

**CALIFORNIA COASTAL COMMISSION**

SAN DIEGO AREA  
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 767-2370



# Fri 16h

## RECORD PACKET COPY

Filed: 9/13/01  
 49th Day: 11/1/01  
 180th Day: 3/12/02  
 Staff: LRO-SD  
 Staff Report: 10/24/01  
 Hearing Date: 11/13-17/01

REGULAR CALENDAR  
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-01-135

Applicant: City of San Diego

Agent: Marco Gallegos

Description: Installation of five fuel cells (approximately 10 ft. high by 10-18 ft. wide) surrounded by a proposed 10 ft. high chain link fence with vinyl slats on an existing concrete pad on inland side of interior plant roadway.

Site: 1902 Gatchell Road (Point Loma Wastewater Treatment Plant), Peninsula, San Diego, San Diego County. APN 532-520-06

Substantive File Documents: Certified Peninsula Land Use Plan and City of San Diego LCP Implementation Ordinances; General Report of Geotechnical Evaluation Point Loma Wastewater Treatment Plant Trailer Complex by Ninyo & Moore Geotechnical and Environmental Sciences Consultants dated 2/18/94; Update to same dated 8/31/01; CDP #s, 6-92-84, 6-95-159, 6-95-159-A1, 6-96-137 and 6-96-137-A1, 6-97-124, and 6-00-110.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff is recommending approval of the proposed development. The proposed development is the installation of a small fuel cell facility at the plant site to help provide energy and reduce costs at the City's sewage treatment plant. The primary issue raised by the proposed development pertains to visual quality as the fuel cell facility site will be visible from offshore areas. However, fencing with shielding materials is proposed to visually screen the site. The project has been conditioned for final plans to require the incorporation of fencing to visually buffer the site from offshore locations to the west. In addition, as the fuel cells are located between 27-37 feet from the bluff edge, Special Condition #2 also requires that in the event of threat from bluff erosion, the fuel cells shall be relocated rather than protected by constructing a shoreline protective device.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

**MOTION:** *I move that the Commission approve Coastal Development Permit No. 6-01-135 pursuant to the staff recommendation.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION TO APPROVE THE PERMIT:**

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Plans. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final plans for the proposed fuel cell facility that are in substantial conformance with the plans submitted with this application by the City of San Diego, dated 6/29/01. Said plans shall also include the following:

- a. Installation of a chain link fence with vinyl slats (no white or bright colors) around the perimeter of the fuel cell facility site to shield it from public views offshore to the west.

The permittee shall undertake of the development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No change to the plans shall occur without a Commission-approved amendment to the permit unless the Executive Director determines that no such amendment is required.

2. No Shoreline Protection for Fuel Cell Facility. The proposed five fuel cells placed on an existing concrete slab approved with this permit are removable improvements. No shoreline or bluff protection devices shall be permitted to protect the proposed fuel cell facility should it be subject to threat in the future. In the event this facility is determined to be threatened by bluff erosion and collapse, the fuel cell facility shall be relocated elsewhere on site or removed.

#### IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description. Proposed is the installation of a fuel cell facility consisting of five fuel cells (10 ft. high by 12-18 ft. wide) on an existing concrete pad at the City of San Diego's Point Loma Wastewater Treatment Plant ("PLWTP") site. Also proposed is installation of a chain link fence with vinyl slats around the perimeter of the facility. "Fuel cells" make electricity by combining hydrogen ions, drawn from a hydrogen-containing fuel, with oxygen atoms. Batteries provide the fuel and oxidant internally. Fuel cells utilize a supply of these key ingredients from outside the system and produce power continuously, as long as the fuel and oxidant supplies are maintained. Fuel cells have been used most often in the past by NASA, for example, for the Apollo and Space Shuttle missions. However, low-cost electrodes and electrolytes have been developed more recently. As such, engineering, materials improvements and manufacturing processes are now being developed to produce fuel cells with sufficient high power, acceptable lifetimes and affordable costs. The purpose of the proposed project is to optimize the use of the available PLWTP digester gas, to maximize the revenues generated by this gas, minimize the cost of operating the fuel cells and the boiler operation, and to dispose of this gas in an environmentally advantageous manner to reduce emissions from the flares.

