

## 5.2 Alternatives Not Evaluated in Detail

This section provides a brief project history, and presents alternative projects that were considered in the past and may have informed the alternatives analyzed in this EIR/EIS, but were not carried forward for detailed evaluation. Many of the alternatives presented below were considered and rejected in earlier environmental review documents because the projects were determined to be politically, legally, economically, or technically infeasible; others are concepts that were speculative or technically or economically infeasible. These projects were revisited for this EIS/EIR and were eliminated from further review because they are incapable of meeting most of the basic project objectives or purpose and need as currently defined. The earlier environmental review documents are incorporated by reference pursuant to NEPA (40 CFR §1502.21) and CEQA Guidelines (Section 15150), and discussed in **Appendix I**. Additionally, Section 5.3 and Appendix I describe individual components, such as particular intake and outfall options, that are eliminated from further detailed analysis.

### 5.2.1 Overview

The MPWSP is the result of a multi-year planning effort. Since 1989, various entities have proposed several options intended to meet the water supply needs of the Monterey Peninsula and address the impacts on the Carmel River underlying SWRCB Order 95-10. Several of those options generated their own environmental review documents, which in turn contained many alternatives, some of which are still relevant here. As part of the 2009 Coastal Water Project EIR (CPUC, 2009), the CPUC reviewed these previously-prepared documents, including the Monterey Peninsula Long-Term Water Supply Contingency Plan (Plan B) Component Screening Report (CPUC, 2000) and the CPUC Carmel River Dam Alternative Plan B Project Report (CPUC, 2002), to determine what projects and alternatives had already been considered and eliminated since SWRCB Order 95-10 was issued.

The following section summarizes the previous proposals and projects, and the environmental documentation prepared for them (as relevant), and discusses why each of these alternatives is not addressed in detail in this EIR/EIS. No viable alternatives have been identified that would supply water without a desalination plant being included. Therefore, each of the whole action alternatives described in Section 5.4 includes a desalination plant of one size or another at some location within Monterey County.

### 5.2.2 New Los Padres Dam and Reservoir/Carmel River Dam and Reservoir Project

The New Los Padres Dam and Reservoir project was originally proposed by the Monterey Peninsula Water Management District (MPWMD) in 1989. It included a 24,000-acre-foot (af) dam and reservoir on the Carmel River, located about 0.5 mile downstream of the existing Los Padres Dam. The project would have had a production limit of 21,000 afy, of which 3,381 af would have been available to accommodate growth, in the form of new connections and remodels. The MPWMD prepared the required CEQA documentation in 1994-1995, obtained a

Section 404 permit under the federal Clean Water Act in 1995, and obtained a water right permit from the SWRCB in June and July 1995. However, in November 1995 voters rejected a measure authorizing funding for the project (CPUC, 2009).

In 1996, CalAm proposed to build a “no growth” dam and reservoir to comply with Order 95-10. That proposal was called the Carmel River Dam and Reservoir Project. Physically, it would have been the same as the New Los Padres Dam and Reservoir project. It would only have served existing community needs, which were estimated at 17,641 afy rather than the 21,000 afy envisioned in the New Los Padres Dam and Reservoir project. CalAm applied to the CPUC for permission to build and operate the project (A.97-03-052) in 1997. In 1998, the MPWMD, acting as lead agency, prepared a draft supplemental environmental impact report based on the New Los Padres Dam and Reservoir EIR. MPWMD never certified the final environmental document because, in 1998, the state legislature passed Assembly Bill 1182, which ordered the CPUC to identify alternatives to the dam (CPUC, 2009). In 1999, in response to Assembly Bill 1182, the CPUC began evaluating alternatives to the Carmel River dam project to meet the requirements of SWRCB Order 95-10 (also known as Plan B) for the Monterey Peninsula.

Subsequently, CalAm concluded that the Carmel River dam project was not feasible for a number of factors, including general public opposition, concerns over impacts to endangered and threatened species, and the findings of the evaluation of alternatives in Plan B (see Section 5.2.3). These factors still make both the New Los Padres Dam and Reservoir Project and the Carmel River dam project infeasible.

