robust Decision Frameworks. *WIRE's Climate Change*

Revell, D.L., R.Battalio, B. Spear, P. Ruggiero, and J. Vandever, 2011. A Methodology for Predicting Future Coastal Hazards due to Sea-Level Rise on the California Coast. *Climatic Change* 109:S251-S276. DOI 10.1007/s10584-011-0315-2.

Orme, A.R., Griggs, G.B., **Revell, D.L.**, Zoulas, J.G., Chenault, C., Koo, H. 2011. Beach changes along the southern California coast during the twentieth century: A comparison of natural and human forcing factors. *Shore and Beach*

Revell, D.L., Dugan, J.E., and Hubbard, D.M. 2011. Physical and ecological responses of sandy beaches to the 1997-98 ENSO. *Journal of Coastal Research*. 27(4)718-730

Barnard, P.L., **Revell, D.L.**, Hoover, D., Warrick, J., Brocatus, J., Draut, A.E., Dartnell, P., Elias, E., Mustain, N., Hart, P.E., and Ryan, H.F., 2009, Coastal processes study of Santa Barbara and Ventura Counties, CA: U.S. Geological Survey Open-File Report 2009-1029, http://pubs.usgs.gov/of/2009/1029/

Revell, D.L., Barnard, P. and Mustain, N. 2008. Influence of Harbor Construction on Downcoast Morphological Evolution: Santa Barbara, California. Published in Coastal Disasters '08 Conference, April 2008 North Shore, HI.

Dugan, J.E., Hubbard, D.M., Rodil, I., and **Revell, D.L**. 2008. Ecological Effects of Coastal Armoring on Sandy Beaches. *Marine Ecology*.

Revell, D.L., Marra, J.J., and Griggs, G.B. 2007. Sandshed Management. Special issue of Journal of Coastal Research - Proceedings from International Coastal Symposium 2007, Gold Coast, Australia.

Revell, D. L and Griggs, G.B. 2006. Beach Width and Climate Oscillations along Isla Vista, Santa Barbara, California. *Shore and Beach*. 74(3)8-16.

Revell, D.L., Komar, P.D., Sallenger, A.H. Fall 2002. *An Application of LIDAR to Analyses of El Niño Erosion in the Netarts Littoral Cell, Oregon*. *Journal of Coastal Research*, ACEC Vol. 18 4:702-801.

EXHIBIT 10

The Nature Conservancy
Protecting nature. Preserving life.™

LA/Ventura Project
Ventura Field Office
523 E. Main Street, Suite 200
Ventura, CA 93001

tel [805] 258-7202
fax [805] 648-6885

nature.org
nature.org/california

June 24, 2014

Chris Williamson, AICP, Principal Planner
City of Oxnard Planning Division
214 South C Street
Oxnard, CA 93030

RE: Coastal Impacts to Infrastructure from Sea Level Rise

Dear Mr. Williamson,

Thank you for the opportunity to provide input on coastal planning decisions for the City of Oxnard. The mission of The Nature Conservancy ("TNC") is to conserve the lands and waters on which all life depends. TNC is working to preserve ecologically important lands for nature and people in California and around the globe. In Ventura County, TNC has worked since 1999 to protect natural resources and promote multi-benefit solutions for nature, people, and property. To date, TNC has acquired over 3,585 acres along the Santa Clara River and Ormond Beach and cultivated diverse partnerships with local, State and Federal agencies, as well as farmers, developers and local organizations.

The City of Oxnard's shores and coastal assets are at risk from sea level rise and associated climate-driven hazards, such as erosion, river flooding, and storm surge, and will need to be more resilient in order to deal with increasingly variable conditions. The Coastal Resilience Ventura ("CRV") project was initiated in 2011 by TNC to assess the anticipated impacts of these threats along coastal Ventura County. CRV works jointly with partners to: 1) use cutting-edge science to identify and quantify the risks posed by climate change within coastal Ventura County; 2) inform decision-makers of these risks and what policy alternatives exist to mitigate them; and, 3) demonstrate that nature-based solutions are a cost-effective alternative for achieving a more resilient coast.

From the beginning, CRV has been guided directly by a Steering Committee representing over 30 city, regional, state, and national government agencies and public and private organizations.[1] The Committee provides data, input, and guidance to all stages of project, including the coastal hazards mapping.

The coastal hazards mapping was completed by ESA PWA[2] for TNC and is comprised of high resolution mapping of beach profiles, shoreline change, backshore characterization, wave modeling and run-up calculations, shoreline erosion hazards, river flood hazards, rising tides, and coastal storm flood hazards all for three time horizons – 2030, 2050, and 2100 for all of coastal Ventura County. The California Coastal Commission has cited CRV as a resource for sea level rise mapping in the recent draft policy guidance[3] and the both the California Coastal Commission and California State Coastal Conservancy have been active members of the CRV Steering Committee since 2011. The final mapping is online (free

---

[1] A complete list of the agencies and organizations represented on the steering committee can be found on the Coastal Resilience Ventura website at http://coastalresilience.org/geographies/ventura-county/partners.

[2] Environmental Science Associates Philip Williams & Associates (ESA PWA) (2013). "Coastal Resilience Ventura Technical Report for Coastal Hazards Mapping." Prepared for The Nature Conservancy.

