

April 19, 2007



Ms. Donna Stone  
Moss Landing Power Plant Project 99-AFC-4  
California Energy Commission  
1516 Ninth Street (MS- 2000)  
Sacramento, CA 95814-5504

Subject: Post Certification Amendment and Changes for a California American Water  
Temporary Desalination Pilot Plant

Dear Ms. Stone:

Enclosed with this letter is Dynegy Moss Landing, LLC's request for a Post Certification Amendment and Change under Section 1769 of Title 20 of the California Energy Commission's Siting Regulations. Dynegy is proposing to allow California American Water to temporarily connect to existing seawater supply lines and brine discharge lines associated with the Units 1&2 circulating water discharge tunnels as part of testing a pilot desalination plant.

Thank you for your consideration of this project. Should you have any questions or require additional information, please contact Lee Genz (831) 633-6785 or Elton McCrillis (831) 633-6746 at the Moss Landing Power Plant.

Very truly yours,

A handwritten signature in black ink, appearing to read "Daniel P. Thompson". The signature is fluid and somewhat abstract, with a large loop at the end.

Daniel P. Thompson, Vice President  
Dynegy Western Fleet Operations

Attachments

cc: Elton E. McCrillis, Plant Manager, Dynegy Moss Landing, LLC  
James White, Dynegy, Inc.

Petition for Modification

**(A) Description of the proposed modifications, including new language for any conditions that will be affected**

Dynegy Moss Landing LLC is proposing to allow California American Water (CAW) to install and operate a temporary seawater desalination pilot plant on the Moss Landing Power Plant facility. The pilot plant will be located just west of the Moss Landing Power Plant Unit 1. The pilot plant will receive and discharge seawater from piping currently used for the Moss Landing Power Plant (MLPP) seawater desalination facility. The pilot plant, using reverse osmosis (RO) technology, will test approximately 0.14 million-gallons per day (MGD) of the up to 1.2 MGD of circulating water discharged from the Units 1&2 condensers. The pilot plant will be operated for one year to allow for adequate data collection.

There are currently two 8 inch pipes which come off the Units 1&2 circulating water discharge tunnels which supply seawater to the MLPP desalination facility. CAW will connect to these 8 inch lines to supply seawater to the pilot plant. There are also two 6 inch lines which discharge brine from the MLPP desalination facility into the Units 1&2 circulating water discharge tunnels. CAW will connect to these 6 inch lines to discharge seawater back into the tunnels. The CAW connections will not affect the operation of the MLPP desalination facility.

There are no current CEC conditions which would be affected for the proposed four connections to the supply and discharge lines used for the MLPP desalination facility. There are also no current CEC conditions that would be affected for the proposed temporary installation and operation of the CAW pilot plant.

**(B) Discussion of the necessity for the proposed modifications**

The pilot plant facility is necessary for CAW to adequately evaluate potential operational characteristics and environmental impacts of a proposed seawater desalination plant producing approximately 20,000 acre-feet of potable water per year. The CAW desalination pilot plant would be operated using the same water supply (i.e., Units 1&2 condenser discharge water) from the existing MLPP once-through cooling water system prior to its discharge into the Monterey Bay and under the same conditions expected to be encountered by the proposed full-size plant. The goal of the pilot plant is to demonstrate the reliability of the desalination technology and confirm the engineering, environmental and operational safeguards that would apply to the proposed full-size project. Information and data gathered from pilot facility operation would be utilized for future desalination plant design, environmental review, and the regulatory permitting process.

**C) If the modification is based on information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time**

The CEC certification of the MLPP is dated October 25, 2000. The proposed CAW desalination pilot plant was not proposed to a local, state, or federal governmental unit until submissions were made to Monterey County for a Coastal Development Permit, to the California Coastal Commission (CCC) for a De Minimus Waiver, and to the Central Coast Regional Water Quality Control Board (RWQCB) in April, 2005.

**(D) If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted**

The proposed CAW facility is not based on new information that would change or undermine any of the assumptions, rationale, findings, or other bases of the CEC certification decision for the MLPP. As discussed below, the CAW pilot plant would create no adverse environmental impacts.

**(E) Analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts**

As determined by reviewing agencies, the CAW pilot plant would not have any significant adverse environmental impacts:

- The Monterey County Planning Department filed a California Environmental Quality Act (CEQA) Notice of Exemption (NOE) for the CAW pilot plant with the Monterey County Clerk and with the Governor's Office of Planning and Research on July 14, 2006. The CAW pilot plant was deemed eligible for a CEQA categorical exemption under Section 15306 of the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.) Mitigation measures are not necessary or appropriate for projects that are categorically exempt, as by definition such projects have no significant adverse environmental effects. See also the Monterey County Board of Supervisors CEQA-related findings, below.

- The Monterey County Board of Supervisors approved a Coastal Development Permit and Design Approval for the CAW pilot plant on August 29, 2006, finding that it was consistent with applicable plans and policies (Attachment 1). Among other findings and statements of fact, the approval stated the following:

- Since this is an application for a temporary pilot plant designed to determine water quality and assess potential environmental impacts of a full-scale Desalination Plant, and since no water from the pilot plant will be distributed for human consumption, the Land Use Advisory Committee concurred that a project of this nature would not result in significant impacts to the North County Coastal Area.

- Because the CAW pilot plant will not increase the amount of discharge, and because the chemical concentrations are considered negligible and will not cause any contamination or pollution, the CAW pilot plant will not be required to receive a permit from the Monterey County Environmental Health Department.

- The CAW pilot plant will be located on a previously disturbed site that is not visible from surrounding public property (e.g., travelers on Highway 1).
- The CAW pilot plant will not increase the amount of water discharged from the power plant and is therefore considered an existing use. Additionally, because the pilot plant will not cause pollution or contamination of the water as defined by Chapter 15.22 of the County Code, it is not an expanded discharge and does not qualify as wastewater.
- The CAW pilot plant is in conformance with the public access and public recreation policies of the Coastal Act and the Local Coastal Program, and does not interfere with any form of historic public use or trust rights. No access is required as part of the CAW pilot plant project as no substantial adverse impacts on access, either individually or cumulatively, as described in Section 20.70.050.B.4.c of the Monterey County Coastal Implementation Plan, can be demonstrated.
- The establishment, maintenance, and operation of the proposed CAW pilot plant will not under the circumstances of the particular case, be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood or to the general welfare of the County.

CEQA-related findings of the Board were as follows:

(a) Section 15306 of the CEQA Guidelines, categorically exempts the proposed CAW pilot plant from environmental review. Class 6 specifically exempts basic data collection, research, experimental management, and resource evaluation activities. The proposed pilot plant is considered temporary in nature and duration and is considered informational, consisting of data collection, research, and resource evaluation.

(b) The CAW pilot plant will not cause a substantial or adverse change in any of the physical conditions within the area. The pilot plant is temporary in nature and duration permitted for a period not to exceed 12 months, will utilize water from the existing MLPP cooling water system and does not require any additional seawater use. The pilot plant will utilize existing water and will not result in additional impacts associated with impingement or entrainment of organisms will occur. All water treatment chemicals utilized by the pilot plant are ANSI/NSF 60 certified safe for drinking water and per review from the Environmental Health Department will not pollute nor contaminate the waters of the Bay. Prior to discharge, the product water, brine, and waste wash water from the pilot plant will be diluted and recombines with the existing MLPP cooling water. There will be no increase in discharge levels due to implementation of the pilot plant project. Discharge from the MLPP is regulated by existing RWQCB [Regional Water Quality Control Board] permits. These permits require extensive environmental review and ongoing monitoring. The RWQCB has determined that the pilot plant qualifies for a General Discharge permit, which is issued for discharge considered "low threat."

(c) There is no substantial evidence in the whole record that the CAW pilot plant may have a significant effect on the environment. No evidence has been submitted by any persons or agencies identifying any direct or indirect significant environmental effects attributable to the proposed pilot plant. No persons or agencies have

submitted information supporting a fair argument that the pilot plant may have a significant effect on the environment.

(d) The Pilot Desalination Plant will not be used as a source of potable water for distribution or human consumption.

(e) The Pilot Desalination Plant will be housed in prefabricated modules on an existing 30,000 sq. ft. gravel pad; therefore, no ground disturbance will occur.

(f) All water treatment chemicals are ANSI/NSF 60 approved for drinking water. The MLPP currently discharges approximately 180 mgd (million gallons/day) to 1225 mgd through the existing outfall. Because the pilot plant will not increase the amount of discharge, and because the chemical concentrations are considered negligible and will not cause any contamination or pollution of the water, the CAW pilot plant will not be required to receive a permit from the Environmental Health Department...

(g) A preliminary environmental assessment was completed and submitted with the CAW pilot plant application analyzing impacts associated with the potential operation of a full-scale plant with a discharge rate between 100 mgd and 1226 mgd. There were no significant impacts to Marine Resources regarding temperature, salinity, or chemical discharge identified in the report or accompanying surveys. Operation of the proposed CAW pilot plant constitutes approximately .1% to .02% of the anticipated and evaluated full-scale desalination plant discharge. Therefore, no impacts to Marine Resources are anticipated as a result of the pilot plant project.

(h) The California Regional Water Quality Control Board (RWQCB) has determined that due to the lack of threat to the Pacific Ocean posed by CAW pilot plant operations, the project qualifies for a General Discharge Permit. RWQCB Staff state that the large existing flow currently experienced by the MLPP will render insignificant any potential adverse effects of the chemical additives on ocean water quality. RWQCB Staff has accepted the CEQA Categorical Exemption as presented by the County of Monterey.

(i) A Condition of Approval has been added to the pilot plant project requiring CAW to secure a General Permit from the California Regional Water Quality Control Board prior to the issuance of a building permit. This General Permit is issued for discharges proving to be of low threat to the marine environment, and will require adequate monitoring and reporting of the proposed discharge.

(j) As per California Health and Safety Code 25500 the CAW pilot plant requires the approval and implementation of a Hazardous Materials Business Response Plan through the Department of Environmental Health. The Business Response Plan will monitor the storage, distribution and usage of on-site chemicals...

(k) Waste cleaning solutions will not be discharged as a result of CAW Pilot Plant operations.

(l) Staff did not receive any conclusive evidence or material indicating that the proposed temporary use of the CAW pilot plant will cause a significant environmental impact.

**Note:** The RBF Consulting Environmental Assessment referred to in the County's findings is the following document: California American Water and RBF Consulting, *Proponent's Environmental Assessment for the Coastal Water Project, Proceeding A.04-09-019*, July 14, 2005 (PEA). This document was prepared for a different and much larger project, the Coastal Water Project, which includes a full-scale desalination plant. The Assessment did not include separate consideration of the pilot-scale facility at issue. The pilot plant would produce about one-fiftieth (1/50) of the amount of desalinated water that would be produced by the full-scale facility, and would have far lower potential marine biology and other impacts. Therefore, a finding that the effects of the full-scale facility would meet regulatory standards or otherwise be less than significant would apply to the much smaller pilot facility. The Assessment found all impacts of the Coastal Water Project to be less than significant with the implementation of mitigation measures. The PEA is available in electronic form at the following website: [http://www.coastalwaterproject.com/inc\\_environmentalassessment.asp](http://www.coastalwaterproject.com/inc_environmentalassessment.asp))

- As indicated above, the Central Coast Regional Water Quality Control Board (RWQCB) determined that the CAW pilot plant qualifies for a General Discharge Permit, which is issued for discharges considered "low threat." As stated in the 2006 RWQCB Notice of Public Hearing in connection with issuing this permit, "The large flow of OTC water [once-through cooling water from the MLPP] would render insignificant any potential adverse effects of the chemical additives on ocean water quality" (Attachment 2). The Low Threat Discharge Permit was granted by the RWQCB on September 18, 2006 (Attachment 3). This discharge permit includes a specific monitoring and reporting plan for the proposed pilot plant project to protect the designated beneficial uses of the receiving waterbody.

- The California Coastal Commission (CCC) granted a Coastal Development Permit on December 19, 2006 (Attachment 4). The January 25, 2007 CCC staff report of findings (Attachment 5) included the following statements:

- The proposed CAW pilot plant will be designed and operated so that the potential impacts of its discharge will be insignificant and will not require additional mitigation;
- Because of its design and operational limits and the resulting minimal impacts, the proposed CAW pilot plant is also the least environmentally damaging alternative;
- As proposed, the CAW pilot plant will avoid all significant adverse environmental impacts.

**(F) Discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards**

The proposed CAW pilot plant would have no impact on the MLPP's ability to comply with applicable laws, ordinances, regulations, and standards. The pilot plant itself has obtained all necessary permits, and its construction and operation would not cause the MLPP to alter its power-generating operations in any way.

**(G) Discussion of how the modification affects the public**

The CAW pilot plant would not affect the public in any tangible way. As described above, environmental impacts from the pilot plant would be negligible. No potable water produced by the CAW pilot plant would be diverted to public use.

**(H) List of property owners potentially affected by the modification**

No property owners would be affected by the modification.

**(I) Discussion of the potential effect on nearby property owners, the public and the parties in the application proceedings**

This modification does not have any potential effect on property owners or other members of the public.

**Attachments:**

Attachment 1 - Monterey County Coastal Development Permit and Design Approval August 29, 2006

Attachment 2 – Central Coast RWQCB Notice of Public Hearing September 16, 2006

Attachment 3 – Central Coast RWQCB Low Threat Discharge Permit, September 18, 2006

Attachment 4 - California Coastal Commission Coastal Development Permit, December 19, 2006

Attachment 5 - CCC staff report of findings January 25, 2007

# ATTACHMENT 1

**Before the Board of Supervisors in and for the  
County of Monterey, State of California**

**Resolution No. 06-256**

Approve a Coastal Development Permit and Design Approval (PLN040520/LS Power) to allow the construction and operation of a 6,500 sq. ft. Temporary Pilot Desalination Facility at the Moss Landing Power Plant (MLPP). The pilot facility will utilize water from the existing MLPP cooling water system prior to discharge and will be operated for a maximum of one year to allow for adequate data collection. No new water will be drawn from Monterey Bay and no potable water will be distributed as a result of the project. The property is located at the intersection of Highway 1 and Dolan Road, Moss Landing (Assessor's Parcel Number 133-181-011-000), North County Area, Coastal Zone.

**WHEREAS**, The Monterey County Board of Supervisors pursuant to regulations established by local ordinance and state law, has considered, at public hearing, an application for a Coastal Development Permit and Design Approval (PLN040520 LS Power) to Approve a Coastal Development Permit and Design Approval (PLN040520/LS Power) to allow the construction and operation of a 6,500 sq. ft. Temporary Pilot Desalination Facility at the Moss Landing Power Plant (MLPP). The pilot facility will utilize water from the existing MLPP cooling water system prior to discharge and will be operated for a maximum of one year to allow for adequate data collection. No new water will be drawn from Monterey Bay and no potable water will be distributed as a result of the project. The property is located at the intersection of Highway 1 and Dolan Road, Moss Landing (Assessor's Parcel Number 133-181-011-000), North County Area, Coastal Zone.

**NOW, THEREFORE, BE IT RESOLVED THAT:**

The Board of Supervisors:

- 1) CONSIDER whether to grant the right to appeal to Conner Everts pursuant to Monterey County Code Section 20.86.030(B) (**Exhibit G**).

**BOARD ACTION:** Upon motion of Supervisor Potter, seconded by Supervisor Smith, and carried, 3/1 (Supervisor Lindley was the dissenting vote) the Board hereby granted the right to appeal and denied the appeal on the merits and approved PLN040520 base on the recommended findings and evidence and subject to the recommended conditions of approval (c).

- 2) Should the Board determine that Mr. Everts does not have the right to appeal, proceed no further with the hearing and adopt the attached Resolution denying right to appeal (**Exhibit D**).

**Resolution No. 06-256**

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- 3) Should the Board determine that Mr. Everts has the right to appeal, proceed with the hearing, deny the appeal on the merits, and APPROVE **PLN040520** based on the Recommended Findings and Evidence (**Exhibit B**) and subject to the Recommended Conditions of Approval (**Exhibit C**).

**PASSED AND ADOPTED** on this 29<sup>th</sup> day of August, 2006, upon motion of Supervisor Potter, seconded by Supervisor Lindley, by the following vote, to-wit:

AYES: Supervisors Armenta, Calcagno, Lindley, Smith and Potter

NOES: None

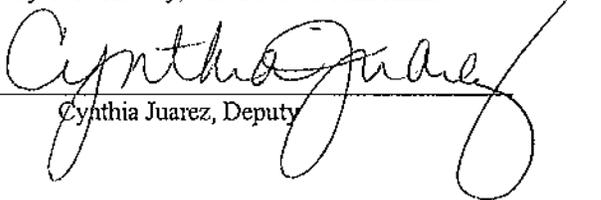
ABSENT: None

I, Lew C. Bauman, Clerk of the Board of Supervisors of the County of Monterey, State of California, hereby certify that the foregoing is a true copy of an original order of said Board of Supervisors duly made and entered in the minutes thereof Minute Book 73, on August 29, 2006.

Dated: August 29, 2006

Lew C. Bauman, Clerk of the Board of Supervisors,  
County of Monterey, and State of California.

By

  
Cynthia Juarez, Deputy

**EXHIBIT "B"****RECOMMENDED FINDINGS AND EVIDENCE**

**Before the Board of Supervisors in and for the  
County of Monterey, State of California**

**Approve a Coastal Development Permit and Design Approval )  
(PLN040520/LS Power) to allow the construction and operation of )  
a 6,500 sq. ft. Temporary Pilot Desalination Facility at the Moss )  
Landing Power Plant (MLPP). The pilot facility will utilize water )  
from the existing MLPP cooling water system prior to discharge )  
and will be operated for a maximum of one year to allow for )  
adequate data collection. No new water will be drawn from )  
Monterey Bay and no potable water will be distributed as a result )  
of the project. The property is located at the intersection of )  
Highway 1 and Dolan Road, Moss Landing (Assessor's Parcel )  
Number 133-181-011-000), North County Area, Coastal Zone. )**

In the matter of the application of PLN040520 /LS Power

WHEREAS: The Monterey County Board of Supervisors pursuant to regulations established by local ordinance and state law, has considered, at public hearing, an application for a Coastal Development Permit and Design Approval (PLN040520 LS Power) to allow the construction and operation of a 6,500 sq. ft. Temporary Pilot Desalination Facility at the Moss Landing Power Plant (MLPP). The pilot facility will utilize water from the existing MLPP cooling water system prior to discharge and will be operated for a maximum of one year to allow for adequate data collection. No new water will be drawn from Monterey Bay and no potable water will be distributed as a result of the project. The property is located at the intersection of Highway 1 and Dolan Road, Moss Landing (Assessor's Parcel Number 133-181-011-000), North County Area, Coastal Zone.

NOW, THEREFORE, the Board of Supervisors finds as follows:

1. **FINDING - CONSISTENCY:** The Project, as conditioned is consistent with applicable plans and policies, the North County Area Land Use Plan, Coastal Implementation Plan (Part 2), Part 6 of the Coastal Implementation Plan, and the Monterey County Zoning Ordinance (Title 20).

**EVIDENCE:**

- (a) The application and plans submitted for the Coastal Development Permit and Design Approval in project file PLN040520 at the Monterey County Planning and Building Inspection Department.

- (b) The applicant provided the Monterey County Planning and Building Inspection Department with a Design Approval Request, drawings, and a statement of materials and colors to be used.
- (c) The property is located at the intersection of Highway 1 and Dolan Road, Moss Landing, North County Area, Coastal Zone. The parcel is zoned "HI (CZ)" (Heavy Industrial in the Coastal Zone). The proposed Pilot Desalination Plant meets the site development standards for the HI Zoning District pursuant to Section 20.28.
- (d) Land Use Advisory Committee (LUAC) - the North County Coastal LUAC recommended approval of the project with a 5-0 vote. Concerns were noted related to potential environmental impacts to Elkhorn Slough, growth inducement aspects, cost and quality of desalinated water, and compliance with Section 10.72 of the Monterey County Municipal Code. However, due to the fact that this is an application for a temporary pilot plant designed to determine water quality and assess potential environmental impacts of a full-scale Desalination Plant, and that no water from the pilot plant will be distributed for human consumption, the LUAC concurred that a project of this nature would not result in significant impacts to the North County Coastal Area.
- (e) The proposed Pilot Desalination Plant is not required to comply with Monterey County Code Chapter 10.72, Desalination Treatment Facility as the water produced will not be used for human consumption (Allen Stroh, Director of Environmental Health, August 16, 2005).
- (f) The proposed pilot desalination plant would obtain source water from the existing  
MLPP cooling water system. No new water will be drawn from the Monterey Bay as a result of the project. Wastewater discharge will occur through the existing MLPP outfall.
- (g) Approximately 29gpd of water treatment chemicals discussed in Table 2 will be  
discharged as a result of the pilot plant operations. All water treatment chemicals are ANSI/NSF 60 approved for drinking water. The MLPP currently discharges approximately 180mgd to 1225mgd through the existing outfall. Because the pilot plant will not increase the amount of discharge, and because the chemical concentrations are considered negligible and will not cause any contamination or pollution, the project will not be required to receive a permit from the Environmental Health Department (Cheryl Sandoval, Environmental Health, June 15, 2006)
- (h) Environmental Assessment and technical reports compiled by RBF Consulting,  
July 14, 2005.
- (i) The project will utilize water from the existing MLPP cooling water system thereby  
drawing no new water from the Monterey Bay. Water utilized in testing the desalination technology will be diluted and recombined with the MLPP cooling water prior to discharge. Therefore, no intensification of water use

will occur and a Hydrologic report is not required as verified by the Environmental Health Department.

(j) The proposed project, as designed, will not have a significant adverse effect on the

public viewshed and will be screened from Highway 1.

(k) The project planner conducted a site visit on April 8, 2005, to verify that the proposed project complies with the LCP.

2. **FINDING: - SITE SUITABILITY** – The site is suitable for the use proposed.

**EVIDENCE:**

(a) The project has been reviewed for suitability by the Monterey County Planning and Building Inspection Department, Monterey County Sheriff, North County Fire Protection District, Monterey County Water Resources Agency, Monterey County Public Works Department, Monterey County Parks Department, and Monterey County Health Department. There has been no indication from these agencies that the site is not suitable. Conditions recommended by these agencies have been incorporated as project conditions.

(b) The Pilot Plant will utilize the existing once through cooling water from the MLPP facility prior to its discharge. No new water will be drawn from the Monterey Bay as a result of the Pilot Plant operations. Pilot Plant operations will not increase the amount of existing discharge from the MLPP. Discharge will occur through the existing permitted outfall.

(c) The Pilot Plant will be located on a previously disturbed site well screened from public view and will not be visible to those traveling on Highway 1.

(d) The project planner conducted a site visit on April 8, 2005 to verify that the site is suitable for this use.

3. **FINDING:- ENVIRONMENTALLY SENSITIVE HABITATS**-The proposed project complies with Section 2.3.3.D. of the North County Coastal Land Use Plan regarding Marine Resources.

**EVIDENCE:**

(a) An Environmental Assessment (RBF, 2005) was submitted with the application materials. The Marine Biology Section thoroughly analyzed the potential effects of a full-scale desalination plant with a discharge volume between 100mgd and 1225mgd. The study concluded that the full-scale plant would have no significant impacts with regards to temperature, salinity, or chemical discharge. The pilot plant will operate between .02% and .1% of the projected full-scale plant. Therefore, no impacts to environmentally sensitive habitats are anticipated.

