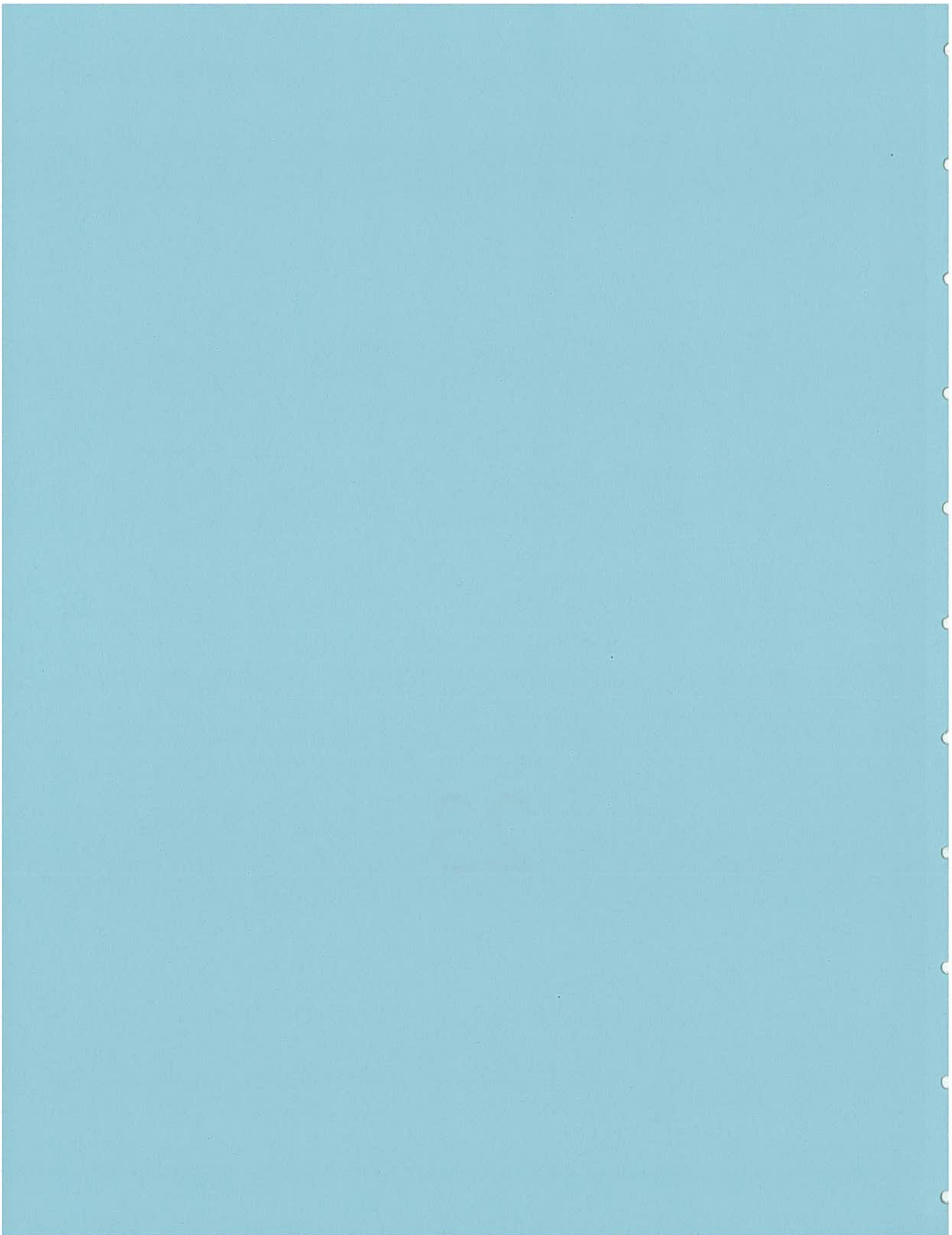


23



OC Print-Mail Center

From: Halter, Amanda (OC)
Sent: Monday, March 09, 2009 2:21 PM
To: 'Catherine Hagan (George)'
Cc: Garrett, Christopher (SD); Singarella, Paul (OC); PMacLaggan@poseidon1.com
Subject: RE: Timing of Poseidon's submittal today

Attachments: Nordby Mitigation Acreage Computation.pdf; Chp 6 Min Plan.pdf



Nordby Mitigation Chp 6 Min Plan.pdf
Acreage Comp... (134 KB)

Catherine,

Chapter 6 in the Min Plan and Nordby's statement (mitigation acreage computation) referenced therein opine on this. Both are attached.

Best,
Amanda

-----Original Message-----

From: Catherine Hagan (George) [mailto:CHagan@waterboards.ca.gov]
Sent: Monday, March 09, 2009 2:16 PM
To: Halter, Amanda (OC)
Cc: Garrett, Christopher (SD); Singarella, Paul (OC); PMacLaggan@poseidon1.com
Subject: RE: Timing of Poseidon's submittal today

Just a follow-up, do you have an excerpt regarding adequacy of mitigation for impingement impacts you can share now? We will need to revise the draft order accordingly. Thank you.

Catherine

>>> <Amanda.Halter@lw.com> 3/9/2009 1:53 PM >>>

Thanks for checking in, Catherine. Min Plan and attachments are being scanned and will arrive to you electronically within the hour.

Best,
Amanda

-----Original Message-----

From: Catherine Hagan (George) [mailto:CHagan@waterboards.ca.gov]
Sent: Monday, March 09, 2009 1:51 PM
To: Halter, Amanda (OC)
Cc: Garrett, Christopher (SD); Singarella, Paul (OC); PMacLaggan@poseidon1.com
Subject: Timing of Poseidon's submittal today

Hi Amanda,

I am checking in to find out when you anticipate submitting the Minimization Plan. The Plan needs to be posted on our website simultaneously with the tentative order by 5 p.m. to satisfy the 30 day public comment period in order to meet the April 8, 2009 hearing date. Our IT staff person will need some lead time to make sure that the Plan and attachments can be posted timely. If you can estimate the expected time, I would very much appreciate it and can give a heads-up to our IT staff.

