

**CALIFORNIA COASTAL COMMISSION**

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January 23, 2013

Felicia Miller, Project Manager  
 Siting, Transmission and Environmental Protection (STEP) Division  
 California Energy Commission  
 1516 Ninth Street, MS-2000  
 Sacramento, CA 95814

California Energy Commission

**DOCKETED**  
**12-AFC-02**

TN # 69246

JAN 23 2013

VIA EMAIL: [Felicia.Miller@energy.ca.gov](mailto:Felicia.Miller@energy.ca.gov)

**RE:** Status of Coastal Commission review for Application for Certification (AFC) 2012-AFC-02: AES Huntington Beach Energy Project

Dear Ms. Miller:

Pursuant to the January 11, 2013 CEC staff request, this letter provides the status of our review of the above-referenced AFC proceedings. That CEC staff letter requested we describe the progress of our review, any impediments that may have arisen or are anticipated that could have an impact on the current schedule, and, if needed, suggested modifications to the schedule. This letter also addresses several of the issues AES raised in its October 22, 2012 letter regarding the Coastal Commission's role in AFC proceedings. We anticipate providing a more thorough project evaluation as part of our upcoming review of the Preliminary Staff Assessment.

**Coastal Commission role in AFC proceedings:** As you know, pursuant to Section 25523(b) of the Warren-Alquist Act and Section 30413(d) of the Coastal Act, the Coastal Commission role in the California Energy Commission's (CEC's) AFC proceedings is to review those proposals that are within the coastal zone and to provide for the CEC the Coastal Commission's findings with respect to the proposed project's conformity to relevant provisions of the Coastal Act and certified Local Coastal Program (LCP). The Coastal Commission's "30413(d) Report" is to describe the suitability of the site for the proposed project, identify mitigation measures needed to protect coastal resources that are to be incorporated into the proposed project, and provide other similar determinations. Subject to certain exceptions stated therein, section 25523(b) of the Warren-Alquist Act requires the Energy Commission to include in its decision on the AFC any "specific provisions" that the Coastal Commission determines are necessary to bring the project into conformity with the policies of the Coastal Act. This role was further detailed in the May 2005 Memorandum of Agreement between the CEC and the Coastal Commission.<sup>1</sup>

<sup>1</sup> Please also refer to previous AFC proceedings, including 00-AFC-14 (El Segundo) and 00-AFC-12 (Morro Bay), in which the CEC's Final Decision acknowledges this Coastal Commission role.

**Impediments – Site Suitability:** Coastal Act Section 30413(d) requires, in part, that the Coastal Commission’s report to the CEC describe the “suitability of the proposed site and related facilities” and “[t]he degree to which the proposed site and related facilities could reasonably be modified so as to mitigate potential adverse effects on coastal resources, minimize conflict with existing or planned coastal-dependent uses at or near the site, and promote the policies of [the Coastal Act].” The Coastal Commission’s review also includes determining conformity of the proposed project with applicable LCP policies.

As you know, Coastal Commission staff is reviewing another project – a desalination facility – also proposing to locate at the AES Huntington Beach power plant site. Our review to date of that proposed project shows that the site is subject to several severe geologic hazards that raise substantial concerns about the suitability of the site for ongoing major industrial uses, particular those that may be considered critical infrastructure projects. The hazards, which we will described in more detail later in the AFC review, include the site’s location adjacent to an earthquake fault, relatively high expected ground motion (at or above 1g), surface fault rupture, liquefaction, and lateral soil spread. The site has also been identified as being subject to moderate to very heavy damage from earthquakes on any of several local or regional faults. The site is also within a tsunami runup zone with expected tsunami runup levels of about 16 feet above mean sea level, which is well above the foundations of both the proposed power plant and desalination facility. Attachment 1 of this letter provides maps from the City’s LCP and from the California Geological Survey showing the proposed project site within the zones designated as hazardous due to these risks. Many of the site’s hazards and their associated risks will be further exacerbated by predicted levels of sea level rise during the expected operating life of these facilities (i.e., up to about two feet by 2050). Sea level rise will also result in increased risk at the site from other hazards, such as flooding, erosion, and increased high groundwater levels.