- (b) The pilot plant will utilize water from the existing MLPP cooling system. No new water will be drawn from the Monterey Bay therefore, no new impacts associated with impingement or entrainment of organisms will occur as a result of pilot plant operations.
- (c) The pilot project will not increase the amount of water discharged from the power plant and is therefore considered an existing use. Additionally, because the pilot plant will not cause pollution or contamination of the water as defined by Chapter 15.22 MCC, it is not an expanded discharge and does not qualify as wastewater. (Cheryl Sandoval, Environmental Health Department, June 22, 2006)
- (d) MSDS sheets and proof of ANSI/NSF 60 (drinking water standard) approval were received from the applicant and verified by the Environmental Health Department.
- (e) The California Regional Water Quality Control Board (RWQCB) has determined that due to the lack of threat to the Pacific Ocean posed by pilot plant operations, the project qualifies for a General Discharge Permit. RWQCB Staff state that the large existing flow currently experienced by the MLPP will render insignificant any potential adverse effects of the chemical additives on ocean water quality. RWQCB Staff has accepted the CEQA Categorical Exemption as presented by the County of Monterey.
- (f) As a condition of approval, the pilot plant will require a General Discharge Permit from the Regional Water Quality Control Board.

4. **FINDING:- PUBLIC ACCESS** – The project is in conformance with the public access and public recreation policies of the Coastal Act and the Local Coastal Program, and does not interfere with any form of historic public use or trust rights. No access is required as part of the project as no substantial adverse impacts on access, either individually or cumulatively, as described in Section 20.70.050.B.4.c of the Monterey County Coastal Implementation Plan, can be demonstrated.

**EVIDENCE:**

- (a) The subject property is not described as an area where the Local Coastal Program requires access and is not indicated as part of any designated trails or shoreline access. No evidence or documentation has been submitted or found showing the existence of historic public use or trust rights over this property.
- (b) Staff site visit on April 8, 2005.
- (c) Section 5.4 Moss Landing Community Plan.

5. **FINDING:- CEQA (Exempt)** – The proposed project is exempt from the California Environmental Quality Act pursuant to Section 15306, Information Collection and will not have a significant environmental impact pursuant to Section 15382– Definition of Significant Effect on the Environment, Section 15064- Determining the Significance of the Environmental Effects Caused by a Project, and Section 15384 Definition of Substantial Evidence.

**EVIDENCE:**

(a) Section 15306 of the CEQA Guidelines, categorically exempts the proposed development from environmental review. Class 6 specifically exempts basic data collection, research, experimental management, and resource evaluation activities. The proposed project is considered temporary in nature and duration and is considered informational, consisting of data collection, research, and resource evaluation.

(b) The project will not cause a substantial or adverse change in any of the physical conditions within the area. The project is temporary in nature and duration permitted for a period not to exceed 12 months, will utilize water from the existing MLPP cooling water system and does not require additional pumping from the Monterey Bay.

The project will utilize existing water therefore, no new impacts associated with

impingement or entrainment of organisms will occur. All water treatment chemicals

utilized by the pilot plant are ANSI/NSF 60 certified safe for drinking water and per

review from the Environmental Health Department will not pollute nor contaminate the waters of the Bay. Prior to discharge, the product water, brine, and waste wash water from the pilot plant will be diluted and recombined with the existing MLPP cooling water. There will be no increase in discharge levels due to implementation of the pilot plant project. Discharge from the MLPP is regulated by existing RWQCB permits. These permits require extensive environmental review and ongoing monitoring. The RWQCB has determined that the pilot plant qualifies for a General Discharge permit which is issued for discharge considered "low threat."

(c) There is no substantial evidence in the whole record that the project may have a significant effect on the environment. No evidence has been submitted by any persons or agencies identifying any direct or indirect significant environmental effects attributable to the proposed project. No persons or agencies have submitted information supporting a fair argument that the project may have a significant effect on the environment.

(d) Environmental Assessment compiled by RBF Consulting, July 14, 2005.

(e) The Pilot Desalination Plant will not be used as a source of potable water for distribution or human consumption.

(f) The Pilot Desalination Plant will be housed in prefabricated modules on an existing 30,000 sq. ft. gravel pad; therefore, no ground disturbance will occur.

(g) All water treatment chemicals are ANSI/NSF 60 approved for drinking water. The MLPP currently discharges approximately 180mgd to 1225mgd through the existing outfall. Because the pilot plant will not increase the amount of discharge, and because the chemical concentrations are considered

negligible and will not cause any contamination or pollution of the water, the project will not be required to receive a permit from the Environmental Health Department (Cheryl Sandoval, Environmental Health, June 22, 2006)

(h) A preliminary environmental assessment was completed and submitted with the pilot plant application analyzing impacts associated with the potential operation of a full-scale plant with a discharge rate between 100mgd and 1225mgd. There were no significant impacts to Marine Resources regarding temperature, salinity, or chemical discharge identified in the report or accompanying surveys. Operation of the proposed pilot plant constitutes approximately .1% to .02% of the anticipated and evaluated full-scale desalination plant discharge. Therefore, no impacts to Marine Resources are anticipated as a result of the pilot project.

(i) The California Regional Water Quality Control Board (RWQCB) has determined that due to the lack of threat to the Pacific Ocean posed by pilot plant operations, the project qualifies for a General Discharge Permit. RWQCB Staff state that the large existing flow currently experienced by the MLPP will render insignificant any potential adverse effects of the chemical additives on ocean water quality. RWQCB Staff has accepted the CEQA Categorical Exemption as presented by the County of Monterey.

(j) A Condition of Approval has been added to the project requiring the applicant to secure a General Permit from the California Regional Water Quality Control Board prior to the issuance of a building permit. This General Permit is issued for discharges proving to be of low threat to the marine environment, and will require adequate monitoring and reporting of the proposed discharge.

(k) As per California Health and Safety Code 25500 the project requires the approval and implementation of a Hazardous Materials Business Response Plan through the Department of Environmental Health. The Business Response Plan will monitor the storage, distribution and usage of on-site chemicals (Bruce Welden, Environmental Health, June 15, 2006).

(l) Waste cleaning solutions will not be discharged as a result of Pilot Plant operations.

(m) Staff did not receive any conclusive evidence or material indicating that the proposed temporary use will cause a significant environmental impact.

(n) As evidenced above and in the project description, there are no unusual circumstances related to the project or project site that would cause the potential for significant environmental impacts. Evidence shows that the physical changes related to construction and operation of the temporary facility are miniscule in nature given that they are incorporated into an ongoing permitted operation that has been the subject of an extensive environmental review process of its own and are for the purposes of collecting data to analyze the feasibility of a future desalination facility.

**6. FINDING – NO VIOLATIONS:** The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision and any other applicable provisions of the County's zoning ordinance. No violations exist on the property, and all zoning violation abatement cost, if any, have been paid.

**EVIDENCE:**

Staff verification of the Monterey County Planning and Building Inspection Department records indicate that no violations exist on subject property.

- 7. **FINDING:- PUBLIC NOTICE:** Public notice of the pending Coastal Development Permit was provided pursuant to Section 20.84.040, Title 20 Zoning Ordinance (Part 1 of the Monterey County Coastal Implementation Plan).

**EVIDENCE:** Materials in the project file.

- 8. **FINDING - HEALTH AND SAFETY:** The establishment, maintenance or operation of the project applied for will not under the circumstances of this particular case, be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

**EVIDENCE:**

The project was reviewed by Planning and Building Inspection Department, Public Works Department, Water Resources Agency, Environmental Health Division, Parks Department and Carmel Highlands Fire Protection District. The respective departments and agencies have recommended conditions, where appropriate, to ensure that the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood. The applicant has agreed to these conditions as evidenced by the application and accompanying materials and conditions.

- 9. **FINDING - APPEALABILITY:** The project can be appealed to the California Coastal Commission.

**EVIDENCE:**

Section 20.86.080.A.2. of the Monterey County Coastal Implementation Plan, Part 1 (Coastal Commission). Approved projects in County jurisdiction located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, stream or within 300 feet of the top of the seaward face of any coastal bluff.

**FINDINGS FOR THE APPEAL**

- 10. **FINDING:** The County has conducted a fair and impartial public hearing on the application, Mitigated Negative Declaration, and related approvals.

**EVIDENCE:**

(a) The Zoning Administrator conducted a duly noticed, full, fair, and impartial public hearing on the application, on July 13<sup>th</sup>, 2006. The hearing was conducted in accordance with state law and the adopted Monterey County Zoning Administrator Rules for the Transaction of Business ("Rules"). All members of the public wishing to speak on the project were afforded the opportunity to speak and to submit written testimony. The applicant was permitted rebuttal in accordance with the Rules. Regardless of any comments which may have been made by the Zoning Administrator, the basis of the Zoning Administrator's decision is set forth in the adopted findings and evidence.

(b) Minutes and audio recording of the Zoning Administrator Hearing from July 13<sup>th</sup>, 2006.

(c) The Board of Supervisors conducted a duly noticed, full, fair, and impartial de novo public hearing on the application on August 29<sup>th</sup>, 2006.

(d) Minutes and audio recording of the Board of Supervisors from August 29<sup>th</sup>, 2006.

**11. FINDING:** An appeal of the July 13<sup>th</sup>, 2006, action of the Zoning Administrator approving (PLN040520/LS Power) consisting of a Coastal Development Permit and Design Approval to allow the construction and operation of a 6,500 sq. ft. Temporary Pilot Desalination Facility at the Moss Landing Power Plant (MLPP located at the intersection of Highway 1 and Dolan Road, Moss Landing (Assessor's Parcel Number 133-181-011-000), was filed by Conner Everts. The appeal was timely filed on July 28<sup>th</sup>, 2006.

**EVIDENCE:**

- (a) Said appeal has been filed with the Clerk of the Board of Supervisors within the time prescribed by Monterey County pursuant to Zoning Ordinance Chapter 20.86;
- (b) Said appeal has been determined to be complete;
- (c) The Board of Supervisors has reviewed, evaluated, and considered the appeal and responds as follows:

*Contention 1.:* The appellant contends that "it is unclear how RBF Consulting or the County concluded this project would have a negligible environmental impact."

*County's Response 1.:* Section 15306 of the CEQA Guidelines, categorically exempts the proposed development from environmental review. Class 6 specifically exempts basic data collection, research, experimental management, and resource evaluation activities. The proposed project is considered temporary in nature and duration operating for a period not to exceed one year, and is considered informational, consisting of data collection, research, and resource evaluation. As confirmed by the Environmental Health Department, all proposed water treatment chemicals are ANSI/NSF 60 approved for drinking water and will not cause any contamination or pollution of the water. No new water will be drawn from the Monterey Bay therefore, no new impacts associated with impingement or entrainment of organisms will occur as a result of pilot plant operations.

The Pilot Desalination Plant would obtain source water from Moss Landing Power Plant's (MLPP) existing cooling water system which draws water from the permitted operational seawater intake in Moss Landing Harbor. The Moss Landing Power Plant facility is currently operated under two permits from the Regional Water Quality Control Board. Permit 316B is issued specifically for the ocean intake system while discharge is operated pursuant to Waste Discharge Requirements Order No. 00-041 and NPDES No. CA0006254. These permits are granted by the RWQCB only after significant environmental review. Any application for a full-scale desalination facility would require thorough environmental review and analysis. Furthermore, the California Regional Water Quality Control Board (RWQCB) has determined that due to the lack of threat to the Pacific Ocean posed by pilot plant operations, the project qualifies for a General Discharge Permit. In the accompanying report (**Exhibit "I"**) RWQCB Staff state that the large existing flow currently experienced by the MLPP will render insignificant any potential adverse effects of the chemical additives on ocean water quality. RWQCB Staff has accepted the CEQA Categorical Exemption as presented by the County of Monterey.

**Contention 2.:** The appellant contends that *"the State Lands Commission and the Ocean Protection Council both unanimously passed resolutions in April 2006 finding the impacts of once-through-cooling detrimental to sensitive marine habitats, paving the way to phase out the technology in California."*

**County's Response 2.:** The Moss Landing Power Plant facility is not under the jurisdiction of the State Lands Commission or the Ocean Protection Council. Statutes of California 1947, Chapter 131, transferred jurisdiction of the property from the State Lands Commission to the Moss Landing Harbor District. Furthermore, per the above mentioned Resolution, The California State Lands Commission is poised to prohibit the renewal of permits for "once-through" cooling systems at power plants after 2020. The project is designed to operate for a period not to exceed one year, does not solidify long-term use of the Moss Landing Power Plant site, nor does the project ensure that co-locating a desalination facility will ultimately be the preferred technology. Therefore, the prohibition has no direct impact on this project. Furthermore, this comment relates directly to current power plant technology and not specifically to the pilot desalination project. Therefore, this comment is considered general and non-project specific.

**Contention 3.:** The appellant states, *"Based not only on these resolutions but on our organization's experience with other desalination projects in the state, we urge the County to consider the detrimental impacts of co-located desalination projects when there are more environmentally sensitive, subsurface intake alternatives available, such as the ones currently being tested in Dana Point, CA, this summer."*

**County's Response 3.:** The project includes a Coastal Development Permit for a pilot desalination facility designed to test the effectiveness of utilizing once-through cooling water to aid the desalination process. The project is further designed to evaluate any potential environmental impacts associated with the chosen technology. Approval of the project does not ensure the permanent placement of a full-scale desalination facility at the Moss Landing Power Plant site, nor does project approval ensure the long-term implementation of one specific technology over any other. Furthermore, testing of this technology does not preclude the testing of further alternative technologies in the future.

**Contention 4.:** The appellant contends that, “ *The County reports no Hydrologic report is required because this project draws no new water from Monterey Bay. The finding is contrary to language in Section 20.144.070 of the Coastal Implementation Plan: a hydrologic report shall be required for any development which involves intensification of water use. The addition of brine and wash water from an attached desalination facility is certainly an intensification of water use.*”

**County’s Response 4.:** The pilot plant will utilize existing water from the power plant cooling water system. No new water will be drawn from the Bay and discharge levels at the outfall will remain consistent with those required by the Waste Discharge Requirements Order No. 00-041 and NPDES No. CA0006254. The Environmental Health Department reviewed all proposed discharge material including water treatment chemicals, waste wash water, and brine concentrate. The Department concluded that because the pilot plant will utilize existing water from the cooling water system and because the water will be recombined with the cooling water prior to discharge, thus further diluting the wash water and brine, there was no intensification of water use. Therefore, no hydrologic report is required, nor is a discharge permit required from Environmental Health. The Department further concluded that all chemicals utilized in the water treatment process are ANSI/NSF 60 certified safe for drinking water and pose no contamination threat.

**Contention 5.:** The appellant contends that, “ *Attachment of a full-size desalination facility to a once-through cooling power plant alters the cost benefit equation of damage the power plant does to benefit the desalinated water provides and falls into the very dangerous loophole in the EPA316(b) regulations that is now being challenged in court.*”

**County’s Response 5.:** This comment is general and non-specific to the proposed project as it relates exclusively to the operation of the power plant and full-size desalination plant. The Coastal Development permit is to allow the implementation of a pilot desalination facility for the maximum period of one year. The pilot plant will operate at a capacity between .02% and .1% of a full-size desalination plant. The proposed project does not include or ensure the permanent placement of a full-scale desalination facility at the Moss Landing Power Plant site. Furthermore, project approval does not ensure the long-term implementation of one specific technology over any other. Again, this comment is vague in its application to the proposed project and assumes implementation of the pilot plant ensures the approval of a full-scale desalination plant at the site. Any application for a full-scale desalination plant will undergo a complete project review process and thorough environmental analysis.

**EXHIBIT "C"**  
**Monterey County Planning and Building Inspection**  
**Condition Compliance & Mitigation Monitoring and/or**  
**Reporting Plan**

Project Name: LS Power  
 File No: PLN040520      APN: 133-181-011-000  
 Approval by: Board of Supervisors      Date: August 29, 2006

*\*Monitoring or Reporting refers to projects with an EIR or adopted Mitigated Negative Declaration per Section 21081.6 of the Public Resources Code.*

| Permit Cond. Number | Mitig. Number | Impact Addressed, and Responsible Land Use Department  | Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted. | Responsible Party for Cleaning Condition | Timing                          | Verification of compliance |
|---------------------|---------------|--|---|--|---------------------------------|----------------------------|
| 1                   |               | <p><b>PBD029 - SPECIFIC USES ONLY</b></p> <p>The LS Power, Coastal Development Permit and Design Approval (PLN040520) allows for the installation and operation of a 6,500 sq. ft. temporary pilot desalination facility at the Moss Landing Power Plant within 100 feet of environmentally sensitive habitat. Plant components are preconstructed and will be located on an existing 30,000 sq. ft. gravel pad. The pilot facility will be operated for a maximum of one year to allow for adequate data collection and testing. This permit was approved in accordance with County ordinances and land use regulations subject to the following terms and conditions. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of Planning and Building Inspection. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification</p> | Adhere to conditions and uses specified in the permit.  | Owner/<br>Applicant                      | Ongoing unless otherwise stated |                            |

| Permit Cont. Number | Miss Number | <i>Impact Addressed, and Responsible Land Use Department</i>   | <i>Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.</i> | Responsible Party for Clearing Condition | Timing  | Verification of compliance |
|---------------------|-------------|--|--|--|---|----------------------------|
| 2                   |             | <p>or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. (RMA- Planning Department)</p> <p><b>PBD025 - NOTICE-PERMIT APPROVAL</b><br/>                     The applicant shall record a notice which states: "A permit (Resolution No. 040520) was approved by the Zoning Administrator for Assessor's Parcel Number 133-181-011-000 on July 13, 2006. The permit was granted subject to 8 conditions of approval which run with the land. A copy of the permit is on file with the Monterey County Planning and Building Inspection Department." Proof of recordation of this notice shall be furnished to the Director of Planning prior to issuance of building permits or commencement of the use. (RMA-Planning Department)</p> | <p>Proof of recordation of this notice shall be furnished to the Planning Department.</p>  | <p>Owner/<br/>Applicant</p>              | <p>Prior to issuance of building permits or start of use</p>  |                            |
| 3                   |             | <p><b>PBD016 - INDEMNIFICATION AGREEMENT</b><br/>                     The property owner agrees as a condition and in consideration of the approval of this discretionary development permit that it will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the County of Monterey or its agents, officers and employees from any claim, action or proceeding against the County or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The property owner will reimburse the county for any court costs</p>  | <p>Proof of recordation of the Indemnification Agreement, as outlined, shall be submitted to the Planning Department.</p>                  | <p>Owner/<br/>Applicant</p>              | <p>Upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, filing of the final map,</p> |                            |

| Permit<br>Code<br>Number | Filing<br>Number | Impact Addressed and Responsible Land Use Department   | Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.  | Responsible Party for Clearing Condition | Timing                                    | Verification of compliance |
|--------------------------|------------------|--|--|--|---|----------------------------|
|                          |                  | <p>and attorney's fees which the County may be required by a court to pay as a result of such action. County may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his obligations under this condition. An agreement to this effect shall be recorded upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, filing of the final map, whichever occurs first and as applicable. The County shall promptly notify the property owner of any such claim, action or proceeding and the County shall cooperate fully in the defense thereof. If the County fails to promptly notify the property owner of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the property owner shall not thereafter be responsible to defend, indemnify or hold the county harmless.<br/><b>(RMA-Planning Department)</b></p> |  |  | which ever occurs first and as applicable |                            |
| 4                        |                  | <p><b>CLEANING SOLUTIONS-NON STANDARD</b><br/>No waste chemical cleaning solutions or compounds shall be discharged to the Monterey Bay as a result of the Pilot Plant operations. Clearing agents shall be separated and legally disposed of by tanker truck as described in the accompanying application materials and Hazardous Materials Business Response Plan. <b>(RMA-Planning Department)</b></p>  | <p>Submit proof of transportation and disposal of cleaning agents to the Planning Department for review. Provide certification from 3<sup>rd</sup> party review approved by the Director that design and operations preclude cleaning agents from being discharged into Moss Landing Harbor.</p> | Owner/<br>Applicant                      | Ongoing                                   |                            |
| 5                        |                  | <p><b>GENERAL DISCHARGE PERMIT - NON STANDARD</b><br/>The applicant shall apply for, obtain, and illustrate full compliance with the California Regional Water Quality</p>   | <p>Submit approved permit to the Planning Department for review.</p>   | Owner/<br>Applicant                      | Prior to the issuance of building or      |                            |

| Permit<br>Cond.<br>Number | Miss<br>Number | Impact Addressed, and Responsible Land Use Department  | Compliance or Monitoring Actions<br>to be performed. Where applicable, a<br>certified professional is required for<br>action to be accepted. | Responsible<br>Party for<br>Cleaning<br>Condition | Funding  | Verif<br>control<br>of<br>comp<br>lance |
|---------------------------|----------------|--|--|---|--|---|
|                           |                | Control Board General NPDES Permit for Discharges with<br>Low Threat to Water Quality (General Permit). (RMA-<br>Planning Department)  |  |   | grading<br>permits   |   |
| 6                         |                | <b>EH28 - HAZ MAT BUSINESS RESPONSE PLAN</b><br>Comply with Title 19 of the California Code of Regulations<br>and Chapter 6.95 of the California Health and Safety Code<br>(Hazardous Material Registration and Business Response<br>Plans) as approved by the Director of Environmental<br>Health. (Environmental Health)   | Contact the Hazardous Materials<br>Program of the Division of<br>Environmental Health.   | Owner/<br>Applicant                               | Continuous   |   |
| 7                         |                | <b>WRI - DRAINAGE PLAN</b><br>The applicant shall provide the Water Resources Agency a<br>drainage plan prepared by a registered civil engineer or<br>architect addressing on-site and off-site impacts. Drainage<br>improvements shall be constructed in accordance with plans<br>approved by the Water Resources Agency. (Water<br>Resources Agency)   | Submit 3 copies of the engineered<br>drainage plan to the Water Resources<br>Agency for review and approval.                                 | Owner/<br>Applicant/<br>Engineer                  | Prior to<br>issuance of<br>any grading<br>or building<br>permits |   |
| 8                         |                | <b>WR39 - OTHER AGENCY PERMITS</b><br>The applicant shall provide certification to the Water<br>Resources Agency that applications have been submitted for<br>all required local, State, and Federal permits. The Agencies<br>include but are not limited to the California Department of<br>Fish & Game, California Regional Water Quality Control<br>Board, Division of Safety of Dams, and the Army Corps of<br>Engineers. (Water Resources Agency) | Submit a letter and any associated<br>permits to the Water Resources<br>Agency for review and approval.                                      | Owner/<br>Applicant                               | Prior to<br>issuance of<br>any grading<br>or building<br>permits |   |

## ATTACHMENT 2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

**NOTICE OF PUBLIC HEARING**

POSEIDON RESOURCES CORPORATION  
CALIFORNIA AMERICAN WATER COMPANY  
PILOT DESALINATION PROJECTS  
MOSS LANDING, MONTEREY COUNTY

Central Coast Water Board staff is proposing to grant coverage under Waste Discharge Requirements Order No. 01-119, General NDPEs Permit For Discharges with Low Threat to Water Quality for two pilot desalination projects in the Moss Landing area. The projects are described in the attached reports. Staff will also present the attached status report on permitting issues regarding the Moss Landing Power Plant.

Persons wishing to comment on the proposed actions may submit comments in writing to the address above by **August 22, 2006**.