Thank you.
Catherine

Catherine George Hagan
Senior Staff Counsel
Office of Chief Counsel

State Water Resources Control Board
chagan@waterboards.ca.gov

9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
Telephone: 858.467.2958
Facsimile: 858.571.6972

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Latham & Watkins LLP

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861.

2. The second part is a report from the Secretary of the Treasury, dated January 1, 1861, on the state of the Treasury.

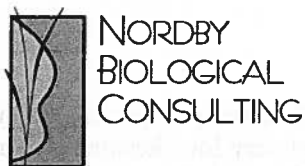
3. The third part is a report from the Secretary of the Interior, dated January 1, 1861, on the state of the Interior.

4. The fourth part is a report from the Secretary of the Navy, dated January 1, 1861, on the state of the Navy.

5. The fifth part is a report from the Secretary of the War, dated January 1, 1861, on the state of the War.

6. The sixth part is a report from the Secretary of the State, dated January 1, 1861, on the state of the State.

ATTACHMENT



MITIGATION COMPUTATION BASED ON IMPINGEMENT ASSESSMENT

Chris Nordby - Nordby Biological Consulting

March 2009

My name is Chris Nordby of Nordby Biological Consulting and I am an expert in the field of tidal wetlands restoration. On behalf of Poseidon Resources Corporation, I have prepared this statement to address whether the Marine Life Mitigation Plan will adequately account for the estimated potential impingement of the Carlsbad Desalination Plant ("CDP") should it operate in stand-alone mode.

CDP's Estimated Impingement Based on a Flow-Proportioned Calculation and a Weighted Average for Non-Flow-Related Events Is No More Than 4.70 kg/day

The Encina Power Station ("EPS") hired Tenera Environmental to conduct an Impingement Mortality and Entrainment (IM&E) Study to comply with new 316(b) rules that the EPA promulgated in 2004. In 2004-2005, Tenera collected impingement and entrainment data pursuant to the Board-approved IM&E Study.

Since CDP will obtain feedstock water from EPS's existing intake structure, Tenera used the data it collected for the IM&E Study to estimate the potential for impingement from the future operations of the CDP. In order to isolate and account for impacts related to CDP's stand-alone operations, Tenera's data has been pro-rated, i.e., flow-proportioned in accordance with CDP's daily flow needs of 304 MGD. Based on this analysis, which is described in Chapter 5 of CDP's Flow, Entrainment and Impingement Minimization Plan, CDP's projected stand-alone impingement of fishes is estimated to be approximately 4.70 kg/day or approximately 1,715.5 kg/year when operating in stand-alone mode.

Poseidon's Mitigation Project Will Offset Fully the CDP's Estimated Stand-Alone Impingement

As is set forth in the MLMP, Poseidon's mitigation project will restore up to 55.4 acres of estuarine wetlands. A primary/express objective of this project is to mitigate for estimated entrainment associated with CDP's stand-alone operations. In addition to mitigating for entrainment, the mitigation project will provide the additional benefit of offsetting CDP's estimated stand-alone impingement. That is, the MLMP accomplishes two objectives: it mitigates fully for all entrainment and impingement that may result from CDP's stand-alone operations.

Fish productivity in shallow tidal wetlands is extremely high due to high primary productivity, efficient transfer of energy, and nursery functions that promote rapid growth and provide refugia from predators. The biomass of fishes in estuaries is often among the greatest biomass of higher trophic levels in natural ecosystems in the world (Day et al., 1989).

Allen (1982) conducted a study of fish productivity of the littoral zone of Upper Newport Bay where he calculated fish productivity at 9.35 gDW/m²/yr. The mudflats and tidal channels that Allen sampled in Upper Newport Bay are analogous to the habitat that would be created by Poseidon as mitigation for impingement and entrainment associated with the CDP. Allen's measurements were

conservative in that he did not include mullet, an abundant but difficult-to-sample species, the large size of which would have increased biomass estimates; and he reported very low densities of arrow goby, a small but extremely abundant species in many southern California wetlands.

There are few studies of fish productivity in southern California wetlands that are similar to Allen's; however, there are fish density data available from other southern California systems from the same time period that can be compared to Upper Newport Bay. Nordby and Zedler (1991) sampled fishes at Tijuana Estuary and Los Penasquitos Lagoon from 1986 to 1989 and from 1987 to 1989, respectively. Allen sampled monthly, while Nordby and Zedler sampled quarterly. While there is considerable variability from month to month, and year to year, the densities of the dominant estuarine fishes in Allen's Newport Bay studies are typical of southern California estuaries. Tijuana Estuary consistently had the highest fish densities. Typified by continuous tidal flushing and shallow, dendritic channels, Tijuana Estuary serves as the model estuarine system to be created by Poseidon compared to Upper Newport Bay. Although density is an indirect indicator of productivity, it is reasonable that systems with similar densities of these species would have similar productivities.

Because the density of fishes sampled in Allen's study was typical of the density of fishes in other southern California coastal wetlands, it is reasonable to assume that his conservative productivity measurement for Upper Newport Bay would be applicable to Poseidon's mitigation. Based on Allen's estimate of approximately 9.35 g/m²/yr, 37 acres of restored coastal wetland habitat would yield approximately 1,400 kg/yr fish biomass; 55.4 acres would yield 2,096 kg/yr fish biomass.¹

I understand that CDP's operations will result in the impingement of no more than 4.70 kg of organisms per day or 1,715.5 kg per year, so that its mitigation project fully offsets CDP's stand-alone impingement at 45.3 acres. (Design and technology enhancements planned for the intake structure during stand-alone operations render these estimates conservative. In other words, actual impingement should be reduced from these values by design and technology features. But, it was not possible to quantify such minimization.) Therefore, if all 55.4 acres of mitigation wetlands are constructed, the mitigation project will generate significantly more fish biomass than that anticipated to potentially be impinged at the CDP.

