

**CALIFORNIA ENVIRONMENTAL QUALITY
ACT (CEQA) ADDENDUM
CITY OF CARLSBAD, CALIFORNIA
PRECISE DEVELOPMENT PLAN AND DESALINATION PLANT PROJECT
FINAL ENVIRONMENTAL IMPACT REPORT (EIR 03-05)**

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1.0 INTRODUCTION

The *Precise Development Plan and Desalination Plant Project Final Environmental Impact Report* (FEIR) contains a comprehensive disclosure and analysis of potential environmental effects associated with the implementation of the seawater desalination plant and associated off-site water delivery pipelines. The purpose of this Addendum is to provide clarification of the minor changes to the Project and to provide explanation supported by substantial evidence as to why these proposed changes will not result in any new impacts or any increase in the severity of impacts addressed in the FEIR.

2.0 CEQA REQUIREMENTS

Cal. Code of Regulations title 14 (hereinafter, "State CEQA Guidelines"), sections 15162 through 15164 discuss a lead agency's responsibilities in handling new information that was not included in a project's final environmental impact report.

Section 15162 of the State CEQA Guidelines provides:

- (a) When an EIR has been certified...for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
 - 1. Substantial changes are proposed in the project which will require major revisions of the previous EIR...due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
 - 2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
 - 3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete...shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

In the alternative, where some changes or additions are necessary to the previously approved FEIR, but none of the changes or additions meet the standards as provided for a subsequent EIR pursuant to State CEQA Guidelines, section 15162, then the lead agency is directed to prepare an Addendum to the FEIR. (State CEQA Guidelines, section 15164). Further, the Addendum should include a "brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162," and that "explanation must be supported by substantial evidence." (State CEQA Guidelines, section 15164, subd. (e).) The addendum need not be circulated for public review, but may simply be attached to the Final EIR (Ibid.; State CEQA Guideline, section 15164, subd. (c)).

3.0 PROJECT LOCATION AND REGIONAL SETTING

The desalination plant will be located on the Encina Power Station (EPS) site, adjacent to the existing power plant, located immediately south of the Agua Hedionda Lagoon, within the City of Carlsbad, in northern San Diego County. The EPS and proposed desalination plant are located at 4600 Carlsbad Boulevard, along the southern edge of the Agua Hedionda Lagoon on the Pacific Ocean. The EPS comprises approximately 95 acres, and is generally bounded by San Diego Gas and Electric (SDG&E) property on the south, the Pacific Ocean and Carlsbad Boulevard on the west, Interstate 5 on the east, and the southern shore of the outer and middle basins of the Agua Hedionda Lagoon on the north. Additionally, off-site water conveyance facilities extend beyond the proposed desalination plant site.

4.0 DESCRIPTION OF APPROVED PROJECT

In 2006, the City of Carlsbad (City) approved an amendment to the Precise Development Plan (PDP) for the EPS to obtain land use approvals to construct and operate an approximately 50 million gallon per day (mgd) Carlsbad Seawater Desalination Plant (desalination plant) and other appurtenant and ancillary water and support facilities to produce potable water. The PDP application was made jointly with Cabrillo, owner and operator of the EPS, which is adjacent to the site of the proposed desalination plant.

The EPS Precise Development Plan establishes general planning policies and development standards for the planning area, and permits administrative processing for minor land use modifications. It also serves as the primary land use approval mechanism for the desalination plant. The Plan establishes baseline conditions for existing facilities and operations on site as well as establishes procedures for administrative approvals for future changes within the PDP area. The development standards apply to all future on-site development, including major and minor additions and modifications. The desalination plant would not modify EPS operations, and, with the exception of discharge channel and electrical connections, does not modify any of the existing EPS facilities. With the inclusion of the intake pump station and pipeline, concentrate return pipeline, sewer connection, backwash water treatment facility, electrical transformers, substation, electrical transmission lines, road improvements, and product water pipeline, all of which are remotely located from the desalination plant on the EPS property, construction of the combined desalination plant and remotely located on-site facilities was originally proposed on a 5.67-acre site. The off-site water delivery pipelines lie outside of the PDP boundary.

The proposed desalination plant will have the capacity to deliver approximately 50 mgd of Reverse Osmosis (RO) permeate (product water). The desalinated water from the desalination plant will be distributed along several pipeline routes to the City of Carlsbad and various local water districts as wholesale water purchasers for ultimate use and consumption by homes and businesses in Northern San Diego County. The on-site and off-site components of the desalination plant are described in more detail in Section 3.0, Project Description of the FEIR. To facilitate distribution of product water, the EIR analyzed different pipeline alignments through portions of Carlsbad, Oceanside, and Vista.

All components of the desalination plant, including all on-site and off-site Project elements, are proposed to be sized and built to accommodate and deliver 50 mgd of product water. City required applications for the desalination facility were submitted to the City for review in May 2000. The City approved all Project applications and certified the Project's Final Environmental Impact Report (FEIR) on June 13, 2006. Project applicant remains Poseidon Resources, (Channelside) LLC., Cabrillo Power I, LLC remains the owner of the EPS.

5.0 DESCRIPTION OF PROPOSED CHANGES TO THE PROJECT

Desalination Plant Changes

Changes to the desalination plant consist of reconfiguring the plant, consolidating uses, and rerouting and undergrounding the source water and discharge pipelines and intake (source water) pump station. The original design located the facility almost entirely within the existing berm/containment area of EPS' oil storage tank #3, with the pretreatment filter area located on

the west end of the site, and the reverse osmosis (RO) trains and storage, mechanical, and office uses (collectively, "RO Building") located on the east side. Plant support facilities, including the solids handling building and electrical transformers, were located within the boundaries of the EPS but not within the desalination plant site. These facilities are sometimes referred to as "on-site facilities" in the FEIR.

The proposed revisions would reconfigure the desalination plant site to occupy the eastern approximately two-thirds of the EPS oil tank #3 site, as well as additional land located to the south. The revised site would occupy an area of approximately 5.7 acres within the EPS site, excluding the source water and discharge pipelines and intake pump station. The facilities also would be positioned to place the pretreatment filtration area in the northeastern portion of the newly configured site. The RO Building would be moved to the west-central portion of the site. Relocation of the RO Building may slightly reduce the visible mass of the desalination plant as viewed from points across Agua Hedionda Lagoon to the west and north of the site, such as Carlsbad Boulevard.

Post-treatment, chemical storage and solids handling and transformer facilities would be located east of the RO Building, adjacent to the rail right-of-way. These facilities, along with the pretreatment area, would be screened from view by tall, freestanding walls designed to present a building-like appearance from the site exterior. Product water storage would change from a 1.0 million gallon underground tank to a 3.4 million gallon underground tank on the southern portion of the site to provide additional storage capacity. Although the tank will be larger, it will be placed underground, and therefore not visible.

In addition to the changes described, sizes of various plant components, such as the pretreatment area and solids handling building, would change. Table 1, *Comparison between Approved and Proposed Desalination Plant*, shows the differences between the approved and proposed plans.

Table 1: Comparison between Approved and Proposed Desalination Plant

| Feature | Approved (PDP 00-02/RP 05-12) | Proposed (PDP 00-02(B)/RP 05-12(A)) |
|--------------------------------|---|--|
| Desalination Plant Site | | |
| Overall dimensions | 310' (n-s) x 440' (e-w) approx | 800' (n-s) x 290' wide (e-w,avg) approx |
| Area | 3.2 acres, excludes transformers & solids bldg | 5.7 acres, includes transformers & solids bldg |
| Pretreatment Area | | |
| Location | West half of desalination plant site | NE quarter of expanded desalination plant site |
| Height | Mostly below grade structure surrounded by 3' high wall; short stretch of wall is 7.5' high | Entirely above grade (approx 27' high) and surrounded by decorative screen walls |

| Feature | Approved (PDP 00-02/RP 05-12) | Proposed (PDP 00-02(B)/RP 05-12(A)) |
|---------------------------------|---|--|
| Dimensions | 150' (east to west) by 280' (north to south) | 150' (east to west) by 300' (north to south) |
| Area | 42,632 square feet (sf) | 60,000 sf |
| RO Building | | |
| Location | East half of desalination plant site | West central part of expanded desalination plant site |
| Height | 35' | 35' |
| Dimensions | 230' (e-w) x175' (n-s), 80'x50' (2 parts, longest dimension is 225', which is visible from west) | 120' (e-w) x 380' (n-s) = 380' visible from west |
| Area | 44, 552 sf | 49,700 sf |
| Intake and discharge pipes | Above and underground, approx 3,000 feet long, and along west, south and east boundaries of site | Underground, approx 1,100 feet long, in central portion of site from near Carlsbad Blvd to desalination plant |
| Intake pump station | Aboveground, near southwest corner of EPS along Carlsbad Boulevard | Underground, west central part of site along Carlsbad Boulevard |
| Transformers | External to desalination plant site (on EPS site) | Internal to desalination plant site |
| Solids handling building | | |
| Location | External to desalination plant site (but within EPS boundaries) | Internal to desalination plant site |
| Height | 19.5' | 25' |
| Area | One structure, 2,500 sf | Two structures, 5,000 sf (internal to desal plant site) |
| Chemical Storage Area | | |
| Location | Along back of RO building, east boundary of site (facing railroad tracks) | Freestanding, east central part of expanded site (facing railroad tracks) |
| Area | 5,200 sf | 6,000 sf |
| Screen Walls | Use limited to screening of chemical storage area | Extensively use to hide pretreatment and chemical storage areas; 20-30.5' high; appearance matches RO Building with many design features |
| Colors and materials | Cast-in-place concrete, and extensive use of metal and translucent panels, glazing, and metal accents | Similar, but more varied use of colors and materials |
| Product Water Storage | Underground tank, 1.0 million gallons | Underground tank, 3.4 million gallons |
| Retaining walls | Internal to desalination plant site (not visible beyond plant) along aboveground intake and discharge pipes in the EPS site | 600' long wall along west boundary of desalination plant; nearly 10' tall along much of its length; decorative split face block with vines |
| Landscape area | 5,000 sf | 6,500 sf |
| Parking spaces | 14 | 23 |
| All features | | |
| Visible Project features* | 3.969 acres | 2.957 acres |
| Footprint, all features | 5.669 acres | 5.25 acres |

*Decrease in visible Project structures due to undergrounding of intake and discharge pipes and intake pump station

Source water and discharge pipelines would be relocated and shortened. The connection points for these pipelines would remain the same, but instead of routing the pipelines to the south, around the EPS, the pipelines would be installed in a corridor along an existing access road on the north side of the existing Administration Building extending to the east side of the Administration Building, and proceed east to the desalination plant along the north side of the existing switchyard. In conjunction with the pipeline rerouting, the intake pump station would also move north from near the southwest corner of the EPS to near the Carlsbad Boulevard entrance of the EPS. These pipelines and the intake pump station, previously considered for aboveground installation, would be placed underground. Additionally, the discharge pipeline would increase from a 48 inch to 72 inch diameter. This increase in pipeline size is necessary to achieve full plant production capacity during initial start up and testing and for the periods following service interruptions. Depending on the exact location of the intake and discharge pipelines, construction of those pipelines may require the demolition of the existing EPS administrative building near the entrance to the EPS. Construction trips associated with the demolition of this building have been accounted for in the overall construction of the Project. Replacement of the building, if proposed, will be subject to separate review and approval.

The desalination plant will receive electricity from the regional power grid (SDG&E) as discussed in the EIR. SDG&E will service the facility by adding additional banks of transformers to the existing SDG&E substation, southeast of the desalination plant. The substation expansion was previously permitted by the California Coastal Commission and was found to be exempt from the need to obtain a new coastal development permit under the coastal act's exemption for repair and maintenance to existing utilities. Transmission lines will be placed in conduits which will supply energy from the substation to the desalination plant. The conduits will be located in an existing utility easement parallel to the railroad tracks and cross under the railroad tracks to the desalination plant through an existing tunnel. Sewer facilities will be placed in the same existing utility tunnel.

No changes in the operational characteristics of the desalination plant are proposed. As described in the FEIR, the Project as revised would produce approximately 50 MGD of potable water from 104 MGD of seawater with no change in capacity. The proposed intake and discharge connection points would be the same as proposed in the FEIR, with the only changes being the shortening and rerouting of pipelines, relocation of the intake pump station, and increase in discharge pipeline diameter.