The Central Coast Water Board will hold a public hearing to obtain public comment and provide direction to staff at 3:00 p.m. on Thursday, September 7, 2006, at the following location:

Monterey City Council Chambers  
598 Pacific Street  
Monterey, CA 93940

Interested persons are invited to attend to express their views on these actions. Persons making presentations should confine their statements to these issues. For the accuracy of the record, all important testimony should be submitted in writing. Oral statements should be brief to allow all interested persons time to be heard.

The staff reports are posted on the Water Board's website: <http://www.waterboards.ca.gov/centralcoast/>. The reports may also be reviewed and copied at the office of the Water Board, 895 Aerovista Place, Suite 101, San Luis Obispo, California, on weekdays between the hours of 8:00 a.m. and 5:00 p.m. Please direct comments and questions to **Peter von Langen at (805) 549-3688** or [pvonlangen@waterboards.ca.gov](mailto:pvonlangen@waterboards.ca.gov), or Harvey Packard at (805) 542-4639 or [hpackard@waterboards.ca.gov](mailto:hpackard@waterboards.ca.gov).

Please bring the foregoing to the attention of any persons known to you who would be interested in this matter.

## **General Permit for Discharges with Low Threat to Water Quality**

California American Water Company, Pilot Desalination Plant, Moss Landing, Monterey County [Peter von Langen 805/549-3688]

On July 26, 2006, California American Water Company (Discharger) submitted a complete application and Notice of Intent for enrollment under the Low-Threat General Permit, WDR Order No. 01-119. The Discharger proposes to construct a pilot seawater desalination plant on property owned by LS Power in Moss Landing, Monterey County and to operate the plant for up to one year (Attachment 1). Monterey County certified the project's compliance with CEQA and issued a development permit on July 13, 2006.

The pilot desalination plant will produce an average of 0.08 million gallons per day (MGD) of waste desalination brine and 0.06 MGD of product water. The Discharger proposes to combine the brine and product water with the large flow (up to 750 MGD) of LS Power's once-through cooling (OTC) water, which is regulated by Waste Discharge Requirements Order No. 00-041. The combined pilot desalination plant and OTC flows will be discharged to the Pacific Ocean through LS Power's existing outfall-diffuser system.

The Discharger proposes to control pH, solids concentrations, chlorine residual concentrations, and scaling in the desalination equipment by

adding small quantities (total less than 129 pounds per day) of inorganic chemicals (Sodium Hypochlorite, Sulfuric Acid, Ferric Chloride, Powdered Activated Carbon (PAC), Antiscalant, Sodium Hydroxide, and Sodium Bisulfite) to the discharge and by treating the desalination feed water via micro-filtration (Attachment 2). These treatment chemicals are approved for use in potable drinking water. Waste Discharge Requirements Order No. 00-041, which the Water Board issued in 2000, establishes effluent limitations and other requirements that protect the Pacific Ocean's beneficial uses from existing and threatened adverse effects posed by the wastewater discharge from the Moss Landing Power Plant.

The large flow of OTC water will render insignificant any potential adverse effects of the chemical additives on ocean water quality. That is, the concentrations in the pilot plant's discharge will not degrade receiving waters even if it were to be discharged directly. However, those concentrations will be further reduced due to the dilution (approximately 5350:1) provided by OTC.

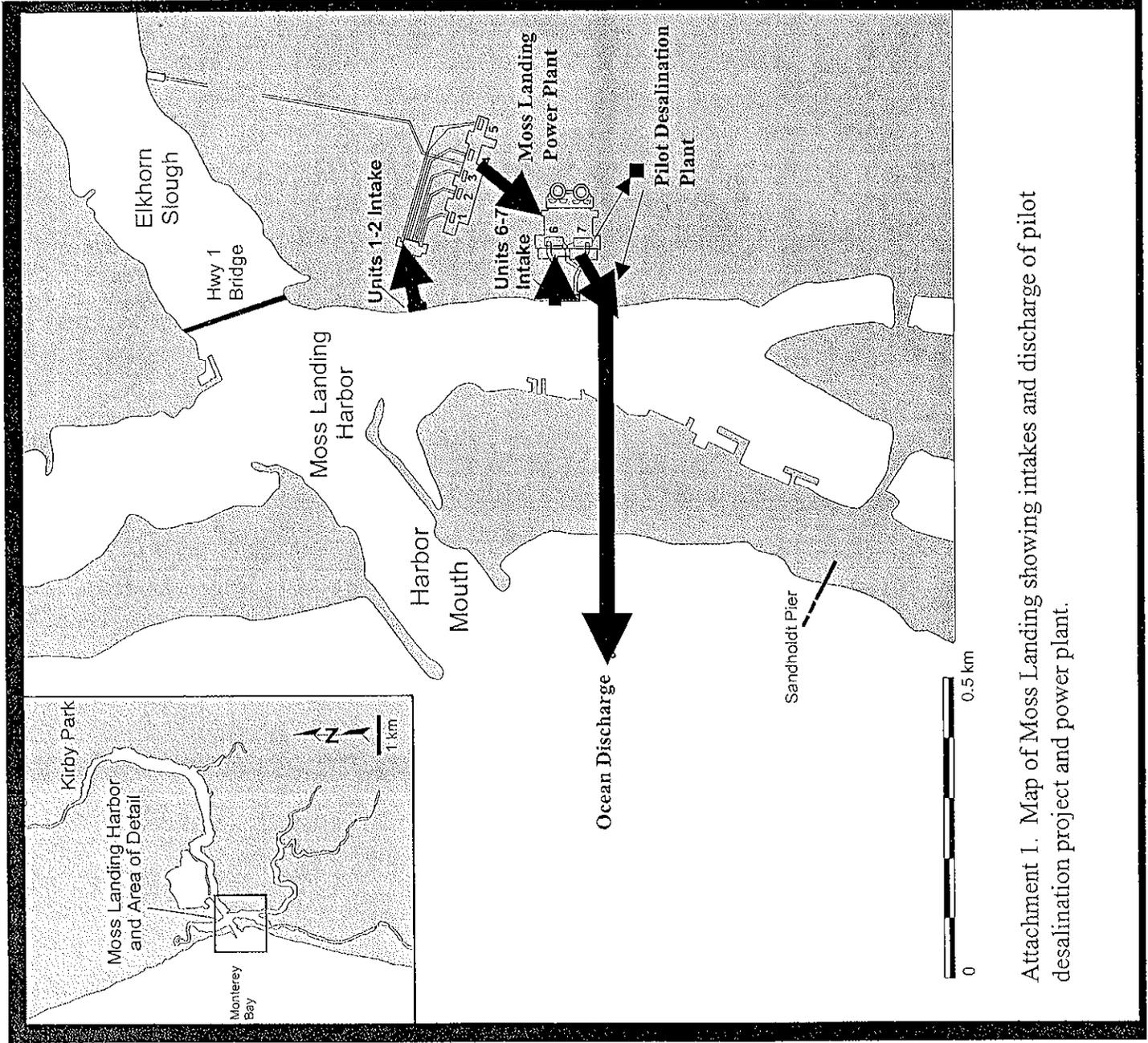
Additionally, wastes produced during filter backwash and cleaning will be collected in storage tanks and disposed of offsite. There are no impingement and entrainment issues attributable to this pilot desalination plant because the facility takes its source water from the power plant OTC system. Due to the low threat of the pilot plant discharge to the

water quality of the Pacific Ocean, staff recommends regulating this discharge through enrollment in the General Permit. Unless the Water Board objects, staff will notify the Discharger of the enrollment and require compliance with Monitoring and Reporting Program No. 01-119, modified for this discharge. A full scale facility would be regulated by an individual permit.

1. Map of Moss Landing showing intake and discharge points
2. Table of inorganic chemical usage

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Attachments



Attachment 1. Map of Moss Landing showing intakes and discharge of pilot desalination project and power plant.

Attachment 2

**TABLE 2**  
CHEMICAL USAGE SUMMARY

| Chemical            | Max Dose (mg/L) | Flow (gpm) | Mass/Day (lbs/day) | Cooling Water Concentration-<br>Min flow (mg/L) <sup>1</sup> | Cooling Water Concentration-Normal<br>flow (mg/L) <sup>2</sup> |
|---------------------|-----------------|------------|--------------------|--|--|
| Sodium Hypochlorite | 3               | 100        | 3.6                | 0.00432  | 0.00036  |
| Sulfuric Acid       | 50              | 100        | 60                 | 0.07200  | 0.00600  |
| Ferric Chloride     | 10              | 100        | 12                 | 0.01440  | 0.00120  |
| PAC                 | 7               | 100        | 8.4                | 0.01008  | 0.00084  |
| Antiscalant         | 3               | 40         | 1.44               | 0.00173  | 0.00014  |
| Sodium Hydroxide    | 50              | 40         | 24                 | 0.02880  | 0.00240  |
| Sodium Bisulfite    | 40              | 40         | 19.2               | 0.02304  | 0.00192  |

1. Minimum flow in cooling water system: 100 MGD
2. Normal flow in cooling water system: 1,200 MGD

## **General Permit for discharges with low threat to water quality**

Poseidon Resources, Pilot Desalination Plant, Moss Landing, Monterey County [Peter von Langen 805/549-3688]

On May 25, 2006, Poseidon Resources Corporation (Discharger) submitted a complete application and Notice of Intent for enrollment under the Low-threat General Permit, WDR Order No. 01-119. The Discharger proposes to construct a pilot seawater desalination plant on the former National Refractories facility in Moss Landing, Monterey County (Attachment 1). Monterey County certified the project's compliance with CEQA and issued a development permit on March 21, 2006. The desalination plant will discharge up to 0.29 million gallons per day (MGD) of waste desalination brine and product water. The Discharger will discharge the combined flows to the Pacific Ocean through the existing National Refractories outfall-diffuser system.

The Discharger will pump feed water from Moss Landing Harbor through an existing intake structure. The Discharger will control pH, solids concentrations, chlorine residual concentrations and scaling in the desalination process by adding small quantities of inorganic chemicals to the desalination feed water and by treating the feed water via micro-filtration. The Discharger will send used membrane cleaning solution to the onsite waste disposal ponds or the sanitary waste disposal system.

The Discharger will pump waste brine to the Pacific Ocean through an existing outfall with a diffuser. Combining the brine and product water streams before discharge will render insignificant any potential adverse effects from increased salinity. Staff also evaluated the concentrations of constituents (Polymer, Sodium Hypochlorite, Sodium Bisulfite, Ferric Sulfate, Ferric Chloride, and Sulfuric Acid) in the intake and discharge and found that there would not be any significant concentrations of pollutants at the outfall (Attachment 2). Material Safety Data Sheets (MSDS) support that low concentrations of flocculants and polymer are benign.

The Discharger evaluated the potential effects of entrainment and impingement based on a volumetric approach that compared the pilot desalination project to previous studies at the Moss Landing Power Plant (MLPP). The Discharger found that impingement and entrainment effects would be insignificant since the proposed discharge would have flows about 2,600 times lower than the combined flows of the MLPP's two cooling water systems (approximately 750 MGD). Although insignificant, the Discharger proposes to incorporate additional mitigation measures to address impingement and entrainment. Specifically, the discharger will include an intake velocity-reduction chamber, disk filters on the intake pipe, and provide an impingement and entrainment

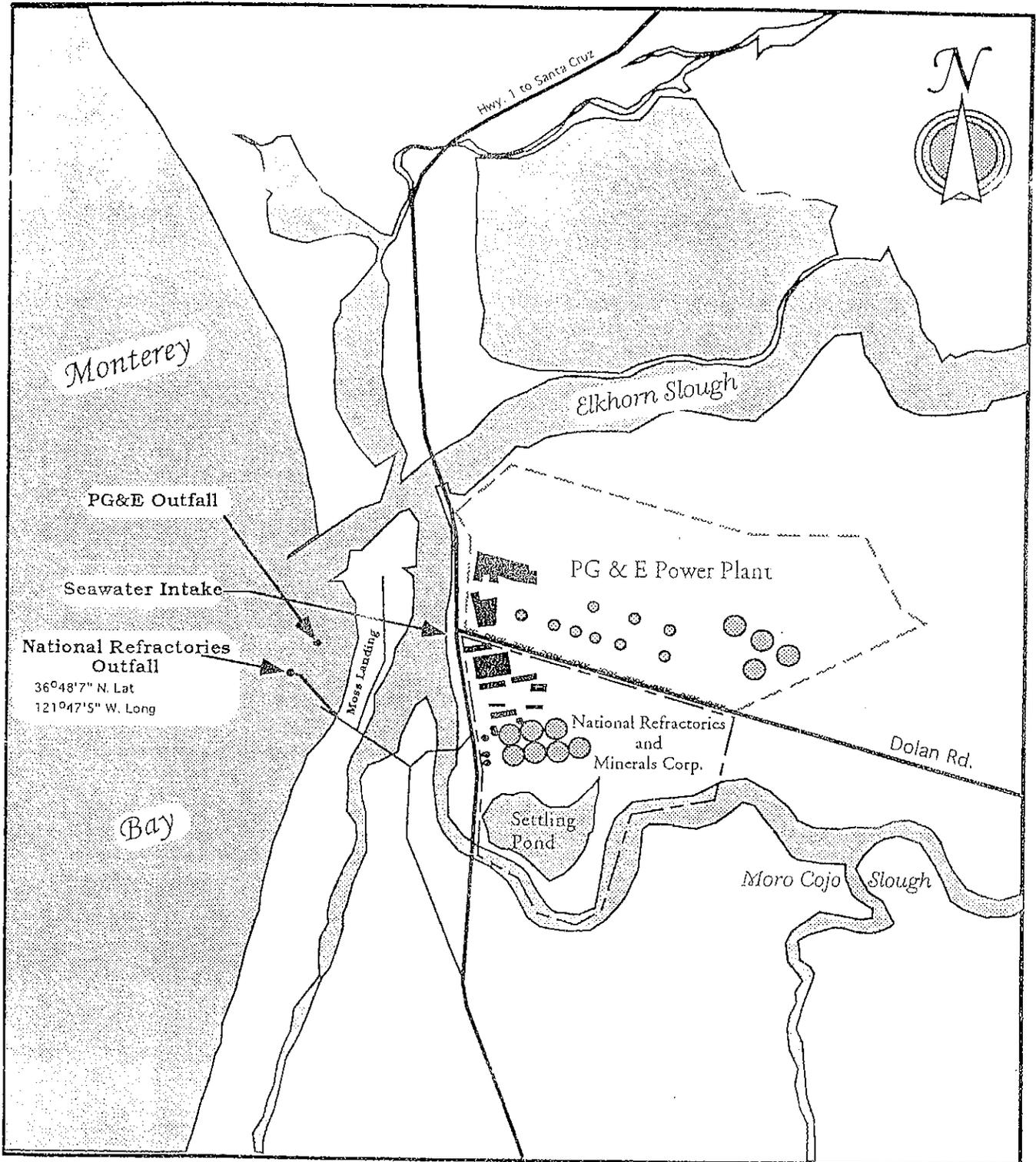
survival study of the disk filtration system.

Due to the low threat of the pilot plant discharge to the water quality of the Pacific Ocean, staff recommends regulating this discharge through enrollment in the General Permit. Unless the Water Board objects, staff will notify the Discharger of the enrollment and require compliance with Monitoring and Reporting Program No. 01-119, modified for this discharge. A full scale facility would be regulated by an individual permit.

#### Attachments

- A. Map of Moss Landing showing intake and discharge points
- B. Table of inorganic chemical usage

S:\NPDES\NPDES Facilities\Monterey Co\\_Low Threat Discharge General Permit, 01-119\Poseidon PSMCSD desalination at Moss Landing\Poseidon water report.doc



Attachment "A"  
National Refractories and Minerals Corporation

ATTACHMENT "B"

PAJARO SUNNY MESA PILOT SEAWATER DESALINATION PLANT  
INTAKE AND WASTE STREAM DISCHARGE WATER QUALITY

| ANALYTE                                   | DESAL PLANT INTAKE SEAWATER |              | INTERMITTENT WASTE STREAMS |       | CLEANING SOLUTION |                | CONTINUOUS WASTE STREAMS |                | SEDIMENTATION TANK RESIDUALS |                | PRETREATMENT FILTER BACKWASH |                | PERMEATE | TOTAL DESAL PLANT DISCHARGE Worst Case | Ocean Plan WQ Objective 6-Month avg./ Daily Max/ Instant Max |
|---|-----------------------------|--------------|----------------------------|-------|-------------------|----------------|--------------------------|----------------|------------------------------|----------------|------------------------------|----------------|----------|--|--|
|   | #1                          | #2           | #1                         | #2    | RO CONCENTRATE    | RO CONCENTRATE | RO CONCENTRATE           | RO CONCENTRATE | RO CONCENTRATE               | RO CONCENTRATE | RO CONCENTRATE               | RO CONCENTRATE |          |  |  |
| <b>GROUP A</b>                            |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| Biochemical Oxygen Demand                 | SM 5210 B                   | milligrams/L | <1                         | 490   | <1                | 10             | <1                       | 20             | <1                           | 53             | <1                           | 20             | <1       | 5.89                                   | No Limit   |
| COD                                       | EPA 410.4                   | milligrams/L | 98                         | 2800  | 440               | 440            | 50                       | 91             | <5                           | 3.8            | <5                           | 91             | <5       | 75.49                                  | No Limit   |
| Total Organic Carbon                      | SM 5310 C                   | milligrams/L | 1.2                        | 1200  | 25                | 25             | 1.3                      | 1.3            | 0.5                          | 1.3            | 0.5                          | 1.3            | 0.5      | 1.73                                   | No Limit   |
| Total Suspended Solids                    | EPA 160.2                   | milligrams/L | 30                         | 5     | 5                 | 5              | 2.0                      | 130            | 0.01                         | <0.5           | 0.01                         | 130            | 0.01     | 55.0                                   | 60   |
| Ammonia (as N)                            | SM 4500 NH3                 | milligrams/L | 0.10                       | 0.10  | 0.14              | 0.14           | 0.10                     | 0.10           | 0.12                         | <0.5           | 0.10                         | 0.10           | 0.10     | 0.62                                   | 0.60   |
| pH  | SM 4500 H B                 | pH units     | 7.80                       | 7.28  | 7.06              | 7.06           | 7.80                     | 7.63           | 7.59                         | 7.80           | 7.63                         | 7.90           | 7.90     | 7.23                                   | 6.0-9  |
| <b>GROUP B</b>                            |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| Bromide                                   | EPA 200.0                   | milligrams/L | 67                         | 44    | 52                | 52             | 67                       | 67             | 120                          | 67             | 53                           | 67             | 0.7      | 62.23                                  | No Limit   |
| Boron                                     | EPA 200.8                   | milligrams/L | 4.2                        | 3.5   | 3.1               | 3.1            | 4.2                      | 4.2            | 7.6                          | 4.2            | 3.8                          | 4.2            | 0.9      | 4.16                                   | No Limit   |
| Color                                     | EPA 110.2                   | color units  | 3                          | 3     | 3                 | 3              | 3                        | 3              | <2                           | 3              | 3                            | 3              | 3        | 3.00                                   | No Limit   |
| Calcium, fecal                            | SM 9211 E                   | MPN/100ml    | 2                          | 2     | 2                 | 2              | 2                        | 2              | <2                           | 2              | <2                           | 2              | 0        | 2.00                                   | <1.000   |
| Fluoride                                  | EPA 200.0                   | milligrams/L | 2.0                        | 0.5   | 0.5               | 0.5            | 2.0                      | 2.0            | 2.1                          | 2.0            | <0.5                         | 2.0            | 0.5      | 1.59                                   | No Limit   |
| Nitrate (as N)                            | EPA 300.0                   | milligrams/L | 0.5                        | 0.5   | 0.5               | 0.5            | 0.5                      | 0.5            | <0.5                         | <0.5           | <0.5                         | <0.5           | <0.5     | 0.50                                   | No Limit   |
| Oil and Grease                            | EPA 1664                    | milligrams/L | 1.0                        | 5.0   | 5.0               | 5.0            | 1.0                      | 5.0            | <5                           | <5             | <5                           | 0.0            | 2.60     | 25.00/75                               |  |
| Phosphorus (as P) Total                   | EPA 365.3                   | milligrams/L | 0.05                       | 0.05  | 0.05              | 0.05           | 0.30                     | 0.30           | <0.05                        | 0.30           | 0.44                         | 0.00           | 0.12     | 0.12                                   | No Limit   |
| <b>Radioactivity</b>                      |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| Total Alpha Radium (226)                  | EPA 900.0                   | picouries/L  | 202                        | 320   | 271               | 271            | 202                      | 202            | 765                          | 202            | 601                          | 202            | 0        | 334                                    | No Limit   |
| Total Alpha Radium (228)                  | EPA 900.0                   | picouries/L  | 0.194                      | 0.314 | 0.852             | 0.852          | 0.194                    | 0.194          | 0.128                        | 0.194          | 0.312                        | 0.194          | 0.000    | 0.145                                  | No Limit   |
| Sulfate                                   | EPA 200.0                   | milligrams/L | NA                         | NA    | NA                | NA             | NA                       | NA             | NA                           | NA             | NA                           | NA             | NA       | NA                                     | No Limit   |
| Sulfide                                   | SM 4500 S2 D                | milligrams/L | <0.1                       | <0.1  | <0.1              | <0.1           | <0.1                     | <0.1           | <0.1                         | <0.1           | <0.1                         | <0.1           | <0.1     | <0.1                                   | No Limit   |
| Sulfite                                   | SM 4500 S03                 | milligrams/L | <2                         | <2    | <2                | <2             | <2                       | <2             | <2                           | <2             | <2                           | <2             | <2       | <2                                     | No Limit   |
| Surfactants                               | SM 5540 C                   | milligrams/L | 0.13                       | 0.05  | 0.11              | 0.11           | 0.13                     | 0.13           | 0.06                         | 0.13           | 0.11                         | 0.00           | 0.09     | 0.09                                   | No Limit   |
| Aluminum                                  | EPA 200.8                   | milligrams/L | 11                         | 15    | 10                | 10             | 16                       | 16             | 0.024                        | 16             | 2.6                          | 0.60           | 5.97     | 5.97                                   | No Limit   |
| Barium                                    | EPA 200.8                   | micrograms/L | 5.8                        | 7.5   | 4.4               | 4.4            | 15                       | 15             | 15                           | 6              | 20                           | 0              | 8.67     | 8.67                                   | No Limit   |
| Cobalt                                    | EPA 200.8                   | micrograms/L | 1.4                        | 0.88  | 0.9               | 0.9            | 1.4                      | 1.4            | 2.5                          | 1.4            | 2.3                          | 0.1            | 1.55     | 1.55                                   | No Limit   |
| Iron                                      | EPA 200.7                   | milligrams/L | <0.04                      | <0.04 | <0.04             | <0.04          | <0.04                    | <0.04          | <0.04                        | 12             | 22                           | 0.05           | 4.53     | 4.53                                   | No Limit   |
| Magnesium                                 | EPA 200.7                   | milligrams/L | 1600                       | 1000  | 1100              | 1100           | 1600                     | 1600           | 3100                         | 1600           | 1400                         | 80             | 1565     | 1565                                   | No Limit   |
| Mercury                                   | EPA 200.8                   | micrograms/L | 12                         | 8.5   | 8.5               | 8.5            | 12                       | 12             | 28                           | 12             | 14                           | 1              | 11.78    | 11.78                                  | No Limit   |
| Manganese                                 | EPA 200.8                   | micrograms/L | 9                          | 4.3   | 6.6               | 6.6            | 17                       | 17             | <2.5                         | <2.5           | <2.5                         | <2.5           | 8.37     | 8.37                                   | No Limit   |
| Tin                                       | EPA 200.8                   | micrograms/L | <2.5                       | <2.5  | <2.5              | <2.5           | <2.5                     | <2.5           | <2.5                         | <2.5           | <2.5                         | <2.5           | <2.5     | <2.5                                   | No Limit   |
| Titanium                                  | EPA 200.7                   | micrograms/L | <10                        | <10   | <10               | <10            | <10                      | <10            | <10                          | <10            | <10                          | <10            | <10      | <10                                    | No Limit   |
| <b>SECTION 1</b>                          |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| Antimony                                  | EPA 200.8                   | micrograms/L | <5                         | <5    | <5                | <5             | <5                       | <5             | <5                           | <5             | <5                           | <5             | <5       | <5                                     | No Limit   |
| Beryllium                                 | EPA 200.8                   | micrograms/L | <0.3                       | <0.3  | <0.3              | <0.3           | <0.3                     | <0.3           | <0.3                         | <0.3           | <0.3                         | <0.3           | <0.3     | <0.3                                   | 0.03   |
| Chromium, total                           | EPA 200.8                   | micrograms/L | <5                         | <5    | <5                | <5             | <5                       | <5             | <5                           | <5             | 9                            | <5             | <5       | 1.08/0.20/0.0                          |  |
| Lead                                      | EPA 200.8                   | micrograms/L | 1.5                        | <1    | <1                | <1             | 1.5                      | 1.5            | <1                           | 1.5            | 2.6                          | 0.08           | 1.38     | 1.38                                   | 1.08/0.20/0.0  |
| Nickel                                    | EPA 200.8                   | micrograms/L | 14                         | 14.0  | 14.0              | 14.0           | 14                       | 14             | 19                           | 21             | 21                           | 1              | 13.39    | 13.39                                  | 5.0/20.0/50.0  |
| Silver                                    | EPA 200.8                   | micrograms/L | 5.0                        | 5.0   | 5.0               | 5.0            | 5.0                      | 5.0            | <0.5                         | 5.0            | <0.5                         | <0.5           | 5.00     | 0.72/57.0                              |  |
| Zinc                                      | EPA 200.8                   | micrograms/L | 34                         | 10    | 10                | 10             | 34                       | 34             | 10                           | 45             | 45                           | 17.00          | 23.94    | 20.0/80.0/100.0                        |  |
| <b>Phenols (see individual phenolics)</b> |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| Arsenic                                   | EPA 200.8                   | micrograms/L | <2                         | <2    | <2                | <2             | <2                       | <2             | <2                           | <2             | 0                            | 27             | <2       | 832/80                                 |  |
| Cadmium                                   | EPA 200.8                   | micrograms/L | 0.6                        | 0.6   | 0.6               | 0.6            | 0.6                      | 0.6            | <0.5                         | 2.0            | 0.6                          | <0.5           | 0.6      | 1.04/0.10/0.0                          |  |
| Copper                                    | EPA 200.8                   | micrograms/L | 6                          | 6     | 6                 | 6              | 6                        | 6              | <2                           | 10             | 4                            | 10.00          | <2       | 3.0/12.0/30.0                          |  |
| Mercury                                   | EPA 246.1                   | micrograms/L | 0.1                        | 0.1   | 0.1               | 0.1            | 0.1                      | 0.1            | <0.2                         | 0.2            | 0.1                          | <0.2           | 0.1      | 0.04/0.16/0.4                          |  |
| Selenium                                  | EPA 200.8 H                 | micrograms/L | <0.2                       | <0.2  | <0.2              | <0.2           | <0.2                     | <0.2           | <0.4                         | <0.4           | <0.4                         | <0.4           | <0.4     | 15.0/60.0/150.0                        |  |
| Thallium                                  | EPA 200.8                   | micrograms/L | <0.5                       | <0.5  | <0.5              | <0.5           | <0.5                     | <0.5           | <2.5                         | <0.5           | <0.5                         | <0.5           | <0.5     | 2.0/0.4/0.1/0.0                        |  |
| Cyanide                                   | SM 4500 CN E                | milligrams/L | <0.02                      | <0.02 | <0.02             | <0.02          | <0.02                    | <0.02          | <0.05                        | 0.01           | <0.02                        | <0.05          | <0.02    | 1.04/0.10/0.0                          |  |
| <b>SECTION 2</b>                          |                             |              |                            |       |                   |                |                          |                |                              |                |                              |                |          |  |  |
| 2,3,7,8-TCDF                              |                             | picograms/L  | ND                         | ND    | ND                | ND             | ND                       | ND             | ND                           | ND             | ND                           | ND             | ND       | ND                                     | No Limit   |



