

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



## NOTICE OF PREPARATION

# Environmental Impact Report for the CalAm Monterey Peninsula Water Supply Project

## Introduction

In accordance with the provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, the California Public Utilities Commission (CPUC), as CEQA Lead Agency, is preparing an Environmental Impact Report (EIR) for the California American Water Company's (CalAm) proposed Monterey Peninsula Water Supply Project (MPWSP or proposed project). The MPWSP is comprised of various facilities and improvements, including: a seawater intake system; a 9-million-gallons-per-day (mgd) desalination plant; desalinated water storage and conveyance facilities; and expanded Aquifer Storage and Recovery (ASR) facilities. If the Groundwater Replenishment Project proposed by the Monterey Regional Water Pollution Control Agency (MRWPCA) is timely approved and implemented, CalAm's proposed desalination plant would be sized at 5.4 mgd. This document serves as the Notice of Preparation (NOP) for the EIR and solicits relevant comments on the scope of environmental issues as well as alternatives and mitigation measures that should be explored in the Draft EIR. The 30-day public scoping period begins on October 10, 2012 and closes at 5pm on November 9, 2012. This NOP provides background information on prior CalAm planning efforts to meet the water supply needs of the Monterey Peninsula, and describes the proposed project, its location, and anticipated environmental effects.

## Background

In 2004, CalAm filed Application A.04-09-019 seeking a Certificate of Public Convenience and Necessity from the CPUC for the Coastal Water Project. The Coastal Water Project (CWP) was intended to replace existing Carmel River water supplies for the CalAm Monterey District service area that are constrained by legal decisions (see discussion under the heading, Project Purpose, for more information regarding the legal decisions). In general, the previously proposed CWP involved the production of desalinated water supplies, increased yield from the Seaside Groundwater Basin ASR system, and additional storage and conveyance systems to move the replacement supplies to the existing CalAm distribution system. The CWP proposed project (also referred to as the Moss Landing Project) was sized to meet existing water demand and did not include supplemental supplies to accommodate growth. The CWP was previously proposed to use the existing intakes at the Moss Landing Power Plant to draw source water for a new 10-mgd desalination plant at Moss Landing, construct conveyance and storage facilities, and facility improvements to the existing

Seaside Groundwater Basin ASR system.<sup>1</sup> On January 30, 2009, the CPUC published a Draft EIR analyzing the environmental impacts of the previous CWP, as well as the environmental impacts of two project alternatives—the North Marina Project<sup>2</sup> and the Regional Project.<sup>3</sup> The CPUC published the Coastal Water Project Final EIR (SCH No. 2006101004) in October 2009 and certified the EIR in December 2009 (Decision D.09-12-017). A year later, in Decision D.10-12-016, the CPUC approved implementation of the Regional Project alternative.

Subsequent to approval of the Regional Project, CalAm withdrew its support for the Regional Project in January 2012.<sup>4</sup> As a result, in April 2012, CalAm submitted Application A.12-04-019 to the CPUC for the Monterey Peninsula Water Supply Project (MPWSP). The MPWSP is intended to secure replacement water supplies for the Monterey District associated with legal decisions affecting existing supplies from both the Carmel River and the Seaside Groundwater Basin (see discussion under the heading, Project Purpose, for more information). The MPWSP includes many of the same elements previously analyzed in the CWP EIR; however, key components, including the seawater intake system and desalination plant, have been relocated and/or modified under the current proposal.

Pursuant to CEQA Guidelines Section 15162, the CPUC has determined that preparation of a Subsequent Environmental Impact Report is the appropriate level of CEQA review for the MPWSP.<sup>5</sup> Although the MPWSP EIR will qualify as a “Subsequent EIR” under CEQA, there are

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- <sup>1</sup> The existing Seaside Groundwater Basin ASR system includes several injection/extraction wells, and storage and conveyance facilities to store Carmel River water supplies during the wet season in the groundwater basin, and recover the banked water during the dry season for consumptive use.
  - <sup>2</sup> The North Marina Project alternative included most of the same facilities as the previously proposed CWP and, like the previously proposed CWP, would only provide replacement supplies to meet existing demand. The key differences between this alternative and the previously proposed CWP were that the slant wells and desalination plant would be constructed at different locations (Marina State Beach and North Marina, respectively), and the desalination plant would have a slightly greater production capacity (11 mgd versus 10 mgd).
  - <sup>3</sup> The Regional Project alternative was intended to integrate several water supply sources to meet both existing and future water demand in the CalAm service area. The Regional Project would have been implemented jointly by CalAm and Marina Coast Water District (MCWD). The Regional Project was to be implemented in phases and included vertical seawater intake wells on coastal dunes located south of the Salinas River and north of Reservation Road; a 10-mgd desalination plant in North Marina (Armstrong Ranch); product water storage and conveyance facilities; and expansions to the existing Seaside Groundwater Basin ASR system. This alternative would also develop supplemental supplies from the Salinas River by expanding an existing diversion facility and treatment plant in North Marina; expand the Castroville Seawater Intrusion Project (CSIP) by constructing additional storage and conveyance facilities; and expand the Seaside Groundwater Basin Replenishment Project by providing advanced water treatment for recycled water supplies generated at the MRWPCA Regional Wastewater Treatment Plant for injection into the groundwater basin.
  - <sup>4</sup> The CPUC subsequently closed the CWP proceeding in Decision D.12-07-008 (July 12, 2012).
  - <sup>5</sup> Per CEQA Section 21166 a Subsequent EIR would be required if: (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 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 was adopted, shows any of the following: (a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (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.

