

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**TENTATIVE ORDER NO. R9-2006-0065
NPDES NO. CA0109223**

**WASTE DISCHARGE REQUIREMENTS
FOR THE POSEIDON RESOURCE CORPORATION, CARLSBAD DESALINATION PROJECT,
DISCHARGE TO THE PACIFIC OCEAN VIA THE ENCINA POWER STATION DISCHARGE CHANNEL**

RESPONSES TO SIGNIFICANT WATER QUALITY RELATED COMMENTS RECEIVED ON OR BEFORE JUNE 14, 2006

Comment No.	Summary of Comment	Regional Board Staff Response	Suggested Revision	Permit Section
WRITTEN COMMENTS				
<i>Comments received from Ms Norma Wolk via correspondence dated May 17, 2006</i>				
1	The project will harm seawater and destroy marine life.	Tentative Order R9-2006-0065 provides for comprehensive regulation of the proposed discharge from the Carlsbad Desalination Plant (CDP) under the applicable state and federal water quality laws and regulations. The permit will ensure full protection of Beneficial Uses recognized in the Basin Plan.	No	N/A
<i>Comments received from Sierra Club via correspondence dated May 31, 2006</i>				
2	1. <i>It is premature to issue the Tentative Order</i> The Carlsbad Desalination Project (CDP) is to be co-located at the Encina Power Station in order to use the cooling water discharge for its feedwater source and to use the power plant ocean outfall to discharge the brine concentrate into the ocean. The Encina Power Station NPDES	The two facilities are considered separate dischargers and each have their own specific effluent limitations which are protective of water quality. Tentative Order R9-2006-0065 provides for comprehensive regulation of the proposed discharge from the CDP and does not require the renewal of the Encina Power Station (EPS) NPDES permit to fulfill Regional Board's obligations under the applicable state and federal water quality laws and regulations. The NPDES permit application for CDP was completed with input from EPS. Regional Board staff is currently working on a Tentative NPDES permit for the EPS	No	N/A

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	<p>permit has expired. We believe that it is premature to issue the permit until the Encina Power Station NPDES discharge permit has been approved by the Regional Board. The information in the renewal permit will contain important information by which to evaluate the CDP waste discharge requirements and the influence of the provisions to comply with the Clean Water Act Section 316(b) on the CDP operations.</p>	<p>renewal, and have taken into account proposed requirements for the renewed EPS NPDES permit in developing Tentative Order No. R9-2006-0065. Regional Board staff does not anticipate any significant discrepancies between Order No. R9-2006-0065 and the renewed EPS NPDES permit. Should renewal of the EPS NPDES permit raise additional issues that would require the Regional Board to revisit the CDP permit, the Regional Board will have ample time and authority to address and resolve any such inconsistencies between the CDP and EPS NPDES permits prior to any irreversible decisions on CDP implementation.</p> <p>As explained in the Fact Sheet, Clean Water Act Section 316(b) is not applicable to CDP operations. However, California Water Code Section 13142.5(b) requires industrial facilities using seawater for processing to use the best available site, design, technology, and mitigation feasible to minimize impacts to marine life. As discussed in the Fact Sheet, the incremental entrainment effects of the CDP operation in conjunction with the EPS is insignificant to marine life. However, in the event that the EPS were to cease operations, and the discharger were to independently operate the seawater intake and outfall for the benefit of the CDP, such independent operation will require additional review pursuant to Water Code Section 13142.5(b).</p> <p>Tentative Order R9-2006-0065 provides a reopener provision in Section VI.C.1 to modify, revoke and reissue, or terminate the Order for causes include misrepresentation, violation, change of conditions, promulgation of new federal or state regulations. The Tentative Order requires the discharger to submit a Flow Minimization, Entrainment and Impingement Minimization Plan within 180 days of adoption of the Order (see Response to Comment No. 3 below).</p> <p>It is reasonable and appropriate for the Regional Water Board to consider the adoption of Tentative Order No. R9-2006-0065 prior to renewing the EPS NPDES permit.</p>		