[3] California Coastal Commission. (2013). "Draft Sea-Level Rise Policy Guidance". Page 42.

of charge, available to anyone) through an interactive web mapping tool at www.coastalresilience.org. The project was paid for by TNC, private donations, and a grant from the County of Ventura.

Based on the California Coastal Commission's draft Sea-Level Rise Policy Guidance, California cities - including the City of Oxnard - should be planning for and preparing sea level rise vulnerability studies prior to considering any significant Local Coastal Program amendments and/or long-term large scale projects that are critical public infrastructure. Results from the Coastal Resilience Ventura climate hazards model show existing risks in coastal Ventura County that increase over time. Many of the low-lying and beachfront communities and public assets are currently vulnerable to coastal flooding, according to the model results. These results also show significant risks of coastal erosion and flood hazards under various future climate scenarios within the coastal area of the City of Oxnard. These areas contain significant public (beaches, wetlands, roads, emergency services, etc.) and private (housing, agriculture, businesses, etc.) resources. Both the Mandalay and Ormond Beach Generating Stations are located within flood inundation zones at existing conditions (see Map 1) and only become more at risk under conservative model projections (see Map 2).

Thank you for your leadership and proactive approach to coastal planning. Please do not hesitate to contact Lily Verdone, lverdone@tnc.org or Sarah Newkirk, snewkirk@tnc.org, if you have any questions or needs. The Nature Conservancy is invested in building a resilient coast in Ventura County and is grateful for the continued partnership with the City of Oxnard.

Sincerely,

Lily Verdone.

Lily Verdone
LA-Ventura Project Director
The Nature Conservancy

Sarah E. Newkirk

Sarah Newkirk
California Coastal Project Director
The Nature Conservancy

EXHIBIT 11

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Moorpark Sub-Area.	Application 14-11-016 (Filed November 26, 2014)

OPENING BRIEF OF THE CITY OF OXNARD

PUBLIC VERSION
(EXHIBIT B CONFIDENTIAL)

ELLISON FOLK (SBN 149232)
EDWARD T. SCHEXNAYDER (SBN 284494)
SHUTE, MIHALY & WEINBERGER LLP
396 Hayes Street
San Francisco, California 94102
Telephone: (415) 552-7272
Facsimile: (415) 552-5816
folk@smwlaw.com
schexnayder@smwlaw.com

Attorneys for the City of Oxnard

Date: July 22, 2015

TABLE OF CONTENTS

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Moorpark Sub-Area.	Application 14-11-016 (Filed November 26, 2014)

OPENING BRIEF OF THE CITY OF OXNARD

INTRODUCTION

Southern California Edison asks the Commission to approve contracts to meet LCR requirements in the Big Creek/Ventura area of Edison's service territory (Moorpark subarea). The Commission established these LCR requirements to ensure a safe and reliable electricity supply in anticipation of the retirement of coastal once-through cooling plants in the Moorpark service area. California has also established that in meeting anticipated energy demands, investor-owned utilities—like Edison—must prioritize the selection of renewable resources.

In the face of these dual mandates, almost the entirety of Edison's LCR procurement application relies on a new 262 MW gas-fired plant built and operated by NRG Energy Center Oxnard. That facility would be located on the City of Oxnard's coast, immediately adjacent to the open ocean and subject to present and escalating threats from coastal hazards and sea level rise. As a result, Edison's procurement is excessively large compared to the demonstrated need in the Moorpark subarea and relies almost exclusively on a power source that is both disfavored and subject to the same reliability issues that resulted in the LCR determination in the first place. Because

Edison's proposal is flawed in numerous respects, the Commission should deny it.

First, based on the record in this proceeding, Edison cannot meet its burden to show that its proposed resources selection will enhance safe and reliable operations of its service in the Moorpark subarea. The weight of the evidence shows that the site of the proposed NRG gas-fired plant faces significant coastal hazards that will only increase in severity with expected sea level rise. Given these natural hazards, it would be unreasonable to approve Edison's selection of over 95 percent of the LCR requirements located at this site.

Second, even if the Commission cannot definitively determine that the NRG plant will be subject to coastal hazards and sea level rise, at a minimum the record raises a substantial concern regarding the safety and reliability of the NRG site. Edison itself never addressed these issues prior to submitting its application. Therefore, a finding that the site is safe and reliable requires thorough site-specific environmental review, an analysis of project alternatives, and the implementation of mitigation measures. If the Commission is not willing to undertake this review, it should defer its decision until the California Energy Commission (CEC) conducts full environmental review under the California Environmental Quality Act (CEQA). That environmental review will allow the CEC to fully assess the existing and potential environmental hazards to a new gas-fired plant at the Mandalay site, and consider alternative projects, locations, and potential mitigation. Indeed, the undisputed record indicates that Commission approval of this application would prejudice the CEC's CEQA process by foreclosing that agency's consideration of alternative sites or technology to NRG's proposed project. Thus, as a

matter of law, if the Commission approves Edison's proposal to secure power from NRG's facility before the CEC completes its environmental review, the Commission must prepare an environmental impact report as required by CEQA.