Off-Site Water Conveyance Facilities Changes

The FEIR, in Figure 3-5, identified several pipeline alignments to convey desalination water into Carlsbad, Oceanside and Vista. The various alignments and sub alignments studied were proposed primarily in street rights of way, such as Cannon Road, College Boulevard, Faraday

Avenue, Lake Boulevard, and Melrose Drive. All alignments and alternatives were considered equally to allow for design flexibility, however, the total pipeline length that was anticipated to be ultimately needed was 17.4 miles.

The revised off-site water delivery pipeline route now proposed for construction is less extensive than that addressed in the FEIR. Generally the revised pipeline route would follow only part of the "blue alignment" identified on Figure 3-5 of the FEIR and additional new pipelines described below. Figure 1 shows the various alignments studied in the FEIR, as well as the minor changes and additions addressed in this Addendum.

Portions of the blue alignment that have not changed from the FEIR include:

1. From the intersection of Cannon Road and Avenida Encinas, the alignment within Cannon Road follows the previously studied blue alignment and continues east to the Faraday Avenue/Melrose Drive intersection in the City of Vista (approximately 6.4 miles);
2. From the Faraday Avenue/Melrose Drive intersection, 2.3 miles north on Melrose Drive to its intersection with Cannon Road in the City of Oceanside, then continuing south in Cannon Road and Shadowridge Drive; and
3. From the Faraday Avenue/Melrose Drive intersection, south 0.8 mile to Palomar Airport Road in the City of Carlsbad.

Pipelines of the blue alignment that were identified in the FEIR, and no longer proposed include:

1. Elimination of all the blue alignment along Melrose Drive north of Cannon Road, which removes approximately 5.7 miles of pipeline proposed along Melrose Drive; this results in a net reduction of approximately 1.2 miles of pipeline from the 17.4 miles anticipated to be ultimately needed in the FEIR.

Pipelines that were not previously identified in the FEIR include:

1. Realignment to the beginning segment leaving the EPS site, such that the pipeline is slightly realigned to run parallel to the railroad tracks then turn east, crossing the railroad tracks and entering Avenida Encinas, within an existing public utilities easement. The pipeline then connects to the previously studied route in Cannon Road.
2. Addition of the "La Costa Alignment," approximately 1.9 miles long, as follows:
 - a. Beginning at the In Melrose Drive/Palomar Airport Road intersection, continue south on Melrose Drive to a connection point near Alga Road (the previously approved blue alignment pipeline within Melrose Drive between Faraday Avenue and Palomar Airport Road remains);

3. Addition of new water lines in the cities of Vista and San Marcos (the "San Marcos Alignment"), approximately 3.6 miles long, as follows:
 - a. Beginning at the Melrose Drive/Lionshead Road intersection, continue east on Lionshead Road to its intersection with Business Park Drive in the City of Vista;
 - b. From the Lionshead Road/Business Park Drive intersection, continue east onto Poinsettia Road (Lionshead Road becomes Poinsettia Road east of Business Park Drive) to Pawnee Street, on the east side of Rancho Santa Fe Road, via Linda Vista Avenue, Las Flores Drive, 9th Street, and disturbed land (future extension of Creek Street) (City of San Marcos);
 - c. From the Business Park Drive/Lionshead Road intersection, a short length of pipeline would extend south to Palomar Airport Road/San Marcos Boulevard.
 - d. As part of the pipeline project, the City of San Marcos will require the applicant to expand and improve Las Flores Drive and 9th Street to planned widths within the public right of way, including full curb-to-curb paving and appropriate striping. Construction of the full street widths may include the under grounding of overhead utilities. As part of the Project 9th Street will be extended and fully improved to Rancho Santa Fe Road and the Creek Street connection between Rancho Santa Fe Road and Pawnee Street will be constructed and fully improved.

Additional changes in pipelines include an increase and decrease in pipe diameters, which are described as follows:

1. Increase the diameter of the main transmission pipeline from the desalination plant into the City of San Marcos (via the approved and additional pipelines described above) from 48 inches to 54 inches, which will result in a minimization of energy use and associated greenhouse gas emissions;
2. Increase the diameter from 30 inches to 36 inches of the portion of the blue alignment identified in the FEIR on Melrose Drive, starting from Lionshead Avenue and continuing south to the Carlsbad Municipal Water District's transmission main in Palomar Airport Road. This increase in diameter is due to changes in flow apportionment between delivery points within the desalinated water delivery system.
3. Decrease the diameter from 42 inches to 36 inches for all pipeline portions in Melrose north of Lionshead, because the previously proposed 10 mgd of flow within that segment of pipe is being redirected east to the SDCWA aqueduct via the pipeline in Lionshead.

As proposed, the total pipeline length will be reduced from 17.4 miles to approximately 16.2 miles (a 7% reduction) Further, the need for the 10 MGD booster pump station identified for

construction in the City of Oceanside will be removed from the Project as product water will only be pumped once at the desalination plant.

Delivery of desalinated water from the Carlsbad Seawater Desalination Plant to the City of Carlsbad and other water customers will be through the product water pipelines indicated in Figure 1. The product water pipelines connect to the municipal or regional water systems at several different points as shown on Figure 1. Flow to Carlsbad and the other water customers is regulated and metered using structures known as flow control facilities (FCF). The FCF is a concrete vault structure which contains the infrastructure necessary to meter and control the flow of water to the municipal and regional pipelines that will distribute the water throughout those various systems. The structures will be placed underground and range in size from approximately 15' wide x 25' long x 11' deep to 30' wide x 45' long x 11' deep. These structures will be placed in either the public rights of way or on property adjacent to the pipeline. Although the exact locations of the FCF vaults have not yet been determined, Figure 1 shows the approximate locations of the vaults along the product water pipeline. The structures not located in the ROW will be placed underground on disturbed or already developed areas and therefore will be no biological impacts from their construction. The FCF structures were previously considered with the construction of the product water pipelines in the FEIR and there will be no new impacts related to these facilities being placed outside of the public rights of way.

6.0 CITY PERMITS REQUIRED

To process the proposed changes, the following permit amendments are required:

1. EIR 03-05(A) – addendum to the Project's certified Environmental Impact Report;
2. SP 144(J) – amendment to Encina Specific Plan 144;
3. PDP 00-02(B) – amendment to the Precise Development Plan;
4. DA 05-01(A) – amendment to the Project's Development Agreement;
5. RP 05-12(A) – amendment to the Project's Redevelopment Permit.
6. HMPP 05-08(A) – amendment to the Project's Habitat Management Plan Permit

7.0 IDENTIFICATION OF ENVIRONMENTAL EFFECTS

The following environmental analysis provided in Section 8.0 supports a determination that approval and implementation of the changes to the Carlsbad Desalination Plant Project identified in Section 5.0, would not result in any previously-undisclosed significant environmental impacts or a substantial increase in the severity of previously disclosed impacts or additional

significant environmental impacts beyond those previously covered under the FEIR for the Project.

Documents containing the environmental analysis supporting the City Council's action in approving the Project include the FEIR, Mitigation Monitoring and Reporting Program, CEQA Findings, and additional responses provided for comments submitted after publication of the FEIR.

Section 8.0 analyzes eleven areas of environmental concern, and discusses whether the proposed Project modifications described in Section 5.0 trigger CEQA Guidelines Section 15162 in each of these areas. For each impact area, a reference to the FEIR discussion is provided, followed by an analysis of the revised Project as it relates to each of these sections. Finally, an analysis is presented to determine whether there are any changed circumstances or new information relative to the revised Project.

8.0 ANALYSIS

Aesthetics

Analysis of aesthetic impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.1, pages 4.1-3 through 4.1-12. See also CEQA Findings, pages 10-11.

Analysis of the Revised Project

Revisions to the configuration and layout of the proposed desalination plant site would not result in new impacts or increase the severity of impacts identified in the FEIR, and therefore would not change the FEIR conclusion that short-term construction-related aesthetic impacts are less than significant, because the revised Project does not substantially change the site preparation needs or duration for construction of the desalination plant. Cumulative impacts would also be the same, given that the location and character of the desalination plant, in the context of cumulative aesthetic impacts, is substantially the same as the approved Project.

Changes to the proposed design of the Project site will result in an estimated reduction of approximately 44,089 square feet of visible aboveground structures from the Project site. The plant facilities have been reconfigured and consolidated parallel with the existing railroad right-of-way and further set back from the Agua Hedionda Lagoon (See Figures 2 and 3). Pipelines and an intake pump station previously proposed for aboveground installation will be placed underground, including the 72 inch seawater intake pipeline and the 72 inch concentrate discharge pipeline. The pre-treatment pump will be placed in a sub-grade pit and moved to the northwestern corner of the site, visually reducing the pump's size and scale, with additional

landscaping proposed to further screen the pump from view. The administrative offices and electrical building have been consolidated within the RO Building to create a structure that, in keeping with the design of the approved Project, resembles an industrial/office complex.

To further reduce the previously identified visual impacts of the site, the landscaping area will be increased from approximately 5,000 square feet to about 6,500 square feet. Additional landscaping will improve the overall visual impact over that of the original Project's design. Moreover, screening of all above ground equipment, such as the pretreatment area and electrical transformers, will be accomplished by articulated screen walls designed to match the RO Building in appearance, materials, and colors. Proposed improvements to color and variation of materials will further reduce the site's visual impacts.

Revisions to the configuration and layout of the proposed desalination plant site would not result in new impacts, nor increase the severity of impacts identified in the FEIR, and mitigation measures identified in the FEIR related to structural screening, vegetative screening, and lighting controls would still be applicable and would need no modification. With application of the FEIR identified mitigation measures, the FEIR conclusion that these impacts are mitigated to a less than significant level would not be changed.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no changes with respect to circumstances under which the Project will be undertaken, and there is no new information of substantial importance that has become available relative to visual or aesthetic resources. No substantial changes in the aesthetic or visual environment have occurred since certification of the FEIR, and no substantial new sensitive receptors or scenic resources have been identified within the vicinity of the Project site.

Conclusion

The Project as revised will be slightly less visible and further hidden from view from the two ground-level critical viewpoints (Carlsbad Boulevard and Garfield Drive) evaluated in the FEIR. The visual density of the site, primarily as viewed from within the EPS, will be reduced by approximately 25%, with additional structures being placed below ground. The amount of landscaping to further screen the site will be increased. The overall amount of pipelines will be reduced and the need for the 10 MGD booster pump station removed. All previous mitigation measures as discussed in the FEIR will continue to apply.

None of the proposed Project's aesthetics changes or additions involve new significant impacts or a substantial increase in previously identified impacts. Additionally, there are no substantial changes to the circumstances under which the Project will be undertaken, and no new

information of substantial importance which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications to aesthetics do not meet the standards for a subsequent or supplemental EIR as provided pursuant to State CEQA Guidelines, section 15162.

Air Quality

Analysis of air quality impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.2, pages 4.2-10 through 4.2-21. See also CEQA Findings, page 11.

Analysis of the Revised Project

Duration of construction for the facility would be the same, and construction methods and equipment would not be different from the assumptions contained in the FEIR. The original Project proposed a net earthwork export of 55,746 cubic yards, while the reconfigured Project proposes only 21,000 cubic yards of earthwork export.

The total pipeline length will be reduced from 17.4 miles to approximately 16.2 miles (a 7% reduction) and will reduce the amount of earthwork required by 333,001 cubic yards of cut/fill. This would result in a 56% reduction in grading, with a corresponding reduction in air pollutant emissions from.

Operational characteristics of the desalination plant are not proposed to be modified from what is described in the FEIR, therefore direct and indirect emissions associated with operation of the desalination plant would not result in any additional or increased levels of air emissions. The diameter of the delivery pipeline that extends from the desalination facility to San Marcos has been increased from 48 inches to 54 inches. The larger diameter pipeline will reduce friction headlosses along the pipeline. This reduction of pipeline headlosses will reduce of power needed for water delivery by at least 621 hp (0.463 MW). This reduction in the electricity consumption corresponds to an annual energy usage reduction of 4,056 MWh/yr from the originally approved Project.