Finally, the mitigation wetlands also will provide a nursery for invertebrates, resulting in invertebrate biomass that otherwise would not exist in nature. I was unable to quantify the amount of invertebrate biomass that will be produced at the mitigation sites. But, I can conclude with great confidence that such will occur. The fact that fish biomass production at the mitigation sites alone will offset the potential for combined fish and invertebrate impingement at the CDP introduces a margin of safety into this analysis.

¹ Calculations are based on the following facts:

1. 4,047 square meters in 1 acre;
2. 9.35 grams fish biomass produced per square meter (Allen);
3. 37,839.45 grams fish biomass produced per acre (4047 x 9.35)—37.84 kg/acre.

**Mitigation Acreage to Fully Offset Impingement at
Various Impingement Estimates for Stand-Alone Operations**

<u>Impingement Estimation Approaches</u>	<u>Treatment of Non- Flow-Related Events</u>	<u>Weight (kg/day) ²</u>	<u>Mitigation Acreage to Fully Offset</u>
1. Regression	Excluded	1.57	15.1 acres
2. Regression	Weighted Average	4.18	40.3 acres
3. Proportional	Included	3.74	36.1 acres
4. Proportional	Weighted Average	4.70	45.3 acres

Literature Cited:

1. Larry Glen Allen, *Seasonal Abundance, Composition and Productivity of the Littoral Fish Assemblage in Upper Newport Bay, California*, 80 Fishery Bulletin 4, 769-90 (1982).
2. John W. Day et al., *Estuarine Ecology* (John Wiley and Sons, Inc.) (1989).
3. C.S. Nordby & J.B. Zedler, *Responses of Fish and Macrobenthic Assemblages to Hydrologic Disturbances in Tijuana Estuary and Los Penasquitos Lagoon, California*, 14 Estuaries 1, 80-93 (1991).

² Impingement estimates taken from "Estimation of the Potential for Impingement Should the CDP Operate in Stand-Alone Mode."

Table 1. Summary of the data used in the analysis.

Variable	Unit	Mean	Standard deviation	Minimum	Maximum
Age	Years	35.2	10.5	18	65
Gender	Male/Female	50.0/50.0	49.7/50.3	0	100
Education	Years	12.5	2.1	8	16
Income	\$/month	1500	500	500	3000
Health status	Good/Bad	60.0/40.0	59.8/40.2	0	100

Source: Author's calculation.

The data were collected from a random sample of 1000 individuals aged 18 and over, living in the urban areas of the city. The sample was selected using a multi-stage sampling method, where the first stage was the selection of the city, the second stage was the selection of the neighborhood, and the third stage was the selection of the individuals. The data were collected using a structured questionnaire, which included questions on demographic characteristics, health status, and access to health services. The questionnaire was administered by trained interviewers, who were blinded to the study objectives. The data were then analyzed using statistical software, and the results are presented in Table 1.

ATTACHMENT

CHAPTER 6

MITIGATION

Pursuant to Water Code Section 13142.5(b), the best available site, design, technology, and mitigation measures feasible will be used to minimize marine life intake and mortality associated with an ocean-water intake system. This Chapter describes the mitigation measures associated with the CDP and incorporates a **Marine Life Mitigation Plan ("MLMP")** into this Flow, Entrainment and Impingement Minimization Plan, attached hereto as Part A. The MLMP requires Poseidon to construct up to 55.4 acres of mitigation wetlands to offset intake and mortality of marine life. As explained below, even in the event CDP operates in stand-alone mode, its estimated impingement and entrainment impacts will be fully offset by the mitigation wetlands, not taking into consideration the design and technology measures that will diminish marine life mortality still further. Thus, in combination, by using the best available site, design, technology, and mitigation measures feasible, as described in this Minimization Plan, CDP will not only minimize the intake and mortality of marine life, but it will at least zero out any such losses and will likely result in additional biological productivity. The requirements of Section 13142.5(b) will be met and exceeded under the terms of this Minimization Plan.

- *Section 6.1 introduces and incorporates the MLMP generally.*
- *Section 6.2 explains how the mitigation requirement was established based on the CDP's estimated entrainment and impingement, not taking into account design and technology measures.*
- *Section 6.3 describes how the MLMP works.*
- *Section 6.4 describes the site selection.*
- *Section 6.5 describes the performance measures.*
- *Section 6.6 provides for the Regional Board and Executive Officer's MLMP enforcement and administration authority.*

6.1 MARINE LIFE MITIGATION PLAN

The MLMP, incorporated in this Chapter at Part A, provides for the construction of up to 55.4 acres of highly productive estuarine wetlands in the Southern California Bight, created in two phases. During Phase I, a period expected to correspond with EPS's continued operations, Poseidon will create 37 acres of wetlands. During Phase II, when CDP may be operating in stand-alone mode, the agencies will consider whether Poseidon will be required to create an additional 18.4 acres of wetlands, or whether instead, it may offset some or all of this further mitigation requirement by employing additional technology measures at the intake system, or undertaking dredging in Agua Hedionda Lagoon in a manner that warrants mitigation credit.

6.2 ESTABLISHING MITIGATION REQUIREMENT

Although Water Code Section 13142.5(b) only requires that the Project use the best available site, design, technology, and mitigation measures feasible to *minimize* intake and mortality of marine life, the MLMP takes a more environmentally conservative approach, requiring sufficient mitigation to completely *zero out* intake and mortality, i.e., impingement and entrainment.

6.2.1 COMPARISON OF ESTIMATED IMPINGEMENT AND PROJECTED BIOLOGICAL PRODUCTIVITY OF MITIGATION PLAN

Chapter 5 explains how the CDP's projected impingement was estimated as a flow-proportioned amount of the EPS's impingement for flow-related sampling days plus total impingement for non-flow-related sampling days.¹ CDP's projected impingement when operating in stand-alone mode is approximately 4.70 kg per day, which amounts to approximately 1,715.5 kg per year.²

Fish productivity for one acre of wetland of the kind to be established under the MLMP will result in approximately 9.35g/m²/yr.³ This corresponds to an expected annual productivity of 1,400 kg per year of fish biomass for the 37-acre mitigation site required under Phase I of the MLMP and 2,096 kg per year of fish biomass for 55.4 acres under Phase II – significantly more than the estimated 1,715.5 kg per day associated with the CDP's stand-alone operations. As a result, Phase II mitigation assures that the Project will result in a net productivity of fish biomass.