Third, even if NRG's project did not face significant reliability issues, the Commission should not approve the resource portfolio selected by Edison. That portfolio unreasonably exceeds the currently modeled need in the Moorpark subarea, and is more expensive than other options available to Edison. In fact, the manner in which Edison conducted its RFO prevented a robust selection of more cost-efficient, preferred resources. Ultimately, the selected resource portfolio saddles the ratepayers—including the City's residents—with an LCR procurement plan that is unnecessarily large, expensive, and unreliable. For all of these reasons, the Commission should deny Edison's current application.

ARGUMENT

I. Edison's RFO Selection Does Not Solve Reliability Concerns for the Moorpark Subarea.

To obtain approval of its application, Edison must demonstrate that the results of its RFO "enhance the safe and reliable operation of SCE's electrical service."[1] The Commission's initial LTPP decision authorized Edison to procure new resources to ensure grid reliability after the Ormond Beach and Mandalay Bay once-through-cooling generating facilities go offline at the end of 2020.[2] Edison and the CAISO have identified two reliability constraints that Edison is attempting to remedy through its application.

[1] Assigned Commissioner's Ruling and Scoping Memo ("Scoping Memo") at 4.
[2] D.13-02-015, 2013 WL 652439.

First, CAISO modeling suggests the loss of all three Moorpark-Pardee 230 kv transmission lines could cause voltage collapse, representing a critical contingency in the Moorpark subarea.[3] Second, Edison has identified the loss of the two Goleta-Santa Clara transmission lines as an additional reliability concern in the Moorpark subarea.[4]

As Edison's application demonstrates, physical hazards constitute the primary threat to the reliability of Edison's transmission system in this subarea. For instance, Edison has acknowledged that wildfires and potential landslides threaten the two Goleta-Santa Clara lines, which share towers.[5] Edison has also testified that the Moorpark-Pardee 230 kv lines are similarly exposed to a simultaneous outage because they are in close proximity to one another within a single right-of-way.[6]

Yet the resources selected by Edison do not resolve the reliability concerns for the entire Moorpark subarea. The vast majority of Edison's procurement comes from a new gas-fired facility located on Oxnard's coast, NRG's proposed "Puente" plant. But NRG proposes to site Puente in an area at risk from current and future coastal hazards, creating an additional reliability concern in the Moorpark subarea. Moreover, even if the Commission approves Edison's separate Ellwood peaker refurbishment proposal, the Puente selection does nothing to remedy reliability issues that will remain in the Goleta subarea. The Puente site is still separated from Goleta by 50 miles of vulnerable transmission lines. Consequently, the resource portfolio presented in Edison's application

[3] SCE-1 at 5-6.
[4] SCE-1 at 6-7.
[5] SCE-1 at 6-7, 44.
[6] Transcript, Vol. 2 at 219:1-11.

will not enhance safe and reliable operations in Edison's entire service area and should be denied.

A. Generation at the Puente Site Is Unreliable.

1. The Puente site will be increasingly exposed to coastal hazards.

Sea level rise associated with global warming is expected to exacerbate coastal erosion, flooding, and significant storm events along California's coast.[7] Climate change could also increase the frequency of the extreme storm events that California will face this century.[8] In response to the risks that such events pose to California's infrastructure, Governor Brown has ordered state agencies to "take climate change into account in their planning and investment decisions, and employ full life-cycle accounting to evaluate and compare infrastructure investments and alternatives."[9] California agencies must carefully consider the risks posed by climate change and sea level rise before approving applications for new critical infrastructure in areas exposed to those risks.

Edison's application proposes to obtain almost all of its LCR megawatts from a single gas-fired plant proposed by NRG.[10] This "Puente" facility would be located within the City of Oxnard at the existing Mandalay Generating Station, which is directly adjacent to the Pacific Ocean. Despite the site's proximity to the open ocean, Edison's application completely ignores reliability concerns that coastal hazards pose to siting new resources in this location.

---

[7] CO-10 at 12.
[8] CO-10 at 31.
[9] Executive Order B-30-15.
[10] SCE-1 at 55.

Because Edison failed to consider the reliability concerns created by siting the Puente facility on the coast, the City submitted testimony from Dr. David Revell, which evaluates the coastal hazards that could impact this project site. Dr. Revell is a coastal geomorphologist who has extensive experience studying coastal processes in the Santa Barbara littoral cell—the section of open California coast that includes the proposed Puente site.[11] His doctorate focused on "climate change, shoreline evolution, storm response, and coastal monitoring in Santa Barbara and Ventura Counties," and he wrote his dissertation on sediment supply and beach evolution in the Santa Barbara littoral cell.[12] He has performed multiple coastal erosion and sea level rise studies in this area, including evaluations for the City of Goleta and models of climate change and erosion impacts along Ventura County's coast.[13]

Dr. Revell's evaluation of existing and increasing coastal hazards at the Puente site relied on mapping from the recently-completed Coastal Resilience Ventura report.[14] His evaluation revealed that during an El Nino-type storm event, the Puente site would be impacted by multiple coastal hazards—wave impacts, erosion, and coastal flooding—under existing conditions.[15] During such events, portions of Puente's proposed site would be flooded (identified by red figure in Exhibit A, attached hereto), as would almost the