As discussed in more detail below, the revised Project, including additional features and conditions added since the certification of the FEIR, would result in reduced long-term air emissions and would therefore reduce the Project's contribution to these cumulatively significant impacts. No additional cumulative significant impacts have been identified.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

Global climate change is not a changed circumstance and there is no “new information of substantial importance” available now that was not known and could not have been known with exercise of reasonable diligence in June 2006 when the City certified the FEIR. Various entities had extensively studied and regulated GHG emissions before June 2006, including both the legislative and executive branches of the government of the state of California. For example, in 2002 California passed legislation regulating GHG emissions from cars and trucks (“AB 1493”), and in June 2005, Governor Schwarzenegger issued Executive Order S-3-05 (“EO S-3-05”), which set statewide GHG emissions targets for 2010, 2020, and 2050, and ordered many executive branch agencies to take immediate action to meet those targets. And in 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006.

The actions taken with AB 1493, AB 32 and EO S-3-05 make findings as to the environmental impacts climate change would impose on California, including reduction of the state's snowpack and corresponding water supply impacts, adverse health impacts from increases in air pollution and heat stress caused by higher temperatures, adverse impacts on agriculture and food production, increase of pests and pathogens, increase of catastrophic wildfires, damage to coastline and ocean ecosystems from increase in storms and rising sea level, and economic impacts to the state as a whole due to all of the above.

AB 1493, AB 32 and EO S-3-05 order executive branch agencies to take immediate action to reduce GHG emissions. AB 1493, which was approved in 2004, ordered the California Air Resources Board (“ARB”) to adopt regulations to “achieve the maximum feasible and cost-effective reduction of greenhouse gas emission from motor vehicles.” Cal. Health & Safety Code section 43018.5(a). Similarly, EO S-3-05 charged the Secretary of the California Environmental Protection Agency (“CalEPA”) with responsibility for coordinating oversight of efforts made by the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission to meet the 2010, 2020, and 2050 statewide GHG targets. It further ordered the CalEPA Secretary to report back to Governor Schwarzenegger and the Legislature “by January 2006 and biannually thereafter” on “progress made toward meeting the greenhouse gas emission targets,” and “the impacts to California of global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry, and shall prepare and report on mitigation and adaptation plans to combat these impacts.” Importantly, EO S-3-05 established the exact same emission target reductions that were subsequently enacted through Assembly Bill 32 (“AB 32”) in 2006. (See Health & Saf. Code section 38501.) AB 32 requires the California Air Resources Board (CARB), the state agency charged with regulating statewide air

quality, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020.

Outside of California, numerous scientific agencies and governmental bodies had extensively studied the potential environmental effects of global climate change well before June 2006. As recently pointed out by the U.S. Supreme Court in its decision in *Massachusetts v. EPA*, 127 S. Ct. 1438 (2007), numerous legislative and executive actions prior to the year 2000 devoted “serious attention” to GHG emissions and global climate change. These actions included enactment of the National Climate Program Act, 92 Stat. 601 (1978) and the Global Climate Protection Act, 101 Stat. 1407 (1987), as well as President Carter’s request to the National Academy of Sciences’ National Research Council to investigate the subject. The Intergovernmental Panel on Climate Change (“IPCC”), a 1988 creation of the World Meteorological Organization (“WMO”) and the United Nations Environment Programme (“UNEP”), issued three assessment reports in 1989, 1995 and 2001 evaluating the state of global research on climate change and its effects. The IPCC Third Assessment Report issued in 2001 concluded that it was “likely” (expressed as a 66%–90% chance) that “[m]ost of the observed warming over [the] last 50 years [was] likely due to increases in greenhouse gas concentrations due to human activities.” The IPCC led to the United Nations Framework Convention on Climate Change in 1992 and the Kyoto Protocol in 1997. In addition, a group of nineteen private organizations filed a rule-making petition in 1999, asking the EPA to regulate GHG emissions from new motor vehicles under the Clean Air Act.

In addition to legislative and executive action, the judiciary addressed concern regarding GHG emissions over fifteen years before the EIR was certified. In *City of Los Angeles v. National Highway Traffic and Safety Admin.* (D.C. Cir. 1990) 912 F.2d 478, for example, the City of Los Angeles, the State of California and others unsuccessfully sought to compel the NHTSA to study the global climate effects that may result from lower fuel efficiency standards for cars manufactured after 1989. Among other things, the petitioners argued that “the implications of the greenhouse effect for California are ‘particularly grave’” and will threaten the state’s coastal and forestry resources, agricultural system, and water supply. (*Id.* at pp. 483, 493-494.) These same concerns were restated sixteen years later in the legislative findings in AB 32 regarding the potential impacts of global climate change in California. (See Health & Saf. Code section 38501.)

The California Coastal Commission approved the Project subject to the condition, among others, that the CCC approve an Energy Minimization and Greenhouse Gas Reduction Plan (GHG Plan), at a subsequent hearing. Poseidon’s plan for the assessment, reduction and mitigation of GHG emissions establishes a protocol for identifying, securing, monitoring and updating measures to eliminate the Project’s net carbon footprint. Once the Project is

operational and all measures to reduce energy use at the site have been taken, the protocol involves the following steps, completed each year:

1. Determine the energy consumed by the Project for the previous year
2. Determine SDG&E emission factor for delivered electricity from its most recently published Annual Emissions Report.
3. Calculate the Project's gross indirect GHG emissions resulting from Project operations by multiplying its electricity use by the emission factor.
4. Calculate the Project's net indirect GHG emissions by subtracting emissions avoided as a result of the Project (Avoided Emissions) and any existing offset Projects and/or Renewable Energy Credits (RECs).
5. If necessary, purchase carbon offsets or RECs (or pay an in-lieu fee) to zero-out the Project's net indirect GHG emissions.

The following are elements of the plan, based on a draft "Greenhouse Gas Emissions Template" provided by the California Coastal Commission:

- A. Increased Energy Efficiency (such as use of a pressure-exchanger energy recovery system which captures energy from the discharge stream, and high energy efficiency pumps).
- B. GHG Emission Reduction by Green Building Design.
- C. On-Site Solar Power Generation.
- D. Recovery of CO₂ (Carbon dioxide in a gaseous form will be added to the RO permeate in combination with calcium hydroxide or calcium carbonate in order to form soluble calcium bicarbonate which adds hardness and alkalinity to the drinking water for distribution system corrosion protection).
- E. Avoided Emissions from Reducing Energy Needs for Water Reclamation (reduced salinity of source water would reduce the need to remove salts from wastewater to meet recycled water requirements).
- F. Avoided Emissions from Displaced Imported Water.
- G. Avoided Emissions through Coastal Wetlands (carbon sequestration).

Off-site reductions of GHG emissions that are not inherently part of the Project include actions taken by Poseidon to participate in local, regional, state, national or international offset projects that result in the cost-effective reduction of GHG emissions equal to the indirect Project emissions Poseidon is not able to reduce through other measures. One such offset project, the expenditure of one million dollars to reforest areas burned out by fires in the San Diego region in

the fall of 2007, has been identified by the CCC as the first priority among these measures. Other projects may also be identified.

The California Global Warming Solutions Act of 2006 (Health and Safety Code Section 38501(a)), cites rising sea levels as a potential adverse impact of global warming. Several studies on the effects of climate change on sea levels have been conducted since the adoption of this provision, which are summarized below.

According to the California Climate Center's white paper entitled Projected Future Sea Level (March 2006), a historical rate of sea level rise approaching 2 millimeters per year (0.08 inches/year) was recorded for California tide gages, similar to the rate estimated for global mean sea level. Two climate models and three scenarios were used in the Center's white paper to develop a range of potential long-term sea level rise values. The mean sea level rise values range from approximately 0.10 to 0.72 meter (3.9 to 28 inches) from the year 2000 to the end of the century (2070 through 2100). The midpoint of the range for each of the three scenarios was 0.32 meter (13 inches), 0.38 meter (15 inches) and 0.44 meter (18 inches).

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), concluded that continued GHG emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century including rising sea levels (IPCC 2007). The IPCC used sophisticated climate models to carry out their analysis. Model-based projections of global average sea level rise predicted a range of sea level rise—between 18 and 76 cm (7 inches to 2.5 feet).

More recent studies indicate that the amount of sea level rise by the end of this century will be between 7 and 82 cm, depending on the amount of warming that occurs. Dr Mark Siddall from the University of Bristol, together with colleagues from Switzerland and the US, developed a conceptual model that matches the sea level changes that have occurred since the end of the last ice age (Natural Geoscience, 2009). The new model predicts, between 7 and 82 cm (2.7 inches to 2.7 feet) of sea-level rise by the end of this century.

The California Department of Water Resources, CA (DWR) and US Bureau of Reclamation mid-pacific region (USBR), have recently developed a screening model for planning and management of State Water Project and Central Valley Project in California, named Callite (February 2009). Callite simulates water conditions in the Central Valley over an 82-yr planning period (water years 1922-2003) and simulates observed hydrologic regimes or future possible climate change hydrologic regimes. At present the two projected sea level rise scenarios have been developed and implemented in Callite: 1 ft and 2 ft sea level rises.

The sea level rise projected by the documented models described above spanned a fairly large range. However, it appears that the various projections for sea level rise could affect primarily

the intake and discharge features of the project. It is not anticipated that a rise in sea level or up to 2 feet or more within the life span of the Project would result in substantial increase in exposure of the Project to potential adverse impacts. Accordingly, no significant impacts from this potential adverse effect of global warming, as identified in the California Global Warming Solutions Act of 2006, would occur.

Conclusion

The proposed revised Project would result in reduced air emissions overall, and is required to demonstrate a “net zero” impact on greenhouse gas emissions from indirect sources (electrical energy consumption). The Project as revised would therefore not increase the severity of previously identified air quality impacts, nor would it result in any new significant effects related to air emission that were not previously identified in the FEIR. Additionally, in light of the wide range of global warming activity prior to the certification of the FEIR in June 2006, there are no substantial changes to the circumstances under which the Project will be undertaken, and no new information of substantial importance which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding air quality do not meet the standards for a subsequent or supplemental EIR as provided pursuant to State CEQA Guidelines, section 15162.

Biological Resources

Analysis of biological resources impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.3, pages 4.3-18 through 4.3-54, and the Additional Responses to Comments on the FEIR. See also CEQA Findings, pages 12-14.

Analysis of the Revised Project

Terrestrial Environment

The proposed changes in the desalination plant configuration would occur within areas that are entirely disturbed and contain no sensitive vegetation or species. Therefore, no changes in the level or severity of direct, indirect or cumulative impacts would occur from changes in plant configuration. Similarly, the proposed changes to the off-site conveyance pipeline alignments and the underground flow control facilities are entirely within existing developed areas, previously disturbed areas or within roadways containing no sensitive vegetation or species. A small segment of the revised pipeline alignment would traverse an unpaved future roadway area, within the City of San Marcos, between Rancho Santa Fe Drive and Pawnee Street. The City of San Marcos has conducted environmental review and approved a development project on that site, including construction of a proposed roadway (Creek Street) within which the pipeline would be placed. The vegetation communities that occur in that area include non-native annual grasslands and developed lands/disturbed habitat, with soils that appear to have been

repeatedly disturbed through discing and possibly filling. Therefore no impacts on sensitive habitats or species are anticipated. No new or intensified impacts would result. The reconfiguration of off-site pipelines would avoid sensitive areas identified as being impacted in the FEIR. Therefore the proposed revisions would result in impact reductions.

Marine Environment

The proposed Project's operational characteristics and capacity will not change from what was previously analyzed in the FEIR. The Project will continue to operate at a design flow rate of 304 MGD for production of approximately 50 MGD of desalinated product water.

The Final EIR for the desalination plant used the "historical extreme" operation and level of salinity to evaluate the impacts to the marine environment. The "historical extreme" conditions modeled account for impacts related to operation of the desalination facility without power plant operation and flow rates that would be generated by the desalination plant being operated independently. Therefore the No Power Plant Operation scenario is the "worst case" condition studied by the FEIR relative to elevated salinity levels resulting from the desalination plant discharge, and under this scenario, the operating conditions of the desalination plant would not result in salinity levels exceeding the threshold (40 part per thousand) for an extended period of time, and impacts related to elevated salinities would not be significant.

Data presented in Appendix E of the Final EIR (see Carlsbad Desalination Facility Intake Effects Assessment, dated March 3, 2005, and prepared by Tenera Environmental) supports a finding of no significant impact for entrainment, with or without operation of the EPS. The loss of larval fish entrained by the EPS cooling water flows, whether the EPS is operating or not, are a small fraction of marine organisms from the abundant and ubiquitous near-shore source water populations.