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3	<p><i>2. The facility description of the CDP is incomplete</i></p> <p>The Tentative Order, Findings, page 5, states that the design of the pretreatment filter has not been selected. There are two designs proposed. The Tentative Order fails to provide the flow schematic of the CDP in Attachment C. The Tentative Order requires the Discharger to submit a flow schematic 90 prior to the discharge of wastewater authorized under this permit. Given that it will take at least five years to get the plant on line, there is no assurance that the discharger would make substantial revisions to whichever of the two pretreatment filter design options is selected during this period. In effect we are asked to evaluate the Tentative Order without key information about the plant operation and how it would impact the quality of the discharged effluent from the CDP.</p>	<p>The CDP proposes to divert a portion (approximately 100 million gallons per day (MGD)) of the EPS' returning cooling seawater to produce up to 50 MGD of potable water. Treatment processes at CDP would consist of pretreatment, reverse osmosis (RO) desalination, and disinfection and product water stabilization. The discharger had not constructed the facility or made a final determination of the type of pretreatment technology that will be used for the source water prior to the reverse osmosis process. The Discharger is considering granular media filtration and membrane filtration as the two options for pretreatment technologies. Under the granular media filtration option, ferric chloride or ferric sulfate will be added to the influent to add removal of particulate matter. These added chemicals would be backwashed, collected in a sedimentation basin (clarifier), removed as waste sludge, and disposed of at a landfill. Under the membrane filtration option, chemicals would be used during membrane cleaning. The membrane backwash cleaning solutions would be collected in a separate tank, neutralized for pH value, and discharged to the sanitary sewer system. Under either proposed option, no net chemicals would be introduced into the effluent, but solids originally contained in the seawater intake. The Discharger constructed and operated an on-site pilot plant since the end of 2002, using the above two described pretreatment technologies to characterize effluent quality. Regional Board staff used the pilot plant data from both pretreatment technologies in establishing technology-based and water quality-based effluent limitations of the Tentative Order No. R9-2006-0065. The Discharger has described the two proposed pretreatment technologies in the NPDES Application, including flow schematics for both pretreatment processes. Which of the flow schematics submitted by the Applicant will actually be included in Attachment C of Tentative Order No. R9-2006-0065 is dependent upon the final selection of the pretreatment process. The choice of the specific process schematic is not expected to change</p>	No	N/A

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		<p>significantly the waste generation characteristics of the CDP treatment processes – i.e., the maximum volume and water quality characteristics of the waste discharge streams depicted on the schematic. If the actual process schematic provided by the Discharger does not conform with the relevant CDP flows schematic already submitted with the NPDES Application, and the differences are deemed to have material effect on the CDP's ability to comply with the permit requirements, the RWQCB has the right to reopen the permit for review.</p> <p>The Tentative Order requires the Discharger to submit a final flow schematic 90 days prior to the actual discharge of wastewater, because by that time the Discharger would have already completed the selection of the specific pretreatment design and would have been able to verify which of the already provided process schematics is actually implemented.</p>		
4	<p>3. <i>The Tentative Order fails to support the claim that the Clean Water Act Section 316(b) does not apply.</i> Attachment F-Fact Sheet, Rationale for Provisions, page F-42, paragraph 4 states that 316(b) applies exclusively for cooling purposes. Therefore, no special conditions related to 316(b) are implemented in this Order. It fails to note that 316(b) was enacted to limit the impingement and entrainment harm to aquatic life caused by the water intake structure used to provide cooling water. It was also enacted when seawater desalination was uncommon in the U.S. We believe that this is a narrow interpretation of 316(b) as it fails to protect the beneficial uses of the receiving waters. It is immaterial in</p>	<p>The State Water Resources Control Board's June 13, 2006 Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations includes the following statement regarding the applicability of Section 316(b) to seawater desalination facilities: "This subject is outside the scope of the Clean Water Act § 316(b) issues and would be more appropriately addressed through the other water quality control plans (e.g., California Ocean Plan, State Water Board Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)."</p> <p>Clean Water Act Section 316(b) implementing regulations are applicable to facilities that meet the definition of a Phase II existing facility at 40 CFR 125.91. Such facilities withdraw cooling water from a water of the United States; have, or are required to have, an NPDES permit; generate and transmit electric power as their primary business activity; have a total design intake capacity of 50 mgd or greater; and use at least 25 percent of the withdraw water exclusively for cooling purposes. Pursuant to CWA 316(b) regulations, the EPS is classified as a Phase II existing facility. However, pursuant to the definitions</p>	Yes	Vi.C.2.e