---

[11] CO-1, Attachment 1; Transcript, Vol. 3 at 564:13-565:15.
[12] CO-1, Attachment 1 at 1; Transcript, Vol. 3 at 568:20-22.
[13] CO-1, Attachment 1.
[14] CO-1, Attachment 2 at 2; *see* CO-4. The Coastal Resilience Ventura report has been cited by the Coastal Commission as a resource for evaluating beach and dune erosion, and NRG's own consultant, Philip Mineart, utilized this study for his evaluation of the Project site. NRG-2, Appendix B at 3-4, 6.
[15] CO-1, Attachment 2 at 10 (excerpt included as Exhibit A, attached hereto).

entire footprint of Edison's transmission substation (identified by yellow figure).[16]

Consistent with state guidance, Dr. Revell's analyzed risks to the site under a range of future sea levels. Even assuming a low sea-level rise scenario, the Puente site's exposure to coastal hazards would progressively worsen under modeled 2030, 2060, and 2100 conditions.[17] By 2060, the majority of the Puente site could be flooded under the lowest sea level rise projections.[18] Edison's entire transmission substation site could be flooded under that scenario as well.[19]

Dr. Revell's coastal hazard analysis assumed that the sediment supply that nourishes the beach in front of the Puente site would remain unchanged.[20] If that sediment supply decreased, however, rapid erosion in front of the Puente site would occur, leaving it even more exposed to coastal hazards.[21] Indeed, Dr. Revell observed that the beach in front of Mandalay "can't grow much wider" than the width shown in recent aerial photos.[22] And the long-term trend for beach conditions indicates diminished sediment supply and more erosion, exposing the Puente site to greater coastal hazards.[23]

To cast doubt on the long-term threats coastal hazards pose to the Puente site's viability, NRG presented testimony from its consultant, Phillip Mineart. This testimony purported to show that the Puente site would be protected from coastal hazards. Mr.

---

[16] CO-1, Attachment 2 at 10 (excerpt included as Exhibit A, attached hereto).
[17] CO-1, Attachment 2 at 12-14.
[18] CO-1, Attachment 2 at 13.
[19] CO-1, Attachment 2 at 13.
[20] CO-1, Attachment 2 at 5-6.
[21] CO-1, Attachment 2 at 7-9.
[22] Transcript, Vol. 3 at 601:4-27.
[23] Transcript, Vol. 3 at 593:16-18.

Mineart contended that the 20 to 30-foot dune fronting the Puente site is high enough to protect the Puente facility from coastal hazards and storms, even when sea level rise is considered.[24] This opinion is unreliable.

Mr. Mineart's resume and testimony reveal that he lacks any experience evaluating the combination of sea level rise and potential erosion impacts on California's open coast, much less in the area surrounding the Project site.[25] Instead, the bulk of his experience relates to projects on bays and inland waterways.[26] Though he acknowledged that "[t]he waves are different" on the coast compared to more protected waterways, he could not identify "a difference in the mechanism[s]" between waves in those areas.[27]

The report prepared by Mr. Mineart was also improperly truncated so that it ignored potential coastal hazards to the Puente site after 2050.[28] Although he was aware that Mandalay Generating Station's existing once-through-cooling facilities have operated for roughly 60 years, Mr. Mineart testified that he ended his review at 2050 because "Thirty years is what I was told."[29] This limited time period is contrary to the Coastal Commission's most recent guidance on sea level rise. That guidance instructs that sea level rise planning should use a 100-year or greater lifespan for "critical infrastructure," which includes "power plants and energy transmission infrastructure." [30]

Mr. Mineart further relied on historic aerial photographs of the Mandalay

---

[24] NRG-2, Appendix B at 1.
[25] Transcript, Vol. 2 at 364:11-365:18; *see* NRG-2, Appendix A.
[26] Transcript, Vol. 2. at 364:6-10.
[27] Transcript, Vol. 2 at 375:20-28.
[28] *See* NRG-2, Appendix B.
[29] Transcript, Vol. 2 at 371:13-24.
[30] CO-10 at 80, 99, 138.

Generating Station's site to argue that the dune at Mandalay has been stable for decades and the beach has seen a long-term trend of accretion.[31] Mr. Mineart simply assumed that beach accretion would keep up with sea level rise at the beach fronting Mandalay, but offered no analysis of how his projections of beach accretion would compare to projected rates of sea level rise.[32]

Mr. Mineart also evaluated a second scenario where the Mandalay beach diminished with sea level rise. Here, he performed an admittedly "back of the envelope calculation," which he used to conclude that the dune fronting the Mandalay site would protect the entire facility from the combination of future coastal storms and sea level rise during a 30-year time period.[33] Although, he relied on the Coastal Resilience Ventura report for potential erosion rates, he used the report's prediction of 130-feet of *dune erosion* near the project site as his report's estimate of potential *beach erosion* in front of the dune.[34] He simply assumed that this dune erosion rate was a "misprint" because he had not seen evidence that waves had ever impacted the dune at the Mandalay site.[35]

The photographic record directly rebuts Mr. Mineart's testimony. At the hearing, Dr. Revell reviewed the same aerial photographs that Mr. Mineart used in his report. Dr. Revell observed "evidence of actual erosion of the dune field in front of the [Puente] site" following the 1983 El Nino event.[36] The level of erosion in the aerial photograph