Therefore, and as we requested previously, we recommend that AES provide detailed, site-specific, and comprehensive analyses of these hazards and identify all mitigation measures – both on- and off-site – needed to avoid and reduce the effects of those hazards. We will need these analyses to determine whether the proposed project conforms to applicable policies of the Coastal Act and LCP (see relevant policies in Attachment 2). We note, too, that the CEC staff’s January 15, 2013 data request letter includes some of these same information requests, and we concur with those requests.

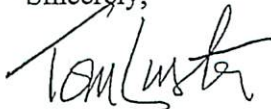
**Impediments – ongoing need for comprehensive assessment:** In addition to the geologic hazards identified above, other components of the proposed project require a comprehensive assessment of likely impacts and necessary mitigation measures. As we noted previously, these include consideration of alternative facility layouts to reduce noise effects in adjacent wetland habitats, evaluation of alternative onsite locations for currently proposed offsite construction activities that would result in coastal resource impacts (e.g., construction parking and staging that would adversely affect public access to the shoreline), and consideration of the cumulative impacts that would result from construction and operation of three separate projects – the power plant, desalination facility, and City reservoir – at the power plant site.

**Impediments – Known and Potential Effects on Biological Resources:** As noted in our previous letter, we are continuing to investigate potential Coastal Act violations resulting from unpermitted vegetation removal and/or grading within wetland areas on the project site. We will provide any relevant information obtained later in the AFC review.

**Schedule Modifications:** At this point in our review, it is not clear whether the above issues will require a modification to the currently anticipated AFC schedule. We anticipate that a comprehensive response from the applicant and incorporation of the issues we've identified in this and previous letters into the Preliminary Staff Assessment may allow the review to continue as proposed.

**Closing:** Thank you for the opportunity to comment. We look forward to working with you on this project. Please feel free to contact me at 415-904-5248 or [tluster@coastal.ca.gov](mailto:tluster@coastal.ca.gov) if you have questions.

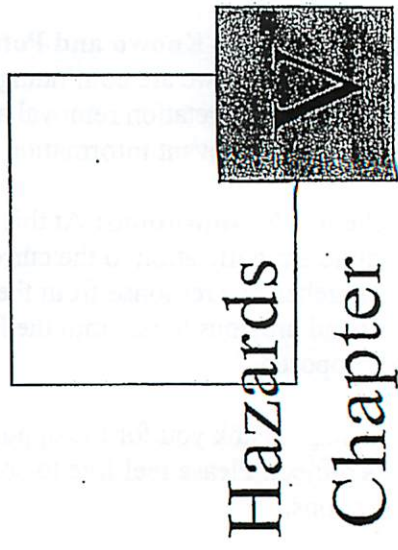
Sincerely,



Tom Luster  
Staff Environmental Scientist  
Energy, Ocean Resources, and Federal Consistency Division

- Attachment 1: Hazard Maps from City of Huntington Beach Local Coastal Program's Environmental Hazards Chapter
- Attachment 2: Coastal Act and Local Coastal Program Policies Related to Geologic Hazards