ATTACHMENT "B"

PALJARO SUNNY MESA PILOT SEAWATER DESALINATION PLANT  
INTAKE AND WASTE STREAM DISCHARGE WATER QUALITY

| ANALYTE                          | DESAL PLANT INTAKE SEAWATER | INTERMITTENT WASTE STREAMS |                      | CONTINUOUS WASTE STREAMS |                              |                              | TOTAL DESAL PLANT DISCHARGE Worst Case | Ocean Plan WQ Objective 6-Month avg./ Daily Max/ No Limit |
|----------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|------------------------------|------------------------------|--|---|
|                                  |                             | CLEANING SOLUTION #1       | CLEANING SOLUTION #2 | RO CONCENTRATE           | SEDIMENTATION TANK RESIDUALS | PRETREATMENT FILTER BACKWASH |  |   |
| Azobenzene                       | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Phenrene                         | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Hexachlorobutadiene              | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Hexachloroethane                 | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Isochlorane                      | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Nitrobenzene                     | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | 4.9 (30-day avg.)   |
| N-nitrosodipropylamine           | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Phenanthrene                     | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| 1,2,4-Trichlorobenzene           | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| PESTICIDES                       |                             |                            |                      |                          |                              |                              |  |   |
| Aldrin                           | <0.05                       | <0.075                     | <0.075               | <0.075                   | <0.075                       | <0.075                       | <0.075                                 | 0.00027 (30-day avg.)                                     |
| BHC-alpha                        | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| BHC-beta                         | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| 4,4'-DDD                         | <0.02                       | <0.02                      | <0.02                | <0.02                    | <0.02                        | <0.02                        | <0.02                                  | No Limit  |
| 4,4'-DDT                         | <0.02                       | <0.02                      | <0.02                | <0.02                    | <0.02                        | <0.02                        | <0.02                                  | No Limit  |
| Endosulfan I                     | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| Endosulfan II                    | <0.10                       | <0.10                      | <0.10                | <0.10                    | <0.10                        | <0.10                        | <0.10                                  | No Limit  |
| Endosulfan sulfate               | <0.10                       | <0.10                      | <0.10                | <0.10                    | <0.10                        | <0.10                        | <0.10                                  | No Limit  |
| Endrin                           | <0.1                        | <0.1                       | <0.1                 | <0.1                     | <0.1                         | <0.1                         | <0.1                                   | No Limit  |
| Endrin sidechide                 | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| Heptachlor                       | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| Heptachlor epoxide               | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | No Limit  |
| Arochlor (PCBs)                  | <0.1                        | <0.1                       | <0.1                 | <0.1                     | <0.1                         | <0.1                         | <0.1                                   | No Limit  |
| Toxaphene                        | <1                          | <1                         | <1                   | <1                       | <1                           | <1                           | <1                                     | No Limit  |
| BHC-delta                        | <0.5                        | <0.5                       | <0.5                 | <0.5                     | <0.5                         | <0.5                         | <0.5                                   | No Limit  |
| BHC-gamma (Lindane)              | <0.2                        | <0.2                       | <0.2                 | <0.2                     | <0.2                         | <0.2                         | <0.2                                   | No Limit  |
| Chlordane-alpha                  | <0.1                        | <0.1                       | <0.1                 | <0.1                     | <0.1                         | <0.1                         | <0.1                                   | No Limit  |
| Chlordane-gamma                  | <0.1                        | <0.1                       | <0.1                 | <0.1                     | <0.1                         | <0.1                         | <0.1                                   | No Limit  |
| 4,4'-DDE                         | <0.01                       | <0.01                      | <0.01                | <0.01                    | <0.01                        | <0.01                        | <0.01                                  | No Limit  |
| Dieldrin                         | <0.02                       | <0.02                      | <0.02                | <0.02                    | <0.02                        | <0.02                        | <0.02                                  | No Limit  |
| OTHERS                           |                             |                            |                      |                          |                              |                              |  |   |
| 1-Methylpiperazine               | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| 1-Methylpiperanthrene            | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| 2,3,5-Trimesitylphthalene        | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| 2,4'-DDD                         | <1                          | <1                         | <1                   | <1                       | <1                           | <1                           | <1                                     | No Limit  |
| 2,4'-DDE                         | <1                          | <1                         | <1                   | <1                       | <1                           | <1                           | <1                                     | No Limit  |
| 2,4'-DDT                         | <1                          | <1                         | <1                   | <1                       | <1                           | <1                           | <1                                     | No Limit  |
| 2,4-Dimethylphthalene            | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| 2-Methylphthalene                | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Benzocyclopentene                | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Biphenyl                         | <5                          | <5                         | <5                   | <5                       | <5                           | <5                           | <5                                     | No Limit  |
| Methoxychlor                     | <0.5                        | <0.5                       | <0.5                 | <0.5                     | <0.5                         | <0.5                         | <0.5                                   | No Limit  |
| Mirex                            | <0.02                       | <0.02                      | <0.02                | <0.02                    | <0.02                        | <0.02                        | <0.02                                  | No Limit  |
| Perylene                         | <1.0                        | <1.0                       | <1.0                 | <1.0                     | <1.0                         | <1.0                         | <1.0                                   | No Limit  |
| Polychlorinated biphenyls (PCBs) | <0.05                       | <0.05                      | <0.05                | <0.05                    | <0.05                        | <0.05                        | <0.05                                  | \$5,000 (30-day average)                                  |
| Triaxyltin                       | <0.01                       | <0.01                      | <0.01                | <0.01                    | <0.01                        | <0.01                        | <0.01                                  | No Limit  |
| trans-Nonachlor                  | <0.01                       | <0.01                      | <0.01                | <0.01                    | <0.01                        | <0.01                        | <0.01                                  | No Limit  |

**Update on Moss Landing Power Plant and Pilot Desalination Plants [Peter von Langen 805/549-3688]**

The Moss Landing Power Plant NPDES permit has been on Administrative Extension since October 2005. Water Board staff plans to propose a renewed NPDES for the facility in 2007, after the federal court issues its decision regarding litigation over Clean Water Act Section 316(b) regulations. That decision is expected sometime in late 2006. Also, the existing permit for the Moss Landing Power Plant is still in litigation due to a lawsuit by Voices of the Wetlands. Staff recommends against proposing a renewed Moss Landing Power Plant permit to the Water Board until the courts resolve these issues. In the meantime, the existing NPDES permit is in full regulatory force.

Ms. Madeline Clark of the Elkhorn Slough Coalition requested that staff propose a renewed NPDES permit for the Moss Landing Power Plant sooner, rather than after the courts resolve the lawsuits mentioned above. Communications between staff and Ms. Clark are included here as Attachments 1, 2, and 3. Ms. Clark requests a hearing on the Moss Landing Power Plant permit primarily because a pilot desalination project (proposed by California American Water Company) will utilize the intake and outfall structure of the power plant.

The pilot desalination project will use approximately 0.14 million gallons per day (MGD) of heated seawater from the Moss Landing Power Plant

once-through cooling flow. The pilot desalination project will produce brine and product water, recombine the brine and product water back to its original composition as seawater, and recombine that flow with the much larger Power Plant cooling water flow, which discharges approximately 600 feet offshore of Moss Landing. The average Power Plant discharge flow volume is 540 MGD. The flow volume of the pilot desalination project will be 0.14 MGD, or 0.026% of the Power Plant discharge. The Power Plant discharge and the pilot desalination discharge are permitted separately. Staff is enrolling the pilot desalination discharge under the Water Board's low-threat discharge permit (see item No. X on this agenda).

*Status of State Board and State Lands Commission Policies Regarding Once-through Cooling*

The State Lands Commission adopted a resolution regarding once-through cooling on April 17, 2006 (Attachment 4). The resolution acknowledges the impacts caused by once-through cooling, encourages the use of technologies to reduce the impacts, and requires utilities to be in compliance with the laws and regulations regarding once-through cooling as a condition of lease agreements between the Lands Commission and utilities. The resolution does not prohibit once-through cooling.

The California Ocean Protection Council also adopted a resolution regarding once-through cooling and funded an engineering and operations study of coastal power plants that use once-through cooling. The study will investigate technologies to reduce the impacts of once-through cooling at power plants in California.

State Water Board staff also drafted a policy regarding once-through cooling, and is currently conducting workshops to get public input on the draft policy. The draft policy addresses the scope of assessments that should be done, assessment methods that should be used (based largely on the work done on our power plant projects), and requirements to reduce or offset impacts, including the use of mitigation. State Board staff is also conducting a training workshop for Water Board staff and other agencies regarding the assessment of once-through cooling water impacts, technologies to reduce impacts, and relevant regulations.

Staff will continue to update the Water Board regarding Central Coast Region power plants and once-through cooling issues as they develop.

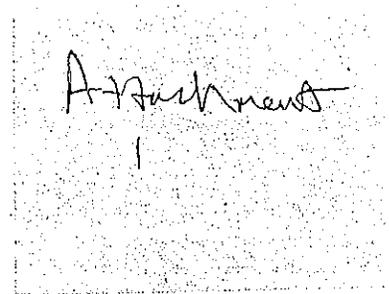
#### **Attachments**

1. Correspondence by email between Ms. Clark and Central Coast Water Board staff
2. March 30, 2006 letter from Central Coast Water Board staff to Ms. Clark
3. June 20, 2006 letter from Central Coast Water Board staff to Ms. Clark
4. Resolution by the California State Lands Commission Regarding Once-Through Cooling in California Power Plants

S:\- Board Meetings\EO Report - staff summaries\MLPP and ML desal plants EO Report 9-06\9-06 EO Report Power Plants and Desalination.doc

Peter von Langen - Re: Duke's Expired NPDES Permit & Desal Discharge

From: Madeleine Clark <madeleine@got.net>  
 To: Peter von Langen <Pvonlangen@waterboards.ca.gov>  
 Date: 3/26/2006 10:14 AM  
 Subject: Re: Duke's Expired NPDES Permit & Desal Discharge  
 CC: <chewitt@waterboards.ca.gov>



Peter:

Easily corrected. Please notify me of future "misunderstandings" in a timely manner, not a month after the fact. Has Pajaro-Sunny Mesa (or Poseidon Resources) been issued a NPDES permit for their pilot desalination project? I'm curious why you didn't notified us about their application or issuance of their permit. Have I been unclear about our desire to be informed about such developments? Please suggest who we should contact in order to obtain information relating to NPDES permits in Moss Landing. I assumed that person was you.

For the record, I also mailed a hard copy of our letter and newspaper articles relating to Duke's expired NPDES permit and desal discharge directly to the water board. Do you think a misunderstanding and corrupt files also prevented them from responding?

Thank you again for your assistance.

Madeleine Clark, Director  
 Elkhorn Slough Coalition  
 (831) 663-3130

on 3/24/06 5:13 PM, Peter von Langen at Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine,  
 Because of corrupt files and a misunderstanding we have not replied to your February 23rd letter. I had not seen the attached February 23rd letter until now and can't read them. It appears that the attachments you sent are corrupted as others are also having difficulty opening them. From your attached email (Re: Desal and Expired NPDES...) it appeared that the only answers that you were waiting for a reply was in regards to your 2/22 email questions. Can you please send us a hard copy of the February 23rd attachments?

Thanks,  
 Peter

>>> Madeleine Clark <madeleine@got.net> 3/24/2006 9:41 AM >>>

Dear Carol:

The enclosed attachments are my letter to the water board and one of the articles sent with my letter (electronic version of original newspaper copy). The following newspaper article was also enclosed with my correspondence. The letter and both articles were sent on February 23, 2006.



the Slough.

<sup>3</sup>We were delighted with the last go around,<sup>2</sup> Clark says. <sup>3</sup>When Duke bought the power plant [from PG&E in 1998] and had to get their first permit in 2000, a lot of things were brought to the public's attention. The old part of the plant used 90 percent of the facility's water. Consequently, because of strong objections, Duke no longer uses the old part of the plant. The impact was too great.<sup>2</sup>

In this go round, when the permit review process begins in five months, Clark says she hopes that the old part of the plant, which is still used as a <sup>3</sup>peaker plant<sup>2</sup> to meet high demands for energy during cold snaps and heat waves, will be permanently mothballed.

David Hicks, a Duke spokesperson, says that there is no correlation between the plant's sale and the expiration of the NPDES permit. <sup>3</sup>Moss is one of eight plants being sold,<sup>2</sup> Hicks says. <sup>3</sup>There are much larger stakes here.<sup>2</sup>

As for the desalination plant, Hicks is optimistic that the sale will not hinder the project. <sup>3</sup>Duke and the new owners will live up to whatever agreements were made,<sup>2</sup> he says. <sup>3</sup>It's safe to say that the pilot plant will go forward as planned.<sup>2</sup>

Clark is quick to point out that her organization is not <sup>3</sup>against<sup>2</sup> the power plant.

<sup>3</sup>We just want to make sure the Elkhorn Slough is protected and whatever is done is done right,<sup>2</sup> she says. <sup>3</sup>That means little or no impact to the Slough. We just want to save the Elkhorn Slough.<sup>2</sup>

Darpan Kapadia, managing director of the LS Power Group, told the Weekly that <sup>3</sup>there's very little or nothing<sup>2</sup> he could say about the transaction or its repercussions other than the fact that the firm is <sup>3</sup>committed to making the transition of assets from Duke to LS Power a smooth one for the employees and the local communities.<sup>2</sup>

**From:** Madeleine Clark <madeleine@got.net>  
**Date:** Tue, 21 Mar 2006 11:51:47 -0800  
**To:** Peter von Langen <Pvonlangen@waterboards.ca.gov>  
**Subject:** Re: Desal and Expired NPDES Permit

Dear Peter:

I've been away and will be leaving again shortly for a trip out of the country. I wish to pursue your (following) response to my concerns and reiterate my request for information

not provided. At your earliest convenience will you review this communication and respond to the several questions left unanswered? I realize how busy you are; **we have to use our limited staff resources efficiently**. A good way to do that is to avoid needless repetition.

An expired permit on administrative extension may be legal, but it is still expired. Therefore, my questions are not moot. Duke is responsible for what comes out of *their* discharge. Throwing Duke's permit into litigation limbo does not exempt them from mandates of the Clean Water Act. The water board staff may have a lot on their plate, but avoiding critical and controversial issues won't make them go away.

Thank you again for your help, Peter. I'll look forward to discussing this with you when I get back on April 3rd. If you don't know the answer, please so state (in bold) after the question and if possible provide me with the person's name who does have the information.

I'm sorry about your grandmother. My prayers are with you.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 3/2/06 2:50 PM, Peter von Langen at Pvonlangen@waterboards.ca.gov wrote:

Madeleine,  
Got your phone messages, sorry for not being able to respond sooner. I was sick last week and my grandmother passed away last Wednesday so have been out of town until yesterday.  
See responses to your email below in **bold**.  
Best Regards,  
Peter

>>> Madeleine Clark <madeleine@got.net> 2/22/2006 12:08 PM >>>  
Peter:

What happens if they fail to contact you? If they do contact you, does the request go before the board or does staff handle it internally? At what point does the public weigh in? If the existing permit is expired, how do you modify it? How is enforcement implemented?

I've contacted several stakeholders and policymakers about our concerns and without exception, people are perplexed that Duke could add brine to their discharge with an expired NPDES permit.

**The Duke permit is officially on administrative extension, and as such, is in full legal force. I was incorrect in my earlier response regarding needing information from the existing permit holder as we plan on issuing desal plants separate permits. Duke will not be responsible for evaluating the effects of the desal discharge, the desal operator will. The discharges will share an outfall, but we will consider them separate discharges. We regulate Santa Cruz and Scotts Valley waste water treatment plants similarly. The brine discharge may or may not be an issue-- it depends on the details, and at this time we don't have the details, to evaluate or**

**respond to. We will review desal discharge proposals and respond accordingly.**

They are baffled as to why the permit isn't being reviewed until the end of the year. In light of the pending proposals for desalination projects tied to Duke's intake and discharge, "automatic administrative extension" is inappropriate. We consider this much too controversial to process without full public disclosure.

**On the subject of the Duke MLPP permit. As we have discussed over the phone, there is no point in renewing the permit now when the 316b regulations are being litigated. We could renew the permit sooner, and leave the 316b regulation issues to the future, but we have to use our limited staff resources efficiently. Renewing the permit sooner, and then renewing again when the 316b issues are resolved is not very efficient.**

**Speculation about a separately permitted brine discharge is not a reason to renew the permit now.**

Help me out here, Peter. We would never want to disseminate misleading or erroneous information about Duke's NPDES permit or your responsibility to make sure Duke (or new owner LS Power) comply with state and federal EPA requirements. Can you bring us up to speed on the protocol, status and timeline regarding this particular permit? "Pending litigation" is a separate issue and doesn't exempt the Regional Water Quality Control Board from due diligence in compelling Duke to review, modify and renew their NPDES permit.

Because there are other power plants in California that have failed to meet 5 year permit renewal guidelines, it doesn't justify such nonperformance for facilities in Monterey County. The Elkhorn Slough National Marine Reserve Estuary is a primary nursery for the Monterey Bay Marine Sanctuary and is integral to the health and well-being of the entire ecosystem.

Once again, thank you for your assistance. It's helpful to have someone we know and trust to provide timely information to stakeholders of impending developments that may impact the Elkhorn Slough. We're grateful that you are that person.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 2/17/06 11:47 AM, Peter von Langen at Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine,

The holder of the NPDES permit will need to send us information in order for us to review their request. We will evaluate each proposal upon receiving the required information and reviewing the existing permits. Thanks for the Herald article, I appreciate the

local info.  
Cheers,  
Peter

>>> Madeleine Clark <madeleine@got.net> 2/14/2006 1:51 PM  
>>>

Dear Peter:

If desalination projects are permitted separately, has Cal Am (or Poseidon) applied for an NPDES permit for their pilot projects in Moss Landing? Are you suggesting they don't need to because they will be able to use Duke's NPDES permit? ("The pilot project flow is extremely small volume compared to the flow covered by the existing MLPP permit on administrative extension.")

It is important to remember that for many years Duke hasn't operated the old part of the power plant that used 90% of the cooling water. What's permitted and what's actually discharged are two different things.

The discharge is 600 feet outside the mouth of the harbor and undoubtedly is a veritable wasteland, even if it is localized.

Generally, all power plant discharge sites suffer from the same ill effects, only most don't have the distinction of being the front door to an estuary that serves as a major nursery to the Monterey Bay Marine Sanctuary. If Duke is allowed to add toxic brine to the mix (keeping in mind that discharged dilution water is miniscule compared to permitted amounts) desalination will add a lot more than insult to injury.

I don't understand. First, both you and Roger Briggs tell me the Duke NPDES permit will be addressed in June. Now you've clarified that it won't be looked at until the end of the year. How do you modify the existing permit without benefit of reviewing the old one, especially the amount of discharge actually available to dilute the brine?