6.2.2 ENTRAINMENT MITIGATION

Chapter 5 explains how CDP's projected entrainment for stand-alone operations was conservatively estimated based on the Empirical Transport Model (ETM), which estimated the portion of the larvae of each target fish species at risk of entrainment.⁴ Multiplying the average percent of populations at risk by the physical area from which the fish larvae might be entrained yields an estimate of the amount of habitat that must be restored to replace the lost fish larvae. This estimate is referred to as the area (acreage) of habitat production foregone (APF).

In order to calculate the APF, the amount of lagoon habitat acreage occupied by the three most commonly entrained lagoon fish larvae⁵ was multiplied by the average Proportional Entrainment Mortality (PM) for the three lagoon species identified in Chapter 5 (12.2 percent). The estimated

¹ See Section 5.2 of Chapter 5 and Attachment 5 explaining the approach.

² As explained in Attachment 5, the range of estimated impingement when using adjusted EPS data is from 1.57 to 4.7 kg/day.

³ Attachment 7, Chris Nordby, Mitigation Computation Based on Impingement Assessment.

⁴ See Section 5.3 of Chapter 5.

⁵ Ninety-eight percent of the fish larvae that would be entrained by the CDP stand-alone operations are gobies, blennies and hypsopops.

acres of lagoon habitat for these species are based on a 2000 Coastal Conservancy Inventory of Agua Hedionda Lagoon habitat shown in Table 6-1.

TABLE 6-1
WETLAND PROFILE: AGUA HEDIONDA LAGOON

Approximate Wetland Habitat Acreage

Habitat	Acres	Vegetation Source
Brackish / Freshwater	3	Cattail, bulrush and spiny rush were dominant
Mudflat / Tidal Channel	49	Not specified / Estuarine flats
Open Water	253	Eelgrass occurred in all basins
Riparian	11	Not specified
Salt Marsh	14	Not applicable
Upland	61	Not applicable
TOTAL	391	

The areas of Agua Hedionda Lagoon that have potential to be impacted by the CDP operations are those habitats occupied by the three most commonly entrained lagoon fish larvae. These habitats include 49 acres of mudflat/tidal channel and 253 acres of open water. It is not appropriate to include the other lagoon habitats in the APF calculation, such as brackish/freshwater, riparian, salt marsh or upland habitats that are not occupied by the impacted species. By definition, the APF equals the acres of the lagoon habitat that have the potential to be impacted by the intake operations (302 acres) multiplied by the the average PM:

$$APF = 302 \text{ acres} \times 0.122 = 36.8 \text{ acres.}$$

Thus, entrainment effect of the stand-alone operation of the desalination plant extends over 12.2 percent, or 36.8 acres of Agua Hedionda Lagoon. From this, Poseidon concluded that the entrainment caused by the 304 MGD of water withdrawn by the desalination facility would result in an APF of 37 acres in Agua Hedionda Lagoon.

The Coastal Commission adopted a more conservative approach, based on the ETM but using more conservative assumptions and higher confidence levels, to determine the amount of mitigation needed to zero out the CDP's estimated entrainment.⁶ The Coastal Commission concluded that by providing up to 55.4 acres of estuarine wetland restoration under the conditions and performance standards prescribed by the MLMP, the CDP's entrainment impacts will be mitigated and marine resources will be maintained, enhanced and restored in conformity with the Coastal Act's marine life protection policies.⁷

⁶ Discussed in detail in Chapter 5 at Section 5.3; see also, <http://documents.coastal.ca.gov/reports/2008/12/w16a-12-2008.pdf>, see pages 13 and 14 of 18.

⁷ Id.

As a result of the Coastal Commission's conservative assumptions, the restoration requirements established in the MLMP will compensate under worst-case conditions⁸ when the power plant is no longer operating and the existing pumps are operated solely to deliver 304 MGD of seawater for the operation of the desalination plant and no additional design or technology measures are implemented to further reduce the entrainment impacts of stand-alone operations. This approach will result in over mitigation as long as the power plant continues to operate.

This is because the restored habitat will provide significant environmental benefits that extend well beyond compensating for the entrainment impacts. For example, the APF calculation does not take into account the enormous ecological value of the restored acreage that will accrue to valuable wetland species completely unaffected by the intake, such as the numerous riparian birds, reptiles, benthic organisms and mammals that will utilize the habitat for foraging, cover and nesting. Nor does the calculation consider the myriad of phytoplankton, zooplankton and invertebrate species that are largely unaffected by the intake operations and benefit directly from the restored wetlands.

As a result, the mitigation required under the MLMP assures that the biological loss associated with CDP's stand-alone estimated entrainment will not only be zeroed out, but will result in a net enhancement of the coastal habitat.

Therefore, the requirements of Section 13142.5(b) for stand-alone operations will be met and exceeded under terms of this Minimization Plan. Because additional analysis under Section 13142.5(b) will be required if the EPS ceases to operate, however, impingement and entrainment will be reevaluated at that time, and the agencies will have an opportunity to adjust the Project requirements if warranted by additional data or the changed circumstances.

6.3 HOW THE MLMP WORKS

Pursuant to Water Code Section 13225, and the Regional Board's April 9, 2008 Resolution,⁹ the MLMP was developed through an interagency process involving several federal and state agencies, including the Regional Board and the Coastal Commission. The MLMP attached hereto is the final version approved by the Coastal Commission and therefore provides enforcement and administrative authority specifically to the Coastal Commission and its Executive Director. By incorporating the MLMP into the Minimization Plan, the MLMP similarly is enforceable by the Regional Board and its Executive Officer. The Regional Board's specific authorities with regard to the MLMP are described in detail in section 6.5 below.