ATTACHMENT 1

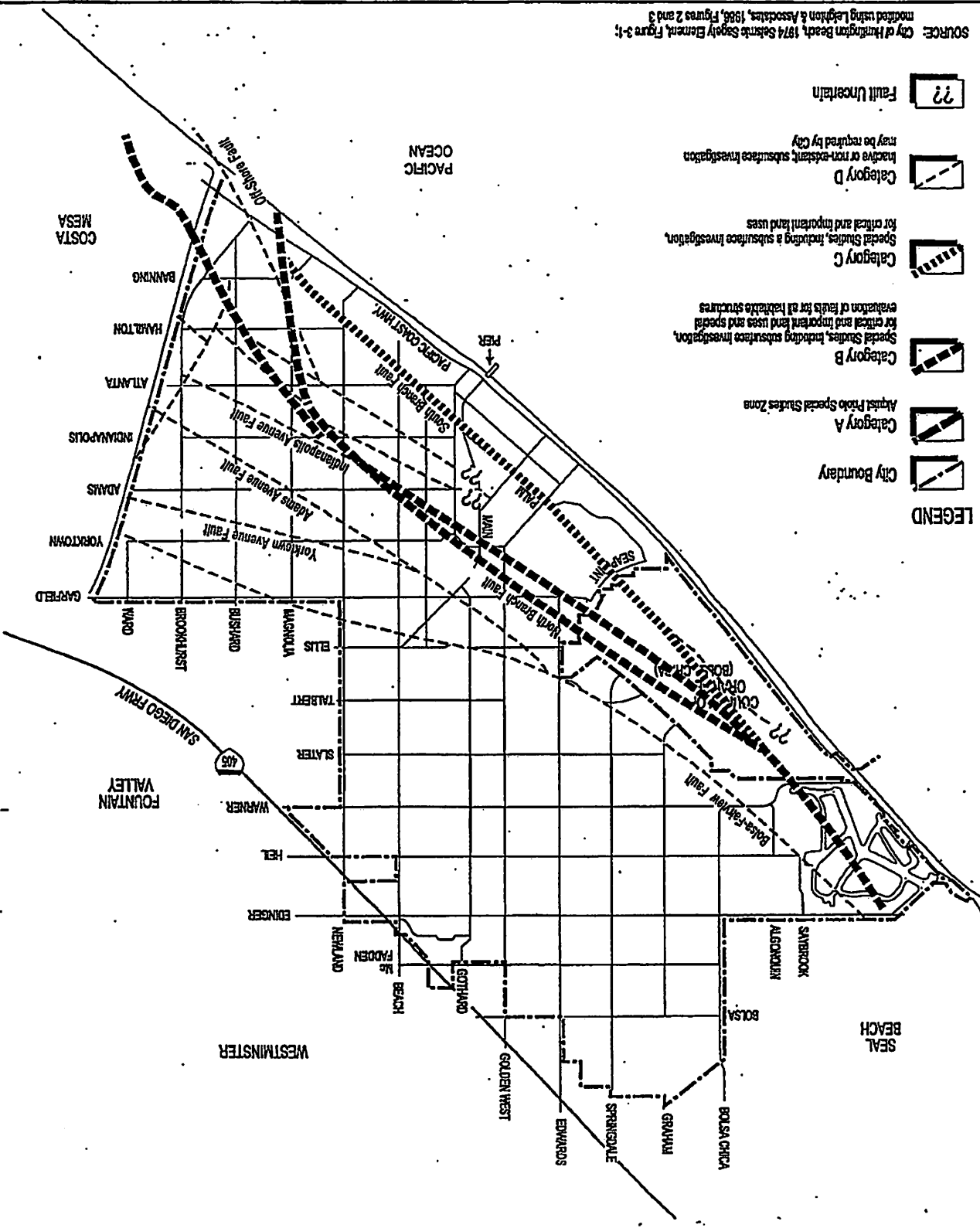


GENERAL PLAN  
HUNTINGTON BEACH

NEWPORT - INGLESWOOD  
FAULT ZONE

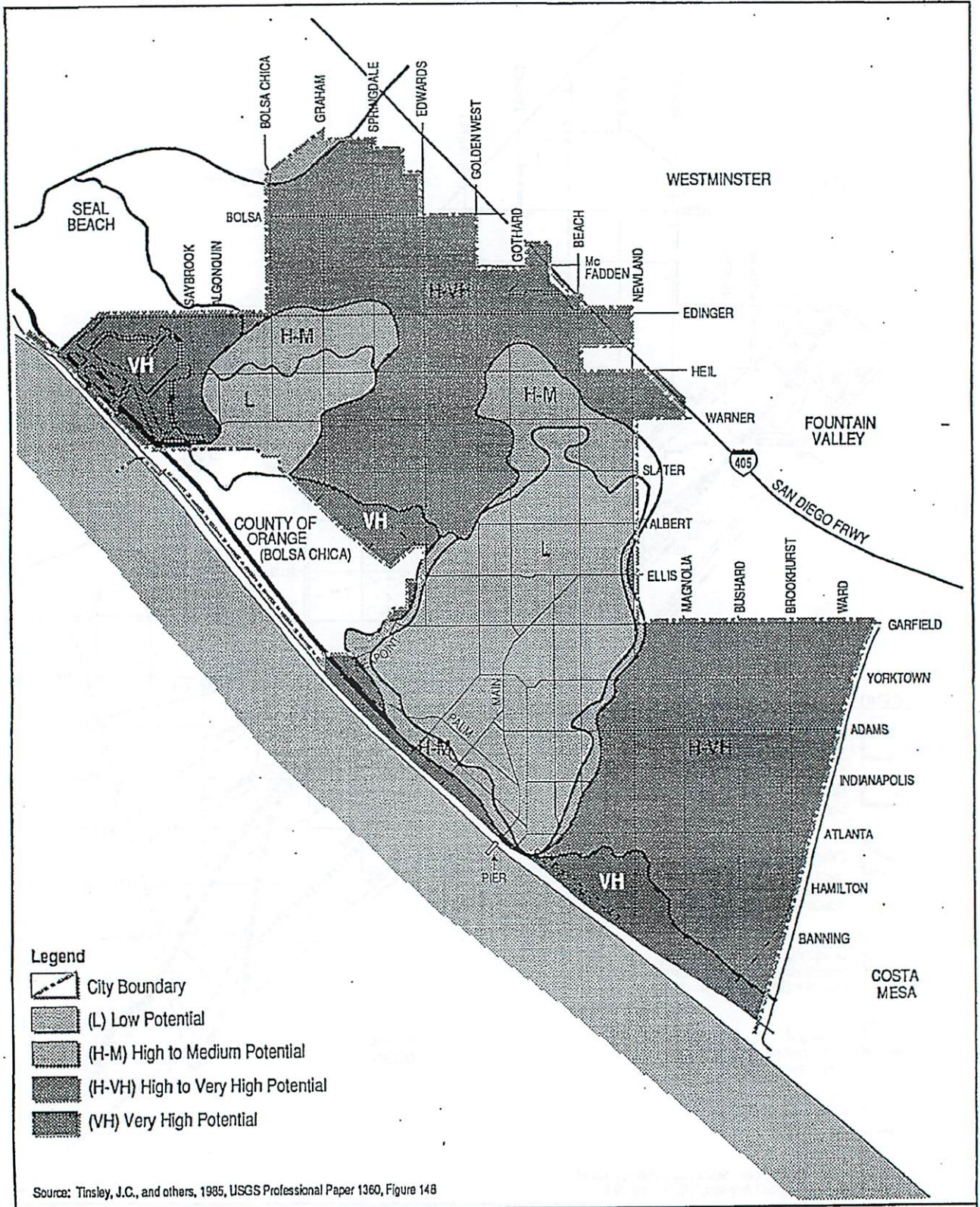


SOURCE: City of Huntington Beach, 1974 Seismic Safety Element, Figure 3-1; modified using Leighton & Associates, 1986, Figures 2 and 3