Just past the security gate entrance to the plant site, there are three primary roads on which the majority of the treatment plant improvements are situated. First Street is the road furthest to the west and closest to the coastal bluffs. Second Street is more inland to the east, and Third Street is the easternmost street. The proposed improvements will be situated on the inland side of First Street.

The Point Loma Wastewater Treatment Plant is located in the Peninsula community in an area that was not included in the City of San Diego's certified Local Coastal Program. As such, the Commission retains permit jurisdiction over the site at this time and the Chapter 3 policies of the Coastal Act are the standard of review.

2. Geologic Hazards. Coastal Act Section 30253 states, in part:

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) 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.

The entire Point Loma Wastewater Treatment Plant is sited on a broad shelf, midway down the bluff-face from the top of the Point Loma peninsula. Some of the existing facilities are in close proximity to the bluff edge, and the outfall itself extends seaward down the bluff then underwater several miles or more out to sea. It has been documented in earlier permits of this site that the entire facility is located in an area which is extremely environmentally and geologically sensitive. Any improvements to the facility must be reviewed carefully in order to assure that impacts do not occur to fragile coastal resources.

The proposed development is relatively minor in nature and involves the installation of five fuel cells on an existing concrete pad on the inland side of a plant roadway. The fuel cells are modular and of the same dimension depending on how they are placed (lengthwise vs. widthwise). The fuel cells will be located a distance of 27 to 37 feet from the bluff edge. The City has indicated that the proposed fuel cell facility has been designed to be located in an area that is close to the existing Gas Utilization Facility (GUF building). There is already a partial concrete pad where they will be placed which will be extended to provide adequate room for all of the fuel cells. The fuel cells will be bolted to the concrete pad, but can be easily removed.

The City recently had an updated geotechnical report completed for other landscape and accessory features proposed on the plant site. This report analyzed the blufftop stability of the western portion of the site and included recommendations for appropriate setbacks from the bluff edge. The geology report addresses the stability of the western bluffs and breaks each of the portions of the site into five areas. The proposed fuel cell facility is located in Area 5 and 6 addressed in the geotechnical report. The report states that Areas 4 and 5 are largely protected by a concrete seawall. The report states the following about Area 6:

The bluffs in Area 6 are lower than the bluffs in the Areas to the south. As a result, the terrace deposits and fill are minimal and the bluffs consist primarily of materials of a more resistant Point Loma Formation. Further, rip rap protection is present along the lowest portions of the bluff. As long as adequate amounts of rip rap are maintained, structural setbacks are probably not warranted.

The City's certified LCP, however, requires a minimum setback of 25 to 40 feet from the edge of a coastal bluff for most improvements and 5 feet for landscape and accessory improvements.

The proposed modular fuel cell facility can be found consistent with the blufftop setback requirements of the certified LCP. In addition, the Commission's coastal engineer has reviewed the subject proposal and concurs with the proposed siting of the improvements. However, given their proximity to the bluff edge (27 to 37 feet), should this facility become threatened in the future as a result of bluff erosion, etc., the preferred solution is for the facility to be relocated elsewhere on the site rather than the construction of shoreline protection, consistent with Section 30235 of the Act. Although portions of the bluff west of the proposed fuel cell site are already armored, no new shoreline protection shall be permitted to protect the proposed facility. Therefore, Special Condition #2 specifically states that the proposed improvements herein do not warrant the construction of any future shoreline protection devices and that in the event of threat or hazard, the structures shall be removed and relocated further inland on the site. As conditioned, the proposed improvements are safe from geologic hazards, and, as conditioned, are consistent with Section 30253 of the Coastal Act.