The MLMP describes the completion of specified tasks on a timeframe based upon the Coastal Commission's issuance of a coastal development permit for the CDP – an event that is expected to occur in the second quarter of 2009. Within 9 months of receiving the coastal development permit for the CDP, Poseidon shall submit to the Coastal Commission for its review and

⁸ As noted in Chapter 3, the EPS discharge would have provided 88.6 percent of the CDP seawater intake requirements in 2008 and 61% in 2007.

⁹ R9-2006-0039.

approval a proposed mitigation site or sites, and a preliminary restoration plan for 37 acres of wetlands for its review and approval.¹⁰ Under this Minimization Plan, Poseidon shall make the same submission to the Regional Board for its review and approval. Poseidon may elect to complete all 55.4 acres of wetlands during this Phase I period, but must complete at least 37 acres. Within 6 months of the Commission's approval of the site and restoration plan, subject to Poseidon's having obtained the necessary permits, Poseidon must begin construction of the wetlands.¹¹ An application for a coastal development permit for the Phase I site or sites must be submitted to the Coastal Commission within two years of receiving the coastal development permit for the CDP itself. Specific requirements for the coastal development permit applications for Phases I and II are detailed in Section 4.0 of the MLMP.

If Poseidon does not elect to complete 55.4 acres of wetlands in Phase I, it will need to seek a coastal development permit for the additional mitigation wetlands (18.4 acres) within 5 years of receiving the coastal development permit for the Phase I wetlands. In the alternative, Poseidon may seek authorization to substitute intake technology and/or dredging of Agua Hedionda Lagoon for all or a portion of the 18.4 acres.

6.4 SITE SELECTION

The mitigation site or sites may be selected from among the 11 sites identified during the interagency process and listed in the MLMP, or may be one recommended by the California Department of Fish & Game as a high-priority wetlands restoration project, or one proposed by Poseidon and added to the list with the approval of the Coastal Commission's Executive Director and the Regional Board's Executive Officer. The 11 identified sites are: (1) Tijuana Estuary; (2) San Dieguito River Valley; (3) Agua Hedionda Lagoon; (4) San Elijo Lagoon; (5) Buena Vista Lagoon; (6) Huntington Beach Wetland; (7) Anaheim Bay; (8) Santa Ana River; (9) Los Cerritos Wetland; (10) Ballona Wetland; and, (11) Ormond Beach. Additional narrative detail about the sites is incorporated into this chapter at Part B. The selected site(s) must meet the detailed requirements of Section 3.0 of the MLMP, which are not reprinted here.

Sites located within the boundaries of the Regional Water Quality Control Board, San Diego Region, shall be considered priority sites. If Poseidon proposes one or more mitigation sites outside of these boundaries, it first shall demonstrate to the Board that the corresponding mitigation could not feasibly be implemented within the boundaries, such as when the criteria established in Section 3.0 of the MLMP are not satisfied.

Figure 1 is a map showing identified sites within San Diego County. Figure 2 is a map showing sites located within Orange, Los Angeles, and Ventura Counties.

¹⁰ MLMP § 2.0.

¹¹ MLMP § 4.2.

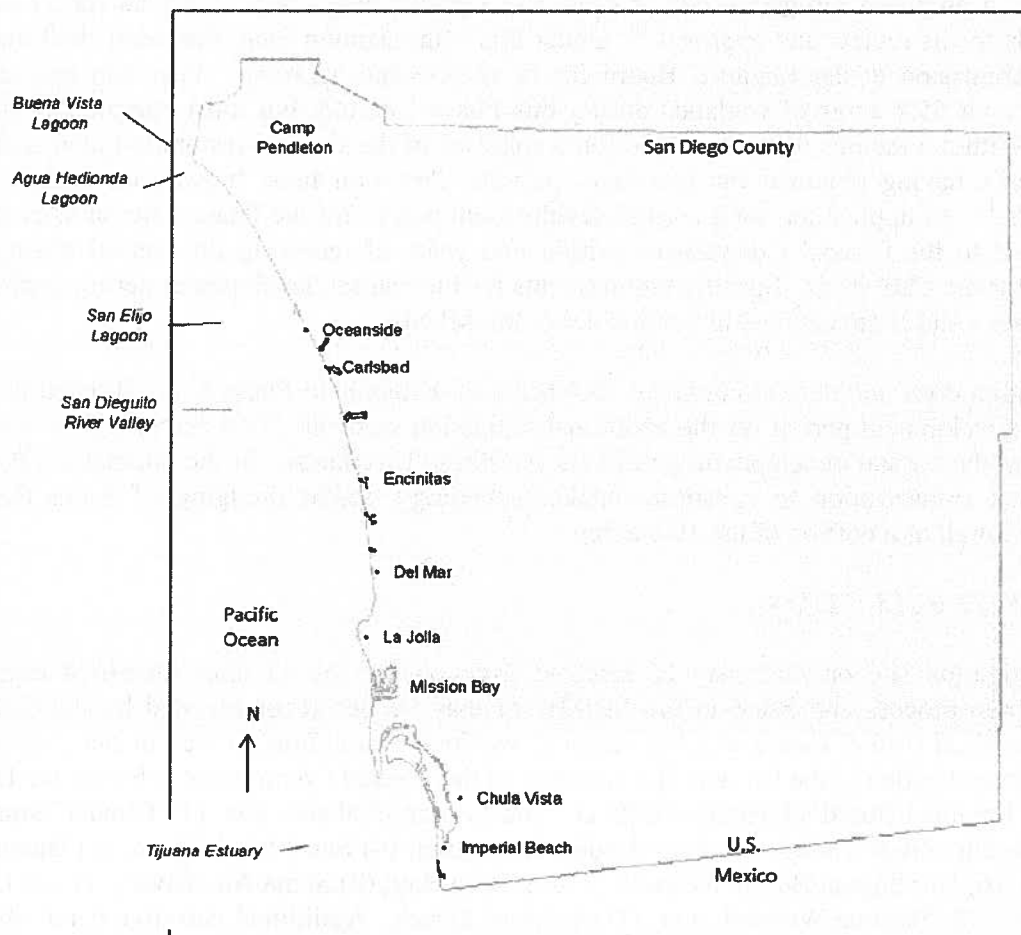


Figure 1 – Location of Mitigation Sites In San Diego County, California



Figure 2 – Location of Mitigation Sites in Orange County, Los Angeles County, and Ventura County, California