---

[31] Transcript, Vol. 2 at 392:4-10; 408:9-25.
[32] Transcript, Vol. 2 at 377:28-378:11; *see* NRG-2, Appendix B.
[33] Transcript, Vol. 2 at 384:2-386:3.
[34] Transcript, Vol. 2 at 393:20-394:17; 397:6-11.
[35] Transcript, Vol. 2 at 381:2-7; 396:14-24.
[36] Transcript, Vol. 3 at 517:2-16.

identified by Dr. Revell corresponds to the Coastal Resilience Ventura modeling. From this photo, Dr. Revell measured approximately 150 feet of dune erosion at the site following the 1983 event. The observed erosion level is roughly equivalent to the Coastal Resilience Ventura report's modeling that indicates of 130 feet of dune erosion at that location.[37]

Thus, contrary to Mr. Mineart's testimony, the record shows significant erosion of the dune in front of the Mandalay site from just one large storm event from over 30 years ago. Moreover, Dr. Revell's testimony shows that with sea level rise and increasingly-frequent large storm events, the threat from coastal hazards at the Mandalay site will only worsen over time. Given the significant reliability threat that these coastal hazards and sea level rise pose to the proposed Puente location, it is unreasonable for Edison to procure over 95 percent of its LCR megawatts from new resources constructed there.

2. The Puente site is also exposed to tsunami hazards.

Tsunami-induced flooding and other potential damage also threaten critical power infrastructure sited on California's coast.[38] The City therefore offered testimony from David Cannon, P.E., who evaluated the site of the Mandalay Generating Station for potential tsunami impacts. Mr. Cannon's analysis considered tsunami-related impacts to the Puente site under two different tsunami scenarios: a recurrence of the 2011 Japanese tsunami, and a local tsunami triggered by the Goleta 2 landslide scenario.[39] Consistent with the most recent Coastal Commission guidance, this tsunami analysis considered site

[37] Transcript, Vol. 2 at 395:19-396:18; 556:24-557:11.
[38] CO-10 at 75.
[39] CO-2, Attachment 2 at 2-3.

impacts under current sea-level conditions as well as future sea level rise scenarios.[40]

Mr. Cannon's analysis reveals that under the Goleta 2 scenario, the Mandalay site is exposed to flooding from a tsunami even under existing sea levels.[41] During such an event, almost the entire Puente site would be flooded.[42] When combined with sea level rise projections, the Goleta 2 tsunami risk only worsens in model projections for years 2030, 2060, and 2100.[43]

The Goleta 2 landslide scenario is used for local emergency operations and evacuation planning in Oxnard and Ventura County, and is consistent with the California Geological Survey's tsunami guidance report.[44] Local source tsunamis like the Goleta 2 landslide present a heightened hazard because there is very little warning and time to evacuate or protect a site.[45] Projections for the Goleta 2 event indicate that it would produce waves around 12 feet above mean sea level (or 14.63 feet NAVD88).[46] That elevation is consistent with CalEMA tsunami mapping for the Oxnard coast, which anticipates a tsunami wave elevation between 10 and 15 feet.[47]

In contrast, NRG's witness Philip Mineart did not conduct a detailed evaluation of the site's potential tsunami risk. He simply relied on the CalEMA tsunami map, which

---

[40] CO-10 at 126, fn. 44 (existing tsunami evacuation maps are only based on current sea level conditions and require updating).
[41] CO-2, Attachment 2 at 14.
[42] CO-2, Attachment 2 at 14.
[43] CO-2, Attachment 2 at 4, 15-17.
[44] CO-2, Attachment 2 at 3.
[45] Transcript, Vol. 3 at 639:26-640:8.
[46] CO-2, Attachment 2 at 4.
[47] NRG-2, Appendix B at 5.

indicated that the project site was not in a tsunami evacuation zone.[48] However, the statewide CalEMA mapping does not account for site-specific conditions, like hydraulic connections between the ocean and a facility.[49] Mr. Mineart never considered hydraulic connections that would expose the Puente project to tsunami hazards because they were not accounted for in the statewide CalEMA mapping. As Mr. Cannon testified, multiple hydraulic connections would allow a tsunami to bypass the dune and flood the site, including the Mandalay Generating Station's existing intake channel and outfall.[50]

Mr. Mineart also neglected to consider the potential for a tsunami to erode the dune that he believes will protect the project site.[51] He simply assumed that a tsunami event would run up against the dune and not cause erosion or increase the site's vulnerability to subsequent wave events. Yet, tsunamis often have several waves, so that an early wave could erode protective dunes and subsequent waves could flood the site.[52] Thus, his cursory investigation of potential tsunami impacts is unreliable.

Given the tsunami risk that the Puente site already faces, it makes little sense to locate new critical power generating infrastructure there. Doing so only creates a new reliability problem in the Moorpark subarea. It therefore undermines the central purpose of the LCR proceeding.

---

[48] Transcript, Vol. 2 at 399:27-400:1.
[49] *See* NRG-2, Appendix B at 5-6, Attachment 2; CO-2, Attachment 2 at 6.
[50] Transcript, Vol. 3 at 637:27-638:17.
[51] Transcript, Vol. 2 at 398:27-399:2.
[52] CO-2, Attachment 2 at 6.