Thank you for your immediate attention to my concerns. I'm attaching an article that appeared in today's Monterey County Herald regarding county permitting for the pilot desal projects in Moss Landing. You might have an interest in what is happening on a local level.

Best regards and Happy Valentine's Day.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 2/10/06 1:45 PM, Peter von Langen at  
Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine,

Sorry that I haven't been able to reply sooner, I have been swamped dealing with many work issues and am not caught up with email. Desalination projects will be permitted separately and the pending litigation should not effect the pilot desalination project. The pilot project flow is extremely small volume compared to the flow covered by the existing MLPP permit on administrative extension. The existing MLPP permit and conditions will transfer to the new owner. Not sure yet how/if the existing permit will be modified by the pilot project? However, the brine will be significantly diluted by the relatively large flow of the MLPP and should not be detectable at the outfall. Sorry, haven't seen anything on the internet but the preliminary thermal effect results showed that effects were localized to within ~50-100 meters of the outfall. Dierdre Hall is the contact at the Monterey Bay NMS. I don't know if the MBNMS has electronic files or a link ready yet?

All the best,  
Peter

Peter von Langen, Ph.D.  
Environmental Scientist  
Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401  
pvonlangen@waterboards.ca.gov  
Phone 805-549-3688  
Fax 805-788-3580

>>> Madeleine Clark <madeleine@got.net> 2/2/2006  
4:22 PM >>>  
Dear Peter:

Thank you for the clarification. Since Cal Am is planning to partner a pilot desal facility with the MLPP very soon, how will the pending litigation and Duke's lack of a current NPDES permit effect their project?

Cal Am is planning on using the same outfall as the MLPP. The existing NPDES permit doesn't include brine discharge from a desal plant.

We are interested in the preliminary thermal effects findings that were shared at the MBNMS meeting in October. I was out of town and unable to attend. Can you email me the preliminary studies or the link, if they're available on the internet?

Thanks for your assistance.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 2/2/06 2:15 PM, Peter von Langen at  
Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine,  
Thank you very much for your email and  
the article regarding the Moss Landing  
Power Plant (MLPP). In October I  
attended a preliminary thermal effects  
results meeting put on by MBNMS.  
Yesterday I ran into Holly Price  
(MBNMS) in Morro Bay at the MLPA  
BRTF meeting. We briefly discussed the  
thermal effects studies and I look forward  
to seeing the final results before we take  
up the permit.  
I wanted to clarify in your email (and in  
the Monterey Weekly article) that the  
MLPP permit wont be taken up until at  
least late in the year. We need to have the  
MLPP lawsuit resolved before taking up  
the MLPP permit. We are aiming at  
taking up the Morro Bay PP permit  
midyear (preliminary July).  
Best Regards,  
Peter

Peter von Langen, Ph.D.  
Environmental Scientist  
Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401  
pvonlangen@waterboards.ca.gov  
Phone 805-549-3688  
Fax 805-788-3580

>>> Madeleine Clark  
<madeleine@got.net> 1/25/2006 1:56 PM  
>>>  
Dear Peter:

The study examining the ecological

effects of the thermal plume from Moss Landing Power Plant is scheduled for completion at the end of February 2006. NOAA investigators have recently collected the last of the data and are in the process of analyzing it. Hopefully, they are still on track to complete the project as scheduled. This monitoring project was financed by Duke as a result of mitigation measures secured during the last permit renewal process.

With the pending sale of Duke Energy and the NPDES permit up for review and renewal in June, this information should be vital in determining additional mitigation measures to protect the Elkhorn Slough from further impacts of the Moss Landing power plant.

We can't thank you enough for your desire to make sure that new ownership means a clean slate and greater influence over mandates that protect the slough. We depend on key players like you to assure the public that LS Power Group won't be allowed to pull a fast one, like Duke did with once-through cooling in 2000 during the "energy crisis."

The following is an article that appeared in the Monterey County Weekly last Thursday. For the many who are concerned about the power plant and the use of cooling water from the Elkhorn Slough, it makes interesting reading. We also forwarded it to the Coalition on Responsible Desal (CORD).

CORD is a dedicated group of individuals and environmental organizations from all over California that includes- among others- Save Our Shores, Friends of the Sea Otter, the Ocean Conservancy and Surfrider Foundation (20,000 members statewide) who have a great interest in what happens at Moss Landing.

We look forward to working closely with the CCRWQCB regarding the renewal of the Moss Landing Power Plant NPDES permit.

Sincerely,

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

**Peter von Langen - Re: Proposed Schedule for Information-MLPP**

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**From:** Madeleine Clark <madeleine@got.net>  
**To:** Peter von Langen <Pvonlangen@waterboards.ca.gov>  
**Date:** 6/19/2006 6:01 PM  
**Subject:** Re: Proposed Schedule for Information-MLPP

---

Dear Peter:

I've heard from several sources that both Pajaro/Sunny Mesa and Cal Am have received permits for their pilot desal plants to discharge brine at the MLPP outfall. Doesn't Pajaro/Sunny Mesa have its own outfall? It is our understanding that Monterey County (environmental health) has not granted P/SM a permit to discharge brine from a pilot project for a number of reasons.

What's the truth? We were told by RWQCB staff that both Cal Am and P/SM had submitted applications, but neither had actually received a permit.

We don't know what to believe. Can you clear this up for us?

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 6/19/06 11:32 AM, Peter von Langen at Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine,  
I checked on the status of the mailing, it should go out tomorrow.  
Regards,  
Peter

>>> Madeleine Clark <madeleine@got.net> 6/16/2006 9:52 AM >>>  
Thanks, Peter. I suspect that we will have this by Monday?  
Have a great weekend.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130

on 6/13/06 1:21 PM, Peter von Langen at Pvonlangen@waterboards.ca.gov wrote:

Dear Madeleine Clark,  
Wanted to give you a quick update that later this week we will mail you a response to your email below.  
Peter

Peter von Langen, Ph.D.  
Environmental Scientist  
Central Coast Water Board

895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401  
pvonlangen@waterboards.ca.gov  
Phone 805-549-3688  
Fax 805-788-3580

>>> Madeleine Clark <madeleine@got.net> 6/8/2006 1:51 PM >>>  
Dear Roger Briggs and Peter von Lagen:

Please consider this a formal request for information regarding the MLPP Proposed Schedule for Information Collection (PIC), as required under the USEPA's Phase II 316(b) regulations. Specifically, please forward us a copy of the schedule set forth under which Duke (or LS Power Group) must undertake and complete studies, including the Comprehensive Demonstration Study (CDS) required by Phase II rules.

If the studies have been completed, please send us a copy via e-mail. If an electronic file is unavailable, we'd like to have a hard copy.

We'd also like to have copies of both Poseidon and Cal Am's desalination pilot plant permit applications to add brine to the MLPP discharge. We'd like to know the status and staff recommendations regarding these applications. Both Poseidon and Cal Am project managers have notified members of the public that applications have been approved and permits were granted by the RWQCB.

Harvey Packard informs us this is not the case. At any rate, please provide us with a status report regarding these applications and any other developments pertaining to the MLPP and desalination in Moss Landing.

Thank you for your assistance.

Madeleine Clark, Director  
Elkhorn Slough Coalition  
(831) 663-3130



# California Regional Water Quality Control Board Central Coast Region



Alan C. Lloyd, Ph.D.  
Agency Secretary

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger  
Governor

March 30, 2006

Ms. Madeleine Clark, Director  
Elkhorn Slough Coalition  
8145 Messick Road  
Prunedale, CA 93907



Dear Ms. Clark:

## CALIFORNIA AMERICAN WATER PROPOSED PILOT DESALINATION PROJECT

This letter is to acknowledge the receipt by the Central Coast Regional Water Quality Control Board (Central Coast Water Board) of your email dated February 23, 2006. Central Coast Water Board staff was unable to open the letter attached to the email until March 24, 2006. This attachment included questions regarding the bearing of California American Water's (Cal Am) proposed pilot desalination project on the Duke Moss Landing Power Plant NPDES Permit. The questions in the attachment were substantially similar to those asked in your February 22, 2006, email to Central Coast Water Board staff, who replied to these questions by email on March 2 and March 23, 2006. We provide this response for additional clarification.

Central Coast Water Board permitting of Cal Am's proposed pilot desalination project has no bearing on the renewal of the permit for the Duke Moss Landing Power Plant. We will process and approve, if appropriate, Cal Am's request for a discharge permit as a project completely separate from the power plant. Since the fresh water produced by the pilot plant will not be used, Cal Am will recombine the fresh water and the brine downstream of the desalination plant, which means that the discharge will not be significantly different from the intake water. The same salt water brought into the plant will be discharged, so the proposed discharge from Cal Am's proposed pilot project will have no measurable effect on the environment.

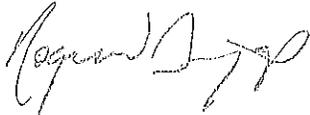
In the attachment, you referred to the administrative extension of the permit for the power plant. You said pending litigation does not exempt the Regional Board from proceeding with permit reissuance. The Duke permit is officially on administrative extension, and as such, is in full legal force. We are waiting for two court cases to be resolved before taking up the permit again. The Voices of the Wetlands case is still not completely resolved and also, we are waiting for the Second Circuit Court of Appeals case to resolve the 316(b) mitigation issue. The latter case should be decided by late 2006. There is no point in renewing the permit now when the 316b regulations are being litigated. We could renew the permit sooner, and leave the 316b regulation issues to the future, but we have to use our limited staff resources efficiently. Renewing the permit sooner, and then renewing again when the 316b issues are resolved is not very efficient.



For your information, the Pajaro-Sunny Mesa Community Services District recently also applied to the Central Coast Water Board for a permit to discharge brine from a pilot desalination plant. The plant will be located on the former National Refractories property, and will use the existing harbor intake and existing outfall to Monterey Bay. The proposed project is similar to Cal Am's, and we expect its effects will be similarly insignificant.

If you have questions, please call Peter von Langen at the Central Coast Water Board (805-549-3688).

Sincerely,



Roger W. Briggs  
Executive Officer

Filename and Path: SANPDES\NPDES Facilities\Monterey Co\Duke Energy Moss Landing\3-06 Response to Madeleine Clark.doc



# California Regional Water Resources Control Board

## Central Coast Region



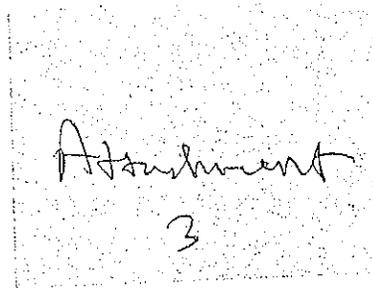
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895 Acrovista Place - Suite 101, San Luis Obispo, CA 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger  
Governor

June 20, 2006

Ms. Madeleine Clark  
Elkhorn Slough Coalition  
8145 Messick Road  
Prunedale, CA 93907



Dear Ms. Clark:

### RE: MOSS LANDING POWER PLANT (MLPP) PROPOSAL FOR INFORMATION COLLECTION AND COMPREHENSIVE DEMONSTRATION STUDY

We are responding to your June 8, 2006 email request. The following outlines our understanding of your June 8 email:

1. You requested information regarding the Moss Landing Power Plant Proposal for Information Collection, as required under the USEPA's Phase II 316(b) regulations. Specifically, you request the schedule by which Duke (or LS Power Group) must undertake and complete the Comprehensive Demonstration Study required by Phase II rules.
2. You requested copies of Poseidon and Cal American's desalination pilot plant permit applications, and asked about the status of these applications and staff's recommendations regarding these applications.

Regarding your first question, a discharger must submit a Proposal for Information Collection and a Comprehensive Demonstration Study (hereafter collectively referred to as CDS) as part of their permit renewal package unless they request an extended date for the submittal (40 CFR § 125.98(a)(1)). Duke Energy requested an extended schedule for submittal of their CDS when we met with them to discuss their permit renewal options last year. The regulations allow the Water Board to set a due date of not later than January 8, 2008, for submittal of the CDS. As we said to Duke Energy staff, our intention is to include a schedule for submittal of the CDS in the draft permit. A CDS contains many elements, most of which have already been submitted to the Water Board as part of the previous permit renewal and Energy Commission Certification process. You are welcome to visit our office and review the previously submitted information, which includes a description of the power plant and its operations, the physical setting, the environmental assessments that were done, and the alternatives analyses. We will provide copies at your request pursuant to the Public Records Act. You may already have copies of this information.

The main thing that has not been submitted is the information associated with LS Power's chosen compliance alternative per the new 316(b) Regulations. LS Power has not chosen one of the five available compliance alternatives because of the federal lawsuit regarding the 316(b) regulations. The 2<sup>nd</sup> Circuit Court heard oral arguments earlier this month, and a decision is expected this fall. As we have explained to you previously, we do not plan to bring a draft permit to the Water Board until we know the Court's decision. LS Power and other utilities cannot realistically choose a compliance alternative without knowing the Court's decision.

Regarding your second question, we have attached the permit applications for the pilot desalination plant from Poseidon Resources Corporation. Staff requested additional information from Poseidon regarding their permit application. Copies of the information requests are also attached. Regional Board staff does not have a complete application from Cal American Water. When we receive the requested information, we will recommend that the Water Board enroll the pilot desalination plants under the Central Coast Water Board General Permit for Discharges with Low Threat to Water Quality. At this point staff does not know the dischargers response to the information requests, so we do not know when the pilot plants will be on the Regional Board agenda. As we previously mentioned to you, status reports regarding the Moss Landing Power Plant and the desalination pilot projects will be on the Water Board's September 2006 agenda, and the meeting will be in Monterey. We would prefer to have the Board consider the desalination plants at this meeting. If so, there will be an opportunity for public comment on these items.

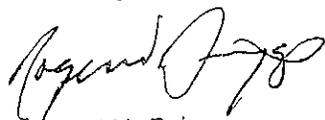
If you would like to review specific documents, please schedule an appointment with us to review our records, and/or contact the California Energy Commission to review their files. It will take Regional Board staff approximately one week to tag the responsive records in our files, pursuant to above items 1 and 2, and have them available for your review and reproduction. We will notify you if the tagged files are available sooner. Please note that you can review Regional Board public records at any time during our regular business hours, 8 a.m. to 5 p.m., Monday through Friday, except for holidays, without waiting for staff to tag the files.

If you want us to make copies, the copying will take an additional week. Any request for copies of 21 pages or more will be made in-house at your expense. We charge the actual cost of copying (cost of making the copies and staff time to make them), which is approximately 10 cents per page. If staff is not available, we will use a copy service; in that case, the cost will be the actual charges by the copy service. If we make the copies in-house, we require payment of copy charges before providing the copies, and will require a deposit of 25% of the estimated cost before making the copies. Alternatively, you can arrange to bring in a bonded copy service to make the copies for you, or we can send the copies to a bonded copy service of your choice as long as you make arrangements for direct payment with the copy service.

Our Public Records Act guidelines are available at:  
[http://www.waterboards.ca.gov/public\\_records/public\\_recordsact\\_guidelines.pdf](http://www.waterboards.ca.gov/public_records/public_recordsact_guidelines.pdf).

If you have questions, please contact Peter von Langen at 805-549-3688 or [pvonlangen@waterboards.ca.gov](mailto:pvonlangen@waterboards.ca.gov) or Michael Thomas at 805-542-4623 or [mthomas@waterboards.ca.gov](mailto:mthomas@waterboards.ca.gov).

Sincerely,



Roger W. Briggs  
Executive Officer

Attachments:  
Pilot Desalination Plant Application from Poseidon Resources Corporation

cc:

Lee Genz  
LSP Moss Landing, LLC  
P.O. Box 690  
Moss Landing, CA 95039-0690

S:\Seniors\Shared\NPDES\NPDES Facilities\Monterey Co\Duke Energy Moss Landing\PERMIT RENEWAL 2005\6-06 letter to Madeleine Clark.doc



CALIFORNIA STATE  
LANDS COMMISSION

CRUZ M. BUSTAMANTE, *Lieutenant Governor*  
STEVE WESTLY, *Controller*  
MICHAEL C. GENEST, *Director of Finance*



EXECUTIVE OFFICE  
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(916) 574-1800 Fax (916) 574-1810  
California Relay Service TDD Phone 1-800-735-2929  
Voice Phone 1-800-735-2922

**RESOLUTION BY THE CALIFORNIA STATE LANDS COMMISSION REGARDING  
ONCE-THROUGH COOLING IN CALIFORNIA POWER PLANTS**

**WHEREAS**, The California State Lands Commission (Commission) and legislative grantees of public trust lands are responsible for administering and protecting the public trust lands underlying the navigable waters of the state, which are held in trust for the people of California; and

**WHEREAS**, the public trust lands are vital to the recreational, economic and environmental values of California's coast and ocean; and

**WHEREAS**, the Commission has aggressively sought correction of adverse impacts on the biological productivity of its lands including, litigation over contamination off the Palos Verdes Peninsula and at Iron Mountain, the adoption of best management practices for marinas and litigation to restore flows to the Owens River; and

**WHEREAS**, California has twenty-one coastal power plants that use once-through cooling, the majority of which are located on bays and estuaries where sensitive fish nurseries and populations exist for many important species, including species important to the commercial and recreational fishing industries; and

**WHEREAS**, these power plants are authorized to withdraw and discharge approximately 16.7 billion gallons of ocean, bay and Delta water daily; and

**WHEREAS**, once-through cooling significantly harms the environment by killing large numbers of fish and other wildlife, larvae and eggs as they are drawn through the screens and other parts of the power plant cooling system; and

**WHEREAS**, once-through cooling also significantly adversely affects marine, bay and estuarine environments by raising the temperature of the receiving waters, and by killing and displacing wildlife and plant life; and

**WHEREAS**, various studies have documented the harm caused by once-through cooling including one study that estimated that 2.2 million fish were annually ingested into eight southern California power plants during the late 1970s and another that estimated that 57 tons of fish were killed annually when all of the units of the San Onofre Nuclear Generating Station were operating; and

Attachment  
4

*WHEREAS*, the public trust doctrine must be acknowledged and respected by the Commission in all of the Commission's work, thus, the least environmentally harmful technologies must be encouraged and supported by the Commission; and,

*WHEREAS*, once-through cooling systems adversely affect fish populations used for subsistence by low-income communities and communities of color thereby imposing an undue burden on these communities and

*WHEREAS*, regulations adopted under Section 316(b) of the federal Clean Water Act recognize the adverse impacts of once-through cooling by effectively prohibiting new power plants from using such systems, and by requiring existing facilities to reduce impacts by up to 90-95%; and

*WHEREAS*, state law under the Porter-Cologne Water Quality Control Act requires the state to implement discharge controls that protect the beneficial uses of the waters and habitats affected by once-through cooling; and

*WHEREAS*, alternative cooling technologies and sources of cooling water, such as the use of recycled water, are readily available, as witnessed by their widespread use at inland power plants and many coastal plants nationwide; and

*WHEREAS*, the Governor's Ocean Action Plan calls for an increase in the abundance and diversity of aquatic life in California's oceans, bays, estuaries and coastal wetlands, a goal which can best be met by prohibiting, phasing out, or reducing to insignificance the impacts of once-through cooling; and

*WHEREAS*, members of the California Ocean Protection Council have called for consideration of a policy at its next meeting to discourage once-through cooling; and

*WHEREAS*, the California Energy Commission and the State Water Resources Control Board have authority and jurisdiction over the design and operation of power plants and are conducting studies into alternatives to once-through cooling, such as air cooling, cooling with treated wastewater or recycled water and cooling towers; and

*WHEREAS*, in its 2005 Integrated Energy and Policy Report, the California Energy Commission adopted a recommendation to work with other agencies to improve assessment of the ecological impacts of once-through cooling and to develop a better approach to the use of best-available retrofit technologies; and

*WHEREAS*, it is premature to approve new leases or extensions, amendments or modifications of existing leases to include co-located desalination facilities or other uses of once-through cooling water systems until first considering whether the desalination facility would adversely affect compliance by the power plant with requirements imposed to implement both the federal Clean Water Act Section 316(b) requirements and any additional requirements imposed by the State Water Resources Control Board and appropriate Regional Water Quality Control Board under state law and their delegated Clean Water Act authority; and

**WHEREAS**, at many locations, there are alternative, feasible and available subsurface seawater intake technologies and practices for coastal desalination facilities that do not rely on surface seawater intakes used for once-through cooling; and

**WHEREAS**, the elimination, or reduction to insignificance of the adverse environmental impacts, of once-through cooling technologies can be accomplished without threatening the reliability of the electrical grid; therefore, be it

**RESOLVED**, by the **California State Lands Commission** that it urges the California Energy Commission and the State Water Resources Control Board to expeditiously develop and implement policies that eliminate the impacts of once-through cooling on the environment, from all new and existing power plants in California; and be it further

**RESOLVED**, that as of the date of this Resolution, the Commission shall not approve leases for new power facilities that include once-through cooling technologies; and be it further

**RESOLVED**, that the Commission shall not approve new leases for power facilities, or leases for re-powering existing facilities, or extensions or amendments of existing leases for existing power facilities, whose operations include once-through cooling, unless the power plant is in full compliance, or engaged in an agency-directed process to achieve full compliance, with requirements imposed to implement both Clean Water Act Section 316(b) and California water quality law as determined by the appropriate agency, and with any additional requirements imposed by state and federal agencies for the purpose of minimizing the impacts of cooling systems on the environment, and be it further

**RESOLVED**, that the Commission shall include in any extended lease that includes once-through cooling systems, a provision for noticing the intent of the Commission to consider re-opening the lease, if the appropriate agency has decided, in a permitting proceeding for the leased facility, that an alternative, environmentally superior technology exists that can be feasibly installed, and that allows for continued stability of the electricity grid system, or if state or federal law or regulations otherwise require modification of the existing once-through cooling system; and, be it further

**RESOLVED**, that the Commission calls on public grantees of public trust lands to implement the same policy for facilities within their jurisdiction; and be it further

**RESOLVED**, that the Commission's Executive Officer transmit copies of this resolution to the Chairs of the State Water Resources Control Board, the California Energy Commission, and the California Ocean Protection Council, all grantees, and all current lessees of public trust lands that utilize once-through cooling.

Adopted by the California State Lands Commission on April 17, 2006



## **ATTACHMENT 3**



# California Regional Water Quality Control Board

## Central Coast Region



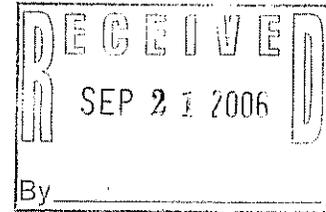
Linda S. Adams  
Secretary for  
Environmental Protection

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger  
Governor

September 18, 2006

John C. Klein  
California American Water  
50 Ragsdale Drive, Suite 100  
Monterey, CA 93942



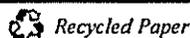
Dear Mr. Klein:

### TEMPORARY DESALINATION PILOT PLANT; ENROLLMENT IN GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR DISCHARGES WITH LOW THREAT TO WATER QUALITY, CALIFORNIA AMERICAN WATER, MONTEREY COUNTY --ORDER NO. 01-119

We reviewed your July 26, 2006 *Notice of Intent to Comply with the Terms of the General Permit for Discharges with Low Threat to Water Quality (NPDES Permit No. CAG993001, WDR Order No. 01-119)*, and other information you provided. According to the information, you propose to construct a pilot seawater desalination plant on property owned by Duke Energy in Moss Landing, Monterey County and to operate the plant for up to one year. You project that the desalination plant will discharge an average of 0.14 million gallons per day (MGD) of combined waste desalination brine and product water. You propose to combine this discharge with 200-1200 MGD of LS Power's once-through cooling water, which is regulated by Waste Discharge Requirements Order No. 00-041, and discharge the combined flows to the Pacific Ocean through LS Power's existing outfall-diffuser system. You propose to control pH, solids concentrations, chlorine residual concentrations and scaling by adding small quantities of inorganic chemicals to the discharge and by treating the desalination feed water via microfiltration. Waste Discharge Requirements Order No. 00-041, which the Central Coast Water Board issued in 2000, establishes waste discharge requirements that protect the Pacific Ocean's beneficial uses from existing and threatened adverse effects posed by the wastewater discharge from the Moss Landing Power Plant.