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	<p>our view whether the end use of the water intake is used for industrial cooling or other purposes such as the water source for a desalination plant. Furthermore, these receiving waters are held in public trust. (Please refer to the California Coastal Commission report on desalination.) As such the Regional Board has the responsibility to uphold the doctrine of public trust to protect the beneficial uses of the receiving waters.</p>	<p>and applicability of the Phase I rule (40 CFR 125.8), the Phase II rule (40 CFR 125.9), and the proposed Phase III rule (Federal Register Vol. 69, No. 226, Wednesday, Nov. 24, 2004), the 316(b) regulations are not applicable to CDP. Therefore, no special conditions related to the 316(b) implementing regulations are included in the Tentative Order.</p> <p>California Water Code Section 13142.5(b) requires industrial facilities using seawater for processing to use the best available site, design, technology, and mitigation feasible to minimize impacts to marine life. The CDP is planned to operate in conjunction with the EPS by using the EPS cooling water discharge as its source water. When operating in conjunction with the power plant, the desalination plant feedwater intake would not increase the volume or the velocity of the power station cooling water intake nor would it increase the number of organisms impinged by the EPS cooling water intake structure. Studies prepared by the Discharger demonstrated that nearly 97.6 percent of the larvae entrained by the EPS are dead at the point of the desalination plant intake. As a result, a <i>di minimus</i> number of organisms remain viable which potentially would be lost due to the incremental entrainment effect of the CDP operation. Furthermore, the most frequently entrained species are very abundant in the area of the EPS intake, Agua Hedionda Lagoon and the Southern California Bight. Species of direct recreational and commercial value constitute less than 1 percent of all the organisms entrained by the EPS. Therefore, the incremental entrainment effects of the CDP operation in conjunction with the EPS would not trigger the need for additional technology or mitigation to minimize impacts to marine life. However, in the event that the EPS were to cease operations, and the discharger were to independently operate the seawater intake and outfall for the benefit of the CDP, such independent operation will require additional review pursuant to Water Code Section 13142.5(b).</p> <p>The Discharger's Report of Waste Discharge assessed EPS</p>		

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		<p>cooling water flows over a 20.5 year period and concluded that historical EPS flows were sufficient to supply CDP intake flows and provide sufficient dilution water to insure that receiving water salinity is not adversely impacted. The Discharger also concluded that during temporary periods when power generation is suspended for maintenance, historical unheated EPS thru-flows would be adequate to supply CDP and provide sufficient dilution water to protect receiving water salinity. Based on the historical data, the Discharger reports that (1) it is unlikely that CDP flow requirements will exceed EPS flows, and (2) it is unlikely that additional EPS intake pumping (over and above power plant needs) will be required to accommodate CDP needs. While the historical data indicate that it is extremely unlikely that EPS would have to increase intake flows to accommodate CDP needs, the Regional Water Board recognizes that future EPS flows may not follow historical trends. For this reason, it is warranted to require the Discharger to prepare a Flow, Entrainment and Impingement Minimization Plan. Tentative Order R9-2006-0065 requires prepare a Flow Minimization, Entrainment and Impingement Minimization Plan for submission to the Regional Water Board within 180 days of adoption of the Order. The plan shall assess the feasibility of site-specific plans, procedures, and practices to be implemented and/or mitigation measures to minimize the impacts to marine organisms when the CDP intake requirements exceed the volume of water being discharge by the EPS. The plan shall be subject to the approval of the Regional Water Board and shall be modified as directed by the Regional Water Board.</p>		
5	<p>4. <i>Recommend influent oil and grease monitoring</i> We recommend that Table 3 of Attachment E, Monitoring and Reporting Program include oil and grease. The reason is to avoid damage to CDP and contaminate the</p>	<p>The Regional Water Board does not regulate potable water production from facilities such as the CDP. This is the purview of the Department of Health Services (DHS). The Discharger reports that it is currently processing a drinking water permit with DHS and has included in the application an affirmative commitment that the desalination plant will be equipped with continuous monitoring for hydrocarbons that will be designed to</p>	No	N/A