### 5.2.3 CPUC Water Supply Contingency Plan (“Plan B”)

In 1999, in response to Assembly Bill 1182 and to meet the requirements of SWRCB Order 95-10, the CPUC began evaluating alternatives to the Carmel River dam project. In 2002, the CPUC, working with CalAm and others, completed a water supply contingency plan (also known as Plan B) for the Monterey Peninsula. Plan B ultimately concluded that a combination of desalination and aquifer storage and recovery (ASR) could produce 10,730 afy.<sup>1</sup> The desalination component of the project would be located next to the Moss Landing Power Plant and would produce 9,430 afy. Treated water would flow to the CalAm service area through a new pipeline. The ASR element would provide 1,300 afy by diverting surplus water from the Carmel River and storing this water in the Seaside Groundwater Basin for later use.

As part of the Plan B process, a Component Screening Report was prepared to provide the background, framework, and evaluation of potential Plan B water supply components (CPUC, 2000). Fifteen project components were evaluated in detail to assess their ability to meet 11 Plan B

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<sup>1</sup> The Draft Plan B Project Report included a desalination plant at Sand City, Seaside Groundwater Basin ASR, a water reclamation component, and a water rights component. Further analysis, however, determined the following: that the water rights component was not currently feasible due to agency policies; that the water reclamation component was not practical due to institutional complexities and project costs; and that a desalination plant at Sand City would be more difficult to implement and less appropriate for the desired scale of production than a desalination plant at Moss Landing. The Final Plan B Report, therefore, consisted of a Seaside Groundwater Basin ASR and a desalination plant at Moss Landing.

objectives and 16 Plan B criteria. The 15 project components considered in the Plan B screening analysis, and their disposition at the time, sorted by category, are presented in **Table 5.2-1**.

**TABLE 5.2-1  
RESULTS OF PLAN B COMPONENT SCREENING**

| <b>Component Category/Component</b>           | <b>Carry Forward</b> | <b>Hold</b> | <b>Exclude</b> |
|---|----------------------|-------------|----------------|
| <b>Groundwater Development</b>                |                      |             |                |
| 1. Carmel Valley Deep Fractured Bedrock Wells |                      | X           |                |
| 2. Seaside Basin ASR                          | X                    |             |                |
| 3. Tularcitos Basin ASR                       |                      | X           |                |
| <b>Desalination</b>                           |                      |             |                |
| 4. Desalination Plant at Marina               |                      | X           |                |
| 5. Desalination Plant at Moss Landing         | X                    |             |                |
| 6. Desalination Plant at Sand City            | X                    |             |                |
| <b>Importation</b>                            |                      |             |                |
| 7. Water Purchase from CVP                    |                      | X           |                |
| 8. Water Purchase from Humboldt Bay           |                      | X           |                |
| 9. Water Purchase from the Salinas Valley     |                      |             | X              |
| <b>Legal Strategies</b>                       |                      |             |                |
| 10. Pueblo Water Rights (Carmel River)        |                      |             | X              |
| 11. Pueblo Water Rights (Salinas River)       |                      |             | X              |
| 12. Table 13 Rights (Carmel River)            |                      | X           |                |
| <b>Reclamation</b>                            |                      |             |                |
| 13. CAWD/PBCSD Reclamation Expansion          |                      | X           |                |
| 14. SVRP Expansion                            |                      | X           |                |
| 15. Local Stormwater Reclamation Projects     |                      | X           |                |

Of the 15 components, three (water purchase from the Salinas Valley, Pueblo Water Rights for the Carmel River, and Pueblo Water Rights for the Salinas River) were excluded with fatal flaws, and they continue to be infeasible alternatives.

Three of the Plan B components were carried forward for additional evaluation; two of them, Seaside Basin ASR and Sand City Desalination, have been implemented. The Desalination at Moss Landing component was evaluated in the 2009 Coastal Water Project EIR and is re-evaluated in this EIR/EIS.