Moreover, the most frequently entrained species are very abundant in the area of EPS intake, Agua Hedionda Lagoon, and the Southern California Bight so that the actual ecological effects due to any additional entrainment from the Project at either level of plant operations are insignificant. Therefore, the operation of the desalination facility independent of the EPS does not cause a significant ecological impact.

The level of impact and conclusions of the FEIR regarding effects on the marine environment from elevated salinity levels in the desalination plant discharge, or impingement and entrainment impacts associated with the source water intake would not be changed based on the proposed Project changes, because the operational characteristics would be the same as with the approved Project.

On May 13, 2009, the San Diego Regional Water Quality Control Board approved the Poseidon's Flow, Entrainment and Impingement Minimization Plan ("Minimization Plan"). Imposed pursuant to California Water Code section 13142.5, the Minimization Plan implements the best available design, technology and mitigation measures feasible to minimize intake and marine life mortality by committing Poseidon to the construction or restoration of up to 55.4 acres of highly productive estuarine wetlands in the Southern California Bight and the achievement of a fish productivity standard of 1,715.5 kg/year. This plan further reduces impingement and entrainment impacts and supports the findings of the EIR that the Project will not have any significant impacts on marine life due to impingement and entrainment.

Restoration of up to 55.4 acres through the Minimization Plan is also consistent with the California Coastal Commission's requirement for a Marine Life Mitigation Plan that was imposed to ensure consistency with Coastal Act 30230 and 30231.

The Regional Board considered multiple approaches to estimating impingement associated with the Project's projected operations under co-located conditions which resulted in an estimate of impinged biomass ranging from 1.57 to 4.7 kg/day. Poseidon agreed to meet a fish productivity standard of 1,715 kg/year, which is derived from the impingement estimate of 4.7 kg/day. Based on the applicant's commitment of construction or restoration of up to 55.4 acres and the achievement of a fish productivity standard of 1,715 kg/year, the Regional Board found that the Project is expected to fully offset projected entrainment and impingement losses for up to 304 MGD of source water withdrawn directly from the Agua Hedionda Lagoon under conditions of co-located operation. (Order No. R9-2009-0038 at ¶ 50.) This determination by the Regional Board is consistent with the EIR's conclusion that the Project would not have any significant impacts on marine life due to impingement and entrainment.

With regard to impingement, the Project's EIR did not rely on any quantification of impinged fish biomass to conclude that a stand-alone Project will not cause any significant impingement impacts; instead, the EIR relied on intake flow velocity. The EIR concluded the Project would not cause any additional impingement losses because it will not require an increase in the quantity or velocity of water withdrawn relative to the Encina Power Station. (EIR at 4.3-35.)

Under the No Power Plant Operation scenario, approach velocity of the water flowing through the EPS intake would not exceed 0.5 feet per second. Therefore, the Carlsbad Desalination Plant will not cause any additional impingement losses to the marine organisms impinged by the EPS, under the assumed baseline EPS operating conditions, and would not result in significant impingement effects under the No Power Plant Operation scenario. (EIR at 4.3-36.)

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There have been no changes in the level of sensitivity or listing status of species present within the terrestrial and marine environments directly or indirectly affected by the Project. No changes to habitats or habitat suitability for sensitive species have occurred within areas affected by the Project since the time that the FEIR was certified.

The actions of the Coastal Commission or the Regional Water Quality Control Board do not constitute a changed circumstance under which the Project is taken or new information of substantial importance. The FEIR's conclusion that the Project will not cause significant marine life impacts under CEQA, operating with or without the EPS, is not impacted by the actions of either of these state agencies. The Coastal Commission and the Regional Water Quality Control Board used a methodology defined as "area of habitat production foregone" ("APF") to quantify the area of mitigation habitat needed to produce organisms lost to entrainment, based on the same entrainment data relied upon in the FEIR. The APF methodology does not demonstrate any change in the number of marine organisms that will be entrained or otherwise affected by the Project during stand-alone operations, and therefore does not constitute "new information" triggering preparation of a supplemental EIR. Because the underlying biological facts evaluated in the FEIR have not changed, the subsequent use of different methodologies by other agencies to characterize those impacts does not constitute a changed circumstance or new information sufficient to require the preparation of a supplemental EIR.

Furthermore, the additional mitigation imposed by the Coastal Commission and the Regional Water Quality Control Board does not constitute a changed circumstance or new information of substantial importance. The mitigation acreage required by these two agencies was imposed pursuant to their respective responsibilities under separate regulatory schemes, i.e. the Coastal Act and the California Water Code, both of which employ different standards of review than CEQA's "significant impact" threshold. Thus, the additional mitigation acreage did not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Conclusion

No new or increased impacts are anticipated for terrestrial resources because all of the proposed pipeline routes have been modified to be placed within existing developed areas, previously disturbed areas or within roadways. The revised configuration for the desalination plant is entirely within disturbed areas that do not contain any sensitive biological resources. Further, the updated siting of the proposed facility will actually move proposed structures further from the Agua Hedionda Lagoon, thus lessening any indirect potential impacts on that sensitive resource.

The evaluation of marine resources will not change from that in the FEIR. The FEIR's analysis regarding potential effects from chemical additives, impingement, entrainment, and elevated salinity levels remain consistent regardless of the proposed changes. Mitigation measures previously adopted regarding continued monitoring of the plant intake and discharge flow rates and salinity levels will remain as well as the semi-annual testing and monitoring to measure and evaluate the site's discharge for compliance with appropriate requirements and submittal to the Regional Water Quality Control Board for continued compliance. Additional commitments will further reduce and offset impacts associated with impingement and entrainment. Lastly, best management practices for runoff controls will continue to be in place. Therefore, no new or increased impacts on marine habitats are anticipated.

None of the proposed Project changes or additions regarding biological resources involve new significant impacts or a substantial increase in previously identified impacts. Additionally, there are no substantial changes to the circumstances under which the Project will be undertaken, and no new information of substantial importance regarding biological resources which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding biological resources do not meet the standards for a subsequent or supplemental EIR as provided pursuant to State CEQA Guidelines, section 15162.

Cultural Resources

Analysis of cultural impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.4, pages 4.4-14 through 4.4-27. See also CEQA Findings, pages 14-15.

Analysis of the Revised Project

The FEIR found that for the desalination plant site, two cultural resources sites are located within the Encina Power Station boundary: sites CA-SDI-6751 and CA-SDI-16885. Site CA-SDI-16885 is comprised of a small shell scatter with associated debitage. Because of the extensive development surrounding the site area, the exposed portion of site CA-SDI-16885 likely represents a disturbed remnant. The portion of the site tested was identified in the FEIR as not significant and no further work was recommended. (Guerrero et al. 2004). Site CA-SDI-6751 is a shell scatter, and is located along the existing AT&SF Railroad, south of Agua Hedionda Lagoon.

The FEIR determined that the potential for impacts on sites CA-SDI-16885 and CA-SDI-6751 to occur is considered low; but that field conditions for construction activities may reveal that impacts could occur. Therefore, mitigation in the form of monitoring during demolition and excavation was required to ensure impacts remain below a level of significance and if

monitoring revealed that archaeological sites are present, testing to determine site significance would be required. If, after the site testing process was conducted, and the site(s) are determined to be significant, then additional mitigation would be recommended through avoidance, or through the completion of a cultural resources data recovery program.

The changes to the Project are not anticipated to increase the potential risk to CA-SDI-16885 and CA-SDI-6751, because the reconfiguration of the facility would impact slightly less than the total area of these two sites. Moreover, all previously identified mitigation measures will continue to apply to the updated Project for cultural and paleontological resources. Therefore, no additional impacts are anticipated for the desalination Project site.

The FEIR originally found a number of significant cultural resource sites that had the potential to be impacted during the construction of the different proposed pipeline routes. Thus, the Project would avoid such sites when it could and if the potential impact to such resources were known, then a data recovery program would be developed and completed by a qualified archaeologist and approved by the City of Carlsbad. However, sites located within existing roadways were considered to be disturbed, and monitoring during construction is considered to mitigate any potential impacts to less than significant levels. The FEIR also found that if the precise alignment of the pipeline was not available, and therefore the potential to affect cultural resources could not be specifically determined, the applicant would be required to retain a qualified archaeological monitor during construction and if significant resources were identified, the resources would be tested to determine significance with appropriate mitigation measures employed as necessary.

The FEIR contains detailed monitoring program requirements, including detailed instructions for pre-construction, construction, and post-construction activities. Similar requirements and mitigation were included in the FEIR for potential paleontological resources. Thus, the FEIR concluded that any potential cultural resource impacts were determined to be less than significant.

The proposed changes to the Project will actually reduce the potential impacts determined in the FEIR, based on the shortened length of off-site conveyance facilities and elimination of the booster pump station. As previously discussed, the first 6.4 miles of the revised pipeline route will follow the same pathway as the previously approved pipeline route. Further, the length of the new pipeline route will still mirror the original with respect to the portion of the pipeline that travels north on Melrose Drive to Cannon Road and south on Shadowridge Drive.

Similarly, for the portion of pipeline south from Faraday Avenue on Melrose Drive to Palomar Airport Road, all potential impacts discussed in the FEIR will remain the same. The entire stretch of the pipeline for the new La Costa and San Marcos Alignments will be placed within

existing developed right-of-ways or disturbed areas, so that any potential resources would be already disturbed, and with application of FEIR identified mitigation measures, impacts would be less than significant. Therefore, no new or increased impacts to cultural resources are anticipated.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

The potential for significant impacts on cultural or paleontological resources within the area of potential effect of the Project has not changed since the time of certification of the FEIR. This is primarily due to the fact that the areas potentially affected by the Project are actively disturbed (desalination plant site) and developed (plant site and previously disturbed areas or within roadways proposed for pipeline alignments). Therefore, no changes in circumstances and no new information of substantial importance relative to cultural or paleontological resources have been identified.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts, because no additional undisturbed areas would be affected by the Project as revised. There will be no additional or increased level of impacts at the desalination plant site or at the sections of pipeline that follow the original pipeline route. The new pipeline route will be located entirely within existing street rights-of-way and is not anticipated to impact any new potential resource sites. In addition, all previously identified mitigation measures from the FEIR will remain in place, including the involvement of appropriate archaeological and paleontological monitors during construction and appropriate controls for the handling of any potential resources that may be identified during construction of the Project.

None of the changes or additions to the proposed Project regarding cultural or paleontological resources involve new significant impacts or a substantial increase in previously identified impacts. Additionally, there are no substantial changes to the circumstances under which the Project will be undertaken, and no new information of substantial importance regarding cultural or paleontological resources which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding cultural resources do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Geology and Soils

Analysis of geology/soils impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.5, pages 4.5-10 through 4.5-17. See also CEQA Findings, pages 15-16.

Analysis of the Revised Project

A preliminary geotechnical and environmental evaluation of the reconfigured site was performed in September, 2008, by GeoLogic Associates (GLA). The report details GLA's environmental investigation of the site based upon site evaluations, a review of applicable records and reports, selected site borings, and laboratory testing of representative soil samples obtained from the subsurface exploration. The report's findings are summarized below.

The geotechnical report from GeoLogic Associates found no new potential impacts related to geology or soils. The report determined that given the overall subsurface profile, depth of groundwater, and overlying thickness of the non-liquefiable soils, the potential for large-scale liquefaction at the site during the life of the structures is very low (GeoLogic Associates 2008). Further, the updated report found the Rose Canyon Fault to be the closest active fault (approximately 4.4 miles from the site) and could generate a 7.2 moment magnitude, generating a peak horizontal ground acceleration of 0.38g at the Project site and the design earthquake ground motion at the site predicted to be 0.36g (GeoLogic Associates 2008). Similar to the FEIR, the report again concluded that the effect of seismic shaking would be reduced to less than significant by adhering to the Uniform Building Code and state-of-the art seismic design parameters of the Structural Engineers Association of California.

The report found that based on the last 170 years, there is low potential for tsunami effects at the reconfigured Project site. Similarly, a seiche generated in the Agua Hedionda Lagoon is not anticipated to create a significant hazard at the site. The report also found ground surface rupture was considered unlikely, as well as the potential for landslides or other slope instabilities. The expansion potential of the fill soils is in the very low range for the specific plant location, and moderately low at the intake pump location. The report concluded that none of these potential risks corresponds to a significant impact. With the incorporation of the mitigation measures identified in the FEIR, no significant impacts are anticipated.