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	potable water product.	detect oil levels of 0.2 mg/L or higher.		
6	<p>5. <i>Expected Maximum Parameter Concentrations not adequate</i> Attachment F- page 8 states that the method detection limits used for several of the pollutants in the analytical results reported by CDP were greater than the corresponding minimum level established in the Ocean Plan. Please provide the list of these pollutants and the MDL used.</p>	<p>The Ocean Plan establishes Minimum Levels (MLs) for analyzing and reporting concentrations of pollutants. These MLs are listed in Appendix II of the Ocean Plan. MLs represent the lowest quantifiable concentration in a sample based on the proper application of method-specific analytical procedures and the absence of matrix interference. MLs also represent the lowest standard concentration in the calibration curve for a specific analytical technique after the application of appropriate method-specific factors. Method Detection Limits (MDLs) are the lowest quantifiable concentration based on the proper application of method-specific analytical procedures reported by a specific laboratory. MDLs could vary among certified laboratories, and be different from MLs due partially to, different analytical procedures. The discharger provided effluent data in Tables 3-12 through 3-27 of the Report of Waste Discharge; Table 5 of the Fact Sheet provides a summary of the data. MDLs for parameters which were reported as non-detects are identified in Table 5 of the Fact Sheet with less-than values (e.g., < 0.12 indicates an MDL of 0.12). This information is available to the public.</p> <p>The Monitoring and Reporting Program No. R9-2006-0065 specifies the detection limits mandated by the Ocean Plan.</p>	No	N/A
Comments received from Poseidon Resources Corporation via correspondence dated May 31, 2006				
7	Salinity is projected to be a key factor influencing toxicity within the discharge.	<p>Agreed. The Discharger submitted toxicity test information, salinity tolerance study results, and technical literature review information that demonstrates that no toxicity effects are likely to occur if receiving water salinities are maintained below 40 ppt. Additional information submitted by the Discharger indicates that a salinity concentration of 40 ppt is unlikely to cause a violation of the Ocean Plan acute toxicity standards. The Ocean Plan establishes acute toxicity objective that shall be applied to ten percent of the distance from the edge of the outfall structure to</p>	Yes	IV.B.2 (new Table 9) VI.C.2. c

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		<p>the edge of the Zone of Initial Dilution (ZID). To prevent acute toxicity from occurring within this mixing zone, Regional Board staff proposes to establish effluent limits that prohibit the CDP discharge from causing the combined EPS/CDP discharge to exceed average daily salinity concentration of 40 ppt or a maximum hourly salinity concentration of 44 ppt. In this way it can be assured that receiving water salinity levels are maintained below 40 ppt at all times.</p> <p>Staff also proposes to include provisions within the NPDES permit that require the Discharger to perform two salinity and acute toxicity studies. The first study would be completed using pilot plant effluent and would be completed prior to startup that would assess toxicity effects associated with short-term exposure to higher salinity. The second study would utilize CDP effluent to assess relations between acute toxicity test results and salinity. Results of the two studies may be used by the Regional Board to reevaluate CDP effluent limits or evaluate the need for revisions in Monitoring and Reporting Program No. R9-2006-0065.</p>		
8	<p>Acute toxicity monitoring conducted in accordance with the provisions of the Tentative MRP would result in artificially inflated acute toxicity values that would not be representative of the actual quality of water discharged to the ocean.</p>	<p>The Monitoring and Reporting Program (MRP) of Tentative Order R9-2006-0065 requires the discharger to conduct quarterly acute toxicity test on effluent samples collected at monitoring location M001. Staff agrees that salinity can represent a significant component of toxicity and that toxicity tests need to be performed so that results are representative of actual effluent quality. Based on historical data from 1980-2000, daily average EPS cooling water flows exceeded 304 MGD more than 99% of the time, and the projected salinity of combined EPS/CDP discharge would be in the range of 40-41 ppt. To insure that toxicity tests are representative and reflect the maximum anticipated effluent discharge salinities, Regional Board staff proposes that (1) a daily average effluent salinity limit of 40 ppt be established, and (2) compliance with the acute toxicity performance goal be assessed on the basis of maximum daily allowed salinity level of 40 ppt.</p>	Yes	<p>IV.B.2 (new Table 9)</p> <p>IV.B.3 (footnote 4 to Table 10)</p> <p>VI.C.2. c</p>

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		Additionally, staff proposes that the Discharger be required to perform two salinity-toxicity studies. The purposes of these studies are discussed in No. 7 above.		MRP VI. B (new Table 5)
9	The Discharger may need to temporarily return unused pretreated or product water flows to the ocean during initial facilities startup and during special maintenance operations.	The discharger states that during initial start-up operations, immediately before or after certain onsite maintenance operations, or periods when it is not feasible to deliver product water to the regional potable water system, it may be necessary to return all or a portion of the filtered pretreated seawater, or product water from the reverse osmosis process, back into the EPS effluent channel. The discharger requests a maximum flow rate of 120.6 MGD for the granular media filtration option, or 129 MGD for the membrane filtration pretreatment option, during such temporary period. The Discharger did not submit this information with their permit application, and the requested flow rates are much greater than the originally considered 54 MGD and 57 MGD, respectively. To insure that effluent quality is monitored during these increased flow and deferring discharging circumstances, Regional Board staff proposes that the discharger conduct additional monitoring during “initial plant start-up”, “during or after plant maintenance”, and “periods when it is otherwise not possible to deliver demineralized product water to the regional water system”. This additional monitoring would make sure that water quality objectives are complied during all discharging conditions.	Yes	II.B IV.A.4 (footnote 1 to Table 7) MRP IV. (footnote 15 to Table 4)
10	The Discharger requests that TRE work plan be submitted 180 days prior to CDP startup instead of 180 days after adoption of the Order.	Agreed.	Yes	VI.C.2.b
11	The Discharger requests that BMP plan be submitted 180 days prior to CDP startup instead of 180 days after	Agreed.	Yes	VI.3.C

