CALIFORNIA COASTAL COMMISSION

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STAFF REPORT AND RECOMMENDATION ON APPEAL SUBTANTIAL ISSUE

LOCAL GOVERNMENT:	City of Long Beach
DECISION:	Approval with Conditions
APPEAL NO.:	A-5-LOB-03-239
APPLICANT:	City of Long Beach Water Department
PROJECT DESCRIPTION:	Construction and operation of a pilot desalination facility.
PROJECT LOCATION:	6801 Second Street, at the Haynes Generating Station, Long Beach, Los Angeles County.
APPELLANTS:	Commissioners Sara Wan and Toni Iseman

SUMMARY OF STAFF RECOMMENDATION:

The staff recommends that the Commission, after public hearing, determine that substantial issue exists with respect to the grounds on which the appeal has been filed. The Local Coastal Program (LCP) provides the following relevant requirements: 1) maintain, enhance, and where feasible, restore marine resources; 2) maintain the biological productivity and quality of coastal resources through minimizing the adverse effects of entrainment; and, 3) prevent runoff of construction debris into marine waters. In approving the subject development, the City would allow the facility to be built and operated without adequately assessing the project's impacts on these resources. The appellants have raised substantial issues in that the City's imposition of several conditions of approval as part of its combined coastal development permit, conditional use permit, and site review plan does not result in conformity to applicable LCP policies.

SUBSTANTIVE FILE DOCUMENTS: Certified City of Long Beach Local Coastal Program; City of Long Beach File No. 0303-05; Appeal File No. A-5-LOB-03-239.

EXHIBIT 1: Map of project site. EXHIBIT 2: Map showing Coastal Commission's retained and appeal jurisdiction.

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I. Appellants Contend That:

The City's decision is inconsistent with at least three provisions of the City's LCP, in that the City's approval fails to demonstrate that the development will conform to policies related to protection of marine biological resources, protection of water quality, and prevention of polluted runoff. Specifically, the Appellants contend that the approved coastal development permit is inconsistent with the resource protection policies of the LCP and the associated Resource Management Plan that require maintenance, enhancement, and where feasible, restoration of marine biological resources and water quality as well as prevention of contaminated runoff due to construction. The City did not address these inconsistencies with the LCP during its review, but instead found that the proposed project conformed to LCP requirements.

II. Local Government Action:

The coastal development permit was approved by the City of Long Beach Planning Commission on May 1, 2003, concurrently with approval of a categorical exemption under the California Environmental Quality Act (CEQA), a conditional use permit, and a site plan review. The City's findings address conformity to aspects of the General Plan and certified LCP, and its conditions of approval address items such as site plan submittals, noise, allowable times for construction activities, and dust suppression.

III. Appeal Procedures:

After certification of a LCP, the Coastal Act provides for limited appeals to the Coastal Commission of certain local government actions on coastal development permits. Projects within cities and counties may be appealed if they are located within the appealable areas as defined by Section 30603(a) of the Coastal Act. The grounds for appeal are limited to the assertion that "development does not conform to the certified local coastal program." Where the project is located between the first public road and the sea or within 300 feet of the mean high tide line, the grounds of appeal are limited to those contained in Section 30603(b) of the Coastal Act. Those grounds are that the development does not conform to the standards set forth in the certified local coastal program or the access policies set forth in the Coastal Act.

Section 30625(b) of the Coastal Act requires the Commission to hear an appeal unless it determines that no substantial issue is raised by the appeal. If the staff recommends "substantial issue" and no Commissioner objects, the Commission will proceed directly to a de novo hearing on the merits of the project.

If the staff recommends "no substantial issue" or the Commission decides to hear arguments and vote on the substantial issue question, proponents and opponents will have three minutes per side to address whether the appeal raises a substantial issue. It takes a majority of Commissioners present to find that no substantial issue is raised. If substantial issue is found, the Commission will proceed to a full public hearing on the merits of the project. If the Commission conducts a de novo hearing on the permit application, the applicable test for the Commission to consider is whether the proposed development is in conformity with the certified Local Coastal Program.