The other Plan B components were placed in a “hold” category. Components that were put on hold were not as promising as the ones carried forward, due to any number of factors that indicated that implementation of a particular component was technically challenging, did not fulfill planning goals, or conflicted with environmental resources. Water Purchase from the Central Valley is now considered to be infeasible since it relied on the construction of the Import Pipeline by the Pajaro Valley Water Management Agency, which decided not to pursue the

project. Table 13 Water Rights and Local Stormwater Reclamation Projects<sup>2</sup> have been or are being implemented; an expansion of the Seaside Basin ASR, Desalination at Marina, and Reclamation components<sup>3</sup> are discussed in this EIR/EIS.

A Final Plan B Project Report was prepared to document the refinement of the most viable components selected during the screening project. Additional engineering design and environmental analysis refined, modified, and focused the results presented in the Plan B Project Report, which provided the technical foundation and point of departure for the analysis of the Coastal Water Project. It included all of the essential features of the project: (a) a desalination project at Moss Landing using the Moss Landing Power Plant cooling water system for feedwater; (b) a water conveyance pipeline from Moss Landing to the CalAm's Monterey District; (c) ASR near Seaside; and (d) storage of Carmel River winter flows at the ASR site for recovery in the summer. At 10,730 afy capacity, Plan B did not include a provision to replace some of the water pumped from the Seaside Basin because the over pumping problem was not recognized at that time.

In 2003, the CPUC dismissed CalAm's Carmel River dam application without prejudice, ordered CalAm to file a new application for the Coastal Water Project, and determined that the CPUC should be the lead agency for the Coastal Water Project EIR. CalAm responded to the CPUC's decision by filing an application for a Certificate of Public Convenience and Necessity (CPCN) (A.04-09-019) and proposing the Coastal Water Project.

## 5.2.4 Coastal Water Project

In 2004, CalAm filed Application A.04-09-019 seeking a CPCN from the CPUC for the Coastal Water Project. The Coastal Water Project (also referred to as the Moss Landing Project) was sized, like the "no growth" New Los Padres Dam and Reservoir Project, to meet existing water demand, and did not include supplemental supplies to accommodate growth. On January 30, 2009, the CPUC published a Draft EIR analyzing the environmental impacts of the Coastal Water Project, as well as the environmental impacts of two project alternatives: the North Marina Project<sup>4</sup> and the Regional Project.<sup>5</sup> The CPUC published the Coastal Water Project Final EIR (SCH No.

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<sup>2</sup> This Plan B component included several small scale stormwater reclamation projects that could be implemented within small drainage basins in Carmel, Pebble Beach and Pacific Grove, Monterey and Seaside.

<sup>3</sup> This Plan B component included an incremental of the CAWD/PBCSD Recycled Water Project and the incremental expansion of the Salinas Valley Reclamation Project.

<sup>4</sup> The North Marina Project alternative included most of the same facilities as the previously proposed Coastal Water Project and, like the previously proposed Coastal Water Project, would only provide replacement supplies to meet existing demand. The key differences between this alternative and the previously proposed Coastal Water Project 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>5</sup> The Regional Project would have been implemented jointly by CalAm, Marina Coast Water District (MCWD) and Monterey County Water Resources Agency (MCWRA). 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.

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 the Regional Project alternative.

In January 2012, after the CPUC approved the Regional Project, CalAm withdrew its support for that project because of potential conflicts among the regional partners, and in April 2012, CalAm submitted Application A.12-04-019 (CalAm, 2012) seeking a CPCN from the CPUC for the MPWSP to build, own, and operate a desalination facility for water supply. The CPUC closed the Coastal Water Project proceeding A.04-09-019 in July 12, 2012, with Decision D.12-07-008. However, certain elements of the three projects evaluated in the Coastal Water Project EIR (e.g., intake, plant location and brine discharge components) have been carried into the alternatives analysis presented in this EIR/EIS.