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	adoption of the Order.			
12	If receiving water violations occur, additional studies may be required to determine whether the EPS or CDP discharge is responsible.	So noted.	Yes	VI.C.2.d
Comments received from Ms Stanford Legal Clinics via correspondence dated June 5, 2006				
13	Tentative Order should be postponed due to continuing studies and outstanding issues that would affect the operation of the desalination plant and impact plant discharge.	The Regional Water Board has reviewed all relevant studies and addressed all outstanding issues relative to the discharge permit for the project. No delay is necessary.	Yes	Fact Sheet III.B
14	City of Carlsbad has not finalized the EIR for the Poseidon project. Regional Board should consider project EIR.	The City of Carlsbad certified the EIR for the Carlsbad Desalination Project on June 13, 2006. The Regional Board has considered significant water quality related issues in the EIR, and provided analyses and responses to these issues.	Yes	Fact Sheet III.B
15	The San Diego County Water Authority has not completed an EIR for a proposed co-located desalination plant at EPS.	The Regional Water Board is considering a Tentative Order for a discharge permit for the Carlsbad Desalination Project proposed by Poseidon Resources, and has not been asked to consider a discharge permit for another facility.	No	N/A
16	Consideration of the tentative order should be postponed due to the pending NPDES permit for the EPS.	See Response No. 2.	No	N/A
17	Cumulative affects from discharge created by the construction of the Poseidon Resources and CWA desalination plants should be considered by the RWQCB.	The EIR for the Carlsbad Desalination Plant, section 3.1 states, "Poseidon has a long-term lease of the project site which precludes the construction of a separate project at this location. Therefore, while there may be two agencies processing two separate projects of the same nature in the same location	No	N/A

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		simultaneously, it is anticipated that only one project will be built...Therefore, this analysis assumes that a single seawater desalination plant would be built and operated, and would consist of the components, capacity and specifications identified in Section 3.4, below.” Therefore cumulative affects from two desalination plants is not anticipated. Should a change in circumstance occur section VI.C.1 of the Tentative Order provides for amendments to the permit.		
18	A decision on the Tentative Order would undermine the goal of CEQA to assist public agencies in identifying significant affects of proposed projects.	Adoption of an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC, except for new sources as defined in the Federal Water Pollution Control Act. Section 306 of CWA (40 CFR 122.2) defines a new source as being commenced after promulgation of standards of performance which are applicable to such source. No performance standards have been published under Section 306 of CWA that are applicable to seawater desalination. As such, the CDP is not a new source, and is exempt from CEQA requirements. The City of Carlsbad certified the EIR for the project on June 13, 2006. The lead agency determined that the EIR fully considered the impacts of the desalination facility on the marine environment, analyzed alternatives and provided necessary mitigation measures.	Yes	Fact Sheet IIIB
19	The project should not receive an “expedited approval” because the project will not be operational for 5-years.	The RWQCB is acting on the application for a NPDES permit for the Carlsbad desalination plant in the normal course of business. No “expedited approval” process has been granted to this project application.	No	N/A
20	Future NPDES permit for EPS may change the operation of the EPS and cooling technology used at EPS.	Adoption of the Tentative Order is independent of the renewal of the Encina Power Station’s NPDES permit. The tentative order section VI.C.1 includes a reopener provision that will provide the RWQCB the ability to amend the discharge permit if circumstances change.	No	N/A