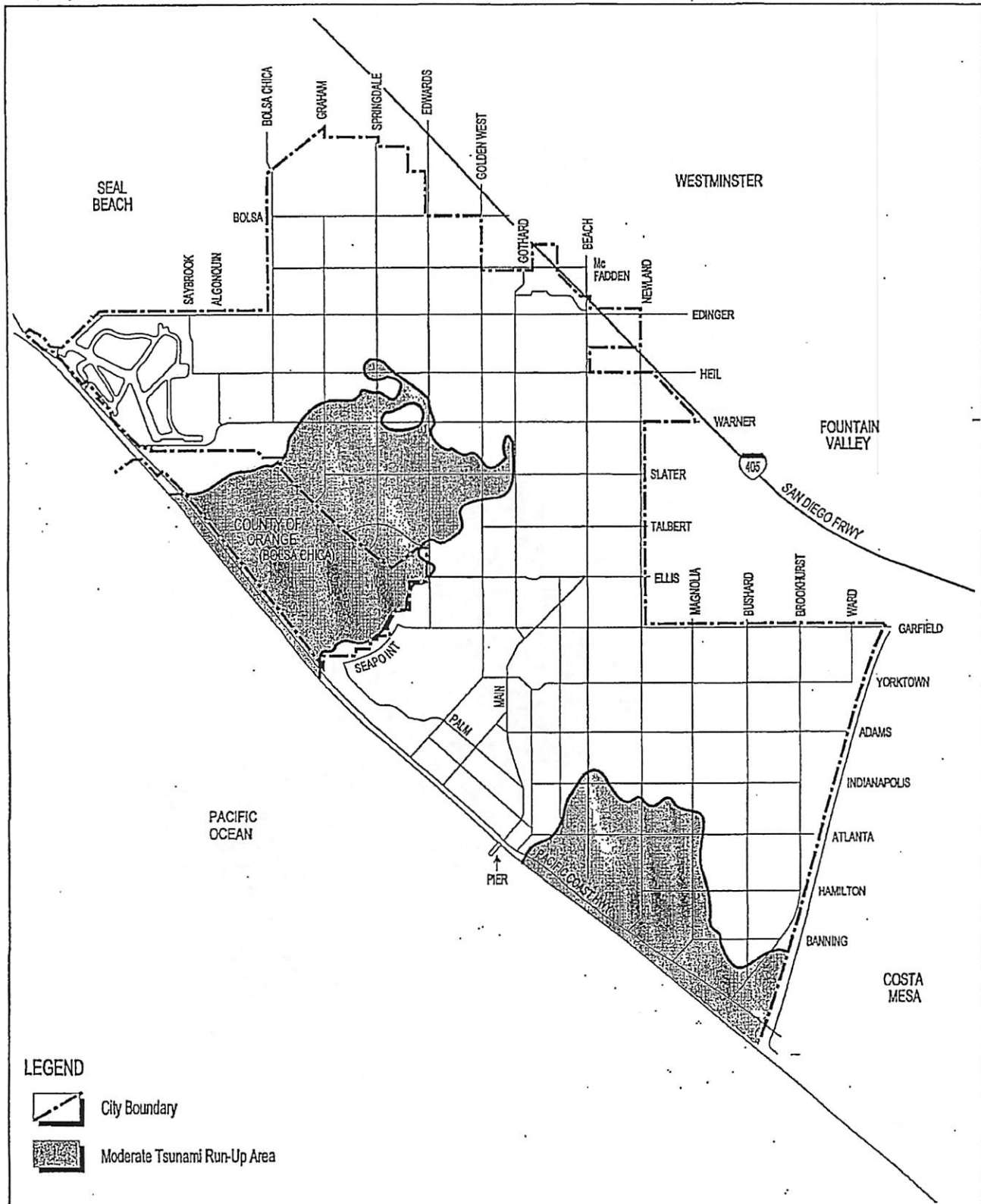
- LEGEND**
- City Boundary
  - Category A  
Adjust Prolo Special Status Zone
  - Category B  
Special Studies, including subsurface investigation, for critical and important land uses and special evaluation of faults for all habitable structures
  - Category C  
Special Studies, including a subsurface investigation, for critical and important land uses
  - Category D  
Inactive or non-existent subsurface investigation may be required by City
  - Fault Uncertain