2. Visual and Scenic Resources. Coastal Act Section 30251, provides, in part:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas....

The proposal consists of installation of five fuel cell facilities on a concrete pad and a chain link fence surrounding them. The proposed improvements will be compatible with the character of the surrounding area. Although the treatment plant site is visible from the west by off-shore ships and boats, the proposed improvements are minor in nature and do not pose an adverse visual impact as compared to, for example, the construction of new structures, digesters, shoreline protection devices, etc. The newly proposed fuel cells will be situated on the inland side of First Street, one of three major roads at the plant site. The fuel cell site itself is located approximately 27 to 37 feet away from the bluff edge at the westernmost portion of the site and is located at a much lower elevation than the rest of the plant site. As such, the project site will only be visible from offshore and will not be visible from other public vantage points to the east or south (i.e., Cabrillo Memorial Drive or the Cabrillo Monument). From offshore, this location may be more readily visible by passing boats. However, the fuel cells will be visually screened through the proposed installation of a 10 ft. high chain link fence which will surround the fuel cells. The fence will incorporate vinyl slats to shield the view of the fuel cells behind it. However, final plans have not yet been submitted which include the proposed fence. As such, Special Condition No. 1 requires submittal of final plans which incorporate the proposed fence with vinyl slats for shielding purposes. In summary, the

proposed improvements, as conditioned, will not impact existing public views toward the ocean or scenic areas and are visually compatible with the character of the surrounding area. Therefore, the project is consistent with Section 30251 of the Act.

3. Shoreline Access. Coastal Act Section 30211 provides:

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

In addition, Section 30212 states, in part:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

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

Currently, there is no direct public access to the shoreline from the plant site. At the wastewater treatment plant, the shoreline presently consists of rocky headlands interspersed with the previously constructed revetments. Due to the revetments and the rocky headlands, lateral access opportunities have been relatively non-existent since the time of plant construction. Also, due to the nature of the sewage treatment facility, public use of the area is restricted.

Additionally, to the north of the project site are Navy owned lands which prohibit public access along the shoreline. To the south is the Cabrillo National Monument which encourages public access to the tip and westerly side of Point Loma. Parking lots and shoreline viewing areas are available at the Monument and along the access road south of the treatment plant facility, but only limited access to the shoreline is allowed because of the sensitive marine resources found at the base of the bluffs. The Monument offers guided tours of the tide pools at the base of the bluffs which allows the public the opportunity to view inter- and sub-tidal marine life.

With regard to potential construction impacts, none are expected to occur. The proposed project is relatively small in nature and only involves the placement of the fuel cells which are modular and pre-fabricated. Access to the treatment plant and other facilities, etc. will continue to be open. Staging of equipment will occur at the PLWTP. Therefore, the Commission finds the proposed project fully consistent with Sections 30210 and 30212 of the Act.

4. Water Quality. Sections 30230 and 30231 of the Coastal Act are applicable to the proposed development and state the following:

Section 30230

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.

Section 30231

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.

The proposed project involves improvements on a blufftop site that is located adjacent to the ocean. In particular, the proposal includes the installation of five fuel cells on an existing concrete pad. In addition, a small addition to the concrete pad is also proposed to accommodate all five fuel cells. The fuel cells also discharge water. As such, there is a small potential for runoff from this area to be discharged to the ocean which can have harmful effects on marine life, and may pose a risk to human health which can result in beach closures, limiting public access and recreational opportunities if not controlled or managed properly. However, the new area of impervious surface is relatively small and is only a small extension to an existing concrete pad. In addition, any runoff discharged from the new impervious area will be discharged into on-site landscaping on the plant site. Also, with regard to the water discharged from the fuel cells, the amount of water discharged is minimal (i.e., 30 gallons per month) such that it will be absorbed into the ground. As such, this will not cause any erosion problems or necessitate any type of drainage improvements. Therefore, the Commission finds the proposed development will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

5. Local Coastal Planning. Section 30604(a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. As conditioned, such a finding can be made for the subject development.