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PUBLIC TESTIMONY RECEIVED ON JUNE 14, 2006				
Poseidon Testimony-1	Peter Maclaggan – Poseidon Resources Corporation - Provided a project description and information about water purchase agreements with various water districts, and the types of studies that have been conducted to formulate environmental information related to the project. Provided information related to the pilot project currently in operation.	No Response is Necessary	No	N/A
Poseidon Testimony-2	Dr. Scott Jenkins - Scripps Institute of Oceanography –described the methodology for his study on the hydrodynamics of salinity dispersion for the project.	Staff has reviewed Dr. Jenkins study in preparation of the Tentative Order.	No	N/A
Poseidon Testimony-3	Steve LaPage – M-REP Consulting - described his study on the effect of elevated salinity on marine organisms. Study concluded there was no significant adverse effect at 40 ppt salinity level.	Staff has reviewed Dr. LaPage’s study in preparation of the Tentative Order.	No	N/A
Poseidon Testimony-4	Dr. Jeff Graham with Scripps Institute of Oceanography described his research of the literature on the affects of salinity discharge on the ocean environment. Determined boundary conditions for salinity discharge. Concluded that salinity level of 40 ppt and less would cause no significant impact.	Noted. Also see response No. 7.	Yes	IV.B.2 (new Table 9) VI.C.2. c

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Poseidon Testimony-5	<p>Dr. David Mayer – Tenera Environmental – discussed his research on the intake and outfall for the EPS to determine quantity and quality of species entrained and impinged by intake facility. Determined that when operating in conjunction with the power plant, the desalination plant would not increase the volume or velocity of the water entering the EPS intake. Therefore no additional impingement from the project will occur. Only a small increase in entrainment from the project. When operating independent of the power plant, volume and velocity of the water flowing through the intake would be substantially reduced when compared to the historic EPS operation and would not cause any additional impingement losses or significant entrainment losses.</p>	Noted. Also see response No. 4.	Yes	VI.C.2.e
Poseidon Testimony-6	<p>Peter Maclaggan – Poseidon Resources - stated that lower Total Dissolved Solids in project product water will mean higher quality water for the San Diego Region, would improve the quality of reclaimed water and encourage expanded water conservation and increased water reuse.</p>	No Response Necessary.	No	N/A

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Sierra Club Testimony-1	Ed Kimura- Sierra Club – asked that the Regional Board defer the tentative order until after consideration of the NPDES Permit for the Encina Power Station.	See response No. 2.	No	N/A
Sierra Club Testimony-2	Mr. Kimura stated that the power plant is inefficient and may be retired before the desalination project is built. Noted State Lands Commission and Ocean Protection Council resolutions to phase out once-through cooling power plants. Believes that the desalination plant should be reviewed as a “stand alone” facility. Clean Water Act 316(b) requirements should be considered with the tentative order.	See response No. 4.	Yes	VI.C.2.e Fact Sheet VII.B.4
Sierra Club Testimony-3	Mr. Kimura stated that the design of the pretreatment filters should be disclosed prior to issuance of permit. Because pretreatment is not determined, Sierra Club cannot accurately review the tentative order.	See response No. 3.	No	N/A
Surfrider Testimony-1	Joe Geever – Surfrider Foundation – Asked that the tentative order be postponed until after NPDES permit for EPS is issued. Believes EPS permit will be determinative to the	See response No. 2.	No	N/A

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	operation of the desalination plant.			
Suzanne Michael Testimony -1	<p>Ms. Michael –Commented on the link between new water supplies and urban growth. Stated three concerns:</p> <ol style="list-style-type: none"> 1. Will there be new water? 2. Will there be urban growth? 3. What is the affect of that growth on storm water pollution and sediment loading on Carlsbad lagoons? 	Noted. No NPDES Permit limitations or requirements are required to address this issue.	No	N/A
Suzanne Michael Testimony-2	<p>Ms. Michael stated that storm water pollution is linked to new water supplies and growth. Said that her research indicates that new water leads to suburban sprawl growth. Growth, in turn, leads to the pollution of local waterways. This growth has led to wetland degradation.</p> <p>Prof. Michael is particularly concerned with sediment loading in Batiquitos and Agua Hedionda Lagoon. Concerned with the maintenance of drainage channels. Channels need to be cleared of sediment. Concerned about Carlsbad’s compliance with municipal</p>	<p>The City of Carlsbad is required to comply with the Municipal Storm Water Permit Order R9-2006-0011 and NPDES CAS0108758. The permit provides enforcement measures and planning requirements for storm water discharges to the MS4. Sediment is a pollutant identified in the Municipal Storm Water permit that Co-permittees are required to keep from entering the MS4. Significant discharge of sediment from construction activity into the MS4 would be a violation of the Municipal Storm Water Permit and the Regional Board would exercise its’ enforcement jurisdiction under the provisions of the permit.</p> <p>The Regional Board does not have jurisdiction to determine the growth inducing nature of increased water supplies. However we note that the City of Carlsbad acknowledged the unmitigable effects of growth inducement from water supply by adopting a statement of overriding consideration for growth inducement in the Final EIR for the Carlsbad Desalination project.</p>	No	N/A