6.5 PERFORMANCE MEASURES

In addition to specific standards for mitigation site selection, the performance of the site(s) will be enforced by strict performance standards, which are substantially the same as those approved for mitigation of marine life mortality associated with Southern California Edison's San Onofre Nuclear Generating Station. Among other things, the standards require that, within five years of the start of construction, the wetlands must match habitat values within a 95% confidence level for four undisturbed wetlands to be identified per the MLMP. The performance measures are detailed in Section 5.0 of the MLMP and are not reprinted here.

6.6 REGIONAL BOARD AUTHORITY

The Regional Board's authority with regard to the MLMP shall be very similar to the Coastal Commission's, except where it would lead to unnecessary duplication of effort, or unnecessary burden on Poseidon. The table below identifies each section of the MLMP in which an action by, or in consultation with, the Coastal Commission is contemplated. The specific language of the MLMP referring to the Regional Board's corresponding authority is identified.

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
2.0 Site Selection	"In consultation with Commission staff, the permittee shall select a wetland restoration site or sites for mitigation in accordance with the following process and terms."	In consultation with Commission staff <u>and Regional Board staff</u> , the permittee shall select a wetland restoration site or sites in accordance with the following process and terms.
	"Within 9 months of the effective date of this permit, the permittee shall submit the proposed site(s) and preliminary wetland restoration plan to the Commission for its review and approval or disapproval."	Within 9 months of the effective date of the coastal development permit for the CDP, the permittee shall submit the proposed site(s) and preliminary wetland restoration plan to the <u>Commission and the Regional Board</u> for their review and approval or disapproval.
	"Other sites proposed by the permittee may be added to this list with the Executive Director's approval."	Other sites proposed by the permittee may be added to this list with the Executive Director's <u>and Executive Officer's</u> approval.

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
3.0 Plan Requirements	"In consultation with Commission staff, the permittee shall develop a wetland restoration plan for the wetland site(s) identified through the site selection process."	In consultation with Commission staff <u>and Regional Board staff</u> , the permittee shall develop a wetland restoration plan for the wetland site(s) identified through the site selection process.
4.1 Coastal Development Permit Applications	"The Executive Director may grant an extension to these time periods [for submittal of coastal development applications] at the request of and upon demonstration of good cause by the permittee."	The Executive Officer shall recognize any such extension.
4.3 Timeframe for Resubmittal of Project Elements	"If the Commission does not approve any element of the project (i.e. site selection, restoration plan), the Commission will specify the time limits for compliance relative to selection of another site or revisions to the restoration plan."	If the Commission <u>and the Regional Board</u> do not approve any element of the project (i.e. site selection, restoration plan), the Commission, <u>in concert with the Regional Board</u> , will specify the time limits for compliance relative to selection of another site or revisions to the restoration plan. The Regional Board shall recognize, and shall act consistently with, any such time limits.
5.0 Wetland Monitoring, Management and Remediation	"A monitoring and management plan will be developed in consultation with the permittee and appropriate wildlife agencies, concurrently with the preparation of the restoration plan to provide an overall framework to guide the monitoring work."	No change.
5.4	"Upon completion of construction of the wetland(s), monitoring shall be conducted to measure the success of the wetland(s) in achieving stated restoration goals (as specified in the restoration plan(s)) and in achieving performance standards, specified below. The permittee shall be fully responsible for any failure to meet these goals and standards during the facility's full operational years. Upon	Upon completion of construction of the wetland(s), monitoring shall be conducted to measure the success of the wetland(s) in achieving stated restoration goals (as specified in the restoration plan(s)) and in achieving performance standards, specified below. The permittee shall be fully responsible for any failure to meet these goals and standards during the facility's full operational years. Upon