no special procedural requirements that apply to a Subsequent EIR; therefore, for simplicity we will simply call this new document an EIR. The MPWSP EIR will provide a comprehensive description and evaluation of all proposed components (including the new proposed elements and previously analyzed components) as the “whole of the action”. The MPWSP EIR may evaluate alternatives not previously considered in the CWP EIR. The CWP EIR will not in itself be incorporated by reference into the MPWSP EIR. However, the MPWSP EIR will utilize relevant data that was developed for the CWP EIR, and update the data and prior analyses as appropriate to address the effects of the current proposal. Environmental review of the MPWSP will have no effect on the certified CWP EIR or related approvals.

While it is not yet known whether the MPWSP would have additional or more severe impacts than the alternatives analyzed in the previous CWP EIR or whether new feasible alternatives or mitigation measures are available, the changes to the CWP EIR would not be so minor as to qualify for a supplemental EIR under CEQA Guidelines 15163. Therefore, the CPUC has determined that a Subsequent EIR is the most appropriate CEQA documents to evaluate the MPWSP. To assist in funding the MPWSP, CalAm is applying for a loan under the Clean Water State Revolving Fund (CWSRF) administered by the State Water Resources Control Board (SWRCB). For this reason, the MPWSP EIR will be prepared in compliance with the SWRCB’s CWSRF Guidelines and “CEQA-Plus” requirements. If it is determined through the scoping process that additional federal review is required, CPUC will coordinate with the appropriate agency to comply with the National Environmental Protection Act (NEPA).

Documents or files related to the MPWSP are available for review at the CPUC administrative offices in San Francisco, by appointment, during normal business hours. This information can also be obtained by visiting the CPUC website (<http://www.cpuc.ca.gov/PUC/energy/Environment/Current+Projects/esa/mpwsp/index.html>).

## CPUC Process

The CPUC is a constitutionally created state agency charged with the regulation of investor-owned public utilities within California. Consistent with its broad scope of authority, the CPUC regulates the construction and expansion of water lines, plants, and systems by private water service providers pursuant to Certificates of Public Convenience and Necessity (CPCN) (Public Utilities Code Section 1001) and authorizes water service providers to charge their customers “just and reasonable” rates for the provision of water services (Public Utilities Code Sections 451 and 454). The project proponent, CalAm, is a public utility under the CPUC’s jurisdiction and has applied to the CPUC for a CPCN under Public Utilities Code Section 1001 to build, own, and operate all elements of the MPWSP, and also for permission to recover present and future costs for the project through short-term rate increases. The CPUC administrative law judge will review the Final EIR and prepare a proposed decision for consideration by the CPUC regarding certification of the MPWSP EIR and approval of the MPWSP. In addition to the environmental impacts addressed during the CEQA process, the CPCN process will consider any other issues that have been established in the formal record, including but not limited to economic issues, social impacts, and the need for the project. During this process, the CPUC will also take into account testimony and

briefs from parties who have formally intervened in Proceeding A.12-04-019,<sup>6</sup> as well as formal records of all project-related hearings held by the administrative law judge.

## Project Purpose

The primary purpose of the MPWSP is to replace existing water supplies that have been constrained by legal decisions affecting the Carmel River and Seaside Groundwater Basin water resources. SWRCB Order 95-10 requires CalAm to reduce surface water diversions from the Carmel River in excess of its legal entitlement of 3,376 acre-feet per year (afy), and SWRCB Order 2009-0060 (“Cease and Desist Order”) requires CalAm to develop replacement supplies for the Monterey District service area by December 2016. In 2006, the Monterey County Superior Court adjudicated the Seaside Groundwater Basin, effectively reducing CalAm’s yield from the Seaside Groundwater Basin from approximately 4,000 afy to 1,474 afy. A secondary purpose of the MPWSP is to provide adequate supplies for CalAm to meet its duty to serve customers in its Monterey District, as required by Public Utilities Code Section 451.