B. Edison's Resource Selection Does Not Remedy the Reliability Constraints in the Goleta Subarea.

Additionally, Edison's proposal to procure almost all of its resources from a new 262 MW plant in Oxnard does nothing to cure the reliability issue in Goleta. If the Goleta-Santa Clara transmission lines connecting a new Mandalay resource to Goleta fail, Edison faces a roughly 165 MW deficit in the Goleta-Santa Barbara area during peak periods.[53] Even after refurbishment, the 54 MW Ellwood facility would not be large enough to replace that loss.[54] For this reason as well, Edison's proposed procurement does not ensure reliability for the entire Moorpark subarea and is unreasonable.

II. The Commission Should Defer Any Approval of a Contract for Power from the Puente Plant Until the CEC Has Acted on that Project.

The Commission must also decide whether it should "approve [Edison's proposed] contracts prior to completion and a final decision by the California Energy Commission (CEC) of the California Environmental Quality Act (CEQA) review."[55] After the CEC conducts a full consideration of the environmental risks associated with the Puente project, the Commission can better evaluate the Puente plant's reasonableness and reliability. Moreover, NRG's own testimony and evidence establishes that the Commission's approval of the contract between Edison and NRG will prejudice the CEC's ability to fully assess the Puente plant's environmental risks in the first instance. Therefore, as both a legal and practical matter, the Commission should not approve the NRG contract before a final decision from the CEC and the completion of CEQA review.

---

[53] Transcript, Vol. 2 at 227:28-228:6.
[54] D.13-02-015, 2013 WL 652439.
[55] Scoping Memo at 5, #4.

A. Complete Environmental Review Will Further Illuminate Any Reliability and Feasibility Concerns that the Puente Project Faces.

The current evidence before the Commission shows that Edison has not met its burden of demonstrating the reliability of the Puente project in the face of serious environmental hazards.[56] If the Commission does not deny the proposed contract based on this record, it cannot find that the Puente project is reliable, reasonable, and prudent for all purposes without considering a further analysis of these threats. NRG has also acknowledged that comprehensive environmental review that the CEC typically conducts will assess "the safety and reliability of a proposed power plant."[57] This CEC review would include the project's vulnerability to sea level rise, tsunamis, and other environmental hazards that could impair operation of either the Puente facility or Edison's substation.[58]

In the absence of this comprehensive review, any unresolved concerns about project viability should lead the Commission to deny the contract for the Puente project. For example, in Resolution E-4522 concerning Edison's application for approval of power purchase agreements for solar facilities, the Commission found that the viability of certain projects was threatened by their proximity to a military base and important habitat for the endangered desert tortoise.[59] Although the Commission did not conduct environmental review of these purchase agreements, it denied them because these viability issues had not been adequately resolved. Similarly here, the record demonstrates

---

[56] *See* Section I.A, *supra*.
[57] NRG-1 at 5:23-24.
[58] NRG-1 at 5:24-27.
[59] Resolution E-4522, 2012 WL 5448427, at *13, *19, #7, *20, #20, #23.

that the Puente project is threatened by its location in an area subject to existing tsunamis and other coastal hazards that will only worsen with sea level rise. Until these issues are fully addressed and resolved, the Puente contract should also be denied.

B. NRG's Testimony and Evidence Show that Commission Approval of the Puente Contract Will Impair the CEC's Environmental Review.

If the Commission is not willing to deny the Puente contract outright, it should defer any action on the contract with NRG until the Puente project has undergone full environmental review. The record demonstrates that approval of the Puente contract will lock-in the technology and location of a gas-fired power plant to meet the identified resource need for the Moorpark subarea. This will prejudice the CEC's ability to consider a full range of alternatives and potential mitigation for the Puente project.

First, NRG's application to the CEC unequivocally states that the Commission's approval of the Puente contract will dictate construction of this particular project at the Mandalay site. In discussing the RFO process that lead to the selection of the proposed Puente project, NRG states: "Through the RFO process, the utility evaluates a range of alternatives and awards RAPAs that are technology-specific and location-specific . . . ."[60] Once the contract is approved by the Commission, "[i]t is then *incumbent upon the developer to deliver the project consistent with the terms of the RAPA [contract]. Therefore, this objective is not merely a goal or aspiration of the project developer, but a legal imperative.*"[61] According to NRG, approval of the proposed contract will establish

[60] CO-3 at 5-2.
[61] CO-3 at 5-2 (emphasis added).

what constitutes a reasonable alternative for the project site, and projects that do not satisfy the contract terms are "neither reasonable nor feasible."[62]

In fact, as discussed further below [redacted]

NRG also asserts that once the contract is approved, "[i]t would not be feasible to meet most of the project objectives if [the Puente project] was constructed at an alternative site [because] the RAPA awarded by SCE is location-specific."[64] Not only that, approval of the contract precludes consideration of "alternative generating technology."[65] Thus, contract approval will not only limit the CEC's ability to *evaluate* alternatives to the Puente project, it will prevent the CEC from approving an alternative project technology or location.