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	<p>determining that the goals or standards are not achieved, the Executive Director shall prescribe remedial measures, after consultation with the permittee, which shall be immediately implemented by the permittee with Commission staff direction. If the permittee does not agree that remediation is necessary, the matter may be set for hearing and disposition by the Commission.”</p>	<p>determining that the goals or standards are not achieved, the Executive Director <u>or the Executive Officer</u> shall prescribe remedial measures, after consultation with each other and the permittee, which shall be immediately implemented by the permittee with Commission staff direction. If the permittee does not agree that remediation is necessary, the matter may be set for hearing and disposition by the Commission <u>or the Regional Board or both in a consolidated hearing, as determined by the Executive Director and Executive Officer.</u>”</p>
<p>Condition B: Administrative Structure</p> <p>Section 1.0 Administration</p>	<p>“Personnel with appropriate scientific or technical training and skills will, under the direction of the Executive Director, oversee the mitigation and monitoring functions identified and required by Condition A. The Executive Director will retain scientific and administrative support staff needed to perform this function, as specified in the work program.</p> <p>“This technical staff will oversee the preconstruction and post-construction site assessments, mitigation project design and implementation (conducted by permittee), and monitoring activities (including plan preparation); the field work will be done by contractors under the Executive Director’s direction. The contractors will be responsible for collecting the data, analyzing and interpreting it, and reporting to the Executive Director.</p> <p>“The Executive Director shall convene a Scientific Advisory Panel</p>	<p>“Personnel with appropriate scientific or technical training and skills will, under the direction of the Executive Director, <u>and in coordination with Regional Board staff</u>, oversee the mitigation and monitoring functions identified and required by Condition A. The Executive Director will retain scientific and administrative support staff needed to perform this function, as specified in the work program.</p> <p>“This technical staff will oversee the preconstruction and post-construction site assessments, mitigation project design and implementation (conducted by permittee), and monitoring activities (including plan preparation); the field work will be done by contractors under the Executive Director’s direction. The contractors will be responsible for collecting the data, analyzing and interpreting it, and reporting to the Executive Director.</p> <p>“The Executive Director shall convene a Scientific Advisory Panel to provide</p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	to provide the Executive Director with scientific advice on the design, implementation and monitoring of the wetland restoration. The panel shall consist of recognized scientists, including a marine biologist, an ecologist, a statistician and a physical scientist."	the Executive Director <u>and the Executive Officer</u> with scientific advice on the design, implementation and monitoring of the wetland restoration. The panel shall consist of recognized scientists, including a marine biologist, an ecologist, a statistician and a physical scientist."
Section 2.0 Budget and Work Program	<p>"The funding necessary for the Commission and the Executive Director to perform their responsibilities pursuant to these conditions will be provided by the permittee in a form and manner reasonably determined by the Executive Director to be consistent with requirements of State law, and which will ensure efficiency and minimize total costs to the permittee. The amount of funding will be determined by the Commission on a biennial basis and will be based on a proposed budget and work program, which will be prepared by the Executive Director in consultation with the permittee, and reviewed and approved by the Commission in conjunction with its review of the restoration plan. If the permittee and the Executive Director cannot agree on the budget or work program, the disagreement will be submitted to the Commission for resolution.</p> <p>The budget to be funded by the permittee will be for the purpose of reasonable and necessary costs to retain personnel with appropriate scientific or technical training and skills needed to assist the Commission and the Executive Director in carrying out the mitigation and lost resource compensation</p>	<p>The funding necessary for the Commission and the Executive Director, <u>and the Regional Board and the Executive Officer</u>, to perform their responsibilities pursuant to these conditions will be provided by the permittee in a form and manner reasonably determined by the Executive Director <u>and the Executive Officer</u> to be consistent with requirements of State law, and which will ensure efficiency and minimize total costs to the permittee. The amount of funding will be determined by each of the Commission and the <u>Regional Board</u> on a biennial basis and will be based on a proposed budget and work program, which will be prepared by the Executive Director <u>and Executive Officer</u> in consultation with the permittee, and reviewed and approved by the Commission <u>and the Regional Board</u> in conjunction with <u>their respective</u> reviews of the restoration plan. If the permittee and the Executive Director cannot agree on the budget or work program, the disagreement will be submitted to the Commission for resolution. <u>If the permittee and the Executive Officer cannot agree on the budget or work program, the disagreement will be submitted to the Regional Board for resolution.</u></p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	<p>conditions. In addition, reasonable funding will be included in this budget for necessary support personnel, equipment, overhead, consultants, the retention of contractors needed to conduct identified studies, and to defray the costs of members of any scientific advisory panel(s) convened by the Executive Director for the purpose of implementing these conditions.</p> <p>Costs for participation on any advisory panel shall be limited to travel, per diem, meeting time and reasonable preparation time and shall only be paid to the extent the participant is not otherwise entitled to reimbursement for such participation and preparation. The amount of funding will be determined by the Commission on a biennial basis and will be based on a proposed budget and work program, which will be prepared by the Executive Director in consultation with the permittee, and reviewed and approved by the Commission in conjunction with its review of the restoration plan. If the permittee and the Executive Director cannot agree on the budget or work program, the disagreement will be submitted to the Commission for resolution. Total costs for such advisory panel shall not exceed \$100,000 per year adjusted annually by any increase in the consumer price index applicable to California.</p> <p>The work program will include:</p> <p>a. A description of the studies to be conducted over the subsequent</p>	<p>The budget to be funded by the permittee will be for the purpose of reasonable and necessary costs to retain personnel with appropriate scientific or technical training and skills needed to assist the Commission and the Executive Director, <u>and the Regional Board and the Executive Officer</u>, in carrying out the mitigation and lost resource compensation conditions. In addition, reasonable funding will be included in this budget for necessary support personnel, equipment, overhead, consultants, the retention of contractors needed to conduct identified studies, and to defray the costs of members of any scientific advisory panel(s) convened by the Executive Director for the purpose of implementing these conditions. <u>The Executive Officer may offer comment to the Executive Director regarding the scientific advisory panel(s), but will not convene a science panel in addition to that panel convened by the Executive Director.</u></p> <p>No additional corresponding authority.</p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	<p>two year period, including the number and distribution of sampling stations and samples per station, methodology and statistical analysis (including the standard of comparison to be used in comparing the mitigation project to the reference sites);</p> <p>b. A description of the status of the mitigation projects, and a summary of the results of the monitoring studies to that point;</p> <p>c. A description of four reference sites;</p> <p>d. A description of the performance standards that have been met, and those that have yet to be achieved;</p> <p>e. A description of remedial measures or other necessary site interventions;</p> <p>f. A description of staffing and contracting requirements; and,</p> <p>g. A description of the Scientific Advisory Panel's role and time requirements in the two year period.</p> <p>The Executive Director may amend the work program at any time, subject to appeal to the Commission."</p>	
3.0 Annual Review and Public Workshop Review	<p>"The permittee shall submit a written review of the status of the mitigation project to the Executive Director no later than April 30 each year for the prior calendar year. The written review will discuss the previous year's activities and overall status of</p>	<p>The permittee shall submit a written review of the status of the mitigation project to the Executive Director <u>and the Executive Officer</u> no later than April 30 each year for the prior calendar year. The written review will discuss the previous year's activities</p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	<p>the mitigation project, identify problems and make recommendations for solving them, and review the next year's program.</p> <p>To review the status of the mitigation project, the Executive Director will convene and conduct a duly noticed public workshop during the first year of the project and every other year thereafter unless the Executive Director deems it unnecessary. The meeting will be attended by the contractors who are conducting the monitoring, appropriate members of the Scientific Advisory Panel, the permittee, Commission staff, representatives of the resource agencies (CDFG, NMFS, USFWS), and the public. Commission staff and the contractors will give presentations on the previous biennial work program's activities, overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next upcoming period's biennial work program.</p> <p>The public review will include discussions on whether the wetland mitigation project has met the performance standards, identified problems, and recommendations relative to corrective measures necessary to meet the performance standards. The Executive Director will use information presented at the public review, as well as any other relevant information, to determine whether any or all of the performance standards have been met, whether revisions to the standards are necessary, and whether remediation is</p>	<p>and overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next year's program.</p> <p>To review the status of the mitigation project, the Executive Director <u>and Executive Officer</u> will convene and conduct a duly noticed public workshop during the first year of the project and every other year thereafter unless the Executive Director <u>and Executive Officer deem</u> it unnecessary. The meeting will be attended by the contractors who are conducting the monitoring, appropriate members of the Scientific Advisory Panel, the permittee, Commission staff, <u>Regional Board staff</u>, representatives of the resource agencies (CDFG, NMFS, USFWS), and the public. Commission staff and the contractors will give presentations on the previous biennial work program's activities, overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next upcoming period's biennial work program.</p> <p>The public review will include discussions on whether the wetland mitigation project has met the performance standards, identified problems, and recommendations relative to corrective measures necessary to meet the performance standards. The Executive Director <u>and Executive Officer</u> will use information presented at the public review, as well as any other relevant information, to determine whether any or all of the performance standards have been met, whether revisions to the standards are</p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
	<p>required. Major revisions shall be subject to the Commission's review and approval.</p> <p>The mitigation project will be successful when all performance standards have been met each year for a three-year period. The Executive Director shall report to the Commission upon determining that all of the performance standards have been met for three years and that the project is deemed successful. If the Commission determines that the performance standards have been met and the project is successful, the monitoring program will be scaled down, as recommended by the Executive Director and approved by the Commission. A public review shall thereafter occur every five years, or sooner if called for by the Executive Director. The work program shall reflect the lower level of monitoring required. If subsequent monitoring shows that a standard is no longer being met, monitoring may be increased to previous levels, as determined necessary by the Executive Director.</p> <p>The Executive Director may make a determination on the success or failure to meet the performance standards or necessary remediation and related monitoring at any time, not just at the time of the workshop review."</p>	<p>necessary, and whether remediation is required. Major revisions shall be subject to the Commission's <u>and Regional Board's</u> review and approval.</p> <p>The mitigation project will be successful when all performance standards have been met each year for a three-year period. The Executive Director shall report to the Commission upon determining that all of the performance standards have been met for three years and that the project is deemed successful. <u>The Executive Officer shall similarly report to the Regional Board; in making his report, the Executive Officer may rely upon the Executive Director's report.</u> If the Commission <u>and the Executive Officer</u> determine that the performance standards have been met and the project is successful, the monitoring program will be scaled down, as recommended by the Executive Director and approved by the Commission. A public review shall thereafter occur every five years, or sooner if called for by the Executive Director <u>or the Executive Officer.</u> The work program shall reflect the lower level of monitoring required. If subsequent monitoring shows that a standard is no longer being met, monitoring may be increased to previous levels, as determined necessary by the Executive Director.</p> <p>The Executive Director <u>and the Executive Officer</u> may make a determination on the success or failure to meet the performance standards or necessary remediation and related monitoring at any time, not just at the time of the workshop review.</p>