The large flow of once-through cooling water will render insignificant the adverse effects of the chemical additives on ocean water quality. Due to the low threat of the pilot plant discharge to the water quality of the Pacific Ocean, the *General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges with Low Threat to Water Quality (General Permit), Order No. 01-119* applies, your general permit fee of \$1,185 (CALIFORNIA CODE OF REGULATIONS, TITLE 23, Division 3, Chapter 9, Article 1, Section 2200(b)(9), category 3 with 18.5% surcharge) has been received, and you are hereby enrolled. You may obtain a copy of Order No. 01-119 from the Internet at <http://www.swrcb.ca.gov/rwqcb3/Permits/Index.htm>

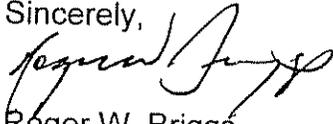
*California Environmental Protection Agency*



Please note that Regional Board staff has modified the Monitoring and Reporting Program (MRP) No. 01-119 for Discharges with Low Threat to Water Quality to be more applicable to your expected discharge. The revised MRP is attached to this letter.

If you have questions or comments, please call **Peter von Langen at 805-549-3688** ([pvonlangen@waterboards.ca.gov](mailto:pvonlangen@waterboards.ca.gov)) or Harvey Packard at (805) 542-4639.

Sincerely,



Roger W. Briggs  
Executive Officer

Cc:

Brad Damitz  
Monterey Bay National Marine Sanctuary  
299 Foam Street  
Monterey, CA 93940

Deirdre Hall  
Monterey Bay National Marine Sanctuary  
299 Foam Street  
Monterey, CA 93940

Shandell Frank  
Associate Planner  
County of Monterey  
168 W. Alisal - Second Floor  
Salinas, CA 93907

Mr. Tom Luster  
California Coastal Commission  
45 Fremont St., Suite 2000  
San Francisco, CA 94105

James M. Brezack  
Vice President, RBF Consulting  
500 Ygnacio Valley Road, Ste. 270  
Walnut Creek, CA 94596-3847

Sarah Hardgrave  
Associate Planning Services  
RBF Consulting  
3180 Imjin Road, Suite 110  
Marina, CA 93933

James White  
Manager, Health Safety and the Environment  
LS Power Generation  
1290 Embarcadero Rd  
Morro Bay, Ca 93442

S:\NPDES\NPDES Facilities\Monterey Co\\_Low Threat Discharge General Permit, 01-119\Cal-Am Water. Moss Landing\Enrollment letter.doc

Enclosure: Monitoring And Reporting Program No. 01-119 for Discharges With Low Threat To Water Quality General Permit No. CAG993001, Revised For Cal-Am Water

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**MONITORING AND REPORTING PROGRAM NO. 01-119  
FOR  
DISCHARGES WITH LOW THREAT TO WATER QUALITY  
GENERAL PERMIT NO. CAG993001**

**Revised For California American Water Pilot Desalination Plant At The LS Power,  
Moss Landing Power Plant, Monterey County**

California American Water Company (hereafter Discharger), an entity regulated under General NPDES Permit No. CAG993001, shall comply with the following requirements for discharges associated with the pilot desalination plant:

**A. DISCHARGE MONITORING**

1. The Discharger shall establish an effluent sample point to obtain representative samples of the combined cooling water discharge, waste desalination brine and product water (hereafter discharge) as follows:

| Constituents/Parameters          | Units    | Type of Sample | Minimum Frequency of Sampling and Analysis |
|----------------------------------|----------|----------------|--|
| Average Daily Flow Rate          | MGD      | Measured       | Daily                                      |
| Peak Daily Flow Rate             | GPM      | Measured       | Daily                                      |
| Brine Average Daily Flow Rate    | MGD      | Measured       | Daily                                      |
| Brine Peak Daily Flow Rate       | GPM      | Measured       | Daily                                      |
| pH                               | pH Units | Grab           | Monthly                                    |
| Settleable Solids                | mL/L     | Grab           | Monthly                                    |
| Total Dissolved Solids           | mg/L     | Grab           | Monthly                                    |
| Oil and Grease                   | mg/L     | Grab           | Monthly                                    |
| Temperature                      | °F       | Grab           | Monthly                                    |
| Color                            | Units    | Grab           | Monthly                                    |
| Turbidity                        | NTU      | Grab           | Monthly                                    |
| Specified antiscaling compound   | mg/L     | Grab           | Monthly                                    |
| Specified anticorrosion compound | mg/L     | Grab           | Monthly                                    |
| Dissolved Oxygen                 | mg/L     | Grab           | Monthly                                    |

| Constituents/Parameters | Units | Type of Sample | Minimum Frequency of Sampling and Analysis |
|-------------------------|-------|----------------|--|
| Arsenic                 | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Cadmium                 | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Chromium (Hexavalent)   | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Copper                  | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Lead                    | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Mercury                 | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Nickel                  | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Selenium                | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |
| Silver                  | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)       |

| Constituents/Parameters            | Units | Type of Sample | Minimum Frequency of Sampling and Analysis     |
|------------------------------------|-------|----------------|--|
| Zinc                               | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)           |
| Cyanide                            | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)           |
| Ammonia                            | µg/L  | Grab           | Semiannually (Dry Season/Wet Season)           |
| Non-Chlorinated Phenolic Compounds | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chlorinated Phenolic Compounds     | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Endosulfan                         | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Endrin                             | µg/L  | Grab           | One time during the permit period (Wet Season) |
| HCH                                | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Acrolein                           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Antimony                           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Bis(2-chloroethoxy) methane        | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Bis(2-chloroisopropyl) ether       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chlorobenzene                      | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chromium III                       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Di-n-butly phthalate               | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Dichlorobenzenes                   | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Diethyl phthalate                  | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Dimethyl phthalate                 | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 4,6-dinitro-2-methylphenol         | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 2,4-dinitrophenol                  | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Ethylbenzene                       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Fluoranthene                       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Hexachlorocyclopentadine           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Nitrobenzene                       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Thallium                           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Toluene                            | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,1,1-trichloroethane              | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Tributyltin                        | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Acrylonitrile                      | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Aldrin                             | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Benzene                            | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Benzidine                          | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Beryllium                          | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Bis(2-chloroethyl) ether           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Bis(2-ethylhexyl) phthalate        | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Carbon tetrachloride               | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chlordane                          | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chlorodibromomethane               | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Chloroform                         | µg/L  | Grab           | One time during the permit period (Wet Season) |
| DDT                                | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,4-dichlorobenzene                | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 3,3'-dichlorobenzidine             | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,2-dichloroethane                 | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,1-dichloroethylene               | µg/L  | Grab           | One time during the permit period (Wet Season) |

| Constituents/Parameters   | Units | Type of Sample | Minimum Frequency of Sampling and Analysis     |
|---------------------------|-------|----------------|--|
| Dichlorobromomethane      | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Dichloromethane           | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,3-dichloropropene       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Dieldrin                  | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 2,4-dinitrotoluene        | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,2-diphenylhydrazine     | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Halomethanes              | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Heptachlor                | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Heptachlor epoxide        | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Hexachlorobenzene         | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Hexachlorobutadiene       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Hexachloroethane          | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Isophorone                | µg/L  | Grab           | One time during the permit period (Wet Season) |
| N-nitrosodimethylamine    | µg/L  | Grab           | One time during the permit period (Wet Season) |
| N-nitrosodi-N-propylamine | µg/L  | Grab           | One time during the permit period (Wet Season) |
| N-nitrosodiphenylamine    | µg/L  | Grab           | One time during the permit period (Wet Season) |
| PAHs                      | µg/L  | Grab           | One time during the permit period (Wet Season) |
| PCBs                      | µg/L  | Grab           | One time during the permit period (Wet Season) |
| TCDD Equiv.               | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,1,2,2-tetrachloroethane | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Tetrachloroethylene       | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Toxaphene                 | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Trichloroethylene         | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 1,1,2-trichloroethane     | µg/L  | Grab           | One time during the permit period (Wet Season) |
| 2,4,6-trichlorophenol     | µg/L  | Grab           | One time during the permit period (Wet Season) |
| Vinyl chloride            | µg/L  | Grab           | One time during the permit period (Wet Season) |

**B. SAMPLING AND ANALYSIS REQUIREMENTS:**

Sampling and analysis shall be in accordance with the following:

1. All sampling, sample preservation, and analysis shall be performed in accordance with the latest edition of 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants"; promulgated by the United States Environmental Protection Agency, unless otherwise noted. In addition, the Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136.
2. All monitoring reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22 and Standard Provisions 13 and 14.
3. All analyses, except those field measurements mentioned in Section A above, shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Executive Officer of the Regional Board.
4. All analytical data shall be reported with method detection limits (MDLs) and with identification of either practical quantitation levels (PQLs) or limits of quantitation (LOQs).
5. Wet Season monitoring in Moss Landing Harbor is intended to measure water chemistry signals that are contributed by storm water and agricultural runoff. Wet Season sampling shall be done during a significant rain event between October 15<sup>th</sup> and April 15<sup>th</sup> each year when intake surface water samples exhibit fresh to brackish water salinity levels.

6. Sampling stating "One time during the permit period" should occur during the first Wet Season as defined above. If parameters do not exceed Water Quality Objectives from Table B of the Ocean Plan, one-time monitoring will be deemed satisfactory. If Water Quality Objectives are exceeded, these parameters shall be monitored during the next Wet Season (if permit still in effect).

### **C. REPORTING**

Reporting of monitoring data shall be in accordance with the following:

1. A report shall be submitted annually by August 15 and within 45 days after completion of the pilot test. The report shall contain at a minimum the results from the monitoring specified above.
2. Monitoring data shall be arranged in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to clearly illustrate whether the discharge complies with waste discharge requirements.
3. A letter, signed in accordance with Standard Provisions 12 and 13, certifying compliance with this General Permit, shall be submitted with the annual monitoring report.
4. The Discharger shall deliver a copy of each monitoring report in the appropriate format to:

**California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401**

5. Notifications. The regulations for the Monterey Bay National Marine Sanctuary at 15 CFR Part 922.132 prohibit discharges from within the boundaries of the MBNMS. Discharges occurring outside the MBNMS that subsequently enter and injure Sanctuary resources or qualities are similarly prohibited. In order to protect the health of the MBNMS, the permittee must immediately notify the MBNMS office at 888-902-2778 for any spills that are likely to enter ocean waters. In addition to facilitating potential enforcement investigations, the MBNMS seeks to track this information in order to evaluate existing and direct the implementation of new management measures. All correspondence shall be sent to the individual listed below:

**Permit Coordinator  
Monterey Bay National Marine Sanctuary  
299 Foam Street Monterey, CA 93940**

6. The Discharger shall ensure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Executive Officer. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling, and/or measurements;
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used;
  - f. All sampling and analytical results;
  - g. All monitoring equipment calibration and maintenance records;
  - h. All original strip charts from continuous monitoring devices;

- i. All data used to complete the application for this general permit; and,
- j. Copies of all reports required by this general permit.

Ordered by:   
Executive Officer

Date: 9-18-06

## ATTACHMENT 4

CALIFORNIA COASTAL COMMISSION

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



Page 1 of 3  
December 19, 2006  
Permits: E-05-005 & A-3-MCO-06-384

**COASTAL DEVELOPMENT PERMIT**

On December 14, 2006, by a vote of 8-4, the California Coastal Commission granted to California-American Water Company, Coastal Development Permits #E-05-005 and A-3-MCO-06-384, subject to the attached standard conditions, for development consisting of:

Construction and operation of a pilot desalination facility.

The development is located in the coastal zone of Monterey County at the Moss Landing Power Plant in Monterey County.

Issued on behalf of the Coastal Commission on December 19, 2006.

PETER DOUGLAS  
Executive Director

A handwritten signature in black ink, appearing to read "Alison Dettmer".

By: ALISON J. DETTMER  
Manager  
Energy, Ocean Resources, and Water Quality

Acknowledgment:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4, which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance... of any permit..." applies to the issuance of this permit.

**IMPORTANT:** THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE (14 Cal. Admin. Code Section 13158(a).)

12/20/06  
Date

John E. Allen  
Signature of Permittee or Representative

**STANDARD CONDITIONS**

1. **Notice of Receipt and Acknowledgment:** This permit is not valid until a copy of the permit is signed by the Permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration:** Construction activities for the proposed project must be initiated within two years of issuance of this permit. This permit will expire two years from the date on which the Commission approved the proposed project if development has not begun. Construction of the 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 at least six months prior to the expiration date.
3. **Interpretation:** Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission (hereinafter, "Executive Director") or the Commission.
4. **Assignment:** The permit may be assigned to any qualified person, provided the 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.

**ATTACHMENT 5**

## CALIFORNIA COASTAL COMMISSION

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



## W6a&6b

|                        |               |
|------------------------|---------------|
| Filed:                 | 11/16/06      |
| 49 <sup>th</sup> Day:  | 1/04/07       |
| 180 <sup>th</sup> Day: | 5/29/07       |
| Staff:                 | Tom Luster-SF |
| Staff Report:          | 11/30/06      |
| Hearing Date:          | 12/14/06      |
| Approved               | 8-4           |
| Revised Findings:      | 1/25/07       |
| Hearing Date:          | 2/15/07       |

**REVISED FINDINGS – CONSOLIDATED STAFF REPORT**  
**DE NOVO HEARING FOR APPEAL AND**  
**COASTAL DEVELOPMENT PERMIT APPLICATION**

**COMMISSION APPEAL NO.:** A-3-MCO-06-384

**APPLICATION FILE NO.:** E-05-005

**LOCAL GOVERNMENT:** County of Monterey

**LOCAL DECISION:** Approval with Conditions, August 29, 2006

**COMMISSION DECISION:** Approval with Conditions, December 14, 2006

**COMMISSIONERS ON PREVAILING SIDE:** Achadjian, Clark, Secord, Kruer, Neely, Padilla, Potter, and Shallenberger.

**APPLICANT/ SITE OWNER:** California-American Water Company / LS Power

**SUBSTANTIAL ISSUE:** On October 12, 2006, the Commission found that the appeals of the local government action on this project raised substantial issue.

**PROJECT DESCRIPTION:** Construction and operation of a test desalination facility.

**PROJECT LOCATION:** Highway 1 and Dolan Road, Moss Landing (Monterey County), on the site of the Moss Landing Power Plant.

**APPELLANTS:** Commissioners Patrick Kruer and Mary Shallenberger

**SUBSTANTIVE FILE DOCUMENTS:** See Appendix A

|                              |  |
|------------------------------|--|
| <b>EXHIBIT 1:</b>            | Location Map   |
| <b>EXHIBIT 2:</b>            | Site Layout  |
| <b>STAFF RECOMMENDATION:</b> | Adoption of Revised Findings for De Novo Permit<br>Adoption of Revised Findings for Regular Permit |

## SUMMARY

**Project Description:** The proposed project is a test desalination facility to be constructed and operated at the Moss Landing Power Plant (MLPP) in Moss Landing. It would be owned and operated by California-American Water Company, and is proposed to operate for up to one year to determine the feasibility of this site and water source for a full-scale desalination facility. The test facility would withdraw up to 288,000 gallons per day of seawater from the power plant's cooling system and would separate, treat, and recombine the water before discharging it back into the power plant's outfall in Monterey Bay.

**Prior Commission Action:** On October 12, 2006, the Commission found that the appeals of the County's issuance of a coastal development permit for the proposed project raised substantial issue regarding conformity to the County Local Coastal Program (LCP). On December 14, 2006, the Commission approved with conditions Coastal Development Permits #A-3-MCO-06-384 and E-05-005 for the proposed project.

**Key Issues:** Recommended findings herein evaluate the proposed project's conformity to Coastal Act and LCP provisions related to public health and welfare, protection of water quality, and protection of marine biological resources.

**Staff Recommendation:** Staff recommends the Commission adopt the following revised findings in support of the Commission's action on December 14, 2006. In that action, the Commission approved Coastal Development Permits A-3-MCO-06-384 and E-05-005 subject to standard conditions.

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## **1.0 RECOMMENDED MOTIONS AND RESOLUTIONS**

### **1.1 MOTION AND RESOLUTION FOR COASTAL DEVELOPMENT PERMIT NO. A-3-MCO-06-384**

Staff recommends the Commission adopt findings set forth herein for Coastal Development Permit No. A-3-MCO-06-384.

#### **Motion**

*I move that the Commission adopt the conditions and revised findings in support of the Commission's action on December 14, 2006 concerning approval of Coastal Development Permit No. A-3-MCO-06-384.*

Staff recommends a **YES** vote. Passage of this motion will result in the adoption of conditions and revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the revised findings hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings. The Commissioners eligible to vote are Commissioners Achadjian, Clark, Secord, Kruer, Neely, Padilla, Potter, and Shallenberger.

#### **Resolution**

*The Commission hereby adopts the conditions and findings set forth below for Coastal Development Permit No. A-3-MCO-06-384 on the ground that the findings support the Commission's decision made on December 14, 2006 and accurately reflect the reasons for it.*

### **1.2 MOTION AND RESOLUTION FOR COASTAL DEVELOPMENT PERMIT NO. E-05-005**

Staff recommends the Commission adopt findings set forth herein for Coastal Development Permit No. E-05-005.

#### **Motion**

*I move that the Commission adopt the conditions and revised findings in support of the Commission's action on December 14, 2006 concerning approval of Coastal Development Permit No. E-05-005.*

Staff recommends a **YES** vote. Passage of this motion will result in the adoption of conditions and revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the revised findings hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the

Commission's action are eligible to vote on the revised findings. The Commissioners eligible to vote are Commissioners Achadjian, Clark, Secord, Krueer, Neely, Padilla, Potter, and Shallenberger.

## **Resolution**

*The Commission hereby adopts the conditions and findings set forth below for Coastal Development Permit No. E-05-005 on the ground that the findings support the Commission's decision made on December 14, 2006 and accurately reflect the reasons for it.*

## **2.0 STANDARD CONDITIONS**

- 1. Notice of Receipt and Acknowledgment:** This permit is not valid until a copy of the permit is signed by the Permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration:** Construction activities for the proposed project must be initiated within two years of issuance of this permit. This permit will expire two years from the date on which the Commission approved the proposed project if development has not begun. Construction of the 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 at least six months prior to the expiration date.
- 3. Interpretation:** Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission (hereinafter, "Executive Director") or the Commission.
- 4. Assignment:** The permit may be assigned to any qualified person, provided the 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.

### **3.0 RECOMMENDED FINDINGS AND DECLARATIONS**

#### **3.1 PROJECT PURPOSE AND DESCRIPTION**

**Project Description:** The proposed project is a test desalination facility to be constructed and operated on the site of the Moss Landing Power Plant (MLPP) in Moss Landing (see Exhibit 1 – Location Map). The facility would be owned and operated by the California-American Water Company (Cal-Am) and would be used to test the effectiveness of various desalination methods and equipment and to assess whether it would be feasible to construct and operate a full-scale seawater desalination facility at the site. Cal-Am has prepared a Proponent’s Environmental Assessment (PEA) as part of its submittal to the California Public Utilities Commission (PUC), which is the CEQA lead agency for the upcoming review of the proposed full-scale facility. The PEA is intended to provide information about the full-scale proposal for the PUC’s use in preparing an Environmental Impact Report.

The facility would consist largely of prefabricated modules covering an approximately 65’ by 100’ area within the developed part of the power plant site (see Exhibit 2 – Site Layout). The proposed test facility would use up to 288,000 gallons per day of seawater pumped from the MLPP once-through seawater cooling system. The power plant generally uses from about 180 million gallons per day up to over a billion gallons per day of seawater to cool its generating units. The proposed test facility would be managed so that it would not operate if the power plant cooling system was not operating.

The facility includes intake pumps with a total capacity of about 200 gallons per minute, pretreatment equipment, various storage tanks, piping and instrumentation systems, cleaning systems, and related equipment. It would process seawater through two parallel pre-treatment trains and reverse osmosis systems. The project includes treatment of the water and equipment with various chemicals, including chlorine, acids, coagulants, polymers, and various cleaning agents. The cleaning agents would be applied to the equipment at different times over the course of operations, with an average of less than 100 gallons per day being discharged to the power plant outfall. The discharge would also include about 100 pounds per day of residual solids from the testing process. Upon completion of the testing processes, the various streams of potable water, brine, and other constituents would be recombined and discharged back into Monterey Bay through the power plant outfall. A part of the waste water containing higher concentrations of cleaning compounds would be disposed of off-site. None of the water would be used for public consumption. The facility is proposed to operate 24 hours a day for up to one year.

#### **3.2 COASTAL COMMISSION JURISDICTION**

**Permit and Appeal Jurisdiction:** Portions of the project are within the jurisdiction of the County of Monterey’s certified Local Coastal Program (LCP) and are subject to a County Coastal Development Permit (CDP). Pursuant to Coastal Act Section 30603(a), portions of the proposed development are also within the Coastal Commission’s appeal jurisdiction, as they are within 300’ of coastal waters and within a sensitive coastal resource area. Part of the proposed project is also within the Commission’s retained jurisdiction and requires a CDP from the Commission.

On August 29, 2006, the County of Monterey Board of Supervisors conditionally approved CDP #PLN040520 for construction and operation of the proposed test desalination facility. On August 31, 2006, the Coastal Commission received the County's Notice of Final Action and associated records to start the 10-working-day appeal period, which ended September 15, 2006. Appeals were filed on September 15, 2006 by Commissioners Kruer and Shallenberger.

**De Novo Appeal Procedures and Standard of Review:** On October 12, 2006, the Coastal Commission determined that appeals of the CDP issued by Monterey County for this proposed development raised substantial issue regarding conformance with the County's certified LCP. As set forth in Section 13115(b) of the California Code of Regulations, the Commission is to then consider the merits of the proposed development in a *de novo* hearing.

The general procedures for Commission action at the *de novo* hearing stage are typically the same as if the coastal development permit application had been submitted directly to the Commission. However, pursuant to Coastal Act Section 30604(b), the standard of review is the certified LCP rather than Chapter 3 of the Coastal Act. Additionally, pursuant to Coastal Act Section 30604(c), the standard of review for development such as is included in this project, proposed to be located between the nearest public road and the sea, also includes the public access and recreation policies of Chapter 3 of the Coastal Act (Sections 30210-30224).

**Commission Decisions:** On December 14, 2006, the Commission, after public hearing, approved CDPs #E-05-005 and A-3-MCO-06-384. The Revised Findings herein support and accurately reflect the Commission's reasons for approval.

**Appellants' Contentions:** In their appeals, the appellants contended that the project as approved by the County does not conform to LCP provisions related to water quality, marine biological resources, and public and environmental health. These issues are addressed in the findings below.