Similar to the findings above, the changes in pipeline routes will not cause any new significant impacts beyond what was originally evaluated in the FEIR. The FEIR found that, similar to the desalination plant, with appropriate mitigation there would be no significant impacts related to geology, soils, or mineral resources.

The FEIR determined that the pipelines routes within existing roadways will not traverse any important mineral resource recovery sites within the general plans of the applicable cities. That same conclusion is applicable to the revised pipeline alignment, because the revised alignment is entirely within previously disturbed areas or within existing roadways, which are not suitable for resource extraction and utilization as exploitable natural resources. Therefore, no additional or increased impacts are anticipated.

Erosion potential for the revised Project would be similar and slightly reduced compared to what was evaluated in the FEIR, at both a direct and cumulative level. Reductions in erosion potential are due to the reduced length of pipeline and associated grading. In addition, the mitigation measures relating to erosion control identified in the FEIR are also applicable to the revised Project.

The FEIR found that for the pipelines, issues involving constructability, seismic hazards, landslides, liquefaction, and mineral resources were not anticipated to pose substantial constraints on Project development, given the level of disturbance and/or developed nature of the existing roadways and the fact that various utility lines currently exist along the alignment. However, the FEIR imposed mitigation measures that require a geotechnical evaluation of the selected pipeline alignment prior to approval of any required encroachment permits. The geotechnical evaluation would evaluate soils, seismicity, hazards, groundwater, and structural design issues for all off-site Project components.

The analysis of potential impacts related to off-site conveyance pipeline construction in the FEIR is applicable to the revised pipeline routes, as are the FEIR identified mitigation measures. The revised pipeline alignments will not increase any potential hazards or create any new potential impacts. Prior to approval of any required encroachment permits, the required geotechnical investigation would evaluate soils, seismicity, hazards, groundwater, and structural design issues for all off-site Project components. No additional impacts are anticipated for the revised pipeline alignment in regards to geological or potential soils impacts.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There is no potential for significant changes in geological, seismic, soils or mineral resource conditions within the area of potential effect of the Project since the time of certification of the FEIR, because such resources are relatively static. Additionally no new information regarding unknown hazards, conditions or resources has become available. Therefore, no changes in circumstances and no new information of substantial importance relative to geology have been identified.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts. The evaluation of potential impacts related to constructability, seismic hazards, landslides, liquefaction, tsunamis, and mineral resources contained in the FEIR are applicable to the revised Project. The same mitigation measures will also be applicable. No impacts related to mineral resources were anticipated in the FEIR and the Project revisions will not alter this determination.

None of the changes or additions to the proposed Project regarding geology, soils, or mineral resources involves new significant impacts or a substantial increase in previously identified impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information regarding geological resources which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding geological resources do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Hazards

Analysis of hazards impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.6, pages 4.6-9 through 4.6-17. See also CEQA Findings, pages 16-17.

Analysis of the Revised Project

A preliminary geotechnical and environmental evaluation of the reconfigured site was performed in September, 2008 by GLA. The report details GLA's environmental investigation of the site based upon site evaluations, a review of applicable records and reports, selected site borings, and laboratory testing of representative soil samples obtained from the subsurface exploration. The analysis of environmental hazards focused on the revised footprint for the desalination facility. The report's findings are summarized below.

Based on the results of the laboratory analysis of soil samples from the limited environmental investigation, a low concentration of extractable fuel hydrocarbons (EFH) was reported in some of the samples. However, the concentrations (7.1 and 33 mg/kg) are well below the regulatory taste and odor threshold of 100 mg/kg. One sample initially showing EFH levels of 280 mg/kg is thought to be influenced by the overlying asphalt concrete pavement. Three subsequent samples at that location were conducted and subsequent results indicated non-detectable concentrations of EFH. No other significant concentrations (above background levels) of volatile hydrocarbons (including BTEX and MTBE and semi-VOCs of concern) were detected. The

report concluded that it did not appear that petroleum hydrocarbon contamination is an environmental concern at the site.

No VOCs, semi-VOCs, dioxin, PCBs, or inorganic compounds (total cyanide, phenols, and sulfide) were reported above the laboratory detection limits in the analyzed soil samples, except for one of the samples which tested at 73 mg/kg of sulfide. Sulfide does not pose an environmental concern by itself, but may be reactive with additional compounds in forming sulfuric acid. This concentration is not anticipated to release sulfuric acid in great enough concentration to pose a threat during transport.

As typically found in natural soils, low concentrations of arsenic, chromium, copper, lead, mercury, nickel, and zinc were measured in the three soil samples tested for metals. These concentrations were not found to exceed currently established Preliminary Remediation Goals (PRGs) (for industrial sites) or Total Threshold Limit Concentrations (TTLCs), or lie within the background values reported for natural soils in California. No other metals were measured above laboratory detection limits in any of the soil samples analyzed.

The proposed Project revisions would not result in any changes relative to the analysis or conclusions regarding effects on emergency response plans, because the Project's overall location and operational characteristics would not change.

The FEIR determined that with appropriate handling and mitigation for chemicals proposed to be used on the desalination facility site, potential impacts related to a risk of exposure, including fire or hazardous vapor releases during operations, will be less than significant. Because the operational characteristics, safety design features and standard safety requirements would not change with the proposed revised Project, this analysis and conclusion is still applicable to the Project as revised. Overall, there is a net increase in the amount of chemicals stored and used at the facility, including an increase in the amount of Sulfuric Acid stored at the facility (from 20,300 gallons to 23,000 gallons), and additional use of 10,000 gallons of sodium hydroxide to aid in the removal of boron and to control Ph levels in the desalinated water. Boron removal and specific Ph levels were required as Project conditions by the City of Carlsbad City Council, and the addition of these chemicals implements the City's condition for the Project and was therefore considered by the City Council at the time the Project was adopted. Detailed mitigation measures regarding the appropriate use and storage controls as approved in the FEIR will continue to apply to the proposed Project.

As noted in the FEIR, the operation of the desalination plant will involve the storage, use, and transport of potentially hazardous chemicals. The same mitigation measures applicable to the proposed Project are applicable to the reconfigured Project.

The FEIR also determined that the construction of the off-site pipelines would require grading and trenching activities that could potentially disturb and release hazardous materials into the environment from sites located in proximity to the construction areas for the pipelines. Potential for release or exposure of existing subsurface contamination could result from these Project construction activities. The FEIR included mitigation to mitigate this potential for exposure of existing contamination sites during construction of off-site pipelines through construction monitoring in areas identified as having the potential for such risks, and appropriate actions, as determined by the appropriate City's construction inspector as may be necessary. Such actions may include avoidance or removal of contaminated materials, or special handling measures to avoid exposure to materials. This mitigation measure will apply to the revised pipeline alignment and will ensure that any potential impacts related to hazards or hazardous materials during pipeline construction are mitigated to less than significant levels. Once construction of the pipelines is complete, the pipelines would convey potable water through the pipelines, which would not pose a hazardous risk to the public or the environment and impacts related to operations of the pipelines would be less than significant.

Regarding risks to or from airports, as discussed in the FEIR several of the off-site pipeline areas would be located within the Palomar-McClellan Airport Influence Area; some portions of the pipelines were also be located in the Flight Activity Zone and Runway Protection Zone. These latter two impacts are eliminated due to the elimination of pipeline alignments within the Flight Activity Zone and Runway Protection Zone.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes to the circumstances under which the Project will be undertaken, and there is no new information of substantial importance relative to hazards or hazardous materials that has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts related to hazards or hazardous materials. Mitigation is in place to control any potential construction impacts as well as appropriate controls for the storage and use of on-site chemicals during operations. The proposed Project will not interfere with any airport operations or emergency evacuation routes. Any potential hazardous materials will be disposed of appropriately and the proposed Project will comply with any required best management practices.

None of the changes or additions to the proposed Project regarding hazards or hazardous materials involve new significant impacts or a substantial increase in previously identified

impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information regarding hazards or hazardous material which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding hazards or hazardous materials do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Hydrology and Water Quality

Analysis of hydrology/water quality impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.7, pages 4.7-10 through 4.7-25. See also CEQA Findings, pages 17-20.

Analysis of the Revised Project

Reconfiguration of the desalination plant site will not substantially change the amount of impervious surfaces at the site and would not result in a substantial change in runoff from the site compared to what was evaluated in the FEIR. In addition, mitigation including but not limited to site design, low impact design (LID) features, treatment control and best management practices identified in the FEIR would still be applicable to the revised Project, and would be put in place to reduce pollutant contact with storm runoff, and to control, filter, and treat runoff from the roof, parking and other impervious areas of the desalination plant, in accordance with federal, state and local regulations and standards. The FEIR noted that one Project feature included the capture of runoff from the roof of the desalination plant and parking areas for conveyance to the source water intake for filtration and ultimate domestic use. The applicant has informed the Planning Department that comingling of storm water in the source water intake for desalination facility is incompatible with standard practice and policy for potable treatment. Consequently, the Project will be designed to capture the storm water from the desalination plant and parking areas for on-site percolation; or alternatively, treatment and disposal in accordance with federal, state and local regulations and standards. The off-site pipelines will be located entirely underground and will not result in an increase in impervious surfaces, or other long-term pollutant discharges. No anticipated long-term impacts to hydrology and water quality will occur for the revised off-site pipeline alignment.

Regarding effects on ocean water quality, as discussed previously, the operation of the plant would not be modified with the proposed Project revisions. Therefore, the same flow rates and quantities analyzed in the FEIR would apply to the revised Project, and the same analysis and conclusions regarding ocean water salinity, temperature, chemical discharge, circulation, sediment transport and recreational surf conditions would be applicable to the revised Project.

The proposed revisions to the Project would not change the potential for water quality impacts to occur during construction of the on-site or off-site Project features. Mitigation measures identified in the FEIR include best management practices pursuant to the implementation of a storm water pollution prevention plan. Those same measures would still be applicable to the Project as revised, and with implementation of those measures, potentially significant impacts related to erosion and sedimentation, spill prevention, waste management, dust suppression, and maintenance issues would be less than significant.

The FEIR determined that the proposed plant site is not located within a flood zone; however, some of the off-site pipeline areas are located in 100-year flood zones. None of the blue alignment and the proposed revisions to the pipeline alignments are located within the 100-year flood zones, thereby eliminating this impact.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes to the circumstances under which the Project will be undertaken, and there is no new information of substantial importance relative to hydrology or water quality that has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts related to hydrology or water quality. Required best management practices will remain in place to ensure appropriate runoff controls. Overall operations of the site, including intake and discharge rates and quantities, will not change and therefore will not increase the potential impacts on ocean water quality as evaluated in the FEIR.

None of the changes or additions to the proposed Project regarding impacts to hydrology or water quality involve new significant impacts or a substantial increase in previously identified impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to hydrology or water quality has been identified which was not known and could not have been known when the FEIR was certified. Therefore, the proposed Project modifications regarding hazards or hazardous materials do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Land Use

Analysis of land use impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.8, pages 4.8-10 through 4.8-20. See also CEQA Findings, page 20.

Analysis of the Revised Project

The proposed revision to either the components of the desalination plant or the off-site pipeline routes do not involve the addition of any new land uses that were not evaluated in the previously certified FEIR. Similar to the approved Project, the revised Project continues to be a 50 MGD desalination facility with appurtenant facilities consistent with the U – Public Utility General Plan designation and PU – Public Utility zoning for the property. The evaluation and findings from the FEIR do not change with the proposed minor site reconfiguration or revisions to the pipeline alignments. The changes will slightly reduce the already less than significant impacts on the surrounding community by reducing the overall length of the off-site pipelines and eliminating the 10 MGD booster pump station. Additionally, all of the new pipeline routes will be placed within existing street right-of-ways.

Under the proposal, the solids handling building and electrical transformers will be relocated on the desalination plant site from locations elsewhere on the EPS. Additionally, the intake pump station and intake and discharge pump pipelines will be placed underground rather than above ground as approved. The consolidating and undergrounding of facilities will benefit any future redevelopment of the site.