The Point Loma Wastewater/Sewage Treatment Plant is located within an unzoned geographic area included in the Peninsula Community Plan segment of the City of San Diego Local Coastal Program where it has existed since 1963. This area was not included in the City of San Diego's certified Local Coastal Program, and the Commission

retains permit jurisdiction over the site at this time. In addition, the Peninsula LCP Land Use Plan acknowledges ongoing maintenance, and assumes some potential future improvements. The proposed development would be in keeping with the LUP policy of maintaining and enhancing public services. Therefore, the Commission finds that approval of the proposed project, as conditioned, will not result in adverse impacts to coastal resources nor prejudice the ability of the City of San Diego to continue implementation of its fully certified LCP.

6. California Environmental Quality Act (CEQA). Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with the public access policies of the Coastal Act. Mitigation measures, including conditions addressing shoreline hazards and visual quality, will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

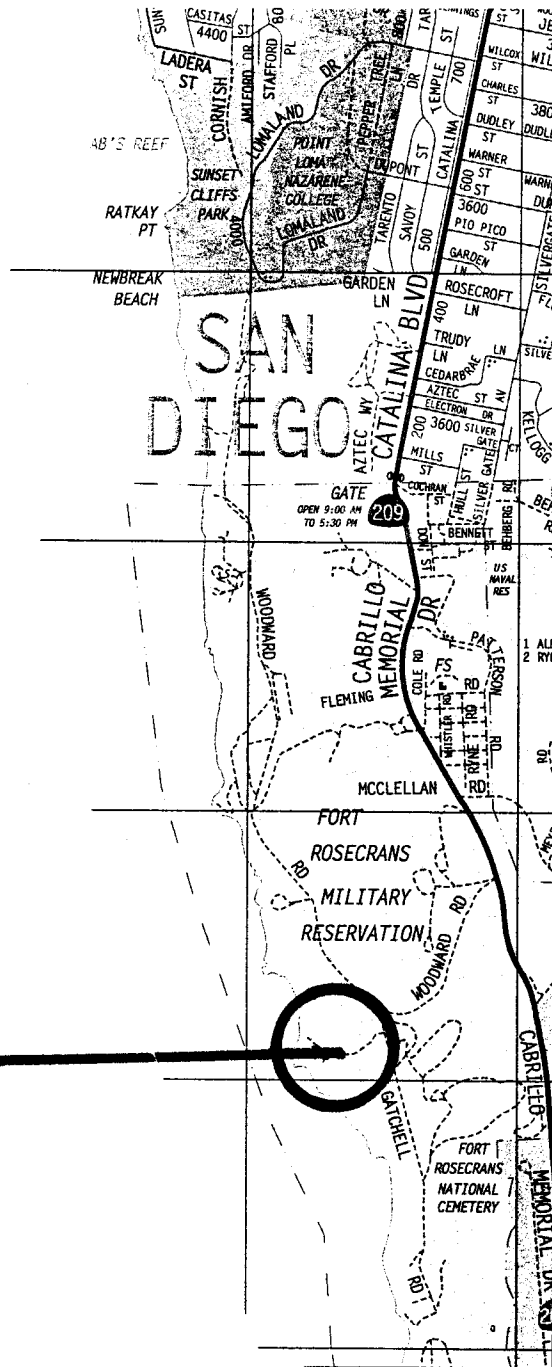
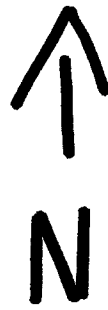
STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.