### 5.2.5 MCWRA Interlake Tunnel and Spillway Modification Project

The Interlake Tunnel has been under consideration since the late 1970s and was included in the Monterey County Water Resources Agency (MCWRA) July 1991 Water Facilities Capital Plan as an approach to better manage flood and conservation flows in the Salinas River watershed. Since the early 1990s, the MCWRA has focused its groundwater management efforts on completing the Salinas Valley Water Project, which entails the Salinas River Diversion Facility and a modification to the Nacimiento Dam Spillway. More recently, the Interlake Tunnel project was included in the 2013 Greater Monterey County Integrated Regional Water Management Plan. With the current drought, MCWRA has a renewed interest in the Interlake Tunnel and Spillway Modification Project (Interlake Tunnel Project).

The Interlake Tunnel Project is being considered by the MCWRA, and would involve the construction of an 11,000-foot-long tunnel to divert approximately 50,000 af of water from Nacimiento Reservoir to San Antonio Reservoir that would have otherwise been spilled at Nacimiento Dam. The Nacimiento River basin produces nearly three times the average annual flow of the San Antonio River basin, so capturing high Nacimiento River flows and diverting those flows to San Antonio Reservoir would increase the overall storage capacity of the system (MCWRA, 2014). The spillway of the San Antonio Reservoir would be raised an additional 10 feet to provide a total storage capacity of 59,000 af.

In July 2014, the Monterey County Board of Supervisors approved funding that allowed the MCWRA to prepare for and commence environmental review of the project. Starting in August, 2014, the MCWRA's Board of Directors has held several public workshops to provide background information about the Interlake Tunnel and to provide updates on project activities and accomplishments. On April 28, 2016, MCWRA published a Notice of Preparation to prepare an EIR on the Interlake Tunnel Project and held scoping meetings in May 2016. MWCRA anticipates construction of the Interlake Tunnel Project could begin in 2019.

The Interlake Tunnel project is intended to provide additional flood control and water supply benefits to the existing users and beneficiaries of the MCWRA's benefit assessment Zone 2C.

The project will be funded in part by property owners in Zone 2C through a Proposition 218 assessment. CalAm's Monterey District is not included in Zone 2C. Even if CalAm could overcome the legal and economic challenges of the assessments, the water created by the Interlake Tunnel Project would need to be conveyed to a new Surface Water Treatment Facility (e.g., it could flow down the Salinas River for extraction at the Salinas Valley Water Project's Rubber Dam, and be conveyed to CalAm's Charles Benson Road site) in order to comply with the Surface Water Treatment Rule, before being delivered to CalAm customers.

Demands for water from the Salinas River watershed come from numerous sources, including the Salinas Valley growers, Nacimiento Lake property owners, saltwater intrusion prevention efforts, and environmental protection measures. Given the uncertainty of this resource, the tremendous demand for water to serve a number of different purposes and the Monterey County Agency Act prohibition on out- of-basin transfers of groundwater, it is extremely unlikely CalAm could secure the appropriate surface water rights for this supply (CPUC, 2000). Therefore, this alternative was not further evaluated in this EIR/EIS.

### 5.2.6 Pure Water Monterey Groundwater Replenishment Project

The Pure Water Monterey Groundwater Replenishment (GWR) Project is jointly sponsored by the Monterey Regional Water Pollution Control Agency (MRWPCA) and the Monterey Peninsula Water Management District (MPWMD); the City of Salinas, the Marina Coast Water District (MCWD), and the Monterey County Water Resources Agency (MCWRA) are also participating. The GWR Project would serve northern Monterey County by providing purified water to recharge the Seaside Groundwater Basin (CalAm may later extract and distribute up to 3,500 afy) and 4,750 afy of additional recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply. On September 15, 2016, in Decision 16-09-021, the CPUC authorized CalAm to enter into a Water Purchase Agreement, which provides that the MRWPCA will sell purified water from its advanced treated Pure Water Monterey GWR Project to the MPWMD, which in turn will sell it to CalAm for extraction and distribution to ratepayers in the Monterey District service area.