**LIQUEFACTION POTENTIAL**  
**CITY OF HUNTINGTON BEACH GENERAL PLAN**





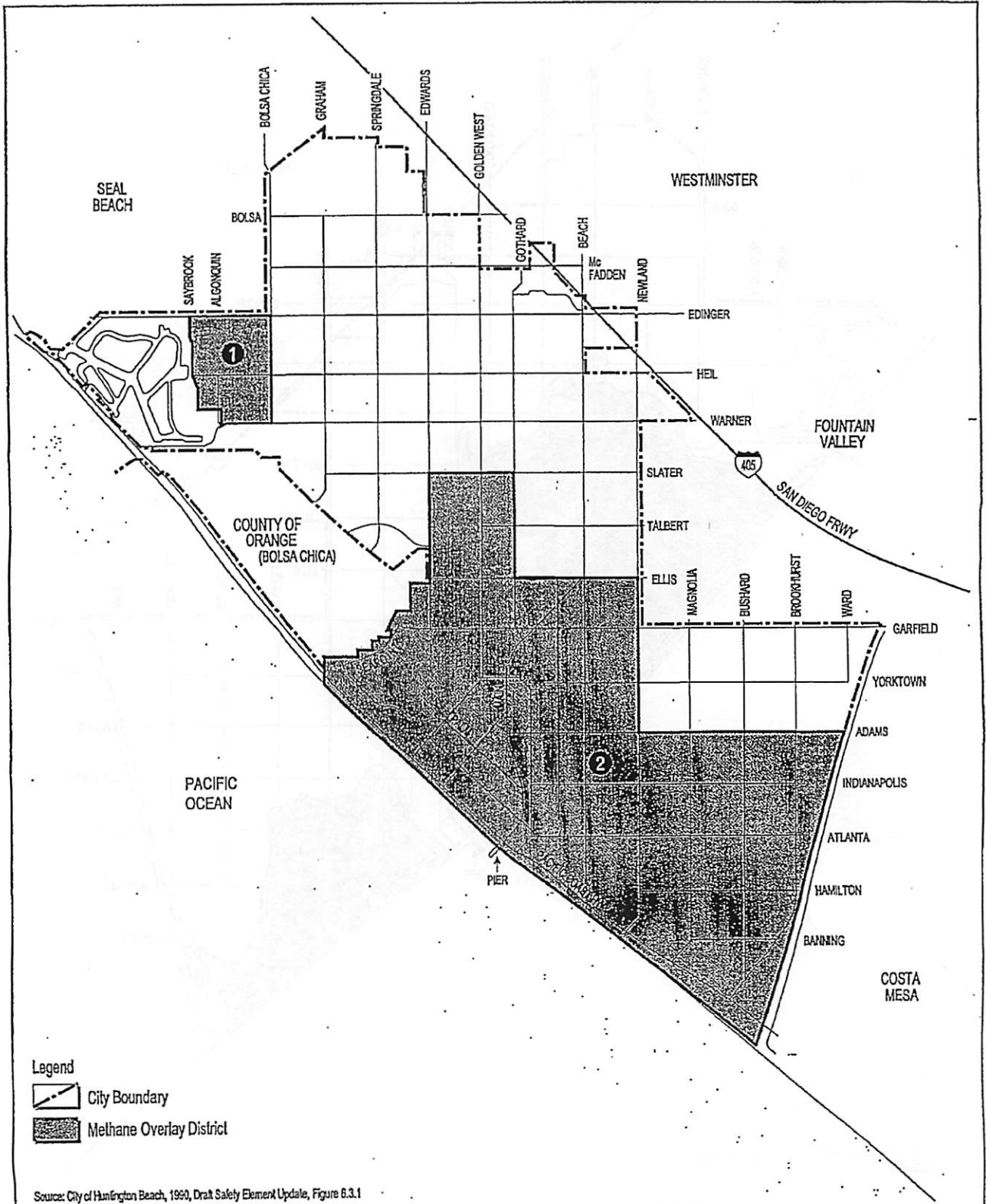
**LEGEND**

-  City Boundary
-  Moderate Tsunami Run-Up Area



**MODERATE TSUNAMI RUN-UP AREA**  
 CITY OF HUNTINGTON BEACH GENERAL PLAN







Legend

-  City Boundary
-  Methane Overlay District

Source: City of Huntington Beach, 1990, Draft Safety Element Update, Figure 6.3.1

**METHANE OVERLAY DISTRICTS**  
 CITY OF HUNTINGTON BEACH GENERAL PLAN

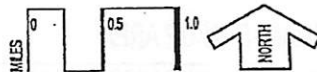


FIGURE **EH-10**





## Attachment 2: Geologic Hazards – Relevant LCP and Coastal Act Policies

### LCP Policy C 10.1.4:

*Require appropriate engineering and building practices for all new structures to withstand ground shaking and liquefaction such as those stated in the Uniform Building Code.*

### LCP Policy I-C.20, Environmental Hazards Element:

*Enforce and implement the policies and programs of the Environmental Hazards Element of the General Plan to the extent that these programs and policies are not inconsistent with the City's Local Coastal Program.*

The relevant and applicable policies and programs of the above-cited Environmental Hazards Element include the following:

*Note:* Figures in parentheses at the end of each Environmental Hazards Policy refer to the Implementation Program applicable to each Policy. Relevant sections of those Implementation Programs are included below.

*Environmental Hazards Policy 1.1.4: Evaluate the levels of risk based on the nature of the hazards and assess acceptable risk based on the human, property, and social structure damage compared to the cost of corrective measures to mitigate or prevent damage. (I-EH 3 and I-EH 4)*

*Environmental Hazards Policy 1.2.1: Require appropriate engineering and building practices for all new structures to withstand groundshaking and liquefaction such as stated in the Uniform Building Code (UBC). (I-EH 5)*

*Environmental Hazards Policy 5.1.1: Identify tsunami and seiche susceptible areas, and require that specific measures be taken by the developer, builder, or property owner, during major redevelopment or initial construction, to prevent or reduce damage from these hazards and the risks upon human safety (see Figure EH-8). (I-EH 1 and I-EH 4)*