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

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Project Site

EXHIBIT NO. 1  
APPLICATION NO.  
6-01-135  
Location Map

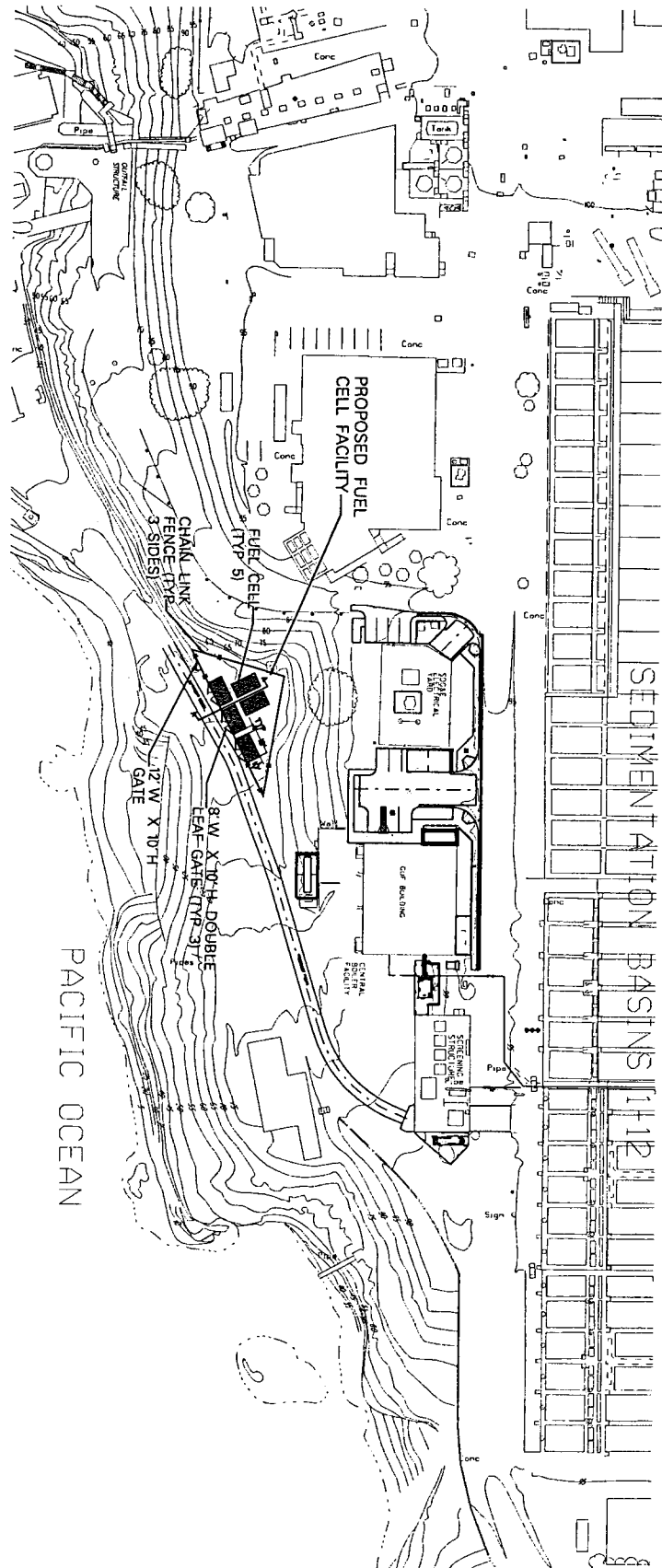

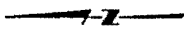
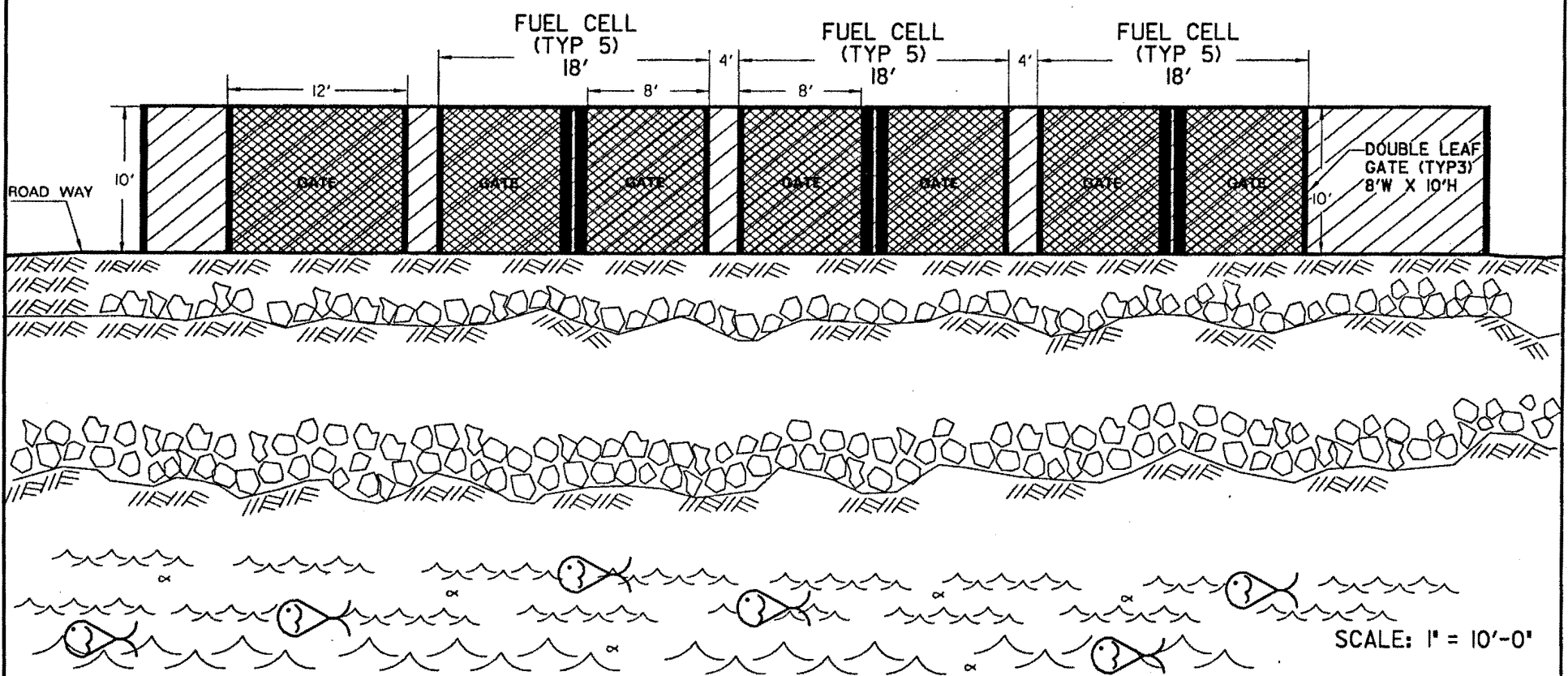


EXHIBIT NO. 2
APPLICATION NO.
<b>6-01-135</b>
Site Plan
 California Coastal Commission

EXHIBIT NO. 3  
 APPLICATION NO.  
**6-01-135**  
 West Elevation  
 California Coastal Commission



**WEST ELEVATION**



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**METROPOLITAN WASTEWATER DEPARTMENT**  
 City of San Diego  