## Proposed Project

The proposed MPWSP would be comprised of the following facilities:<sup>7</sup>

- Seawater intake system consisting of eight 750-foot-long subsurface slant wells extending offshore into the Monterey Bay, and source water conveyance pipelines
- Desalination plant and appurtenant facilities, including source water receiving tanks; pretreatment, reverse osmosis, and post-treatment systems; chemical feed and storage facilities; brine storage and discharge facilities; and associated non-process facilities
- Desalinated water conveyance facilities, including pipelines, pump stations, clearwells, and a terminal reservoir
- Improvements to the existing Seaside Groundwater Basin ASR system, including two additional injection/extraction wells, a pump station, a product water pipeline, a pump-to-waste pipeline, and pump-to-waste treatment

The proposed MPWSP would include a 9-mgd desalination plant and facility improvements to the existing Seaside Groundwater Basin ASR system to provide replacement water supplies to meet existing demand for the approximately 40,000 customers in CalAm’s Monterey District

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<sup>6</sup> Proceeding No. A.12-04-019, *Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates* (Filed April 23, 2012).

<sup>7</sup> Several facility components of the proposed MPWSP are similar or identical to facilities evaluated in the CWP EIR, including the product water storage and conveyance facilities and improvements to the existing ASR system. The primary difference between the desalination facilities proposed under the MPWSP and those described under the previously proposed CWP and CWP project alternatives are the site locations for the seawater intake system and desalination plant. The Regional Project alternative that was approved by the CPUC was envisioned as a joint project between CalAm, Monterey County Water Resources Agency and Marina Coast Water District (MCWD); at this time it is anticipated that the facilities and improvements proposed under the current MPWSP proposal would be owned and operated entirely by CalAm.

service area.<sup>8</sup> See **Figure 1** for an overview of MPWSP area. As an alternative to the 9-mgd desalination plant, CalAm's application also includes a 5.4-mgd desalination plant coupled with a water purchase agreement for 3,500 afy of product water from the MRWPCA's proposed Groundwater Replenishment Project. For purposes of the environmental analysis, this alternative is discussed below under the heading Alternatives to the Project.

The subsurface slant wells would extend offshore into the Monterey Bay and draw seawater from beneath the ocean floor for use as source water for the proposed desalination plant. Approximately 20 to 22 mgd of source water would be needed to produce 9 mgd of desalinated product water. The preferred site for the subsurface slant wells is a 376-acre coastal property located north of the city of Marina and immediately west of the CEMEX active mining area. New pipelines would convey the seawater (or "source water") from the slant wells to the MPWSP desalination plant.

The MPWSP desalination plant and appurtenant facilities would be located on a 46-acre vacant parcel near Charles Benson Road, northwest of the Monterey Regional Water Pollution Control Agency's (MRWPCA) Regional Wastewater Treatment Plant and the Monterey Regional Environmental Park. Facilities proposed at the MPWSP desalination plant include pretreatment, reverse osmosis, and post-treatment systems; chemical feed and storage facilities; a brine storage basin; and an administrative building. Brine produced during the desalination process would be conveyed to an existing MRWPCA ocean outfall and discharged to the Monterey Bay. Approximately 9,006 afy of potable water supplies would be produced by the proposed desalination facilities.