Environmental Hazards Program I-EH-1 – Studies/Mapping/Master Plans:

a. Conduct, prepare and/or update the following as funding permits:

...

- *a Grading and Geotechnical Investigation Guidelines manual which will outline the minimum proper soils engineering and engineering geologic study for all sites where grading will occur. Topics shall include, but not necessarily be limited to, soils engineering and foundations, erosion control, peat and organic soils, slope stability, erosion, liquefaction and dynamic settlement, shallow groundwater, and fault location/activity. This manual shall be available at the permit stage prior to initial feasibility and design studies in order to enhance the development review and environmental review processes;*

...

- *an assessment of potential damage to essential utility and transportation infrastructure and public service facilities due to geologic/seismic hazards. The findings of the assessment should be utilized in the review of proposed development projects, and used for maintaining and updating emergency preparedness plans;*
- *standards for tsunami/seiche studies to be completed for harbor areas, breakwaters, and coastal areas of concern. The city shall update its evaluation of the tsunami hazard, make its standards more specific, and disseminate available information on tsunami warnings and on procedural steps to prepare the populous [sic] for such an event. Mitigation measures shall be suggested for new construction.*
- *determine the safety status of all dams which may fail and cause inundation within the City. This shall be done in cooperation with the County of Orange and the State Division of Safety of Dams in order to establish the safety status and to determine what follow up analyses, if any, are needed. Based on these results, the City shall develop risk guidelines and [sic] to allow evaluation of current regulatory measures for protection of future development...*