In considering redevelopment of the EPS, the Carlsbad City Council has stated its support for the reuse of the power plant property site to provide greater public benefit. In Resolution 2008-235, this support is documented along with the Council's determination that any non-coastal dependent industrial land use at the EPS is inconsistent with the best interest of the community and should be precluded. As a seawater desalination plant, the Project is a coastal dependent land use and is not affected by this determination.

Additionally, the revisions to the Project are not subject to City Council policy that requires an applicant of a proposed Project within Encina Specific Plan 144 to perform a comprehensive update of the specific plan. In 2002, the City Council passed Resolution 2003-2008, allowing the Project to be processed as an amendment to the Encina Specific Plan 144 rather than through a comprehensive update of the specific plan. Similarly, for the currently proposed revisions, an amendment to the specific plan is proposed.

Impacts related to the Runway Protection Zone are eliminated due to the elimination of pipeline alignments within the Runway Protection Zone.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes to the circumstances under which the Project will be undertaken, because there are no new land uses or substantial changes in land use policies or requirements that would affect the Project. No new information of substantial importance relative to land use has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts regarding potential land use conflicts. The FEIR determined that no conflicts existed and the proposed changes to either the plant site or the pipeline alignments are not anticipated to result in any changes in the analysis or conclusions of the land use discussion of the FEIR.

None of the changes or additions to the proposed Project regarding impacts to land use involve new significant impacts or a substantial increase in previously identified impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to land use has been identified which was not known and could not have been known when the FEIR was certified. Therefore, the proposed Project modifications regarding impacts to land use do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Noise

Analysis of noise impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.9, pages 4.9-5 through 4.9-14. See also CEQA Findings, pages 20-21.

Analysis of the Revised Project

The FEIR determination that impacts from on-site construction activities would be less than significant is also applicable to the revised Project, because the revised Project is in substantially the same location relative to sensitive noise receptors and the impact would occur only during permitted construction hours and would represent only a minor temporary increase in noise levels in the Project vicinity. All construction will take place during appropriate hours for

such activities as proscribed by the City's appropriate noise ordinance and, given the significant distance from the proposed Project to the nearest sensitive receptors, no construction impacts are anticipated for the on-site facility. Additionally, the average number of truck trips over all phases of the construction process will not increase above those evaluated within the FEIR for the on-site facility. In fact, while the total earthwork of the proposed Project is anticipated to increase from approximately 61,940 cubic yards (CY) to 68,500 CY, due to the opportunity for increased on-site reuse of the cut/fill, the actual volume of earthwork to be removed from the site will decline from 55,746 CY to approximately 21,000 CY. Based upon an average haul truck capacity of 20 CY per trip, this approximate reduction of 34,746 CY of earth corresponds to a reduction of approximately 1,737 haul trucks leaving the site.

The FEIR concluded that construction activities such as blasting, pile driving, and demolition that may be associated with activities proposed at the desalination plant have the potential to generate ground vibrations but that these activities are not proposed to be conducted in close proximity to residences or other sensitive structures or uses. Therefore, the equipment used for construction would not generate significant vibration levels, and would not result in the exposure of persons to or generation of excessive groundborne vibration. The updated proposed Project will not alter this conclusion and potential vibration impacts will continue to be less than significant.

As previously discussed, the first 6.4 miles of the revised pipeline route will follow the same pathway as the previously approved pipeline route. Therefore, no potential impacts beyond what was already evaluated for this section of the pipeline will apply. Further, the pipelines along Melrose Drive north of Cannon Road have been eliminated, as well as the previously approved booster pump station. Regarding the pipeline extension south of Palomar Airport Road along Melrose Drive, given the level of service and ambient noise associated with Melrose, no additional noise impacts are anticipated. Further, approximately the first 2/3 of the new route along Lionshead and Poinsettia Avenues are primarily commercial in nature and would not significantly impact those businesses. Only the final stretch along Linda Vista to 9th Street has residential uses, similar to other areas evaluated in the FEIR. As discussed in the FEIR, pipeline construction is anticipated to cause a significant noise impact to surrounding residences and the same conditions to comply with all appropriate noise regulations will remain for the proposed Project. No additional noise impacts regarding construction of the pipelines are anticipated.

Regarding long-term operational impacts, the removal of the previously proposed 10 MGD booster pump station in Oceanside eliminates any insignificant operational noise associated with that use. Further, all pipelines and flow control facilities would be located underground and any potential noise impacts would be negligible. However, other on-site operational uses once operational will contribute noise to the overall environment. The FEIR evaluated such potential and found that neither the intake pump station, pretreatment filter structure, water pump station,

membrane cleaning system, chemical feed equipment, service facilities, solids handling equipment, or the RO process area would have any significant noise impacts on surrounding sensitive receptors. The FEIR found that the maximum noise level of all the pumps and other equipment would be 88 decibels at 3 feet and the RO process pumps and energy recovery turbines to have a maximum level of 90 decibels at 3 feet. Given the distance from the site to potential sensitive receptors, the FEIR determined the Project's combined noise level would be below any level of significance and that the combined level will be further reduced by intervening on-site structures. The FEIR further concluded that on-site deliveries or employer trips to and from the site would also be less than significant.

The revised Project design will not alter any of these findings. The associated pumps and mechanical functions, as well as deliveries and employee trips, will continue at approximately the same level as evaluated within the FEIR. In fact, the updated design will underground pipeline structures as well as the intake pump, further reducing these already less than significant noise levels.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes under which the Project will be undertaken, because there are no substantial new sensitive receptors or substantial changes in noise policies or requirements that would affect the Project. No new or additional substantial sources of noise have been introduced within the area potentially affected by the Project, and no new information of substantial importance relative to noise has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts. The updated Project will continue to operate in the same manner as evaluated and will not increase the level of potential operational noise impacts. In fact, noise impacts have the potential to be reduced due to the undergrounding of various on-site pipes and the intake pump. Furthermore, the type and intensity of the site's construction will not change from what was evaluated within the FEIR and the Project will continue to adhere to any and all applicable noise regulations and to operate during appropriate hours of construction. No significant vibration impacts are anticipated and given the operational nature of the underground pipelines and the pipeline construction process to be completed within the existing street right-of-way, no noise impacts are anticipated.

None of the changes or additions to the proposed Project regarding noise impacts involve new significant impacts or a substantial increase in previously identified impacts. In addition, there

are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to land use which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding noise impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Traffic

Analysis of traffic impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.10, pages 4.10-4 through 4.10-13. See also CEQA Findings, pages 21-22.

Analysis of the Revised Project

Given that revised Project is operationally the same, and would have the same construction and operational traffic generating characteristics as the approved Project, impacts will not be increased due to proposed Project changes and will remain less than significant. All construction activities for the desalination plant will take place within the Encina Power Plant site, and therefore no lane closures or safety hazards on public roads would result from plant construction. Impacts related to road hazards and emergency access would be less than significant. In addition, given the approximate 62% reduction (34,746 CY) in cut/fill required to be removed from the Project site, potential construction impacts on traffic will be further reduced than what was originally evaluated in the FEIR.

The FEIR determined that the maximum increase in ADT from traffic associated with pipeline construction would not be significant and the increase in traffic associated with pipeline construction is not anticipated to result in Level of Service on any of the affected roadways falling below acceptable levels. Furthermore, as the overall pipeline length will be reduced 7% from 17.4 miles to about 16.2 miles, and grading requirements reduced by 55%, traffic impacts associated with earth moving equipment and associated haul trucks and other construction-related vehicles will correspondingly decrease from what was analyzed in the FEIR. Regardless, the FEIR included the mitigation measure that the applicant must demonstrate that construction operations will not result in unacceptable Levels of Service during peak hour periods on any affected roadways and that specific traffic control measures as set forth within an approved traffic control plan are implemented. Such measures will continue to apply to all of the roadways proposed for location of the revised pipeline alignment. No impacts are anticipated once the pipelines are completed.

As noted above, the construction traffic impacts of the revised Project would be reduced from what was anticipated for the approved Project due to the reduced amount of soil hauling and

overall reduced length of off-site pipelines. The FEIR identified mitigation measures are still applicable and the resulting impacts on traffic would be less than significant.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes under which the Project will be undertaken, because there are no substantial changes in traffic characteristics or requirements from what was in place at the time that the FEIR was certified. No new information of substantial importance relative to traffic has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts related to traffic and transportation during either construction or operation of the proposed Project. The previously adopted mitigation measures will continue to apply to the proposed Project and will ensure that any potential impacts to pipeline construction will be less than significant, especially considering that total pipeline length proposed is less than that analyzed in the FEIR. The impacts as evaluated in the FEIR for the construction of the on-site facilities will be the same for the proposed Project and will continue to remain less than significant. Actually, the updated Project design will likely reduce the amount of truck trips as discussed previously by a significant level given the anticipated reduction of approximately 34,746 CY of spoil that would have had to be removed under the original Project design. Operational impacts from both the pipelines and the finished desalination facility will be the same as was evaluated in the FEIR.

None of the changes or additions to the proposed Project regarding noise impacts involve new significant impacts or a substantial increase in previously identified impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to traffic impacts which was not known and could not have been known when the FEIR was certified has since been identified. Therefore, the proposed Project modifications regarding traffic impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Public Utilities and Services

Analysis of public utilities and services impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 4.11, pages 4.11-6 through 4.11-22. See also CEQA Findings, pages 23-25.

Analysis of the Revised Project

With respect to all areas analyzed under public utilities and services, impact evaluations in the FEIR were based on operational characteristics of the approved facility. Because the operational characteristics would not change with the proposed revisions to the Project, no change in the analysis or conclusions of the FEIR would result, and no new or increased levels of impacts are anticipated. As noted above in the discussion of air quality, additional features and requirements of the Project include energy efficiency measures that would reduce energy consumption, thereby further reducing the Project's impact on energy systems. Additionally, the reconfigured water conveyance system results in the elimination of the off-site pump station, further reducing energy requirements.

The desalination plant will receive electricity from the regional power grid (SDG&E) as discussed in the EIR. SDG&E will service the facility by adding additional banks of transformers to the existing SDG&E substation, southeast of the desalination plant. Transmission lines will be placed in conduits which will supply energy from the substation to the desalination plant. The conduits will be located in an existing utility easement parallel to the railroad tracks and cross under the railroad tracks to the desalination plant through an existing utility tunnel. Sewer facilities will be placed in the same existing utility tunnel.

The revised Project will still be required to pay any appropriate fees as required by the appropriate jurisdictions. Since the desalination facility will not result in the provision of additional residential units or substantial employment opportunities that could be directly tied to additional growth, the Project would not conflict with Growth Management Plan standards or thresholds for city administrative facilities, fire, schools, libraries, and park and recreation facilities. Regardless, as discussed in the FEIR, the facility will continue to pay its fair share of any applicable fees.

The proposed revisions to the Project would not affect the operational characteristics of the desalination facility, and therefore would not result in any changes in potential impacts associated with wastewater discharge quality or flow rates. The mitigation measures identified in the FEIR would still be applicable and would have the same result of reducing these impacts to less than significant levels.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes under which the Project will be undertaken, because there are no substantial changes in public utilities or services, or to the requirements of agencies that provide such services, from what was in place at the time that the FEIR was certified. No new

information of substantial importance relative to public utilities or services has become available since the certification of the FEIR.

Conclusion

The proposed changes to the Project will not increase the level of any previously identified impacts and will not create any new potential impacts regarding public utilities or services. The proposed Project would operate in a similar manner to that evaluated under the FEIR and all applicable FEIR identified mitigation and design requirements will be implemented. The overall Project will be required to pay any applicable fees and will not result in the need for the construction of any additional off-site facilities.

None of the changes or additions to the proposed Project regarding impacts to public utilities or services involve new significant impacts or a substantial increase in previously identified impacts. In addition, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to public utilities or services which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the proposed Project modifications relative to public utilities or services do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

9.0 CUMULATIVE IMPACTS

Analysis of cumulative impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 5.0, pages 5-1 through 5-13. See also CEQA Findings, pages 25-27.