Edison also claims that the material terms of the contract, including the per-kW contract price, cannot be modified.[66] Thus, even if the CEC did not consider a different technology or location for the Puente project, the Project's vulnerability to sea level rise or tsunamis will likely require changes in project design that might increase project costs. If the contract is approved, it is unclear whether CEC will be able to require changes in

[62] CO-3 at 5-2.
[63] [redacted]
[64] CO-3 at 5-4.
[65] CO-3 at 5-5.
[66] Edison Reply to Protests at 6.

the Puente project that might substantially increase its costs—even if these changes are necessary to ensure reliability and address potential environmental impacts of the Puente project.

As a result, if the Commission does not defer a decision on the NRG contract until after the CEC has completed its review, the Commission's approval will set in place essential elements of the Puente project. NRG's documents and testimony show that this will impair the CEC's ability to account for Puente's potential environmental impacts and risks, and consider mitigation and alternatives to alleviate these risks (including alternative site designs and technology, as well as alternative locations). Thus, at the very least, the Commission should defer acting on the proposed NRG contract until the CEC completes its review of that project.

C. If Commission Approval Precedes CEC Environmental Review, the Commission Would Be Required to Act as a Lead Agency Pursuant to CEQA.

California law establishes that approval of the contract would constitute a discretionary decision that is subject to CEQA.[67] The California Supreme Court has emphasized that "before conducting CEQA review, agencies must not 'take any action' that significantly furthers a project 'in *a manner that forecloses alternatives or mitigation measures* that would ordinarily be part of CEQA review of that public project.'"[68] The

---

[67] Cal. Code Regs., tit. 14, ("CEQA Guidelines") §§ 15352(b),15357; *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 132, 138 (concluding that a contract for the sale of property constituted a project under CEQA).

[68] *Save Tara*, 45 Cal.4th 116 at 138 (emphasis added; quotation omitted); *see also* CEQA Guidelines § 15004(b)(2)(B) (a public agency shall not "take any action which gives impetus to a planned or

(footnote continued on next page)

California Court of Appeal similarly found that the California Air Resources Board's resolution approving adoption of proposed Low Carbon Fuel Standard regulations was a project because the action precluded alternatives or mitigation and gave the regulations "significant bureaucratic momentum."[69]

In addition to NRG's statements that approval of the NRG contract will significantly constrain the CEC's ability to consider project alternatives, NRG also testified that contract approval will provide significant financial momentum to the Puente project. Dawn Gleiter, NRG's Puente project manager, testified that the cost of going through the CEC process is estimated to be between $2 and $5 million.[70] According to Ms. Gleiter, the Commission's approval of the contract will provide sufficient financial incentive to proceed with that CEC process.[71] This financial incentive is so great, and NRG is so confident that contract approval will ensure approval by the CEC, that NRG is willing to risk payment of a $24 million contract termination fee if the CEC does not approve the Puente project.[72] If NRG simply applied to the CEC for approval first (without an Edison contract), the risk would only be the $2-5 million in costs to process its CEC application.[73] In fact, Ms. Gleiter testified that without a Commission approval, NRG could decline to pursue the Puente project at all because "it's very unlikely that

---

(footnote continued from previous page)
foreseeable project in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project").

[69] *POET, LLC v. California Air Resources Bd.* (2013) 218 Cal.App.4th 681, 724-25.

[70] NRG-1 at 7:19-21.

[71] NRG-1 at 7:21-23.

[72] Transcript, Vol. 2 at 336:17-22.

[73] Transcript, Vol. 2 at 339:8-14.

someone's just going to build a multi—between [$]235 or $270 million project without an assertion that we're going to be able to recoup that investment."[74] NRG has therefore determined that a Commission contract approval makes it far more likely that the CEC will approve its project. Thus, approval of the contract between Edison and NRG is the "first step in taking this [Puente] project forward."[75]

Where an action is an essential "first step" in a project, the first agency to issue a project approval must conduct environmental review.[76] Any subsequent CEQA review by the CEC does not change this analysis. Under the Supreme Court's decision in *Save Tara,* project "approval" occurs when an agency *first* exercises its discretion to advance a project, not when the *last* discretionary decision is made.[77] A project may be approved even when further discretionary decisions will precede any environmental change caused by the project.[78]

Consequently, if it does not defer approval of the NRG contract until the CEC has completed its review of the Puente project, the Commission will be the first public agency to make a discretionary decision regarding key elements of the project and its potential environmental impacts. As such, the Commission will be acting as a lead agency for the Puente project.

---

[74] Transcript, Vol. 2 at 335:5-9.
[75] Transcript, Vol. 2 at 341:21-27.
[76] *Fullerton Joint Union High School Dist. v. State Bd. of Educ.* (1982) 32 Cal.3d 779, 795; *Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 278-79 (where an action is a first step in a chain of events which would culminate in physical impact, it is a project subject to CEQA).
[77] *Save Tara*, 45 Cal.4th at 134; *see also* CEQA Guidelines § 15352(b) (agency approval is the "earliest commitment" to a discretionary approval for a project).
[78] *Save Tara*, 45 Cal.4th at 134-35.