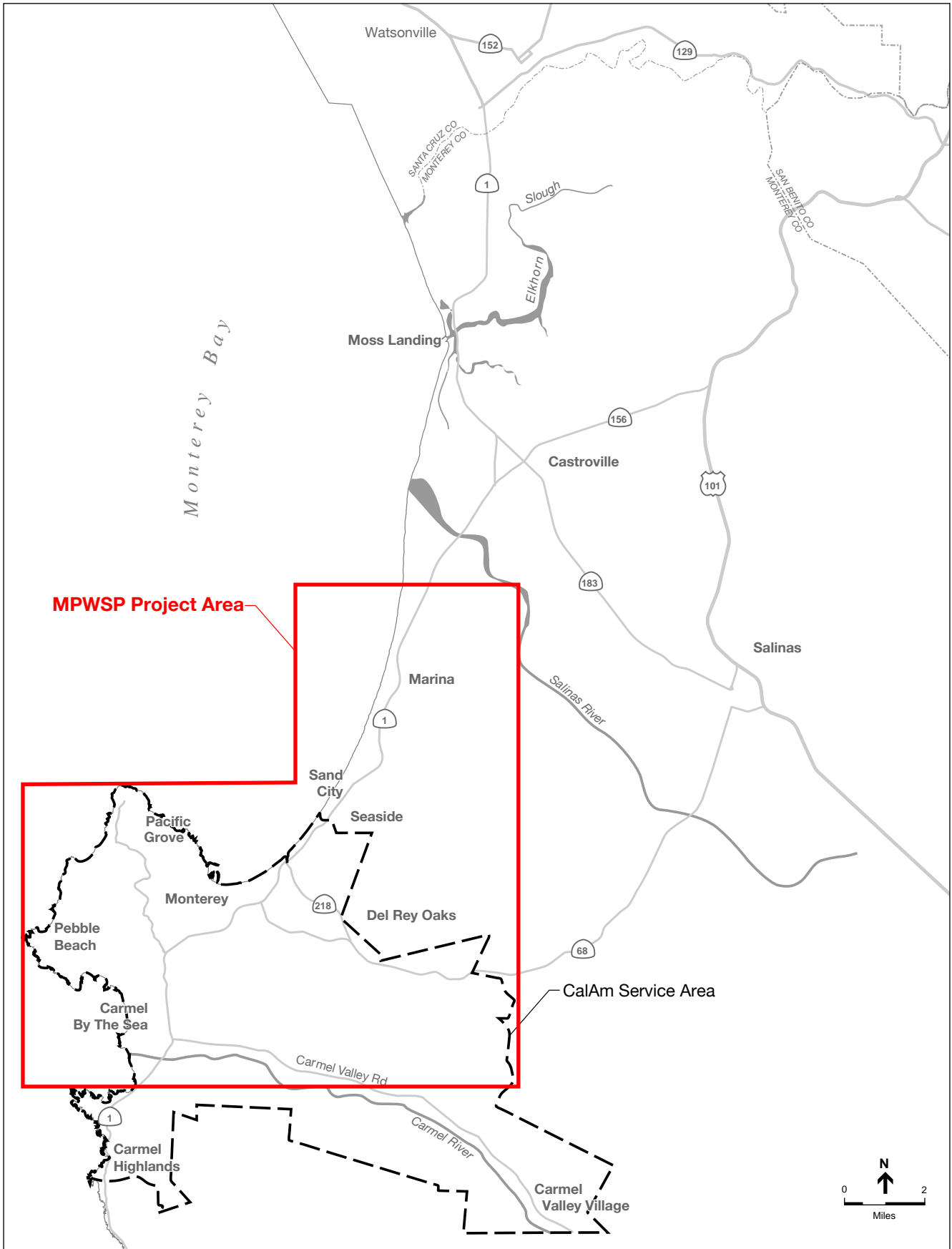
Desalinated product water would be conveyed south via a series of proposed pipelines to existing CalAm water infrastructure and customers in the Monterey Peninsula. Up to 28 miles of conveyance pipelines and water mains would be constructed under the MPWSP. In addition, if it is determined that the MPWSP needs to return water to the Salinas Valley Groundwater Basin, water could be conveyed southeast via a new pipeline to the existing Castroville Seawater Intrusion Project (CSIP) pond at the MRWPCA Regional Wastewater Treatment Plant for subsequent distribution to agricultural users in the Salinas Valley.

The primary function of the two additional ASR wells and the proposed improvements to the conveyance system is to allow desalinated water to be injected into the Seaside Groundwater Basin for subsequent distribution to customers. These improvements would also provide redundant injection capacity and improve the long-term reliability and efficiency of the ASR system for injecting Carmel River water into the Seaside Groundwater Basin. Improving the efficiency of the ASR system to inject Carmel River water into the Seaside Groundwater Basin when there is significant rainfall (wet and extremely wet years) increases the long-term annual yield from the ASR system to 1,920 afy.

A preliminary project facilities map is provided in **Figure 2**. Construction of the MPWSP is anticipated to occur over approximately three years.