MLMP Section	Coastal Commission Authority	Regional Board's Corresponding Authority
4.1 Dispute Resolution	"In the event that the permittee and the Executive Director cannot reach agreement regarding the terms contained in or the implementation of any part of this Plan, the matter may be set for hearing and disposition by the Commission."	In the event that the permittee and the Executive Director cannot reach agreement regarding the terms contained in or the implementation of any part of this Plan, the matter may be set for hearing and disposition by the Commission. <u>In the event that the permittee and the Executive Officer cannot reach agreement regarding the terms contained in or the implementation of any part of this Plan, the matter may be set for hearing and disposition by the Regional Board.</u>
4.2 Time Extensions	"Any of the time limits established under this Plan may be extended by the Executive Director at the request of the permittee and upon a showing of good cause."	The Executive Officer may provide timely comment to the Executive Director on any such time limits, and shall recognize any time limits extended by the Executive Director.
Condition C: SAP Maintenance	"The permittee shall make available on a publicly-accessible website all scientific data collected as part of the project. The website and the presentation of data shall be subject to Executive Director review and approval."	The permittee shall make available on a publicly-accessible website all scientific data collected as part of the project. The website and the presentation of data shall be subject to the review and approval of the Executive Director and the Executive Officer.

6.7 CONCLUSION

As described in the preceding sections, the mitigation measures of the MLMP are expected to result in biological productivity that will offset the potential intake and mortality of marine life from the stand-alone operations of the CDP. The offsetting benefits to marine life associated with the MLMP fully minimize intake and mortality. In fact, with full implementation of the MLMP, a net positive production of marine life is anticipated, underscoring the efficacy of the proposed mitigation measures. In other words, while the CDP has the potential to cause impingement and entrainment, this potential is more than offset by the reasonably anticipated biological productivity of the planned mitigation wetlands.

Compliance with the MLMP will be enforced by the Regional Board and the Coastal Commission as provided in Section 6.6.¹² Thus, Poseidon has met its burden under Water Code Section 13142.5(b) to minimize intake and mortality from the proposed CDP and has incorporated mitigation measures into its project that satisfy this statute fully. In sum, the site, design, technology, and mitigation measures proposed in this Plan represent a balanced approach to minimizing the potential for intake and mortality from the CDP under stand-alone operations, and individually and collectively satisfy the obligation under Section 13142.5(b) to employ best available and feasible measures to minimize such effects.

¹² The MLMP will also be enforced by the State Lands Commission under the terms of the lease for the intake system. State Lands Commission, Amendment of Lease PRC 8727.1., ¶¶ 11-24.