### **3.3 CONFORMITY TO APPLICABLE COASTAL ACT AND CERTIFIED LOCAL COASTAL PROGRAM POLICIES**

#### **3.3.1 Marine Biology and Water Quality**

##### ***3.3.1.1 Applicable Coastal Act and LCP Provisions***

Coastal Act Section 30230 states:

*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.*

Coastal Act Section 30231 states:

*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 waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act Section 30250(a) states:

*New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

Text of the following applicable LCP Provisions is provided in Appendix B:

- LCP Section 20.96 (which incorporates by reference County Ordinance Section 15.22, Discharge of Contaminants Into Waters of the County)
- Section 2.3.3.D of the LCP's North County Land Use Plan

- Section 20.144.070 from the LCP's Coastal Implementation Plan – Regulations for Development in the North County Land Use Plan Area, Water Resource Development
- Section 2.3 of the LCP's North County Land Use Plan
- Section 20.144.040 from the LCP's Coastal Implementation Plan (Regulations for Development in the North County Land Use Plan Area, (Chapter 20.144)
- Section 5.5.2.3 of the LCP's Moss Landing Community Plan

### ***3.3.1.2 Potential Environmental Effects***

The proposed project would use the existing seawater cooling system at the Moss Landing Power Plant. The power plant currently withdraws and discharges from about 180 million to over a billion gallons per day of seawater and estuarine waters from coastal waters, including Moss Landing Harbor, Elkhorn Slough, and Monterey Bay. These waters provide habitat for a number of marine organisms, including several sensitive species.

The proposed project would redirect up to 288,000 gallons per day of the power plant's cooling water flow through its test desalination equipment. That water would be processed, treated, tested, and then recombined and discharged back into the power plant discharge. Because the proposed project would operate only when the power plant's cooling system operates, it would not result in any additional seawater being drawn into the cooling system; however, it would create an additional discharge in the form of various treatment and cleaning chemicals, polymers, coagulants, and other similar water treatment chemicals. Most of these contaminants would be routed to a sanitary sewer system, although some would be discharged through the power plant outfall into the nearby coastal waters.

The proposed project would also result in the intensification of water use in that it would increase the number of uses of the power plant's cooling water. Instead of being used just for electricity generation, the water would additionally be used for desalination and drinking water research and to determine the feasibility of a proposed larger desalination facility at the power plant site.

### ***3.3.1.3 Analysis of Conformity to Applicable Coastal Act and LCP Provisions***

The proposed project is subject to a number of Coastal Act and LCP provisions related to the protection of water quality and marine life. The Coastal Act provisions cited above and applicable to the proposed project require that marine resources be maintained, enhanced, and where feasible, restored. They also require that the marine environment be used in a manner that sustains biological productivity and that the adverse effects of discharges be minimized. The LCP provisions include specific requirements that the project proponent identify potential resource impacts along with mitigation measures to address those impacts.

**Effects of Contaminant Discharge:** The LCP includes requirements meant to limit the discharge of contaminants into coastal waters and to prevent adverse effects to marine life. LCP Section 20.96 incorporates by reference County Ordinance Section 15.22, which prohibits the

discharge of contaminants and pollution into County waters<sup>1</sup>. To determine whether a proposed discharge includes contamination or pollution as defined above, the LCP (at North County Land Use Plan Section 2.3.3.D) requires submittal of a detailed and comprehensive report about the discharge, including its constituents, its likely environmental effects, an assessment of the most suitable discharge method, and other measures. Additionally, LCP Section 20.144.070, which is meant to protect water quality that may be adversely affected by projects such as this involving “intensification of water use”, requires submittal of a hydrologic report prior to County approval. That report is to include descriptions and analyses of local water resource characteristics, possible project alternatives, water conservation measures, and other related issues. The proposed project is also subject to LCP Section 20.144.070.E.16, which requires any applicant for a development that would generate an industrial or commercial discharge submit a monitoring program and an assessment of water quality impacts to public health that may result from the discharge. The submittal is to also include hydrologic reports and biological surveys describing the predicted effects of the discharge on nearby waterbodies and biological resources. These documents are meant to identify potential impacts and possible mitigation measures that may be needed to address those impacts and are to be considered by the County as part of its review and approval of the proposed project. These LCP provisions, therefore, require a determination of whether a discharge would be detrimental to beneficial uses or whether it would unreasonably affect beneficial uses.

The project as approved by the County referred to the information and conclusions of the Proponent’s Environmental Assessment (PEA), which Cal-Am prepared as part of its application to the California PUC to assist in the PUC’s preparation of an Environmental Impact Report. The PEA did not describe the likely effects of the proposed pilot facility, but did evaluate the potential effects of the anticipated and much larger discharges from the full-scale facility. The PEA concluded that the effects caused by the combined discharges of the power plant and the proposed full-scale desalination facility would be minimal. Information provided in the PEA is sufficient to conclude that discharges from the proposed test facility would be much smaller (about 1/50<sup>th</sup> the volume) than those of the proposed full-scale facility, would have very low contaminant concentrations when combined with the power plant discharge, and would likely result in few adverse effects. Additionally, because one of the purposes of the pilot project is to obtain the type of discharge-related information required by the County Health Department, and because of the proposed project’s expected minimal impacts, the Health Department waived the permit requirement of the Land Use Plan’s Section 2.3.3.D. Further, the proposed project will be subject to the monitoring requirements of an NPDES permit issued by the Regional Board. This ongoing monitoring is meant to detect potential impacts and will allow mitigation to be imposed if shown to be necessary.

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<sup>1</sup> Section 15.22 defines “contaminants” as “any physical, chemical, biological, or radiological substance or matter in water, including but not limited to toxic and hazardous chemicals, selenium, pesticides, nutrients, sediments, heavy metals, and trace elements from agricultural drainage water, sewage, and any other waste water in sufficient quantities that will be detrimental to the present and future beneficial users.” It defines “pollution” as “any alteration of the quality of the waters of the County to a degree which unreasonably affects such waters for beneficial uses, or facilities which serve such beneficial uses. Pollution may include contamination.”

Because of the proposed project's design and operational limits, the above-referenced information in the PEA and the NPDES permit monitoring requirements are adequate for conformity to the information required pursuant to LCP Sections 20.96 and 20.144.070.E.16 and Land Use Plan Section 2.3.3.D. Therefore, the project will conform to these sections of the LCP. Further, and based on the above, the proposed project will be designed and operated so that the potential impacts of its discharge will be insignificant and will not require additional mitigation. Therefore, the proposed project includes necessary mitigation measures to reduce potential effects of the discharge, and is consistent with Coastal Act Section 30231 and LCP Section 2.3.3.D.

**Effects on Sensitive Habitat:** The LCP describes the coastal waters that would be affected by the proposed project as sensitive habitat areas. Section 20.144.040 of the LCP's Coastal Implementation Plan requires proposed developments that would be located in or affect these waters to provide, prior to permit approval, a biological survey that describes the potentially affected organisms and habitats, the anticipated impacts of the proposed development, and the recommended measures to mitigate those impacts. Section 5.5.2.3 of the LCP's Moss Landing Community Plan additionally requires that development be the least environmentally damaging alternative and that adverse environmental effects be mitigated to the maximum extent.

As noted previously, the applicant has clarified that the proposed project would not operate when the power plant cooling system was not operating; therefore, it would not cause any additional entrainment beyond what is already caused by the power plant. The pilot project would, however, result in development in the form of a discharge into sensitive habitat. As noted above, the biological assessment in the PEA describes the anticipated effects of the full-scale facility and concludes that the impacts of its discharge would be minimal. The pilot facility would result in discharges of about 1/50<sup>th</sup> of the full-scale facility's discharges and would be expected to cause even fewer, if any, impacts. The PEA's assessment is sufficient to meet the biological survey requirement of LCP Section 20.144.040. Further, because of its design and operational limits and the resulting minimal impacts, the proposed project is also the least environmentally damaging alternative, and therefore complies with Section 5.5.2.3 of the Moss Landing Community Plan.

**Long-Term Effects:** Section 2.3 of the North County Land Use Plan requires that development not establish a precedent for continued development that could cumulatively degrade the sensitive habitat resources of these coastal waters. That section further requires that development adjacent to environmentally sensitive habitats be compatible with the long-term maintenance of these habitats, and that it incorporate all site planning and design features needed to prevent habitat impacts. Section 2.3 additionally requires that development not establish a precedent for continued development that could cumulatively degrade the resource. Coastal Act Section 30250(a) additionally requires that new development be sited where it will not result in significant individual or cumulative impacts on coastal resources.

The proposed facility will operate for only one year, so it will not itself cause long-term adverse effects. The primary purpose of the proposed test facility is to determine whether the power plant site and water source is feasible for use by a full-scale desalination facility. Any proposal to co-locate a desalination facility with a coastal power plant seawater cooling system raises concerns about the effects that would occur when the power plant shuts down its cooling system,

either short-term periods – for maintenance or in response to market conditions – or long-term – to meet regulatory requirements or to modernize the facility. When that occurs, a co-located desalination facility would cause adverse effects on its own. In most cases, its entrainment impacts would be less than those caused by the power plant; however, they may still be significant and may have also been avoidable if another water source had been selected in recognition of this concern about co-location. In this case, however, the California PUC is evaluating through its CEQA review alternative locations and water sources for a full-scale facility. Additionally, various water districts and water interests in the County have convened to evaluate alternatives to siting the proposed full-scale facility at the power plant. It is therefore not necessarily likely that pilot facility will lead to a full-scale facility at this site. Further, any proposal for a full-scale facility within the coastal zone would require separate review to ensure the development is compatible with Coastal Act and LCP provisions intended to protect habitat and prevent cumulative adverse impacts to coastal resources. Because the pilot facility is not expected to cause more than minimal impacts, because its approval does not in any way commit the Commission to approving a permanent desalination facility at this location, and because it does not necessarily lead to cumulative impacts due to construction and operation of a full-scale facility, it conforms to Coastal Act Section 30250(a) and to the LCP's North Coast Land Use Plan Section 2.3

#### ***3.3.1.4 Conclusion***

Based on the County's record, the information provided by the appellants, and the above, the Commission finds that the project conforms to the above-referenced Coastal Act and LCP provisions.

#### **3.3.2 Public Health and Welfare**

##### ***3.3.2.1 Applicable LCP Provision***

- County Ordinance Section 10.72  
[See text in Appendix B.]

##### ***3.3.2.2 Analysis of Conformity to Applicable LCP Provisions***

The proposed project would be constructed and operated by California-American Water Company. Cal-Am is a subsidiary of American Water, which is in turn a subsidiary of RWE, a German company. The proposed project would be built on a site leased from LS Power, owner of the Moss Landing Power Plant. LS Power is a privately-held company<sup>2</sup>.

Section 10.72 of the County's Environmental Health Ordinance requires that all desalination facilities in the County be publicly owned and operated and that they receive permits from the County Environmental Health Department for both construction and operation of the facility.

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<sup>2</sup> In September 2006, LS Power announced that it would be purchased by Dynegy, Incorporated; however, that purchase has not yet been completed. Dynegy is a large company (S&P 500) that owns or leases about twenty power plants throughout the U.S.

The applications for these permits require the project proponent to identify site conditions and to describe the anticipated impacts of the facility. The specific requirements include providing a complete chemical analysis of the seawater to be used, submitting feasibility studies and detailed plans for disposing of brine and other by-products, and other similar submittals to allow identification of necessary mitigation measures. As determined by the Commission at its October 12, 2006 substantial issue hearing for this proposed project, this Ordinance is a component of the County's LCP<sup>3</sup>.

The proposed project would be owned and operated by a non-public entity. However, the proposed facility is not required to comply with this Ordinance because it would be for testing only and would not produce water for human consumption or irrigation purposes. The facility is a pilot project, which will process water for the purpose of determining whether drinking water can be created. Water processed through the facility would be treated, separated, tested, recombined, and discharged, with none being used as drinking water. As noted in the August 19, 2004 letter from the County Health Department and the December 13, 2006 letter from the County Administrative Officer, the County did not require the pilot project to conform to the permit requirements of Section 10.72 because the facility would not produce potable water.

### ***3.3.2.3 Conclusion***

Based on the above, the Commission finds that the project as proposed conforms to County Ordinance 10.72.

## **5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

On July 14, 2006, the County of Monterey determined that the proposed project is categorically exempt pursuant to CEQA Guidelines Section 15306 as a data collection, research, and resource evaluation activity. In addition, Section 13096 of the Commission's administrative regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

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<sup>3</sup> Briefly, the Commission found that this Ordinance was part of the County's Zoning Ordinance, which is one of the primary tools identified in the LCP's North County Land Use Plan for implementing that Plan. More specifically, Section 20.96.010 of the LCP's Coastal Zoning Ordinance incorporates by reference several other County ordinances, including portions of the Public Services ordinance at Title 15. Section 15.04.006 of that ordinance establishes several requirements applicable to water-related development, including the improvement of drinking water quality regulations, preventing the proliferation of water systems, and establishing the County's Environmental Health Department drinking water regulatory program. That regulatory program includes, in part, the County requirement at Section 10.72 that desalination facilities be publicly owned and operated. The Commission therefore found that this Ordinance is enforceable under the LCP, both as a general provision of the coordinating function of the Land Use Plan and the General Plan and as a specific provision of the Land Use Plan.

As discussed above, the proposed project is consistent with the policies of the Coastal Act. As proposed, the project will avoid all significant adverse environmental impacts. There are no feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project is consistent with the requirements of CEQA.

## **APPENDIX A: SUBSTANTIVE FILE DOCUMENTS**

- Certified County of Monterey Local Coastal Program
- County of Monterey File No. PLN040520
- Coastal Commission Appeal File No. A-3-MCO-06-384
- Appeal Applications from Commissioners Krueger and Shallenberger
- California-American Water Company, Proponent's Environmental Assessment For the Coastal Water Project (California Public Utilities Proceeding A.04-09-019), July 14, 2005
- Comments from RBF Consulting (Applicant's Agent), September 18, 2006
- August 19, 2004 letter from Monterey County Department of Health
- Addendum to Item Th6c-d for Energy and Ocean Resources Unit, December 14, 2006
- Comments from California-American Water Company:
  - Briefing packages for December 14<sup>th</sup> hearing
  - Presentation to California Coastal Commission, December 14, 2006
  - Letter of December 11, 2006
- December 13, 2006 letter from Monterey County Administrative Officer
- Coastal Commission hearing transcript from December 14, 2006
- Comment letters received, including:
  - State Water Resources Control Board, December 13, 2006
  - Congressman Sam Farr, December 13, 2006
  - Castroville Water District, December 12, 2006
  - City of Monterey, December 8, 2006
  - Assemblymember John Laird, December 12, 2006
  - Carmel River Watershed Conservancy, December 10, 2006
  - U.S. Desalination Coalition, December 13, 2006
  - City of Seaside, December 12, 2006
  - Monterey County Business Council, December 11, 2006
  - Monterey Peninsula Water Management District, December 14, 2006

## APPENDIX B: APPLICABLE COASTAL ACT AND LCP PROVISIONS

Listed in the order cited in the findings above:

- County Ordinance 15.22, as incorporated by reference by LCP Section 20.96
  - Section 2.3.3.D from the LCP's North County Land Use Plan, Marine Resources
  - Section 20.144.070 of the LCP's Coastal Implementation Plan – Regulations for Development in the North County Land Use Plan Area, Chapter 20.144
  - Section 2.3 of the LCP's North County Land Use Plan
  - Section 20.144.040 of the Coastal Implementation Plan – Regulations for Development in the North County Land Use Plan Area, Chapter 20.144
  - Section 5.5.2.3 of the LCP's Moss Landing Community Plan
  - Section 20.96.010 of the County Zoning Ordinance applicable to coastal areas
  - Title 15.04.006 – Public Services
  - County Ordinance Section 10.72.10-30
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County Ordinance 15.22, as incorporated by reference in LCP Section 20.96, states in relevant part:

*15.22.020 Definitions.*

*For the purpose of this Chapter, the following words and phrases shall have the meanings respectfully ascribed to them by this Section:*

*A. Waters of the County. Any waters, surface or underground, including saline waters, within the boundaries of or abutting the County of Monterey.*

*B. Contaminant. Any physical, chemical, biological, or radiological substance or matter in water, including but not limited to toxic and hazardous chemicals, selenium, pesticides, nutrients, sediments, heavy metals, and trace elements from agricultural drainage water, sewage, and any other waste water in sufficient quantities that will be detrimental to the present and future beneficial users.*

*C. Contamination. Any impairment of the quality of the waters of the County by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" shall include any equivalent effect resulting from the disposal of waster, whether or not waters of the County are affected.*

*D. Pollution. Any alteration of the quality of the waters of the County to a degree which unreasonably affects such waters for beneficial uses, or facilities which serve such beneficial uses. Pollution may include contamination.*

*E. Person. Includes an individual, firm, association, partnership, corporation, and public entity.*

*15.22.30.A. It shall be unlawful for any new pipes or conduits to carry discharges into the waters of the County which contain any contaminant or cause any contamination or pollution.*

*B. It shall be unlawful to discharge into the waters of the County any contaminant or cause any contamination or pollution.*

*C. It shall be unlawful to place or cause to be placed any pipes or conduits that are to carry contaminants into the waters of the County.*

The LCP's North County Land Use Plan, Policy 2.3.3.D – Marine Resources, states:

*All new and/or expanding wastewater discharges into the coastal waters of Monterey County shall require a permit from the Health Department. Applicants for such permits shall be required to submit, at a minimum, the following information and studies:*

- 1. Three years monitoring records identifying the existing characteristics of the proposed wastewater discharge. Particular areas of concern include toxic chemicals, inorganic heavy metals, bacteria, and other indicators prescribed as threats to the health and safety of coastal waters, or*
- 2. Provide comprehensive projections of the proposed wastewater discharges; both quantitative and qualitative characteristics must be specifically identified. Specific figures for the indicators identified in (1) must be included in the projections.*
- 3. Provide complete information on levels of treatment proposed at the treatment facility to remove those indicators mentioned in (1). This information shall also include reliability and efficiency data of the proposed treatment.*
- 4. Provide a comprehensive monitoring plan for testing of wastewater for indicators identified in (1).*
- 5. Perform oceanographic studies to determine the most suitable location and methods for discharge into the ocean.*
- 6. Perform tests of ocean waters at the proposed discharge site and surrounding waters to establish baseline or background levels of toxic chemicals, heavy metals, bacteria and other water quality indicators. These tests must be performed no more than one year prior to submittal of the proposal. Historical data may not be substituted for this requirement.*
- 7. Perform toxicity studies to determine the impacts of the proposed wastewater discharges on marine life, as well as on recreational uses of the coastal waters.*
- 8. Identify and analyze alternative methods of wastewater disposal. This shall include hydrogeologic studies of the applicant's groundwater basin to determine the water quality problems in that area and if onsite disposal will have an adverse impact on groundwater quality. The data and results of requirements (1) through (8) must be submitted to the County's Chief of Environmental Health for evaluation and approval. A wastewater discharge permit shall be issued only if the above information demonstrates that the proposed wastewater discharge will not degrade marine habitats; will not create hazardous or dangerous conditions; and will not produce levels of pollutants that exceed any applicable state or federal water quality standards.*

Section 20.144.070 of the Coastal Implementation Plan (Regulations for Development in the North County Land Use Plan Area, Chapter 20.144 states, in relevant part:

*Intent of Section: The intent of this Section is to provide development standards which will protect the water quality of the North County surface water resources aquifers, and groundwater control new development to a level that can be served by identifiable, available, and long-term water supplies, and protect North County streams, estuaries, and wetlands from excessive sedimentation resulting from land use and development practices in the watershed areas.*

...

*D. Hydrologic Report Requirement*

*1. A hydrologic report shall be required for any development which involves intensification of water use. As an exemption to this requirement, a hydrologic report will not be required for the following: a) development of a single residence on a vacant, undeveloped parcel; and, b) development of an accessory structure, including a guesthouse. Uses where the water will be used for agricultural operations shall not be exempted from the hydrologic report.*

*2. The report shall be required, submitted, and approved by the Director Environmental Health prior to the application being determined complete.*

*3. The hydrologic report shall be prepared by a registered engineer or hydrologist, at the applicant's expense. A minimum of 4 copies shall be submitted.*

*4. The report shall be reviewed by the Health Department, Flood Control District and other departments or agencies appropriate for the specific project. A copy of the submitted report shall be sent to each reviewing agency by the Health Department, with comments requested by a specified date. After comments have been received, the Health Department may require that the report be revised to include additional information or assessment as deemed necessary by the reviewing agencies. A third party review, by a civil engineer or hydrologist at the applicant's expense, may also be required. All departmental review, report revisions, and third party review must be complete before the report may be approved by the Director of Planning and accepted by the Director of Planning.*

*5. The hydrologic report shall contain, at a minimum, the following elements:*

- a. location map;*
- b. to-scale site plan showing the entire parcel and proposed and existing structures, roads, land use, landscaping, wells, and water lines, and hydrologic and drainage features;*
- c. description of how water is currently supplied and how it will be supplied to the proposed development;*
- d. assessment of existing and proposed water usage, including water usage for landscaped and other vegetated areas;*
- e. description of hydrologic setting and features on the parcel and in the area, and for areas presently cultivated or proposed for cultivation;*
- f. description of investigation methods, including review of well logs, (subject to owner's permission) on-site and off-site testing, and contacts with Health Department and Flood Control District staff;*
- g. description of other development activity in the area, both proposed and under construction;*
- h. assessment of the individual and cumulative impacts of the proposed development on the quantity and quality of the groundwater table and local aquifer, specifically addressing nitrates, TDS, and toxic chemicals;*
- i. assessment of the proposed development's individual and cumulative impact on the aquifer's safe long-term yield level, saltwater intrusion, and long-term maintenance of local coastal priority agricultural water supplies;*

- j. *description and assessment of project alternatives, including reduced density, if needed to mitigate the proposed development's adverse impacts as identified above; and, recommendations for water conservation measures, addressing siting, construction, and landscaping and including retention of water on site to maximize groundwater recharge and reclamation of water.*

Section 2.3 of the LCP's North County Land Use Plan states, in relevant part:

*...Environmentally sensitive habitats are areas in which plant or animal life or their habitats are rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. These include Areas of Special Biological Significance as identified by the State Water Resources Control Board; rare and endangered species habitat, all coastal wetlands and lagoons, all marine wildlife, and kelp beds; and indigenous dune plant habitats.*

*The Coastal Act emphasizes the importance of maintaining environmentally sensitive habitats and further stresses that future development within or adjacent to sensitive areas must be appropriate with respect to type of use, siting, and design to ensure that the sensitive areas are not degraded or threatened. Only coastal-dependent uses are permitted within sensitive habitat areas including nature education and research, hunting, fishing, and aquaculture. Among the sensitive habitat areas found nearest the coast are the Monterey Bay itself, the delicate dunes and beaches, and the large sloughs and saltwater marshes--each with a different and changing degree of salinity. A unique community of vegetation and wildlife is supported in each area.*

*... Perhaps most unique among all of these habitats are the sloughs, the estuarine waters resulting from the mixing of seawater with freshwater. They are also some of the most sensitive. The sloughs provide a sanctuary for harbor seals, sea otters, and a great variety of fish and birds. Factors with the potential to severely affect the stability and viability of the estuarine habitat are alterations in the drainage systems, sedimentation, and obstacles to water circulation (i.e., tidegates or undersized culverts). Oil spills are a particularly devastating possibility.*

