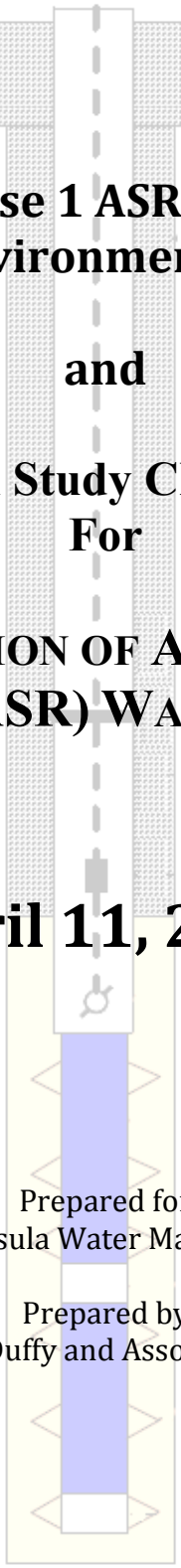
Addendum to the Phase 1 ASR Environmental Impact Report/Environmental Assessment

and

Initial Study Checklist
For

FULL IMPLEMENTATION OF AQUIFER STORAGE AND RECOVERY (ASR) WATER PROJECT 2

April 11, 2012



Prepared for
Monterey Peninsula Water Management District

Prepared by
Denise Duffy and Associates, Inc.

ADDENDUM

to the
Monterey Peninsula Water Management District
Aquifer Storage and Recovery Project Phase 1
Environmental Impact Report/Environmental Assessment

April 11, 2012

INTRODUCTION

Pursuant to the California Environmental Quality Act, California Public Resources Code sections 21000 et seq. ("CEQA") and the California Environmental Quality Act Guidelines, Title 14, chapter 3 of the California Code of Regulations ("CEQA Guidelines"), and in cooperation with other affected agencies and entities, the Monterey Peninsula Water Management District (MPWMD) has prepared this Addendum to the Phase 1 Aquifer Storage and Recovery (ASR) Project Final Environmental Impact Report/Environmental Assessment (Phase 1 EIR/EA), certified by MPWMD's Board of Directors on August 21, 2006. MPWMD has prepared this Addendum to the Phase 1 EIR/EA as a lead agency for the proposed full implementation of ASR Water Project 2 (proposed project).

This Addendum is supported by the attached Initial Study Checklist for full implementation of ASR Water Project 2, which concludes the following with regards to CEQA compliance:

- Implementation of the proposed project would not directly have any significant adverse effects on the environment.
- Future potential projects with components proposed at the project site have been described and previously evaluated in certified EIRs, most recently the EIR/EA, and the significant adverse effects of these projects have been identified.
- No new or previously unidentified adverse significant impacts would result from full implementation of ASR Water Project 2.
- No circumstances have changed and no new information of substantial importance has been presented since the consideration of the previous EIR/EA to trigger a new significant adverse impact.

MPWMD's Board of Directors must consider this Addendum, along with the certified EIR/EA, prior to making a decision on the proposed project; however, the Addendum is not required to be circulated for standard EIR public review in accordance with CEQA Guidelines Section 15164.

PROJECT OVERVIEW

This Addendum provides a description of full implementation of ASR Water Project 2 at the Seaside Middle School (formerly named Fitch Middle School) site. This Addendum is intended to support any and all future discretionary approvals for installation and operation of permanent facilities at the subject site near Seaside Middle School.

The MPWMD and California American Water (CAW) are cooperating to further develop the Seaside Basin Aquifer Storage and Recovery Project that is currently operational. The ASR Project concept

entails diverting groundwater from the Carmel River Alluvial Aquifer when there are excess winter flows in the Carmel River from December 1st through May 31st, and conveying the water to the Seaside Basin via the existing CAW delivery system. This water is then injected into specially-constructed ASR wells for subsequent recovery and delivery to CAW customers during the dry season of the year (June 1st through November 30th). The ASR concept was successfully tested in the Seaside Basin between 1998 and 2007, and permanent operations began in 2008 at the ASR facility located at the Santa Margarita site (see Figure 1). Currently, the facilities in operation at the Santa Margarita site include two injection/extraction wells (ASR-1 and ASR-2) with pumps and motors (only one of which, ASR-1, has been operated as an extraction well as of the time of writing of this document), a chlorination station, and an earthen backflush (or pump-to-waste) pit. This first phase of ASR was permitted to divert up to 2,426 acre-feet (AF) annually (December 1st through May 31st) of Carmel River system water at a maximum instantaneous diversion rate of 6.7 cubic feet per second (cfs). Previously called Phase 1 ASR, this phase of the ASR project is now referred to as ASR Water Project 1. ASR Water Project 1 is estimated to yield an annual average of 920 acre-feet per year (AFY) of water that would vary depending upon rainfall and water levels in the river that would be used to reduce diversions from the Carmel Valley Alluvial Aquifer during the typical dry season (June 1 – November 30), as required by water rights and regulatory agency requirements.

