

State of California
Regional Water Quality Control Board
San Diego Region

REVISED
EXECUTIVE OFFICER SUMMARY REPORT
April 8, 2009

ITEM: 13

SUBJECT: NPDES Permit Revision and Approval of Flow, Entrainment and Impingement Minimization Plan: Poseidon Resources Corporation, Proposed Carlsbad Desalination Project (Order No. R9-2006-0065, NPDES No. CA0109223). The Regional Board will consider approval of a March 2009 Flow, Entrainment and Impingement Minimization Plan, including a Marine Life Mitigation Plan, required by section VI.C.2.e. of Order No. R9-2006-0065 and will consider related amendments to Order No. R9-2006-0065 to require the Discharger to implement and comply with the March 9, 2009 Minimization Plan under specified conditions of operation. Order No. R9-2006-0065 is not being reopened for any other purposes. (Tentative Order No. R9-2009-0038) (Michelle Mata)

PURPOSE: To determine whether implementation of Poseidon's March 2009 Flow, Entrainment and Impingement Minimization Plan will result in the "use [of] the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life," as required by California Water Code (CWC) section 13142.5(b) and to determine whether to amend Order No. R9-2006-0065 to require implementation of and compliance with the plan.

PUBLIC NOTICE: A Notice of Public Hearing was published in the San Diego Union Tribune on March 9, 2009. A copy of the tentative Order was mailed on March 9, 2009 to Poseidon Resources Corporation and distributed by email to key interested parties. A Notice of Availability of the tentative Order, Notice of Public Hearing and Comment Period, and Flow, Entrainment and Impingement Plan was mailed to all known interested parties and agencies on March 10, 2009. The tentative Order and March 9, 2009 Minimization Plan were also posted on the Regional Board's web site on March 9, 2009. **The March 27, 2009 Minimization Plan, which revises the March 9, 2009 Plan, was posted on the Regional Board's web site on March 28, 2009.**

DISCUSSION:

At its February 11, 2009 meeting, the Regional Board was scheduled to consider whether the Marine Life Mitigation Plan (MLMP) Poseidon submitted in response to Resolution No. R9-2008-0039 (conditionally approving March 6, 2008 Minimization Plan) satisfied the conditions established in that Resolution or whether failure to satisfy the conditions rendered the Resolution inoperative by its own terms. At the commencement of the February 11 item, the Executive Officer, with concurrence by the Discharger, recommending postponing action on the matter and identified a list of four outstanding issues concerning the March 6, 2008 Flow, Entrainment and Impingement Minimization Plan, as supplemented by the MLMP. The outstanding issues were (1) Placing Regional Water Board and its Executive Officer on equal footing, including funding, with Coastal Commission and its Executive Director, in the MLMP, while minimizing redundancies (e.g., only one Scientific Advisory Panel). Details of dispute resolution process to be worked out; (2) Reducing the number of sites to five, in consultation with the Coastal Commission, with the existing proviso that other sites within the Regional Board boundaries could be added; (3) Poseidon to provide the flow-proportioned calculations for Poseidon's impacts due to impingement, to help support the Board's determination that these impacts are *de minimis*; and (4) Poseidon to provide a consolidated set of all requirements imposed to date by the various agencies."

The Regional Board continued the matter to its April 8, 2009 meeting, directed staff to work with the Discharger to expeditiously address the above identified outstanding issues, and further directed staff to prepare for Regional Board consideration a resolution or order approving the Flow, Entrainment, and Impingement Minimization Plan (Minimization Plan) required by Order No. R9-2006-0065.

Since the February 11, 2009 meeting, Regional Board staff and the Discharger have met on numerous occasions to address the outstanding issues. By separate submittal on February 26, 2009, the Discharger substantially resolved outstanding issue (4) by submitting six documents reflecting various agencies' regulatory requirements concerning the CDP. On March 9, 2009, the Discharger submitted an extensively revised Minimization Plan, incorporating the November 14, 2008 MLMP, for Regional Board

consideration. The publicly-noticed draft of the March 9, 2009 Minimization Plan substantially resolves outstanding issue (1) by incorporating revisions to effect the placement of Regional Board and Executive Officer on equal footing with Coastal Commission and its Executive Director in the MLMP. It also substantially resolves issue (2) by affirming that among the eleven candidate sites identified in the MLMP, Poseidon will consider the five sites within the Regional Board's boundaries as priority sites for selection.

The most extensive discussions between staff and Poseidon since the February 11, 2009 meeting have arisen from resolution of issue (3), which requests "Poseidon to provide the flow-proportioned calculations for Poseidon's impacts due to impingement, to help support the Board's determination that these impacts are *de minimis*". Poseidon provided the requested flow-proportioned calculations, reflecting properly presented 2004-2005I impingement data from EPS operations. With these corrections, it became apparent to staff that Poseidon had significantly understated the historical impingement impacts from EPS's operations and, therefore, had significantly understated CDP's projected impacts. Poseidon had described these impacts as *de minimis*, both in earlier versions of the Minimization Plan and in proceedings before the Coastal Commission last year. As a result of these discussions, the March 9, 2009 Minimization Plan sets forth corrected historical impingement data and has been revised to present several alternative projections, including flow-proportioned projections, to quantify estimated impingement impacts associated with CDP's operations. Because the corrected impingement calculations and associated projections can no longer be characterized as *de minimis*, Poseidon's Plan, unlike prior versions, now evaluates whether the mitigation for entrainment provided in the MLMP will also adequately mitigate for the newly identified, non-*de minimis*, impingement impacts. Whether Poseidon will adequately mitigate the impacts of both entrainment and impingement is a central issue in evaluating compliance with CWC section 13142.5(b).