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	storm water permit.	In addition the discharge permit provides provisions to determine compliance with water quality objectives of the Ocean Plan and to determine if discharges cause significant impacts to water quality within the zone of initial dilution, and beyond the zone of initial dilution, MRP No. R9-2006-0065 establishes ambient semiannual monitoring for temperature, pH, salinity, dissolved oxygen, and transmissivity. The receiving water monitoring has been established consistent with the receiving water monitoring requirements contained in the MRP for the EPS (Order No. 2000-03). The Regional Water Board may reopen and revise the Order after it has been adopted to incorporate the requirements of a watershed management approach, revise effluent limits as a result of future Basin Plan Amendments or the adoption of a total maximum daily load allocation for the receiving water.		
Center for Biological Diversity Testimony -1	David Hogan – Center for Biological Diversity – Stated opposition to Tentative Order. Stated the benefits of the project are exaggerated.	No Response Necessary.	No	N/A
Center for Biological Diversity Testimony -2	Mr. Hogan said that the project will result in harm to the marine environment due to its removal of a large volume of sea life from the Agua Hedionda Lagoon through the seawater intake.	The City of Carlsbad Final EIR Additional Responses to Comments states the following in regard to the finding of no significant impact from impingement and entrainment of marine organisms: The most frequently entrained species are very abundant in the area of EPS intake, Agua Hedionda Lagoon, and the Southern California Bight, and therefore, the actual ecological effects due to any additional entrainment from the CDF at either level of plant operations are insignificant. Species of direct recreational and commercial value constitute a very small fraction (less than 1 percent) of the entrained organisms and therefore, the operation of the desalination facility does not result in significant ecological impact. California Department of Fish	Yes	VI.C.2. e Fact Sheet VII.B.4

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		and Game (2002) in their Nearshore Fishery Management Plan provides for sustainable populations with harvests of up to 60 percent of unfishes adult stocks. The incremental entrainment (“harvest”) effect of larval fishes from the desalination facilities operations at 106 or 306 MGD is approximately 1–2 percent and would have no effect on the source water populations. Generally less than one percent of all fish larvae become reproductive adults.		
Center for Biological Diversity Testimony-3	Mr. Hogan stated that concentrated brine discharge will poison sea life.	Noted. See response No. 7.	Yes	IV.B.2 (New Table 9) VI.C.2.c
Center for Biological Diversity Testimony -4	Mr. Hogan states that the project will create a new water supply which will induce urban sprawl into San Diego’s natural lands, and compound problems of urban run-off, transportation gridlock, and air pollution.	Noted. See response to Suzanne Michael Testimony-2.	No	N/A
Center for Biological Diversity Testimony -5	Enhanced water conservation and recycling should be pursued.	Noted.	No	N/A
Center for Biological Diversity Testimony-6	Mr. Hogan states that Poseidon Resources has never addressed the impacts related to salinity discharge, impingement and entrainment from a stand alone desalination facility, without power plant operation. Stated that project EIR looks at a worst-case	The Lead Agency and Applicant have analyzed the impacts of the Project with and without the operations of the Encina Power Station (EPS). This information is included in the Final EIR and Appendix E thereto. The Final EIR contains substantial evidence that shows that the impacts from a No Power Plant scenario to have the same level of significance as the with power plant	Yes	VI.C.2.e Fact Sheet VII.B.4

Comment No.	Summary of Comment	Regional Board Staff Response	Suggested Revision	Permit Section
	<p>historical scenario which only addresses water not being heated by the power plant but assumes water is moving through power plant and is used to dilute brine discharge. Believes that a stand alone scenario should consider no water flow other than what is used for the desalination plant.</p>	<p>scenario for all of the impact areas.</p>		
<p>Center for Biological Diversity Testimony -7</p>	<p>There are two competing desalination facilities for the EPS site. EIRs for each project say that only one project can be completed.</p>	<p>Noted.</p>	<p>No</p>	<p>N/A</p>
<p>Center for Biological Diversity Testimony -8</p>	<p>Mr. Hogan asks that the Regional Board withhold a decision on the Tentative Order until it is clear whether the Poseidon Resources or CWA proposal will be completed at EPS.</p>	<p>The Regional Board must act on an application for a discharge permit. The San Diego County Water Authority has not applied for a discharge permit from the Regional Board. The Regional Board is unable to hold up the processing of a permit for a project that may or may not occur. See response to written comment Stanford-3.</p>	<p>No</p>	<p>N/A</p>
<p>Center for Biological Diversity Testimony-9</p>	<p>Mr. Hogan referenced a comment letter to the Regional Board dated June 5th that stated any consideration of a desalination plant discharge permit should follow renewal of the EPS discharge permit. Mr Hogan states that any decision on the EPS NPDES permit by the Regional Board to reduce the volume of cooling water intake by the power plant could alter the viability of the desalination plant</p>	<p>See response No. 2.</p>	<p>No</p>	<p>N/A</p>