In addition, for projects located between the sea and the first public road paralleling the sea, Section 30604(c) of the Act requires that a finding must be made by the approving agency, whether the local government or the Coastal commission on appeal, that the development is in conformity with the public access and public recreation policies of Chapter 3.

The only persons qualified to testify before the Commission at the "substantial issue" stage of the appeal process is the applicant, persons who opposed the application before the local government (or their representatives), and the local government. Testimony from other persons must be submitted in writing. At the time of the de novo hearing, any person may testify.

IV. MOTION:

I move that the Commission determine that Appeal No. A-5-LOB-03-239 raises NO substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act.

STAFF RECOMMENDATION OF NO SUBSTANTIAL ISSUE:

Staff recommends a **NO** vote. Failure of this motion will result in a de novo hearing on the application, and adoption of the following resolution and findings. Passage of this motion will result in a finding of No Substantial Issue and the local action will become final and effective. The motion passes only by an affirmative vote by a majority of the appointed Commissioners present.

RESOLUTION TO FIND NO SUBSTANTIAL ISSUE:

The Commission finds that Appeal No. *A-5-LOB-03-239* presents a substantial issue with respect to the grounds on which the appeal has been filed under section 30603 of the Coastal Act regarding consistency with the certified local coastal plan and/or the public access and recreation policies of the Coastal Act.

V. Findings and Declarations:

The Commission finds and declares as follows:

1. <u>Project Description</u>: The proposed development is a desalination test facility to be constructed and operated by the City of Long Beach Water Department, and funded in part by the federal Bureau of Reclamation. The purpose of the project is to determine the effectiveness, efficiency, and costs of various types of desalination techniques and equipment in anticipation of developing a full-scale municipal desalination facility. The project consists of construction and operation of various pieces of equipment and supporting structures, including filtration units, tanks, pumps, and storage and office trailers. It will require excavation of a pipeline trench about two feet wide, two feet deep, and 600 feet long, and excavation of an area about eight feet square and six feet deep for construction of a sewer lift station. The project is anticipated to operate for approximately 18 months.

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The project would be located on an asphalt-paved, 14,000 square foot portion of the Havnes Generating Station in Long Beach, which is owned and operated by the Los Angeles Department of Water and Power. The Haynes facility uses a once-through ocean water system to cool its electrical generating units. It draws up to approximately one billion gallons of seawater per day from an intake channel that is tributary to Alamitos Bay (see Exhibit 1). The project would withdraw up to 900,000 gallons per day of ocean water from one of the intake channel forebays at the Haynes facility. The water would be pumped through an aboveground 10-inch pipeline across the intake channel to the desalination facility, where it would be desalted using various techniques and types of equipment. The desalination equipment would require periodic cleaning using various compounds, including sodium hypochlorite (liquid chlorine, similar to household bleach), sodium bisulfite, sodium hydroxide, sulfuric or hydrochloric acid, various anti-scalants, and others. The project description states that these compounds have been approved for use in drinking water systems. The "first flush" of the filter backwash and spent membrane cleaning solutions would be routed through a 4-inch sanitary sewer line to a City of Long Beach sewage treatment facility. The desalted water and the separated brine would be recombined after testing and sent back to the forebay in a separate and parallel pipeline. None of the water would be used for a drinking water supply.