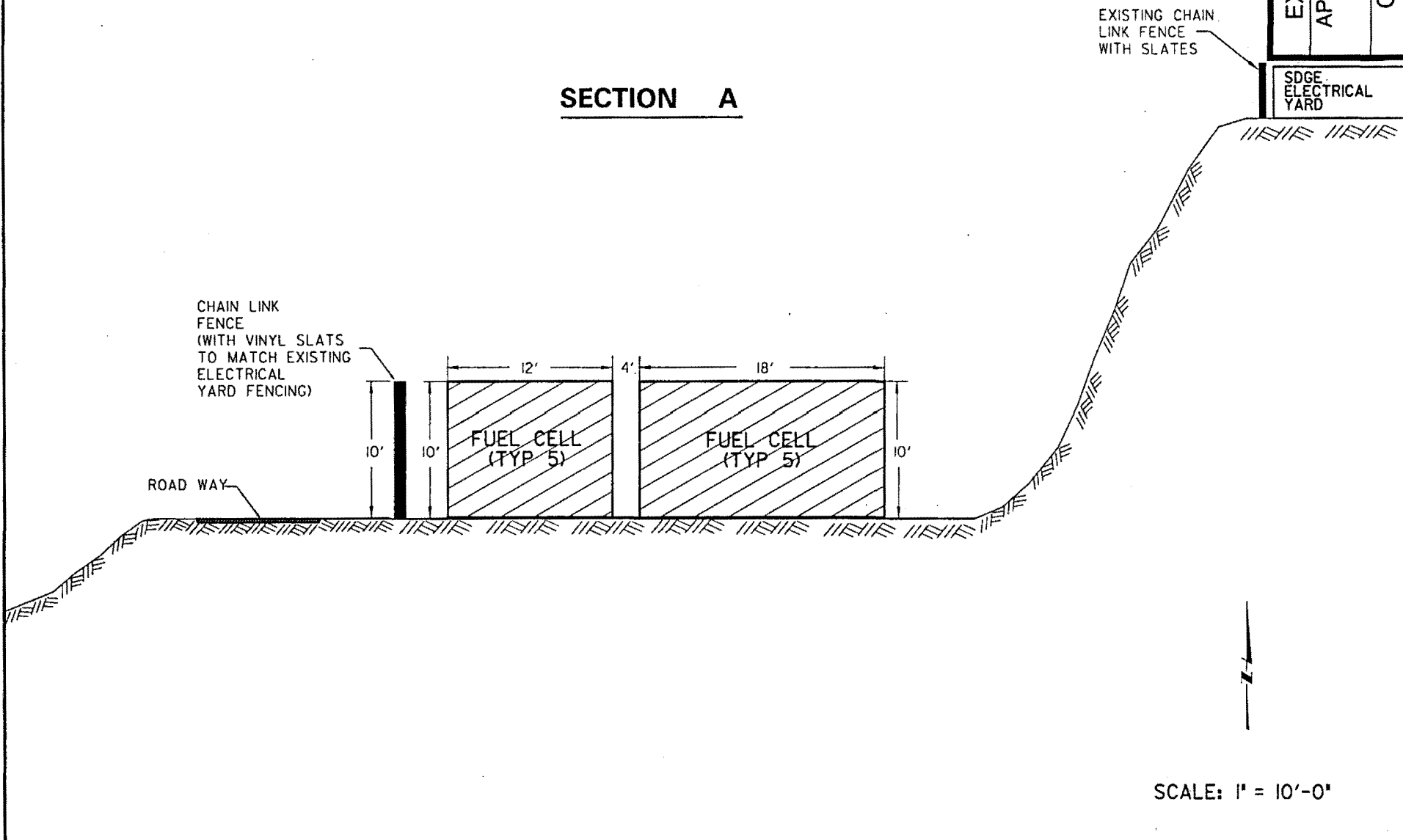

POINT LOMA WASTEWATER TREATMENT  
 PLANT GENERATION & DISTRIBUTION  
 UPGRADE

FIGURE: 2  
 FUEL CELL  
 WEST ELEVATION

EXHIBIT NO. 4  
 APPLICATION NO.  
**6-01-135**  
 Cross-Section

SDGE  
 ELECTRICAL  
 YARD

**SECTION A**



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**METROPOLITAN WASTEWATER DEPARTMENT**  
 City of San Diego