Within this document, the full implementation of Water Project 2 is evaluated that includes the conversion of a full-scale test well to a permanent, operational well (the 3rd ASR Well, or ASR-3), plus construction, testing and operation of a new ASR well (the 4th ASR Well, or ASR-4), a backflush pit, and an electrical building at the Seaside Middle School site. With Amended Permit #20808C (issued November 30, 2011), the State Water Resources Control Board (SWRCB) authorized MPWMD and CAW to divert an additional 2,900 AFY from the Carmel Valley Alluvial Aquifer for injection to the Seaside Basin via proposed Water Project 2 facilities if minimum instream flow requirements in the permit are met. Water Project 2 was estimated to yield an average annual of an additional 1,000 AFY to reduce diversions from the Carmel Valley Alluvial Aquifer during the typical dry season (June 1 – November 30), as required by Amended Permit #20808C.

COMPARISON TO THE CONDITIONS LISTED IN CEQA GUIDELINES §15162

This Addendum has been prepared pursuant to CEQA Guidelines Section15164, which states: "A lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in §15162 calling for preparation of a subsequent EIR have occurred." CEQA Guidelines Section 15162 establishes the following criteria for the preparation of a Supplemental EIR. None of these criteria may be met if an addendum is to be prepared.

1. Substantial changes are proposed in the project 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;

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 or the negative declaration 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.

The following discussion summarizes the reasons why a subsequent or supplemental EIR, pursuant to CEQA Guidelines Section 15162, is not required to evaluate the environmental effects of the proposed project and why an addendum is appropriate.

CHANGES TO THE PROJECT

Following certification of the Phase 1 EIR/EA, ASR Water Project 1 was fully implemented through a partnership between MPWMD and CAW. Development of ASR facilities at the Seaside Middle School site was considered as a "non-contiguous" alternative ASR site in the analysis of the Phase 1 EIR/EA.

In August 2008, MPMWD began negotiations with the Monterey Peninsula Unified School District (MPUSD) for potential use of the Seaside Middle School site as a future ASR facility site. This initiation led to the exploratory drilling and monitor well construction program established in October 2009, which confirmed the geology at the site as suitable for construction of new ASR wells. A Notice of Exemption (NOE) was filed by MPWMD in June 2010. The NOE specified MPWMD's intent to conduct an assessment of expansion of the ASR Project to include additional wells at the Seaside Middle School site. Construction of the test well facilities, as noticed in the referenced NOE above, began in Summer 2010.

Currently there are two monitoring wells, a test well, and associated electrical facilities located on the project site; the proposed project would allow for full implementation of ASR Water Project 2 on the site. This development would result in an additional well to be drilled, a backflush pit, and a building to house electrical equipment to be established on the project site. The amount of water to be diverted from the Carmel River Alluvial Aquifer is, and has been limited by, an amended permit for diversion and use of water (Application 27614C, Permit 20808c) issued by the SWRCB on November 30, 2011 (see Appendix A of the Initial Study Checklist).[1] The proposed project enables CAW and MPWMD to use their allowable water rights to inject excess winter flows into the Seaside Goundwater Basin at both the ASR Water Project 1 site and the ASR Water Project 2 site at Seaside Middle School subject to the same limitations on quantity and instream flows that govern both projects. The requirements in conditions of Permit #20808C ensure that the proposed project would not result in significant impacts on the Carmel River and associated biological resources. Over the long term, the proposed injection at the ASR Water Project 2 wells would further seasonally enhance (i.e., raise) groundwater levels in the Seaside Groundwater Basin because CAW and MPWMD are required to extract no more water, under than this project as permitted, than has already been injected (see Appendix D of the Initial Study Checklist).

[1]The SWRCB permits (20808B and 20808C) set the maximum amount of water that can be diverted from the Carmel Valley Alluvial Aquifer between December 1 and May 31st of the succeeding year to be collected to underground storage by Water Project 1 as 2,426 AF per annum and by Water Project 2 as 2,900 AF per annum. In addition, the permits set forth minimum mean daily instream flow requirements that must be met to divert water under the permits. Permit conditions require that the use of injected water must offset pumping in the Carmel River. MPWMD estimates annual average of 920 AF can be extracted from Water Project 1 and 1,000 AF can be extracted from Water Project 2.

This Addendum discusses and evaluates the potential environmental impacts associated with full implementation of ASR Water Project 2 and finds that there are no significant impacts that cannot be mitigated and that project changes do not constitute substantial changes in the Aquifer Storage and Recovery Project that require revision of the EIR/EA. The proposed developments do not involve new significant environmental effects or increase the severity of previously identified significant effects.