- 2. <u>Permit History</u>: On May 1, 2003, the City of Long Beach approved Coastal Development Permit (Case #0303-05) for construction and operation of the desalination test facility. The City concurrently approved a Conditional Use Permit, Site Plan Review, and a CEQA Categorical Exemption for the project, and included a number of conditions of approval. On May 21, the Coastal Commission received the City's Notice of Final Action and associated records to start the 10-working-day appeal period, which ended June 3, 2003. The appeals were filed on June 3, 2003.
- 3. <u>Permit Jurisdiction</u>: The project is located within the Coastal Zone in the City of Long Beach and is subject to the City's certified Local Coastal Plan (LCP). The proposed project would withdraw water from, and be located adjacent to, the intake channel for the Haynes facility. The City's LCP designates this channel as part of Alamitos Bay¹, for which the LCP incorporates a number of specific provisions. The project is within 300' of coastal waters and within the appeal jurisdiction of the Coastal Commission (see Exhibit 2).

¹ <u>From Section 3.1 of the City's Resource Management Plan, Page III-R-19</u>: "Alamitos Bay, as the subject and object of this plan, is a body of water, its bottoms, its suspended contents, its tidal submerged lands, and its shores including beach areas, boat marinas and moorings, launching ramps, and contiguous public land and facilities. The geographical extent of Alamitos Bay in this plan includes all canals, channels, and waterways connected with the Bay with navigable (bridged or unbridged) water at low tide and associated public land or private land with rights of public passage. The waterways and islands were carved out of the marsh and estuary at the mouth of the San Gabriel River, which before this century comprised two to three square miles of natural lagoons and salt marshlands. Today, the water of the Bay is less than half a square mile in aggregate surface area. Dredging and filling during the first quarter of this century were extensively used to create residential areas on three sides of the original main channel (now approximately the present Los Cerritos and Alamitos Bay channels) with a complex (Naples) of islands and canals in the center..."

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Additionally, a portion of the project is within the Commission's retained jurisdiction – the facility's intake and outfall are within the coastal waters of the intake channel and the project involves a "change in intensity of use" of those waters – and it will therefore require a permit directly from the Commission, although the applicant has not yet applied for that permit.

4. <u>Standard of Review</u>: The standard of review for this appeal is consistency with the certified LCP of the City of Long Beach.

The appellants contend that approval of the project by the City is inconsistent with provisions of the City's certified LCP pertaining to protection of marine biological resources, protection of water quality, and prevention of contamination.

a) <u>Marine biological resources</u>: The City's certified LCP includes, by reference, Section 30231 of the Coastal Act:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

The project would result in mortality of marine organisms due to entrainment² by drawing in up to 900,000 gallons per day of seawater for up to 18 months; however, based on the record provided, the City did not during its review conduct or reference studies applicable to the entrainment that would be caused by this proposal or the effects of that entrainment on coastal waters and the coastal ecosystem³. Additionally, since the water used during the desalination process would be drawn from the same source as that used by the Haynes generating station, entrainment impacts would occur regardless of desalination facility operations, but only if the Haynes generating units were operating. However, it is not clear from the City's review how the operations at the two facilities are related. Because the only available entrainment data are over twenty years old, there are no recent or local data upon which to determine the impacts associated with either facility. Therefore, it is not possible to determine that the approved development conforms to this provision of the LCP. The appeal therefore raises a substantial issue regarding the conformity of the proposed development to the marine resource protection policies of the certified LCP.

 $^{^2}$ Entrainment occurs when small organisms, such as larvae, plankton, and fish eggs, are drawn into a cooling or processing system, passed through pipes, pumps, and other equipment and subjected to heat or pressure, and then discharged. Entrainment associated with power plant cooling systems is assumed to cause 100% mortality of the entrained organisms.

³ The only entrainment data known to staff available for the Haynes facility and Alamitos Bay were collected in 1978 and 1979 and are not adequate to describe current biological conditions or the effects on entrainment on the Alamitos Bay ecosystem. While the studies based on those data do not represent current protocols or current understanding of ecosystem function, they do show larval densities for various genera of organisms of up to several thousand individuals per cubic meter of water.

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b. <u>Water Quality</u>: The City's certified LCP includes, by reference, Section 30230 of the Coastal Act:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

In addition, Section 3.3.B.2.a of the City's Resource Management Plan (which is part of the City's LCP) describe the water quality guidelines for Alamitos Bay:

Where possible, surface water run-off should be diverted from the Bay to the ocean.