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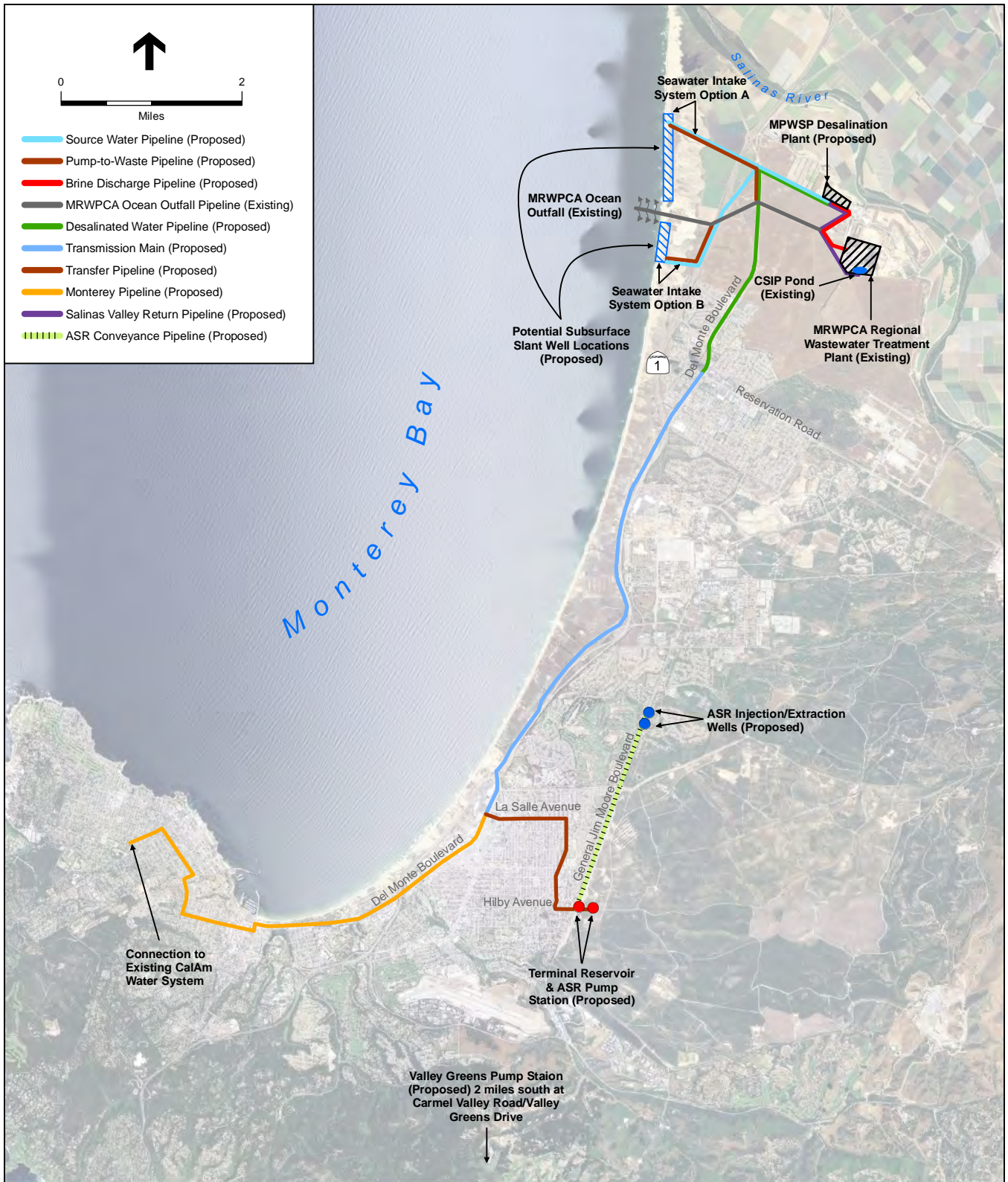
<sup>8</sup> CalAm's Monterey District service area encompasses most of the Monterey Peninsula, including the cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside, and the unincorporated areas of Carmel Highlands, Carmel Valley, Pebble Beach, and the Del Monte Forest.



SOURCE: ESA, 2012

Monterey Peninsula Water Supply Project . 205335.01

**Figure 1**  
Project Location Map



SOURCE: ESA, 2012

Monterey Peninsula Water Supply Project . 205335.01

**Figure 2**  
Preliminary Project Facilities Map

## Issues to be Addressed in the EIR

This NOP is not accompanied by an Initial Study that screens out environmental topics; the MPWSP EIR will include an analysis for all topics identified in Appendix G of the CEQA Guidelines. The MPWSP EIR will address potential impacts associated with project construction, operation, and maintenance activities. The analysis will include, but will not be limited to, the following issues of potential environmental impact:

- **Surface Water Hydrology and Water Quality** – Construction and operation of the MPWSP could increase soil erosion and adversely affect water quality in receiving waterbodies. Project operations would generate brine, maintenance and cleaning solutions, and other effluents that would be discharged to the Monterey Bay, stormwater system, and sanitary sewer. The MPWSP EIR will evaluate impacts to surface water quality as a result of project construction and operations; changes to existing drainage patterns resulting in increased erosion or runoff; potential impacts related to the capacity of the existing MRWPCA ocean outfall; and potential adverse effects of brine discharges on offshore water quality.
- **Groundwater Resources** – Updated groundwater modeling will be used to evaluate potential impacts to groundwater levels and groundwater quality associated with slant well operations, including any effects on the seawater/freshwater interface. Water rights issues will be addressed as needed to evaluate project feasibility and project effects on groundwater.
- **Marine and Terrestrial Biological Resources** – The EIR will evaluate project impacts on terrestrial special-status animal and plant species, sensitive habitats, mature native trees, and migratory birds associated with facility siting and project-related construction activities. Particular attention will be given to the coastal dune habitat in the vicinity of the proposed subsurface slant wells. Potential impacts on marine resources to be evaluated include salinity changes at the MRWPCA ocean outfall from brine discharges and any related effects on benthic and pelagic organisms and environments. The EIR will also evaluate any potential conflicts with applicable plans, policies, and plans related to the protection of marine and terrestrial biological resources.
- **Air Quality and Greenhouse Gases** – The EIR will analyze construction-related and operational emissions of criteria air pollutants. Emissions estimates will be evaluated in accordance with all applicable federal, state, and regional ambient air quality standards. Potential human health risks at nearby sensitive receptors from emissions of diesel particulate matter and toxic air contaminants during project construction and operations will be addressed. The EIR will also estimate greenhouse gas (GHG) emissions associated with project construction and operations, and compare these to applicable plans and policies related to reducing GHGs.
- **Mineral and Energy Resources** – The EIR will evaluate potential impacts to mineral resources associated with facility siting. The MPWSP's energy requirements, particularly the energy needs for desalination, will be evaluated to reflect the proposed plant capacity, specifications, and operations.
- **Geology and Soils** – The EIR will review site-specific seismic, geologic, and soil conditions and evaluate project-related impacts. The analysis will address the potential for project construction activities to result in increased soil erosion or loss of topsoil, as well as potential slope instability issues associated with facility siting and construction. Particular attention will be given to potential increases in coastal erosion rates resulting from project