In their previous submissions to the Commission, NRG and Edison have asserted that the Commission does not conduct environmental review when evaluating the reasonableness of purchase agreements.[79] In the cases Edison and NRG rely on, the Commission based its decision in part on the fact that its approval would not affect the consideration of impact mitigation or project alternatives by the CEC.[80] However, this finding cannot be made here—NRG itself has testified that contract approval will preclude the full consideration of project alternatives and mitigation measures.

At the same time it asserts the CEC cannot consider alternatives that deviate from the technology and location identified in its contract with Edison, NRG also argues the Commission should approve that contract without considering its environmental impacts or vulnerability to environmental hazards.[81] NRG and Edison cannot have it both ways. If Commission approval of the Puente contract forecloses project alternatives that the CEC may consider, then environmental review (by either the CEC or the Commission) must *precede* the Commission's approval. The Commission should reject NRG's attempt to prejudice the CEC's environmental review, either by deferring action on the contract, or by denying it outright.

III. The Size of the Puente Plant Is Unjustifiable.

The Commission authorized Edison to procure between 215 and 290 MW of new resources in the Moorpark subarea.[82] Although it falls within this range, Edison's

---

[79] *See, e.g.*, Edison Reply to Protests at 4-5.
[80] *See, e.g.*, Resolution 4686, 2014 WL 5361967 at *11-12; Resolution E-4439 at 18.
[81] NRG-1 at 2:15-17, 7:5-7.
[82] D.13-02-015.

proposal to procure 262 MW from NRG's single gas-fired Puente facility is excessive.

The most recent CAISO modeling underscores this fact. At the time of the Commission's initial LCR authorization for the Moorpark subarea, the CAISO recommended that Edison should procure an additional 430 MW of generation for the Moorpark subarea.[83] The CAISO has since updated its need determination for Edison's Moorpark subarea. The most recent CAISO model indicates that Edison need only procure an additional 230 MW in the Moorpark area to address the deficiency that CAISO expects to exist by 2024.[84] Thus, even excluding refurbishment of the Ellwood peaker, Edison's proposal to purchase 274.16 MW of new capacity in Moorpark exceeds the need identified in CAISO's most recent modeling.

[redacted]

[83] *Id.*

[84] CAISO-1, Exhibit 1 at 90, 94 (noting a 230 MW deficiency in the Moorpark sub-area without LTPP in year 2024); Transcript, Vol. 2 at 216:9-217:9.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Finally, as a matter of policy, the Commission should not allow Edison to procure more gas-fired resources than necessary to meet the minimum LCR requirement of 215

[redacted]

MW. As discussed further below, the record indicates that Edison's RFO process likely suppressed the number of preferred resource and energy storage offers it received. If the Commission believes that additional megawatts above this minimum procurement are necessary in the Moorpark area, it should order Edison to solicit additional preferred resources through a second RFO.

IV. Edison's RFO Process Foreclosed Selection of Additional Preferred Resources in the Moorpark Subarea.

The dearth of preferred resources that Edison selected in the Moorpark subarea is particularly stark when compared to Edison's Western LA Basin resources selection. Preferred resources and storage comprise only 4.5 percent of Edison's Moorpark application.[93] In contrast, Edison is proposing to procure 500.60 MW of energy storage and preferred resources in the West LA Basin (roughly 27 percent of the total 1,882.60 MW procured for that area).[94]

Edison's explanation for this disparity is that "anecdotal evidence" suggests that "the Moorpark area was less attractive to source bids from, given the much smaller load opportunity as compared to the Western LA Basin."[95] Indeed, the record indicates that conducting a single RFO for resources in both the Moorpark and Western LA areas drew preferred resource offers towards the Western LA Basin, handicapping potential procurement of non-gas resources in the Moorpark area. Moorpark's "smaller area" made if difficult for Edison to secure preferred resource offers there, in part because the

[93] SCE-1 at 3.
[94] *See* CO-7 at 10.
[95] SCE-7 at 14.

"market was focusing" on the LA Basin.[96]

Consequently, conducting a new RFO for Moorpark that is independent of the LA Basin process would allow preferred resource and energy storage providers to give greater focus to opportunities in the Moorpark subarea. A second RFO could also lead to better reliability across the entire subarea, including in Goleta and Santa Barbara. And it would allow Edison to use the information gathered from its unsuccessful preferred resource selection and revise its RFO process to make selection of preferred resources more likely.[97] Thus, the Commission should order Edison to conduct an additional RFO aimed at procuring more preferred resources and storage offers in the Moorpark subarea.

CONCLUSION

For the forgoing reasons, the Commission should deny Edison's application.

Date: July 22, 2015

SHUTE, MIHALY & WEINBERGER LLP

By:/s/ Ellison Folk
ELLISON FOLK

Attorneys for the City of Oxnard

Ellison Folk
Edward T. Schexnayder
SHUTE, MIHALY & WEINBERGER LLP
396 Hayes Street
San Francisco, California 94102
Telephone: (415) 552-7272
Facsimile: (415) 552-5816
folk@smwlaw.com
schexnayder@smwlaw.com

[96] Transcript, Vol. 1 at 69:27-70:4 (discussing limits on demand response offers in the Moorpark subarea); 80:12-28.

[97] Transcript, Vol. 1 at 145:6-146:2 (SCE witness Bryson acknowledging that he would change the preferred resource solicitation process if he had to do it over again).