The GWR Project is not considered in this EIR/EIS as a stand-alone alternative to the MPWSP because it would not provide enough water to meet the basic project objectives of the MPWSP. Instead, it is considered in the cumulative impacts analysis for the reduced capacity alternative (Alternative 5a and 5b), Alternative 3 (Deepwater Desal) and the No Action Alternative. However, the GWR Project would not be relevant in the context of the proposed project or any alternative that includes a 9.6 mgd desalination plant built and operated by CalAm (i.e., Alternatives 1 and 2) because, if the GWR project is implemented, CalAm would not need to construct a 9.6 mgd desalination plant (the proposed project); instead, it would construct the 6.4 mgd plant as described in Alternatives 5a and 5b.

CPUC Decision 16-09-021 also authorized CalAm to construct the new Monterey Pipeline and Pump Station. For all alternatives (including the proposed project), the approved new Monterey

Pipeline and Pump Station are included in the cumulative impact analysis since those facilities will be built with or without the remainder of the GWR Project elements.

## 5.2.7 Siting Alternatives for ASR-5 and ASR-6 Wells

Section 2.4.3, Aquifer Storage and Recovery, describes the existing Phase I and Phase II of the Seaside Groundwater Basin Aquifer Storage and Recovery (ASR) project, which entails diverting and conveying Carmel River water during periods of high flow that occur between December and May of each year to the Seaside Groundwater Basin, where it is injected into the aquifer for storage and subsequently recovered for delivery to customers. The Phase I project, which was completed in 2007, includes two ASR injection/extraction wells (ASR-1 and ASR-2) located at the former Fort Ord military base, on the east side of General Jim Moore Boulevard near Eucalyptus Road. The Phase II ASR project includes two additional injection/extraction wells (ASR-3 and ASR-4) at Seaside Middle School, located on the west side of General Jim Moore Boulevard. The Phase I and Phase II ASR well locations are shown on Figure 3-2. In addition to the injection/extraction wells, the Phase I and Phase II ASR facilities include treatment facilities, two pump stations, a backflush percolation basin, and conveyance pipelines.

As part of the MPWSP, CalAm proposes two additional injection/extraction wells, ASR-5 and ASR-6 wells, to be located on the east side of General Jim Moore Boulevard between Arloncourt Road and Ardennes Circle, as shown on Figure 3-9. As discussed in Impact 4.12-1 in Section 4.12, Noise and Vibration, construction of the ASR wells would require a total of 8 weeks of 24-hour construction; and while temporary sound walls would be installed (Mitigation Measures 4.12-1b and 4.12-1d), a nighttime noise control plan would be implemented (Mitigation Measures 4.12-1c), and offsite accommodations would be provided for substantially affected receptors (Mitigation Measures 4.12-1e), the nighttime noise impact on adjacent residents could remain significant and unavoidable.

The locations of the proposed ASR-5 and ASR-6 wells are constrained by the presence of existing infrastructure and geologic characteristics of the Seaside Groundwater Basin. Several potential well sites were considered in environmental analyses completed for the Phase I and Phase II projects, including the “Bayonet Site,” located west of General Jim Moore Boulevard adjacent to the Bayonet and Black Horse Golf Course, and parcels located in Fitch Park near the intersection of General Jim Moore Boulevard and Normandy Road. According to a 2010 Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared by the U.S. Army, placement of an ASR well at the Bayonet Site was not pursued because the City of Seaside intended to acquire the site, and the Normandy Road site was not considered a viable site because of its proximity to a school path to Marshall School (U.S. Army, 2010).

Approval of the GWR Project, as described in Section 5.2.6, has further constrained the possible locations for additional ASR wells. New potable supply wells cannot be installed in GWR’s area of influence within the basin because they would draw water from a part of the basin without meeting residence times in the aquifer that are required for GWR’s injected recycled water.

The Lead Agencies reviewed constraint information provided by CalAm and in prior environmental analyses for the Phase I and Phase II projects and concur with their conclusions. Because few locations are technically feasible for alternative siting of the ASR-5 and ASR-6 wells, and due to the temporary nature of the significant and unavoidable nighttime noise impact associated with this project component, these technically infeasible alternatives were not carried forward into the EIR/EIS analysis.