implementation, as well as damage to the slant wells and other facilities in the coastal zone resulting from natural erosion.

- **Hazards and Hazardous Materials** – The EIR will summarize documented soil and groundwater contamination cases within and around the project area, and evaluate the potential for hazardous materials to be encountered during construction. Inadvertent releases of hazardous construction chemicals, and contaminated soil or groundwater into the environment during construction will be addressed. The analysis will also consider the proper handling, storage, and use of hazardous chemicals that would be used during operations.
- **Noise** – The EIR will evaluate construction-related noise increases and associated effects on ambient noise levels, applicable noise standards, and the potential for indirect impacts to nearby land uses.
- **Transportation and Traffic** – Project construction activities would generate construction trucks and vehicles, resulting in a temporary increase in traffic volumes along local and regional roadways. The installation of pipelines along or adjacent to road right-of-ways could result in temporary land closures and traffic delays. Impacts to vehicular traffic, traffic safety hazards, public transportation, and other alternative means of transportation will be evaluated. Traffic increases associated with project operations will also be addressed.
- **Cultural Resources** – The EIR will evaluate potential impacts on historic, archaeological, and paleontological resources, and human remains. It is anticipated that any potential impacts to cultural resources would be limited to project construction and/or facility siting.
- **Land Use** – The EIR will evaluate potential conflicts with established land uses as a result of facility siting and during project construction. Potential conflicts with applicable plans and policies will also be evaluated. Particular attention will be given to consistency with the Coastal Plan.
- **Agricultural Resources** – Agricultural land uses are present within and around the project area. The EIR also evaluate potential impacts to designated farmland and Williamson Act contracts.
- **Utilities and Public Services** – The EIR will evaluate potential conflicts with existing utility lines during project construction, including potential service interruption. Particular attention will be paid to “high-priority” utilities that could pose a risk to workers in the event of an accident during construction. Potential impacts related to landfill capacity associated with the disposal of spoils and debris generated during project construction will be described. Project consistency with federal, state, and local waste diversion goals will also be considered.
- **Aesthetic Resources** – Project facilities would be sited along the coastal zone and Highway 1, a designated scenic highway. The EIR will evaluate visual impacts related to the new/proposed facilities.
- **Cumulative Impacts** – The environmental effects of the MPWSP, in combination with the effects of past, present, and future foreseeable cumulative projects in the vicinity, could result in significant cumulative impacts. Potential cumulative projects include the future expansion of the Salinas Valley Water Project, a desalination plant for the Marina Coast Water District/Fort Ord area, and the Groundwater Replenishment Project (if groundwater replenishment is not made part of the proposed project or an alternative). The EIR will evaluate the project’s contribution to any identified cumulative impacts.

The MPWSP EIR will describe water supply and demand in the CalAm service area and the relationship of the proposed project (including facility sizing and capacities) to such supply and demand. The potential for implementation of the MPWSP to result in growth-inducing effects will be evaluated.

To comply with the CEQA-Plus requirements under the CWSRF Guidelines, the EIR will include information to support federal agency consultations under Section 106 of the National Historic Preservation Act, Section 7 of the Federal Endangered Species Act, the Federal Clean Air Act General Conformity Rule,<sup>9</sup> and any other applicable federal consultations. If it is determined through the scoping process that additional federal review is required, CPUC will coordinate with the appropriate federal agency to comply with NEPA.

Where feasible, mitigation measures will be proposed to avoid or reduce any identified environmental impacts attributable to the project.

Comments received during the EIR scoping period will be considered during preparation of the MPWSP EIR. Public agencies and interested organizations and persons will have an opportunity to comment on the Draft EIR after it is published and circulated for public review.