Analysis of the Revised Project

The type and extent of construction activities, and the operational characteristics of the facility would not change from what was evaluated in the FEIR for the approved Project. Therefore, no changes relative to the analysis or conclusions regarding cumulative impacts would occur with the proposed Project revisions, and the findings of the FEIR remain the same for the revised Project.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

Since certification of the FEIR and approval of the Project by the City of Carlsbad, several projects that could be considered reasonably foreseeable have been proposed, as described below:

I-5 widening: The North Coast Interstate 5 HOV/Managed Lanes Project would widen a 27-mile stretch of Interstate 5 from the La Jolla area to Oceanside. In the planning stages since the 1990s, the project includes freeway widening through Carlsbad and in the vicinity of the Encina Power Station. Release for public review of the project's Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is anticipated in summer 2009. Caltrans estimates freeway widening in the vicinity of the EPS will take place no earlier than five to ten years after the approval of the Final EIR/EIS.

Coastal Rail Trail: The Coastal Rail Trail is a bicycle and pedestrian path approved in conceptual form to parallel closely the coastal railroad corridor that runs along or near Interstate 5 from Oceanside to San Diego. In the project vicinity, the rail corridor bisects the EPS, just east of the desalination Project. However, in some locations, including parts of Carlsbad, the Coastal Rail Trail cannot be located as originally intended in the railroad right of way due to security and safety concerns as well as space limitations. Because of these constraints, alternative alignments are under consideration.

While the City has completed portions of the Coastal Rail Trail in Carlsbad, the alignment in the vicinity of the EPS is not yet complete. Finding an acceptable alignment in this area is hampered by the constraints identified above, the existence of the existing EPS, and the need for the trail to cross Agua Hedionda Lagoon, which is located just north of the EPS. Currently, efforts regarding the Coastal Rail Trail in the project vicinity are focused on finding a feasible alignment. There is no funding available or construction schedule for this portion of the trail.

LOSSAN Rail Corridor: The Los Angeles-San Diego-San Luis Obispo (LOSSAN) corridor is the nation's second busiest rail corridor. As 51% of this busy railway is single track only, the San Diego Association of Government's 2030 Regional Transportation Plan calls for double tracking the entire corridor, along with other improvements.

The portion of the rail corridor that bisects the EPS is planned for double tracking. In addition, the installation of a second railroad bridge is planned from the north boundary of the EPS and over Agua Hedionda Lagoon, parallel and next to the current railroad bridge. Although plans are still in draft stage and environmental documents have yet to be released for public review, construction on this segment of LOSSAN improvements is estimated to begin in early 2010.

Carlsbad Energy Center Project (CECP): The CECP is a 558-megawatt (MW) gross combined-cycle, natural gas-fired power generating facility proposed to be built at the existing EPS. The 23-acre CECP would be located on the northeast section of the 95-acre EPS site. The proposed site is currently occupied by the EPS tank farm, including above-ground fuel oil Tanks 5, 6, and 7. CECP construction would take 25 months to complete. An Application for Certification is currently being considered by the California Energy Commission (CEC Docket

Number 07-AFC-06), and it is anticipated that the approval process would likely be completed in early 2011 with construction beginning in 2012.

Agua Hedionda Sewer Line and Lift Station: This project involves installation of a sewer line and improvements on the Vista/Carlsbad Sewer Interceptor System. The sewer line and lift station would replace an existing line and lift station that are undersized, and outdated and nearing the end of their useful life. The sewer line would be 54-inches in diameter for approximately 12,430 linear feet (2.35 miles) extending in a north-south alignment between the railroad corridor and Interstate 5. The line would begin just north of Agua Hedionda Lagoon and would end near the Encina Water Pollution Control Facility on Avenida Encinas, south of Palomar Airport Road. In the vicinity of the desalination plant, the sewer line and lift station would be located within the EPS on the east side of the railroad tracks. Construction is anticipated to begin in Fall 2010, and is estimated to take 18 months to complete.

The following provides an analysis of these additional cumulative projects:

Aesthetics

The FEIR concluded that planned or recently constructed projects located along Carlsbad Boulevard, the outer lagoon, or in the railway corridor are not expected to create adverse significant impacts to the visual quality of the area because of City development design requirements. Mitigation measures related to building design and shielding at the project level will mitigate any significant visual effects of the project and would avoid cumulative impacts that may be associated with other projects within the identified viewsheds. Construction of the CECF and the I-5 widening projects may result in significant impacts on visual resources. However, because the proposed Project is situated and designed such that it would have minimal visual impacts, the incremental effect of the Project on any potential significant cumulative impact would not be cumulatively considerable. There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative aesthetic impacts which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative aesthetic impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Air Quality

Construction: The FEIR cumulative impacts analysis for air quality considered potential cumulative impacts to the San Diego air basin. The FEIR concluded that the Project's contribution to temporary regional air quality impacts is not considered to be significant. In addition, because Project construction occupies a relatively small area at any given time, and will move along the pipeline corridor fairly rapidly in comparison to fixed location cumulative construction projects, it is not anticipated that any significant localized cumulative impacts will result. This is primarily due to the short-term nature of cumulative effects within any given

location along the Project construction route. The additional cumulative projects would not change these conclusions because the scope of the additional projects is relatively small within the context of the air basin, and because as noted in the FEIR, construction air emissions would be short-term in nature. In addition, because of the extended time period for the start of construction of the Project, many of the previously identified cumulative projects have already been constructed, and would no longer contribute to cumulative construction impacts on air quality.

Operation: The Project will contribute to a significant cumulative impact to air quality regarding PM₁₀ and ozone (for which the San Diego air basin is non-attainment) and NO_x and ROC (ozone precursors). There are no feasible mitigation measures that could be applied to the Project that would reduce this cumulative impact to below a level of significance. This conclusion would not change with consideration of additional cumulative projects, because the impact is experienced air basin-wide, and no new feasible project-level mitigation measures are available that would reduce the regional impact to less than significant levels.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative air quality impacts which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative air quality impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Biological Resources

Terrestrial Biological Resources

As noted above, the redesign of the Project's water delivery pipelines will result in a reduction of impacts on biological resources, such that no sensitive habitats or species would be affected. Moreover, the FEIR concluded that the City's Habitat Management Plan (HMP) provides mitigation programs to address the effects of cumulative development, on a sub-regional scale and therefore addresses cumulative impacts programmatically. As noted in the FEIR, the Project is consistent with the HMP, and therefore no significant cumulative impacts to biological resources would result from Project implementation. This conclusion would not be changed with the additional cumulative projects, because the Project continues to be consistent with the HMP and has been modified to reduce impacts on biological resources.

Marine Biological Resources

The cumulative impacts analysis for marine biological resources considered potential cumulative impacts to the shoreline and offshore area that could be influenced by the proposed desalination plant. Cumulative projects considered in the analysis of cumulative effects related to marine biology include other planned seawater desalination operations. One of the additional cumulative projects, the CECP, includes a seawater desalination component as water source

alternative. However, permitting agencies are considering issues regarding specific legal restrictions that may preclude that specific component of the project from being implemented. Moreover, there has been no analysis of the specific effects of the CECP desalination project feature on marine biological resources that would allow for analysis of cumulative environmental effects. Information on the CECP can be found in the Preliminary Staff Assessment posted on the CEC's website at <http://www.energy.ca.gov/sitingcases/carlsbad>. Because of the uncertain nature of the project's desalination component and the lack of information available on specific design and environmental effects, further analysis of any cumulative impacts would require speculation which is beyond the scope of this environmental analysis (State CEQA Guidelines, section 15145).

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative biological impacts which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative biological impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Cultural Resources

The FEIR cumulative impacts analysis for cultural resources concluded that impacts on cultural resources related to cumulative development could be significant if significant cultural resources are destroyed as a result of development. The mitigation measures required for the proposed Project and the mitigation required by the City as a standard of CEQA review provides for avoidance, documentation and/or recovery of significant cultural resources, and as a result, all impacts related to cultural resources are reduced to less than significant levels. These same measures would apply to the additional cumulative projects, and therefore the level of cumulative impact and required mitigation measures would not change as a result these additional cumulative projects.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative cultural resource impacts which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative cultural resource impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Geology and Soils

The FEIR concluded that the desalination plant site and off-site facilities will require relatively minor site preparation and excavation of soils. Project mitigation to control and address erosion and seismic and soils hazards, in conjunction with similar standard measures required of cumulative projects, would reduce cumulative impacts to less than significant levels. The

additional cumulative projects would have similar levels of impact on geology and soils as identified for other cumulative projects, and would be subject to similar requirements and mitigation measures. There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative geology/soils impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative geology/soils impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Hazards and Hazardous Materials

The Project, as well as other cumulative projects would be subject to regulatory controls that would result in avoidance of substantial hazards, and therefore the FEIR concluded that the Project would not contribute to cumulative considerable increases in hazards or hazardous materials. The additional cumulative projects would have similar regulatory controls, and therefore, there are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative hazards impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative hazards impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Hydrology and Water Quality

The FEIR concluded that water quality water quality and hydrology issues associated with the plant would be temporary (construction-related) in nature and would not contribute to cumulatively significant impacts. Impacts of the additional cumulative projects would be similar, and in fact would be subject to newer more stringent regulatory control measures. There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative hydrology/water quality impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative hydrology/water quality impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Land Use and Planning

The FEIR concluded that the Project would not contribute to significant impacts resulting from cumulative development that may have the effect of dividing an established community or conflicting with land use or environmental policies. Therefore, the incremental effect of the Project on any potential significant cumulative impact would not be cumulatively considerable. This conclusion would also apply with the additional cumulative projects.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative land use impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative land use impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Noise and Vibration

The FEIR identified cumulative noise impacts to be primarily related construction noise. However, within the time frame of Project construction, it is not anticipated that those cumulative effects would reach a level of significance, because of noise restrictions required for construction projects, and because the time frame for construction of the proposed Project is relatively short. The additional cumulative projects would not change these conclusions because of the duration for construction of the additional projects. In addition, because of the extended time period for the start of construction of the Project, many of the previously identified cumulative projects have already been constructed, and would no longer contribute to cumulative construction impacts on construction noise.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative noise impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative noise impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Traffic and Circulation

The cumulative impacts analysis for traffic and circulation considered the intersections and road segments to which the proposed desalination plant could contribute to a cumulative impact. Similar to noise impacts, Project traffic impacts are primarily associated with construction. Since the time frame for construction is relatively short, it is not anticipated that a substantial increase in current traffic levels resulting from cumulative development will occur prior to completion of Project construction. Therefore, temporary traffic impacts associated with the Project will cease prior to any substantial cumulative traffic impacts being realized on local roadways. The additional cumulative projects would not change these conclusions because the construction travel routes for the additional projects are not anticipated to conflict with or add to cumulative construction traffic of the proposed Project.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative traffic impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding

cumulative traffic impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

Public Utilities and Service Systems

The cumulative impacts analysis for energy and wastewater were considered to be less than significant, primarily based on capacity and reliability features built into existing systems. The additional cumulative projects would not change the analysis or conclusions of the FEIR because they would not result in substantial additional demand on such systems.

There are no substantial changes to the circumstances under which the Project will be undertaken and no new information of substantial importance relative to cumulative utilities/services impacts, which was not known and could not have been known when the FEIR was certified that has since been identified. Therefore, the effects of additional cumulative projects regarding cumulative utilities/services impacts do not meet the standards for a subsequent or supplemental EIR pursuant to State CEQA Guidelines, section 15162.

10.0 GROWTH-INDUCING IMPACTS

Analysis of growth-inducing impacts and EIR-identified mitigation measures of the approved Project are contained in the FEIR, Section 9.0, pages 9-1 through 9-7. See also CEQA Findings, pages 54-55.

Analysis of the Revised Project

The operation of the facility and its potable water producing capacity will not change from what was evaluated in the FEIR for the approved Project. Therefore, no changes relative to the analysis or conclusions related to growth inducement would occur with the proposed Project revisions, and the findings of the FEIR remain the same for the revised Project.

Substantial Changes With Respect to the Circumstances Under Which the Project is Undertaken/New Information of Substantial Importance

There are no substantial changes under which the Project will be undertaken, because there are no substantial changes in growth potential or growth planning that would affect the analysis contained in the FEIR. No new information of substantial importance relative to growth inducement has become available since the certification of the FEIR.

11.0 CONCLUSION

This document has identified all Project changes, changed circumstances, and new information and memorializes in detail the City's reasoned conclusion that the revised Project as described

in Section 4.0 does not create the conditions requiring the preparation of a Subsequent or Supplemental EIR pursuant to State CEQA Guidelines, sections 15162 and 15163.