**Environmental Hazards Program I-EH-3 – Alquist-Priolo Earthquake Fault Zone:**

- a. *Continue to implement the Alquist-Priolo Earthquake Fault Zone requirements.*
- b. *Implement the fault classification system suggested by Leighton & Associates (April 17, 1986) with regard to faults in the City susceptible to fault rupture, and establish a study requirement based on risk and structure importance.*

**Environmental Hazards Program I-EH 4 – Development Review or Environmental Review Process: During development review (site plan, tract map, etc.) and/or environmental review, require:**

- a. *building structures proposed in liquefaction, unstable soil/slope conditions, flood prone areas, high water tables, peat or other geologic hazards prone areas to determine potential problems and to require mitigation measures;*
- b. *a potential seismic/geologic damage assessment to be conducted for essential public utilities (gas, water, electricity, communications, sewer) and require that appropriate mitigation measures be incorporated;*
- c. *critical or sensitive facilities and uses to be located in areas where utility services and continuous road access can be maintained in the event of an earthquake;*
- ...
- f. *that proposed critical, essential, and high-occupancy facilities be subject to seismic review, including detailed site investigations for faulting, liquefaction, ground motion characteristics, and slope stability, and application of the most current professional standards for seismic design;*
- g. *that proposed projects located in the tsunami hazard areas (Figure EH-9):*
  - *are designed to minimize beach/bluff erosion and the need for sand replenishment along city beaches; and*
  - *consider design options which reduce the potential for damage to private property and threats to public safety, i.e., raised foundations, ground floor parking with upper level uses.*

Environmental Hazards Program I-EH-5 – Ordinances:

- a. *Enforce the most current Uniform Building code adopted by the State of California.*
- b. *Prepare ordinances prohibiting the location of critical or sensitive facilities or high occupancy facilities within a predetermined distance of an active or potentially active fault.*

LCP Coastal Element Hazards Section C10.1.19: *Identify tsunami and seiche susceptible areas (Figure C-30), and require that specific measures be taken by the developer, builder or property owner during major redevelopment or initial construction, to prevent or reduce damage from these hazards and the risks upon human safety. Development permitted in tsunami and seiche susceptible areas shall be designed and sited to minimize this hazard and shall be conditioned to prohibit a shoreline protective device.*

**Coastal Act Section 30253 states, in relevant part:**

*New development shall do all of the following:*

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





BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
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**APPLICATION FOR CERTIFICATION FOR THE  
HUNTINGTON BEACH ENERGY PROJECT**

**Docket No. 12-AFC-02**  
(Revised 12/24/12)

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*After docketing, the Docket Unit will  
provide a copy to the persons listed  
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Commissioner and Presiding Member

KAREN DOUGLAS  
Commissioner and Associate Member

Raoul Renaud  
Hearing Adviser

\*indicates change

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Patrick Saxton  
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Galen Lemei  
Advisor to Commissioner Douglas

Jennifer Nelson  
Advisor to Commissioner Douglas

Felicia Miller  
Project Manager

Kevin W. Bell  
Staff Counsel

DECLARATION OF SERVICE

I, Diane L. Scott, declare that on January 23, 2013, I served and filed a copy of the attached **Comment Letter from Tom Luster, California Coastal Commission**, dated January 23, 2013. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at:

[http://www.energy.ca.gov/sitingcases/huntington\\_beach\\_energy/index.html](http://www.energy.ca.gov/sitingcases/huntington_beach_energy/index.html).

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

**(Check one)**

**For service to all other parties and filing with the Docket Unit at the Energy Commission:**

- I emailed the document to all e-mail addresses on the Service List and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "jhard copy required"; **OR**
- Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: January 23, 2013



Diane L. Scott, *Project Assistant*

Siting, Transmission and Environmental Protection Division