## Scoping and Draft EIR Schedule

During this NOP review period, the CPUC is soliciting comments on the scope of environmental issues as well as reasonable alternatives and mitigation measures that should be explored in the Draft EIR.<sup>10</sup> Written scoping comments may be submitted by hand, mailed, faxed, or sent by email during the NOP review period, which closes at 5:00 p.m. on November 9, 2012. Please include a name, address, and telephone number of a contact person to receive future correspondence on this matter. Please send your comments to:

Andrew Barnsdale  
California Public Utilities Commission  
c/o Environmental Science Associates  
550 Kearny Street, Suite 800  
San Francisco, CA 94108  
Fax: 415.896.0332  
Or email to: [MPWSP-EIR@esassoc.com](mailto:MPWSP-EIR@esassoc.com)

## Scoping Meetings

CEQA Statute Section 21083.9 mandates that a scoping meeting be held for projects of statewide, regional or area-wide significance. Given the high level of interest in and the importance of this proposed project to the Monterey County region and to ensure that the public and regulatory

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<sup>9</sup> The General Conformity Rule ensures that the actions taken by federal agencies in nonattainment and maintenance areas do not interfere with a state's plans to meet national standards for air quality. As of March 30, 2012, the North Central Coast Air Basin (NCCAB) meets all National Ambient Air Quality Standards and is not subject to a maintenance plan with conformity obligations. Therefore, the MPWSP EIR will describe why the General Conformity Rule would not apply to the MPWSP.

<sup>10</sup> Publication of the Draft EIR is scheduled for summer 2013.

agencies have an opportunity to ask questions and submit comments on the scope of the EIR, a series of scoping meetings will be held during the NOP review period. The scoping meetings will start with a brief presentation providing an overview of the proposed project and the project alternatives identified to date. Subsequent to the presentation, interested parties will be provided an opportunity to interact with technical staff. Participants are encouraged to submit written comments, and comment forms will be supplied at the scoping meetings. Written comments may also be submitted anytime during the NOP scoping period to the mailing address, fax number, or email address listed above. The locations and dates of the scoping meetings are listed below:

<b>October 24, 2012</b>	<b>October 25, 2012</b>	<b>October 25, 2012</b>
6:30 p.m. to 8:30 p.m.	1:30 p.m. to 3:30 p.m.	6:30 p.m. to 8:30 p.m.
Rancho Canada Golf Club	Oldemeyer Center	Oldemeyer Center
4860 Carmel Valley Road	Blackhorse Room	Laguna Grande Hall
Carmel, CA 93923	986 Hilby Avenue	986 Hilby Avenue
	Seaside, CA 93955	Seaside, CA 93955

## Preliminary List of Alternatives to the Project

In accordance with CEQA Guidelines Section 15126.6, the EIR will describe a reasonable range of potentially feasible alternatives to the MPWSP, or to the location of the project, that would achieve most of the basic objectives of the project while avoiding or substantially lessening any of the significant effects of the project, and will also evaluate the comparative merits of the alternatives. Alternatives to the proposed MPWSP are briefly introduced below. The alternatives set forth below comprise a preliminary list of potentially feasible alternatives. This list will be refined, and may be expanded or contracted, as warranted based upon comments received and data gathered as part of the EIR preparation process on such topics as feasibility (as well as economic, environmental, legal and social factors), ability to avoid significant effects of the project, and ability to meet the basic objectives of the project.

### 5.4-mgd Desalination Plant with Groundwater Replenishment

As an alternative to the proposed 9-mgd desalination plant, CalAm would implement a 5.4-mgd desalination plant and enter into a water purchase agreement with the Monterey Peninsula Water Management District (MPWMD) to purchase up to 3,500 afy of product water from the Groundwater Replenishment Project. CalAm has entered into a Memorandum of Understanding with the MRWPCA and Monterey Peninsula Water Management District to collaborate on development of the Groundwater Replenishment Project. The MRWPCA currently owns and operates two plants that treat wastewater influent from the Monterey Peninsula and Salinas Valley service area: the Regional Wastewater Treatment Plant treats community wastewater for discharge to the ocean; also, in the mid-1990s, the MRWPCA constructed and now operates a tertiary treatment plant known as the Salinas Valley Reclamation Project, which treats water for agricultural irrigation that is distributed via the Castroville Seawater Intrusion Project.<sup>11</sup>

<sup>11</sup> The Salinas Valley Reclamation Project and the Castroville Seawater Intrusion Project are projects being operated in partnership with the Monterey County Water Resources Agency and growers in the Salinas Valley.

The Groundwater Replenishment Project would include replenishment of the Seaside Groundwater Basin with wastewater treated at a proposed advanced water treatment plant to be located at the Regional Treatment Plant. The Groundwater Replenishment Project would convey the treated water into the Seaside Basin for dilution and storage. Replenishment could occur at either inland or coastal locations and could include vadose zone wells and/or injection wells. Vadose zone wells would be used for recharge of the unconfined Paso Robles Aquifer, and injection wells would directly replenish the confined Santa Margarita Aquifer. The Groundwater Replenishment Project could be operated during the winter months and during other non-peak months. Extraction from the Seaside Groundwater Basin can occur later, at any time of the year.