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	which draws on the waste stream of the EPS.			
Solmer Testimony-1	Gabriel Solmer – San Diego Coastkeeper – Stated opposition to Tentative Order. Discharge permit for EPS should be acted upon prior to desalination plant permit.	See Response No. 2.	No	N/A
Solmer Testimony-2	Impingement and entrainment are significant issues. Reference is made to Pisces Report prepared by for hearing on San Onofre power plant discharge permit which refutes the impingement and entrainment conclusions related to the affect of power plant intakes on marine resources.	See response to hearing comment Poseidon Resources-5	Yes	VI.C.2.e
Solmer Testimony-3	Desalination project should be considered as a stand alone, without power plant, facility.	See response to Hearing Comment Center for Biological Diversity -6	Yes	VI.C.2.e Fact Sheet VII.B.4
Solmer Testimony-4	Questions the benefits of a decrease in salt loading in wastewater streams from desalinated water because wastewater is discharged to the ocean, as well as brine discharge from facility.	The City of Carlsbad operates an extensive recycled water distribution system. Reduced salt loading to the wastewater streams serving Carlsbad would result in lower salt loading to the groundwater underlying the recycled water use areas.	No	N/A

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Everts Testimony-1	<p>Conner Everts – Desal Response Group – Discussed various desalination plants in the State of California. Stated that increased conservation must be reviewed. Urged Regional Board to consult with the Coastal Commission. Stated that we are not deficient in water and need to become more cost effective and efficient in water use before a new water supply is created. Mr. Everts opposes the tentative order approval.</p>	Noted.	No	N/A
Coast Keeper Testimony-1	<p>Bruce Reznik – San Diego Coast Keeper – Requested a delay in the tentative order. Stated that once-through cooling power plants have devastating impacts on the marine environment. Stated that the State Lands Commission and Ocean Protection Council have discouraged once-through cooling power plants and that the desalination facility will incentivize continuation of once-through cooling power plants.</p>	See response No. 4.	Yes	VI.C.2.e Fact Sheet VII.B.4
Coast Keeper Testimony-2	<p>Mr. Reznik stated that desalination is a disincentive to conservation. Increased conservation, reclamation and reuse of water need to be further explored.</p>	Noted.	No	N/A

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Coast Keeper Testimony -3	Mr. Reznik stated that desalination is an energy intensive process.	Noted.	No	N/A
<i>Comments received from the following individuals in support of the Tentative Order</i>				
Comment No.	Summary of Comment	Response	Revision	Document Section
	<p>The following individuals submitted written comments and/or made public testimony in support of the Tentative Order :</p> <ul style="list-style-type: none"> • SD Regional Chamber of Commerce • Bob Simmons • Hubbs Seaworld Research Institute • Assemblyman George Plescia • Assemblyman Mark Wyland • SD Building Trades Council • Industrial Environmental Association • SD Economic Development Council • Valley Center Municipal Water District • William Carroll • Rincon del Diablo Municipal Water District • Agua Hedionda Lagoon 	No Response Necessary	No	N/A

Comment No.	Summary of Comment	Regional Board Staff Response		Suggested Revision	Permit Section
	<p>Foundation</p> <ul style="list-style-type: none"> • SD North Economic Development Council • Senator Denise Ducheny • Senator Christine Kehoe • City of Carlsbad • Cabrillo Power I LLC • Mike Madigan • Don Christiansen <p>Their comments included: the Carlsbad Desalination Project achieves water supply objectives with adequate environmental safeguards, reduces dependence on imported supplies, is protective of marine environment, promotes a balanced water portfolio, adequate environmental studies were conducted, promotes beneficial uses of ocean waters, salt loads to the water basin will be reduced and co-location provides optimum use of Coastal Property</p>				