Pursuant to Section 15164 of the State CEQA Guidelines and based upon the above discussion, I hereby find that approval and implementation of the proposed Project will result in only minor technical changes or additions, which are necessary to make the FEIR adequate under CEQA.

Planner's Signature

Date

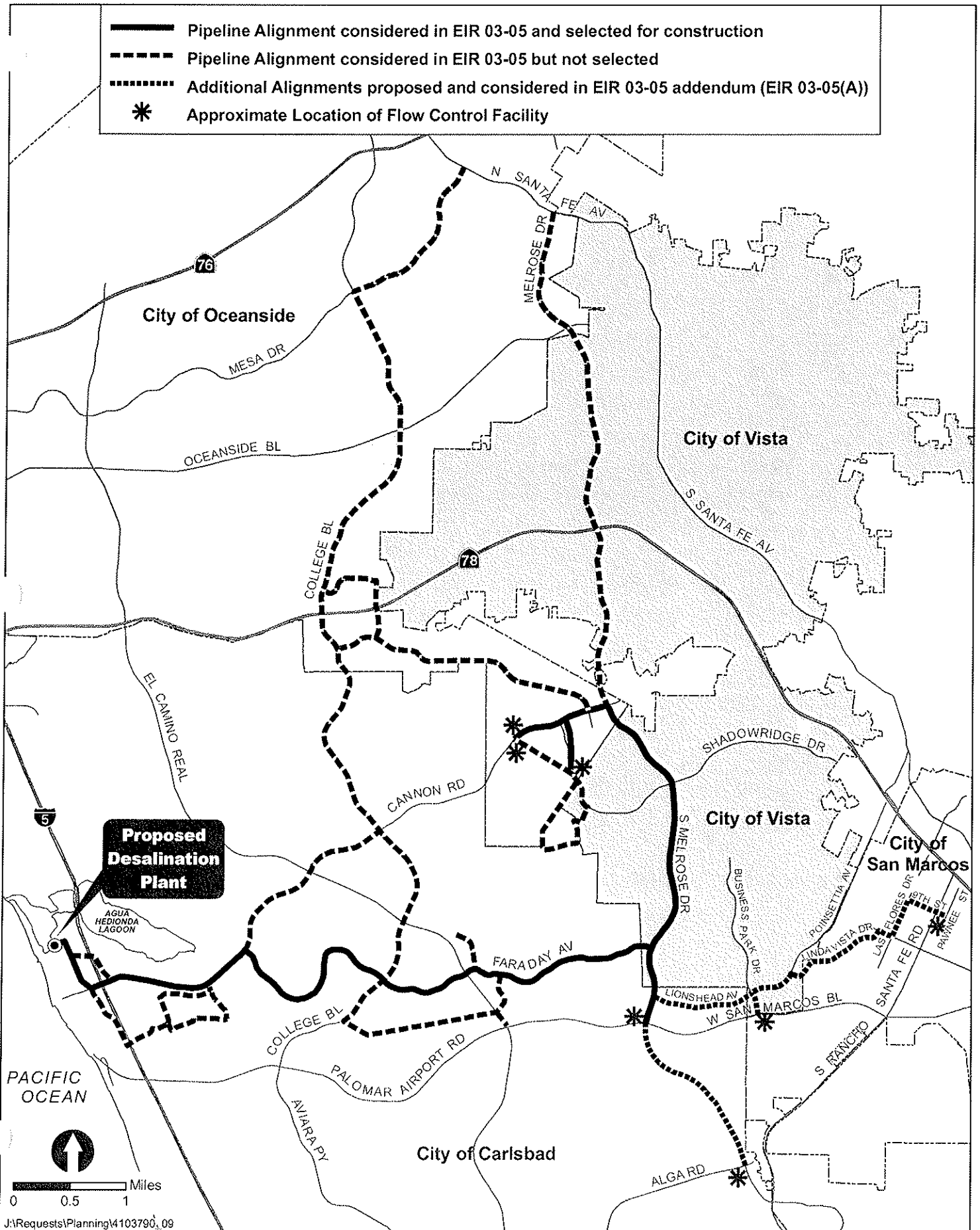
Planning Director's Signature

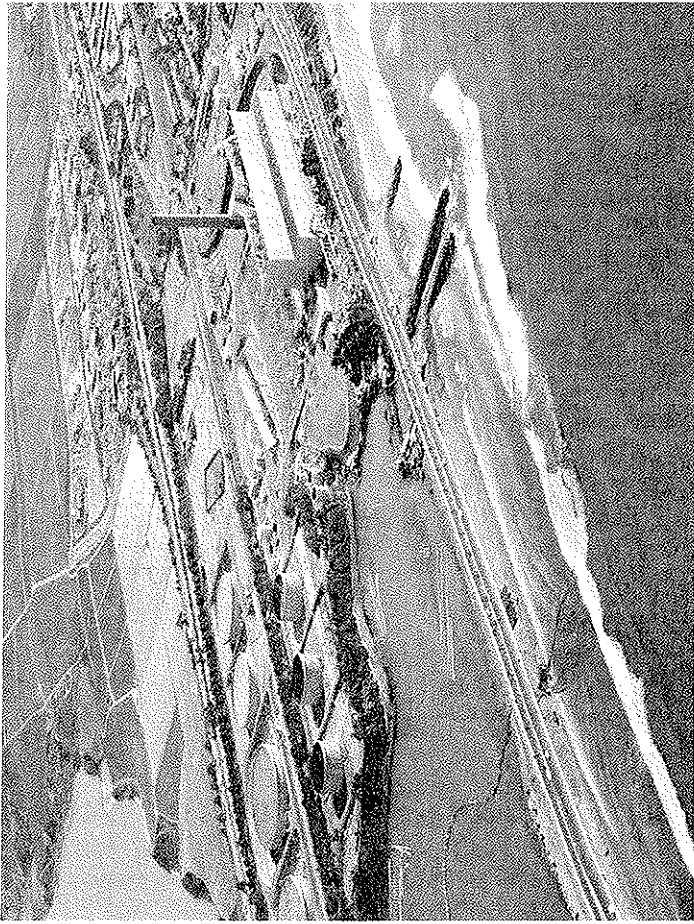
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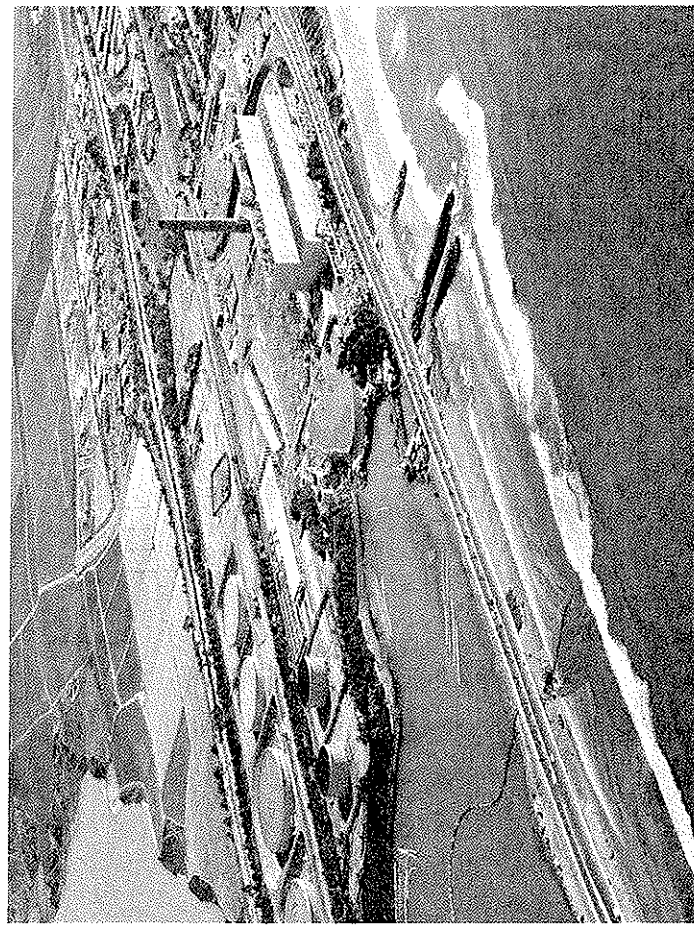
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- Nature Geoscience (July 2009): Constraints on future sea-level rise from past sea-level change [Mark Siddall, Thomas F. Stocker, Peter U. Clark] doi:10.1038/ngeo587
- California Department of Water Resources and United States Bureau of Reclamation (February 2009) Callite Central Valley Water Management Screening Model (Version 1.10R) User's Guide.

Figure 1 - Desalination Plant and Pipelines Map

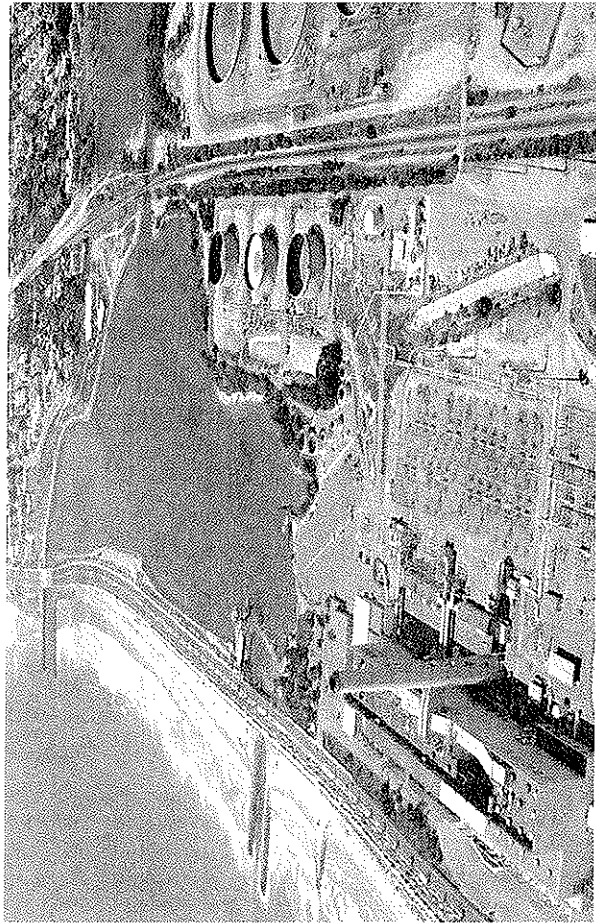




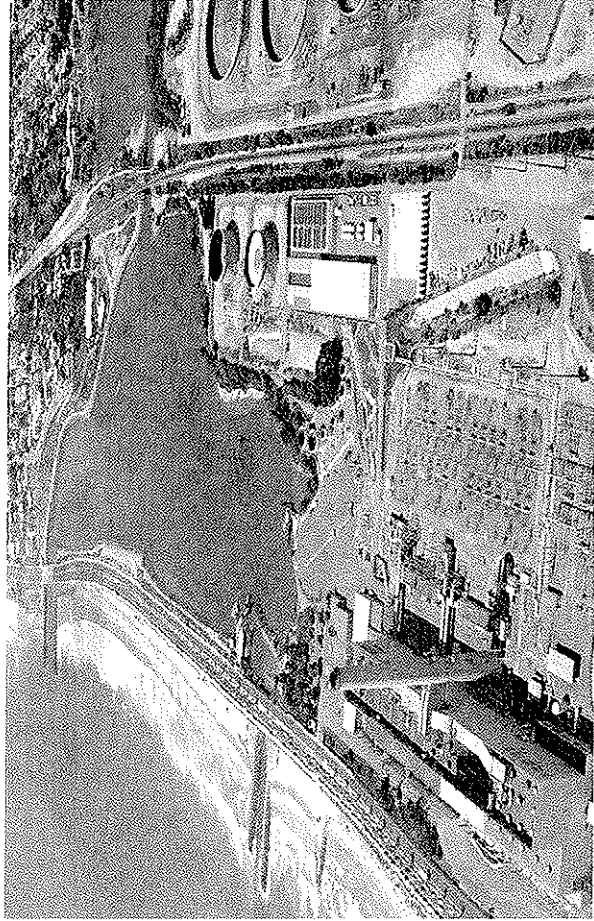
EXISTING CONDITION



EXISTING WITH PROJECT CONDITION



EXISTING CONDITION



EXISTING WITH PROJECT CONDITION