Additionally, the Augmenting Implementations of this Resource Management Plan, at Section 3.4(20), state:

No construction in the vicinity of Alamitos Bay and its associated waters, where the downhill gradient leads directly or indirectly to channels emptying into these waters, will be allowed where adequate provision has not been made to prevent the runoff of construction debris into these waters.

The project description states that a number of chemicals will be used during the desalination process, including sodium hypochlorite (liquid chlorine), sodium bisulfite, sodium hydroxide, sulfuric or hydrochloric acid, citric acid powder, lime solution ("milk of lime"), proprietary anti-scalants (containing polyphosphates), and carbon dioxide gas. In addition, the description states that other cleaning agents may be used, such as surfactants, chelating agents, ammonium hydroxide, and citric acid solution.

The project description states that the "first flush" after periodic cleanings would be routed to a sanitary sewer and that all other discharges would be to the forebay of Haynes Unit 1, where it would serve as source water for the Haynes cooling system. However, neither the City's review nor the project description include information about what concentrations of the various compounds are expected in the discharge to coastal waters or how the discharge would affect contaminant concentrations that would eventually be part of the Haynes discharge to the estuarine area of the San Gabriel River. Therefore, the effects of the approved development on water quality are not known⁴.

⁴ The project will be subject to National Pollutant Discharge Elimination System (NPDES) permit discharge limits; however, the Los Angeles Regional Water Quality Control Board has not yet determined whether the project will require its own permit or whether it will be authorized through a modification of the existing NPDES permit for the Haynes facility. Regional Board staff were recently directed to determine the appropriate approach for permitting the facility. Additionally, the State Water Resources Control Board recently changed the status of the Haynes facility from an "ocean discharge" to an "estuarine discharge". The Haynes facility is now conducting studies on the effects of its discharge that will help determine whether new and more stringent effluent limits will be required.

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In addition to the discharges of the above-referenced chemicals, the project will require many of these chemicals to be stored on site. The City's conditions of approval include a requirement that the applicant receive approval from the City's Fire Department before issuance of a building permit; however, the record provided by the City does not show that the storage and handling requirements for these chemicals was evaluated, nor does it adequately address the response to potential spills of these materials into the adjacent coastal waters. Therefore, the appeal raises substantial issue regarding the conformity of the proposed development to these provisions of the LCP and Coastal Act.

c) <u>Prevention of contaminated runoff</u>: The City's Resource Management Plan, which is part of its certified LCP, includes two provisions meant to prevent contamination from entering coastal waters. Section 3.3.B.2.a states:

Where possible, surface water run-off should be diverted from the Bay to the ocean.

Additionally, Section 3.4(20) states:

No construction in the vicinity of Alamitos Bay and its associated waters, where the downhill gradient leads directly or indirectly to channels emptying into these waters, will be allowed where adequate provision has not been made to prevent the runoff of construction debris into these waters.

Project construction would require excavation and trenching in an area within the Haynes Generating Station site adjacent to large fuel oil tanks. Previous soil and groundwater sampling at the Haynes facility (by TetraTech, 2002) showed levels of four metals (cadmium, chromium, lead, and nickel) and sulfate exceeding applicable standards, and several locations required remediation due to PCB concentrations. It is not clear from the record provided by the City whether samples were taken in the area of the proposed excavations, and if so, what concentrations of soil or groundwater contaminants might be present. Additionally, the record does not describe the slope of the site or direction of surface flow that would describe the eventual entry point of runoff into coastal waters. Further, the City's conditions of approval require no Best Management Practices during construction other than those specified for dust control (i.e., watering areas of exposed soils), which may actually increase runoff and the potential for polluted runoff entering coastal waters. Therefore, the appeal raises substantial issue regarding conformity of the proposed development to these provisions of the certified LCP.