On March 18, 2009 the Discharger submitted a revised statement from Chris Nordby, supporting the above conclusion about adequacy of mitigation in light of the revised impingement assessment. On March 20, 2009, the Discharger submitted statements from Howard Chang, PhD, and Scott Jenkins, PhD,

regarding the effects of storm events on the data collected.

~~Staff has evaluated the documents received to this point, and intends to release a~~ **A preliminary staff report was released on March 27, 2009 to** that may assist the Board in evaluating whether Poseidon's implementation of the Minimization Plan will result in the "use [of] the best available site, design, technology, and mitigation measures feasible," including evaluation of the above materials. In light of the non-*de minimis* impingement impacts, staff has also engaged Dr. Pete Raimondi as an expert to assist the Board in evaluating the reasonableness of various approaches to projecting impingement impacts set forth in Poseidon's Plan as well as whether the mitigation Poseidon commits to implement in the MLMP to address entrainment impacts will also adequately mitigate for impacts from impingement.

~~It is anticipated that Poseidon will submit additional revisions within the next several days, incorporated in a final version of the Minimization Plan for the Board's consideration. Once staff has reviewed the anticipated revisions, as well as Dr. Raimondi's evaluation, staff plans to amend their report and recommendations accordingly.~~ **Poseidon submitted a Flow Impingement and Entrainment Minimization Plan dated March 27, 2009 reflecting minor revisions to Chapters 4, 5 and 6 from the March 9, 2009 Flow, Entrainment and Impingement Minimization Plan and incorporating previously submitted supplemental materials. Attachments 9 and 10 are new. A statement prepared for the Regional Board by Peter Raimondi Ph.D., titled "Review of Impingement Study and Mitigation Assessment-Carlsbad Seawater Desalination Project," dated April 1, 2009 has also been submitted. A supplemental Regional Board staff report, dated April 3, 2009, evaluating these additional submittals is included as an attachment.**

If adopted, tentative Order No. Tentative Order No. R9-2009-0038 would approve Poseidon's **March 27, 2009 Minimization Plan, with attachments 1-10.** ~~March 9, 2009 Minimization Plan, as supplemented on March 18 and March 20, 2009.~~ The tentative Order would also amend the findings, requirements, and Fact Sheet of NPDES Order No. Order No. R9-2006-0065 to incorporate the applicable portions of the approved Minimization

Plan and to require Poseidon to implement and comply with the approved Plan.

~~To date, the Regional Board has received no comments since the February 11 Board meeting.~~ **In addition to comments received prior to February 11, 2009, the Regional Board has received, to date, comments from the Sierra Club-San Diego Chapter, Coast Law Group, a group of Californians, Robert McLean, and Poseidon Resources Inc.** Staff is currently preparing responses to comments ~~received prior to the February 11, 2009 Board Meeting.~~ Responses to all comments received will be provided to the Board, either in writing in advance of the hearing or orally at the hearing, along with any recommended errata to the tentative Order.

SIGNIFICANT
CHANGES:

Any significant changes will be identified in the second mailing.

COMPLIANCE:

N/A

LEGAL ISSUES:

None.

SUPPORTING DOCS:

1. Site Map
2. Site Flow Diagram
3. Transmittal Letter dated March 9, 2009 for tentative Order No. R9-2009-0038
4. Tentative Order No. R9-2009-0068
5. CD containing the EOSR, the above Supporting Documents, and Flow, Entrainment and Impingement Minimization Plan (dated March 9, 2009), with attachments 1-9 (updated as of March 26, 2009)
6. **Regional Board Staff Report (dated March 27, 2009)**
7. **Flow, Entrainment and Impingement Minimization Plan (dated March 27, 2009) with attachments 1-10**
8. **Review of Impingement Study and Mitigation Assessment for the Carlsbad Desalination Project, Peter Raimondi Ph.D. (April 1, 2009)**
9. **Comment Letter from Sierra Club, San Diego Chapter (April 1, 2009)**
10. **Comments by Coast Law Group (email dated April 1, 2009)**
11. **Comments by a group of Californians entitled, "Stop the**

- Unnecessary Destruction of Marine Life”, dated April 2, 2009
- 12. Comment Letter from Poseidon Resources Corporation (April 2, 2009) with Appendices (All documents, including Supporting Documents are provided on a CD)
- 13. Comments from Coast Law Group (email dated 4/3/09, email attachment can be found at this link: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/mitigation_finalreport_execsum081307.pdf)
- 14. Comment letter from Robert McLean dated 3/30/2009
- 15. Supplemental Regional Board Staff Report (April 3, 2009)
- 16. Comment from Poseidon entitled, “Initial Rebuttal of Statement of Pete Raimondi, which Was Received by Poseidon Resources Corporation on April 2, 2009”

RECOMMENDATION: The Executive Officer will make a recommendation at the Board Meeting.

NOTE: Additional supporting materials, including a Redline/Strikeout Version Showing Changes from the March 6, 2008 Minimization Plan to March 27, 2009 and a Redline/Strikeout Version Showing Changes from March 9, 2009 Minimization Plan to March 27, 2009, are available at:

http://www.waterboards.ca.gov/sandiego/press_room/announcements/carlsbad_desalination/carlsbad_desalination.shtml