## DeepWater Desal Alternative

DeepWater Desal LLC is proposing the DeepWater Desal Alternative, a 25-mgd seawater reverse osmosis desalination facility that would serve Santa Cruz, San Benito, and Monterey Counties. The desalination facility would be constructed at Capurro Ranch on a leased 8.14-acre property located on Highway 1 near Moss Landing. This site is immediately north of the Moss Landing harbor in Santa Cruz County, and approximately 1 mile from the proposed seawater intake to be located at the Sandholdt pier, which would be rebuilt under this alternative.<sup>12</sup> The intake and brine discharge pipes would be anchored to the Sandholdt pier. Approximately 50 million gallons of raw seawater per day would be drawn via a passive<sup>13</sup> open-water intake at a depth of about 100 feet through an existing pipeline and easement<sup>14</sup> located on the edge of the Monterey Submarine Canyon. The desalination system would use some existing facilities at the Moss Landing Power Plant. Approximately 25 mgd of brine discharge would be diluted in the Moss Landing Power Plant's cooling water discharge and returned to the ocean. The desalination system would include pretreatment facilities and onsite storage tanks and would utilize an electrical power-source mix. The DeepWater Desal Alternative could qualify for tax-free municipal bond financing. DeepWater Desal LLC anticipates that municipal agencies within the Monterey Bay area would form a joint powers authority to assume ownership of the DeepWater Desal Alternative.<sup>15</sup> No details are available at this time regarding the infrastructure needed to convey product water to the Monterey Peninsula or other service areas.

## People's Moss Landing Water Desalination Project (People's Project) Alternative

The People's Project would be a 10-mgd desalination facility located at the Moss Landing Green Commercial Park, adjacent to the Moss Landing Power Plant on the former National Refractories & Minerals Corporation site. The proposed 200-acre site is currently zoned for light and heavy industrial use, and approximately 25 acres would be designated for the desalination plant. The People's Project would consist of the following major components: screened, passive open-water

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<sup>12</sup> Construction of the DeepWater Desal Alternative would include the reconstruction of the Sandholdt Pier on its historical site.

<sup>13</sup> "Passive intake" means that the maximal velocity of seawater being drawn in through the "wedge-wire" screen will never exceed 1 foot per second.

<sup>14</sup> DeepWater Desal LLC intends to lease this pipeline easement from Dynegy.

<sup>15</sup> DeepWater Desal LLC, "Our Location" and "Our Approach." Available online at <http://deepwaterdesal.com/>. Accessed August 2012. Updated 2011.

intake (existing, located at the former National Refractories and Minerals Plant site); outfall pipeline (existing); intake pump station (existing); pretreatment media filtration system; 10-mgd seawater desalination system; 45-mgd onsite product water storage tanks; post-treatment facilities; product water pump station; solids handling system; electrical and solar power supply and energy recovery system; and approximately 13 miles of transmission and/or distribution pipeline to convey product water to the Monterey Peninsula. The transmission pipeline would be constructed in paved and unpaved areas and would require crossings at Mojo Cojo Slough, Tembladero Slough, and the Salinas River. The City of Pacific Grove has agreed to serve as the lead public agency for The People's Moss Landing Water Desalination Project.<sup>16</sup>

## Conservation Alternative

As an alternative to the proposed project, CalAm would implement water reduction efforts and other conservation measures to reduce demand on the existing water supply. The Monterey Peninsula Water Management District currently works with CalAm to provide education and encourage water conservation in an effort to protect water resources in the community. These conservation efforts include: conservation billing rates, limited watering schedule, free water audits, free water-saving devices, rebates on high-efficiency appliances, rebates for low water landscaping, and turf removal. This alternative, which would further expand conservation programs, could set stricter conservation requirements for residential and commercial customers. Under this alternative, CalAm would reduce system water loss via leakage control zones, pressure control, acoustic monitoring, transmission main testing, and main replacement programs. CalAm would use tiered rates to reduce water use. CalAm would also work with customers to promote water-wise landscaping and turf replacement, graywater use, plumbing retrofits, and other best management practices. It is yet to be determined if the Conservation Alternative would be a project alternative, or if the Conservation Alternative, implemented in conjunction with desalination, would enable the proposed MPWSP desalination plant to be reduced in size.

## Locational Alternatives

The MPWSP EIR will also consider locational alternatives to the MPWSP preferred project, including alternative desalination plant locations and sizes (capacity); alternate pipeline alignments; and alternate intake well locations and configurations (i.e. open water intake; vertical wells; Ranney collector wells; etc.).<sup>17</sup>

<sup>16</sup> The People's Moss Landing Water Desal Project, "The Project." Available online at <http://www.thepeopleswater.com/theproject.html>. Accessed August 2012. Updated March 2012.

<sup>17</sup> A Ranney well is a radial arrangement of screens that form a large infiltration gallery with a single central withdrawal point used to extract water from an aquifer with direct connection (caisson constructed in the sand) to surface water.