POINT LOMA WASTEWATER TREATMENT  
 PLANT GENERATION & DISTRIBUTION  
 UPGRADE

FIGURE: 3  
 FUEL CELL: SECTION-A

↙ chain link fence w/ vinyl slats

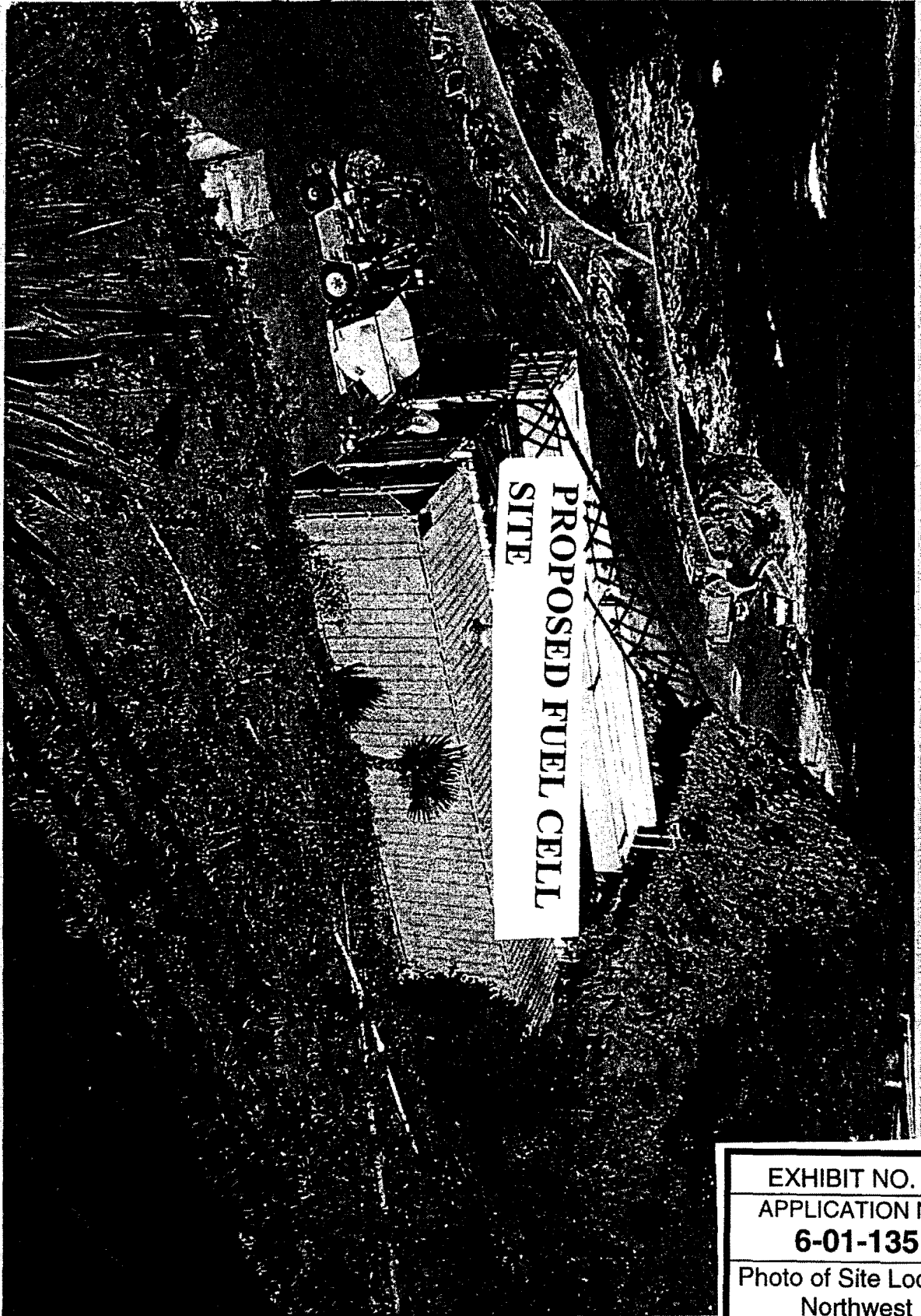



EXHIBIT NO. 5
APPLICATION NO.
<b>6-01-135</b>
Photo of Site Looking Northwest
 California Coastal Commission