*... The quality of North County's coastal waters could be jeopardized by increased discharges of wastewater, with predictable negative impacts on the health and welfare of the County's citizens. The potential sources for this wastewater originate from both within and outside of Monterey County. It is therefore imperative that the County have strict guidelines and controls for all wastewater discharges into Monterey Bay and the County's coastal waters.*

*2.3.1 Key Policy: The environmentally sensitive habitats of North County are unique, limited, and fragile resources of statewide significance, important to the enrichment of present and future generations of county residents and visitors; accordingly, they shall be protected, maintained, and, where possible, enhanced and restored.*

2.3.2 General Policies:

1. *With the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haulout sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. Resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the plan, shall be allowed within environmentally sensitive habitats only if such uses will not cause significant disruption of habitat values.*
2. *Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts, upon habitat values and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.*
3. *New development adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New subdivisions shall be approved only where significant impacts to environmentally sensitive habitats from development of proposed parcels will not occur.*
4. *To protect environmentally sensitive habitats and the high wildlife values associated with large areas of undisturbed habitat, the County shall maintain significant and, where possible, contiguous areas of undisturbed land for low intensity recreation, education, or resource conservation use. To this end, parcels of land totally within sensitive habitat areas shall not be further subdivided. On parcels adjacent to sensitive habitats, or containing sensitive habitats as part of their acreage, development shall be clustered to prevent habitat impacts.*
5. *Where private or public development is proposed in documented or potential locations of environmentally sensitive habitats – particularly those habitats identified in General Policy No.1 – field surveys by qualified individuals or agencies shall be required in order to determine precise locations and to recommend mitigating measures to ensure protection of any sensitive habitat present. The required survey shall document that the proposed development complies with all applicable environmentally sensitive habitat policies.*

Section 20.144.040 of the Coastal Implementation Plan (Regulations for Development in the North County Land Use Plan Area, Chapter 20.144) states, in relevant part:

*Intent of Section: The intent of this Section is to provide development standards which will allow for the protection, maintenance, and, where possible, enhancement and restoration of North County environmentally sensitive habitats. The environmentally sensitive habitats of North County are unique, limited, and fragile resources of Statewide significance, important to the enrichment of present and future generations of County residents and visitors.*

*A. Biological Survey Requirement*

- 1. A biological survey shall be required for all proposed development meeting one or more of the following criteria:*
  - a. the development is located within an environmentally sensitive habitat, as shown on current North County Environmentally Sensitive Habitat resource map or other available resource information, or through the planner's on-site investigation;*
  - b. the development is potentially located within an environmentally sensitive habitat, according to available resource information or on-site investigation;*
  - c. the development is or may potentially be located within 100 feet of an environmentally sensitive habitat, and/or has potential to negatively impact the long-term maintenance of the habitat, as determined through staff's project review; or,*
  - d. there is disagreement between staff and the applicant as to whether the proposed development meets one of the above criteria.*
- 2. The survey shall be required, submitted, and meet approval of the Planning Department prior to the project application being determined complete. 2 copies of the survey report shall be submitted.*
- 3. The survey shall be prepared by a qualified biologist, as selected from the County's list of Consulting Biologists. Report preparation shall be at the applicant's expense.*
- 4. The biological survey shall contain the following elements:*
  - a. identify the property surveyed, with accompanying location map and site plan showing topography and all existing and proposed structures and roads, and the proposed project site(s);*
  - b. describe the method of survey;*
  - c. identify the type(s) of plant and animal habitats found on the site (and/or on adjacent properties where development is adjacent to the habitat), with an accompanying map delineating habitat location(s);*
  - d. identify the plant and animal species, including rare and endangered species, found on the site (or on adjacent properties, where development is adjacent to the habitat) with a map showing their habitat locations*
  - e. in areas of potential public access, determine the maximum amount and type(s) of public use which will allow for the long-term maintenance of the habitat;*
  - f. describe and assess potential impacts of the development on the environmentally sensitive habitat(s) found on the site and/or on neighboring properties;*
  - g. recommend mitigation measures, such as setbacks from the habitat, building envelopes, and modifications to proposed siting, location, size, design, vegetation removal, and grading, which will reduce impacts to on-site or neighboring habitats and allow for the habitat's long-term maintenance;*
  - h. assess whether the mitigation measures will reduce the development's impact to an insignificant level, which is the level at which the longterm maintenance of the habitat is assured; and,*
  - i. other information or assessment as necessary to determine or assure compliance with resource protection standards of the North County Land Use Plan and of this ordinance.*

*The biological survey may be waived by the Director of Planning for development of a single family dwelling on a vacant lot of record created through subdivision or lot line adjustment, for which a biological survey was prepared according to the requirements of this section.*

*B. General Development Standards*

*1. All development, including vegetation removal, excavation, grading, filling, and construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, Sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. As an exception, resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the North County Land Use Plan, or activities for maintenance of existing structures and roads, or activities for watershed restoration may be allowed within environmentally sensitive habitats if it has been determined through the biological survey that impacts of development will not harm the habitat's long-term maintenance.*

*2. Development on parcels containing or within 100 feet of environmentally sensitive habitats, as identified on the current North County Environmentally Sensitive Habitat resource map, other resource information, or planner's on-site investigation, shall not be permitted to adversely impact the habitat's long-term maintenance, as determined through the biological survey prepared for the project. Proposals shall be modified for siting, location, bulk, size, design, grading vegetation removal, and/or other methods where such modifications will reduce impacts to an insignificant level and assure the habitat's long-term maintenance. Also, the recommended mitigation measures of the biological survey will be considered by the decision-making body and incorporated into the conditions of approval as found necessary by the decision-making body to implement land use plan policies and this ordinance and made conditions of project approval...*

*C. Specific Development Standards*

*2. Riparian, Wetland, and Aquatic Habitats*

*d. All development shall be set a minimum of 100 feet back from the landward edge of vegetation associated with coastal wetlands, including but not limited to McClusky Slough, Pajaro River, Salinas River, Salinas River lagoon, Elkhorn Slough, Bennett Slough, and Moro Cojo Slough. As an exception, permanent structures necessary for recreational, scientific, or educational use of the habitat may be permitted within the setback area where it is demonstrated that: 1) the structure cannot be located elsewhere; and, 2) the development does not significantly disrupt or adversely impact the habitat as determined in the biological survey prepared for the project. As a further exception, the permanent structures along Moss Landing Road on the west side of Moro Cojo Slough which are located within the 100 foot setback, as shown in Attachment 4, may be replaced, provided that: 1) the replaced be sited in the same location on the affected property as the structure to be replaced; 2) the replacement shall conform to the requirements of the applicable zoning district; 3) the replacement structure shall be for the same use as the structure to be replaced; 4) the replacement structure shall not exceed either the floor area, height or bulk of the structure to be replaced by more than 10%; and 5) the replacement does not adversely impact the habitat as determined in the biological survey prepared for the project. Where development is proposed on any portion of a parcel containing area within a 100 foot setback of the landward edge of coastal wetland vegetation, the setback area shall be placed in an open space easement as a condition of project approval. The easement shall be in accordance with the requirements of Section 20.142.130.*

- e. *Development which includes dredging or other major construction activities which are considered to be those with potential to adversely impact riparian, wetland, or aquatic habitats shall be conducted so as to avoid breeding seasons and other critical phases in the life cycles of commercial species of fish and shellfish and other rare, endangered, and threatened indigenous species. Recommended mitigation measures to avoid disruption of plant and animal lifecycles, as contained in the biological survey required in accordance with Section 20.144.040.A, shall be made conditions of project approval.*
- f. *Development and recreational activities near the harbor seal haul-out areas, as shown on current North County Environmentally Sensitive Habitat resource map, or through a biologic report, the planner's on-site investigation, or other resource information, shall not adversely impact the continued viability and long-term maintenance of this habitat. As such, conditions of project approval and project modifications, as recommended in the biological survey, shall be required where necessary to mitigate adverse habitat impacts.*
- g. *New development shall not be permitted adjacent to estuarine areas where such development may result in: 1) drainage or discharge of oil or other toxic substances into the estuary; or, 2) increase in the hazard of oil spill or toxic substance discharge into the estuary. As such, development on parcels containing, adjacent to, or with drainage into estuarine areas must comply with all Monterey County Code regulations of toxics and hazardous substances, as administered by the County Health Department. As such, the applicant for development on such parcels shall be required to contact the County Health Department for a review of the development's conformance with Titles 22 and 23 of the Public Resources Code and with applicable sections of the Monterey County Code pertaining to toxics and hazardous substances, prior to the application being determined complete. The applicant shall be required to provide written verification from the Health Department that: 1) the project complies with Code requirements; or, conditions of project approval, 2) with the proposed development will comply with Code requirements and will not result in or increase the hazard of drainage or discharge of oil or other toxic substances into the estuary; or, 3) additional studies must be completed prior to the Health Department's verification. Such studies shall be completed prior to the application being considered complete, and shall include such information and testing as determined necessary by the Health Department. Conditions of project approval shall be applied as necessary to assure no impacts to the estuary related to hazardous or toxic substances.*

Section 5.5.2.3 of the LCP's Moss Landing Community Plan states, in relevant part:

*The least environmentally damaging alternative should be selected for on-site modernization and upgrading of existing facilities. When selection of the least environmentally damaging alternative is not possible for technical reasons, adverse environmental effects of the preferred alternative shall be mitigated to the maximum extent.*

Section 20.96.010 of the County Zoning Ordinance states, in relevant part:

*The provisions of the following Titles and Chapters of the Monterey County Code as may be amended from time to time, copies of which are on file as required by law, are adopted and incorporated into this title by reference:...*

*... C. The following Chapters of Title 15 (Public Services):*

- 1. Chapter 15.04 (Small Water Systems)*
- 2. Chapter 15.08 (Water Wells)*
- 3. Chapter 15.21 (Prohibited Discharge of Sewage into Streams)*
- 4. Chapter 15.22 (Discharge of Contaminants into Waters of the County)*
- 5. Chapter 15.23 (Sewage Treatment and Reclamation Facilities)*

Title 15.04.006 of the County's Public Services Ordinance states, in relevant part:

- a. Every citizen of Monterey County has the right to pure and safe drinking water.*
- b. This Chapter is intended to ensure that the water delivered by domestic public water systems of Monterey County shall be pure, wholesome, and potable at all times. The provisions of this Chapter provide the means to accomplish this objective.*
- c. It is the intent of Monterey County to improve laws governing drinking water quality and to establish drinking water standards which are at least as stringent as those established under Chapter 15 of Title 22 of California Code of Regulations.*
- d. It is the further intent of Monterey County to establish drinking water regulatory program within the Monterey County Health Department in order to provide for the orderly and efficient delivery of safe drinking water within the County.*
- e. It is the policy of Monterey County to reduce the proliferation of water systems. The provisions of this Chapter provide the means to accomplish this objective by requiring consolidation and incorporation of proposed and existing water systems when feasible.*
- f. Proliferation of water systems results from fragmentation of existing water systems. It is the intent of Monterey County to prevent construction of new systems within the service boundaries of existing water systems, analogous to the anti-paralleling rules of the Public Utilities Commission.*
- g. It is the intent of Monterey County to implement the goal of the County General Plan Policy which is to promote adequate water service for all County needs and to achieve a sustained level of adequate water services. The provisions of this Chapter provide the means to accomplish this objective by implementing Sections 53.1.1 through 53.1.5, inclusive, of said Policy which state in part as follows:*
  - 1. The County shall encourage coordination between those public water service providers drawing from a common water table to assure that the water table is not overdrawn.*
  - 2. The County shall not allow water consuming development in areas which do not have proven adequate water supplies.*
  - 3. New development shall be required to connect to existing water service providers which are public utilities, where feasible.*
  - 4. Proliferation of wells, serving residential, commercial, and industrial uses, into common water tables shall be discouraged.*

County Ordinance Section 10.72 states, in relevant part:

*10.72.010 Permits required: No person, firm, water utility, association, corporation, organization, or partnership, or any city, county, district, or any department or agency of the State shall commence construction of or operate any Desalinization Treatment Facility (which is defined as a facility which removes or reduces salts from water to a level that meets drinking water standards and/or irrigation purposes) without first securing a permit to construct and a permit to operate said facility. Such permits shall be obtained from the Director of Environmental Health of the County of Monterey, or his or her designee, prior to securing any building permit.*

*10.72.020 Construction permit application process. All applicants for construction permits required by Section 10.72.010 shall:*

*A. Notify in writing the Director of Environmental Health or his or her designee, of intent to construct a desalinization treatment facility.*

*B. Submit in a form and manner as prescribed by the Director of Environmental Health, preliminary feasibility studies, evidence that the proposed facility is to be located within the appropriate land use designation as determined by the affected local jurisdiction, and specific detail engineering, construction plans and specifications of the proposed facility.*

*C. Submit a complete chemical analysis of the sea water at the site of proposed intake. Such chemical analysis shall meet the standards as set forth in the current ocean plan as administered by the California State Water Resources Control Board and the United States Environmental Protection Agency. In the event the proposed intake is groundwater (wells), a chemical analysis of the groundwater at the proposed intake site shall be submitted as prescribed by the Director of Environmental Health.*

*D. Submit to the Director of Environmental Health and Monterey County Flood Control and Water Conservation District a study on potential site impacts which could be caused by groundwater extraction.*

*E. Submit preliminary feasibility studies and detailed plans for disposal of brine and other by-products resultant from operation of the proposed facility.*

*F. Submit a contingency plan for alternative water supply which provides a reliable source of water assuming normal operations, and emergency shut down operations. Said contingency plan shall also set forth a cross connection control program. Applications which propose development of facilities to provide regional drought reserve shall be exempt from this contingency plan requirement, but shall set forth a cross connection control program.*

*G. Prior to issuance of any construction permit, the Director of Environmental Health shall obtain evidence from the Monterey County Flood Control and Water Conservation District that the proposed desalinization treatment facility will not have a detrimental impact upon the water quantity or quality of existing groundwater resources.*

*10.72.030 Operation permit process. All applicants for an operation permit as required by Section 10.72.010 shall:*

*A. Provide proof of financial capability and commitment to the operation, continuing maintenance replacement, repairs, periodic noise studies and sound analyses, and emergency contingencies of said facility. Such proof shall be in the form approved by County Counsel, such as a bond, a letter of credit, or other suitable security including*

*stream of income. For regional desalinization projects undertaken by any public agency, such proof shall be consistent with financial market requirements for similar capital projects.*

*B. Provide assurances that each facility will be owned and operated by a public entity.*

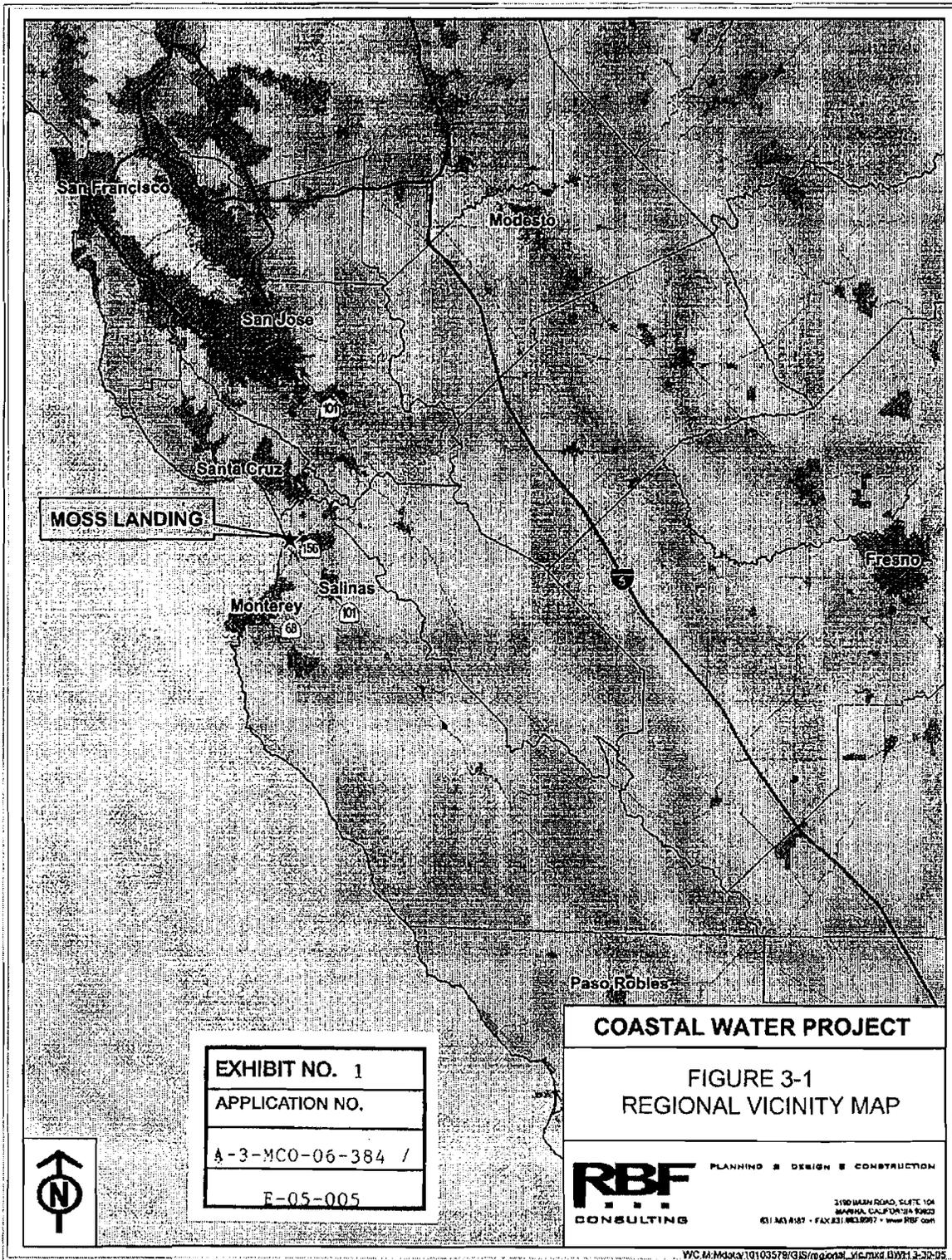
*C. Provide a detailed monitoring and testing program in a manner and form as prescribed by the Director of Environmental Health.*

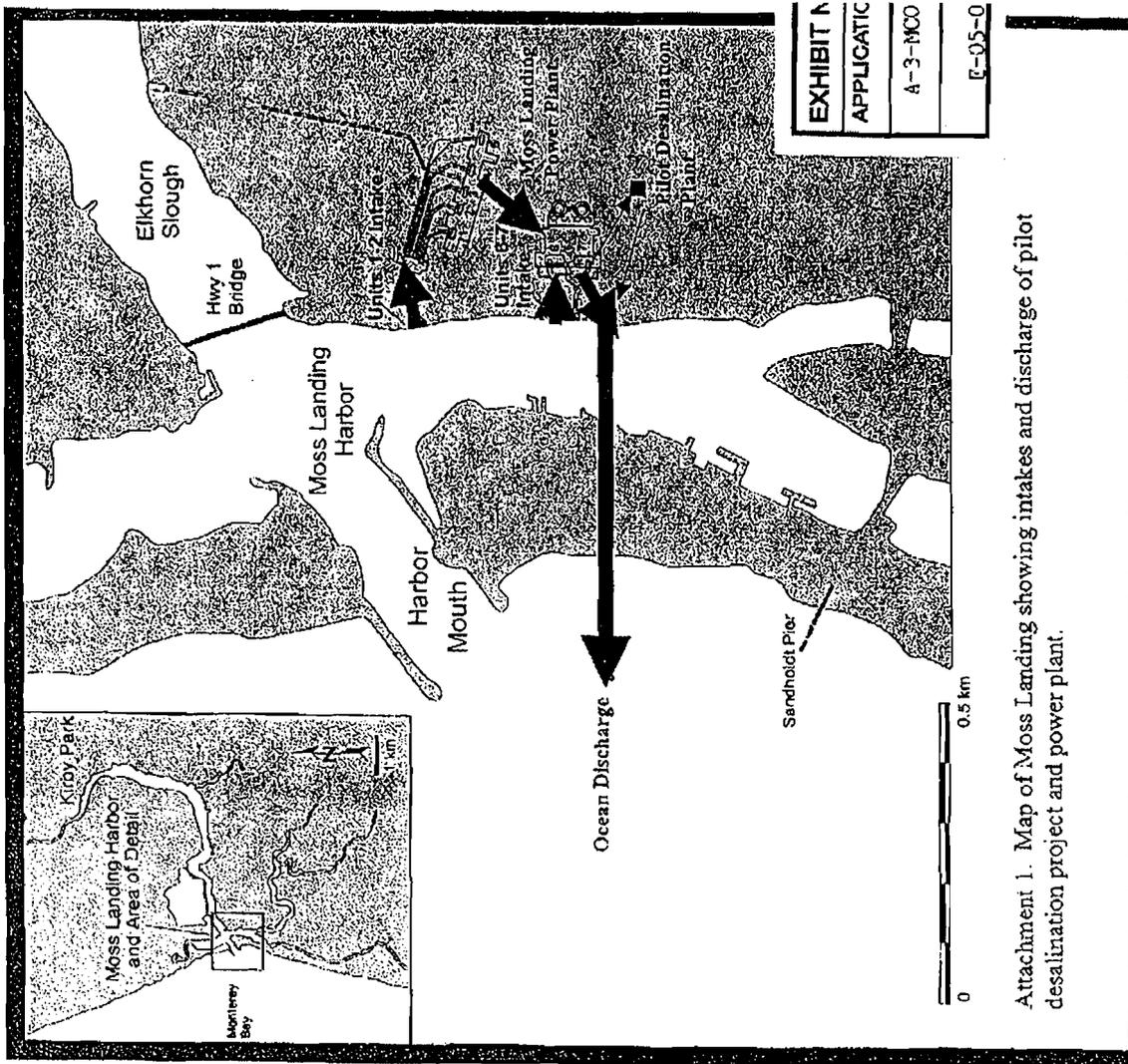
*D. Submit a maintenance and operating plan in a form and matter prescribed by the Director of Environmental Health.*

*E. All operators of a desalinization treatment plant shall notify the Director of Environmental Health of any change in capacity, number of connections, type or purpose of use, change in technology, change in reliance upon existing potable water systems or sources, or change in ownership or transfer of control of the facility not less than ten (10) days prior to said transfer.*

LCP Section 20.144.070.E.16 states:

*Development of new or expansion of existing uses which generate a point source of pollution, such as community wastewater treatment systems or industrial or commercial discharge, shall only be allowed if pollution levels remain at levels which will assure the protection of public maintenance health and the long-term of wildlife and plant habitats. A condition of approval of all such development shall be the submittal and approval of a monitoring plan and implementation of a monitoring program subject to the approval of the Director of Planning and Director of Environmental Health. The monitoring program shall include monitoring and assessment of the water quality impacts to public health and plant and wildlife habitats, and shall include appropriate testing and studies, such as hydrologic reports and biological surveys. Non-point sources of pollution shall be subject to the standards of the 2081 Water Quality Management Plan, as set forth in the Erosion Control Ordinance, Grading Ordinance, Floodplain Ordinance, Sewage Disposal Ordinance, and Development Standards of the Coastal Implementation Plan.*





Attachment 1. Map of Moss Landing showing intakes and discharge of pilot desalination project and power plant.