Environmental Effects

As detailed in the attached Initial Study Checklist, the proposed project would not result in significant environmental effects that cannot be mitigated with existing, previously identified EIR/EA mitigation measures. The proposed project would also not result in any new or previously unidentified significant effects. The potential for future development on the project site has been evaluated in the EIR/EA; there are no significant off-site, indirect, cumulative, or growth-inducing impacts; and, mitigation has been identified for solely potential on-site, direct aesthetic, cultural resources, and noise impacts, which would apply to the proposed project (see Summary of Impacts and Mitigation Measures in the Initial Study Checklist).

Project Circumstances

Since certification of the EIR/EA in August 2006, conditions have changed, but not in a way that implementation of the proposed project would result in new significant environmental effects or a substantial increase in severity of previously identified significant environmental effects compared to those identified in the certified EIR/EA. Specifically, ASR Water Project 1 at the Santa Margarita site has been constructed and is now being operated; adjacent roadway construction and underground water pipelines to serve the project have been constructed; a test well and associated facilities have been installed on the proposed project site; permits and easements have been granted from the City of Seaside and the MPUSD for the preliminary site work at the proposed project site (under a CEQA exemption); and, an amended water rights permit has been issued by the SWRCB (November 30, 2011).[2] These actions and activities have guided the design of the proposed full implementation of Water Project 2 and effectively reduced the severity of previously identified site-specific significant impacts, in the areas of air quality, biological resources, land use, noise, public services, traffic and circulation, and utilities. In addition, the operation of ASR Water Project 1 has demonstrated the beneficial impacts of the proposed project on the Seaside Groundwater Basin water levels and the Carmel River and its Alluvial Aquifer (including the biological resources dependent upon it).

In addition, recent regulatory and CEQA Guidelines changes have triggered a new requirement to evaluate greenhouse gas emissions/climate change. These issues have been evaluated in the attached Initial Study Checklist and the proposed project was found to have a less than significant impact in these issue areas. In conclusion, although project circumstances may be considered to have changed, none of these changes in project circumstance have resulted in a new significant impact or the increase in severity of a previously identified significant impact.

New Information

No new information of substantial importance has been identified or presented to MPWMD such that the proposed project would result in: 1) significant environmental effects not identified in the EIR/EA, or 2) more severe environmental effects than shown in the EIR/EA, or 3) require mitigation measures which were previously determined not to be feasible, or mitigation measures that are considerably different from

[2] See also Table 1 in the Initial Study Checklist.

those recommended in the EIR/EA. The proposed project would not result in previously unidentified significant environmental effects. The potential for future development on the site has been evaluated in the EIR/EA and mitigation has been identified for potential significant cultural resources impacts, which would apply to the proposed full implementation of ASR Water Project 2.

Conclusion

Based on the analysis in this addendum and attached Initial Study Checklist, MPWMD concludes that the EIR/EA adequately addresses the environmental effects of the proposed project, and that the project constitutes a minor refinement of the EIR/EA's description of the Aquifer Storage and Recovery Project or its alternatives. Furthermore, MPWMD finds that this minor refinement would not result in significant environmental effects not already identified in the EIR/EA and would not increase the severity of any previously identified impacts.

No new information or evidence of substantial importance has been presented to MPWMD from any other responsible agency or the general public that would indicate that the proposed project has the potential for new significant environmental effects or that it would substantially increase the severity of previously identified significant effects on the environment beyond that previously analyzed and contemplated under the certified EIR/EA.

Section 15164 of the CEQA Guidelines states that a lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. Based on the information in this Addendum, MPWMD has determined that:

- No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would occur as a result of the proposed project;
- No substantial changes have occurred or will occur with respect to the circumstances under which the project was originally undertaken which would require major revisions of the previous EIR/EA due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- No new information of substantial importance has been received or discovered, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR/EA was certified as complete, which shows that:
    - The proposed project would have one or more impacts not discussed in the previous EIR/EA;
    - Significant effects previously examined will be substantially more severe than shown in the previous EIR/EA;
    - 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 proponent declined the measure or alternative;
    - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR/EA would substantially reduce one or more significant effects on the environment, but the project proponent declined the measure or alternative.

Summary of Impacts and Mitigation Measures

The following significant impacts and mitigation measures are applicable to the full implementation of Water Project 2 (proposed project). Each is identified by a number consistent with the number scheme in the Phase 1 ASR EIR/EA (MPWMD/Jones & Stokes, 2006); however, minor edits to the language have been made for consistency with the proposed project.

AESTHETICS

IMPACT VIS-5: CREATION OF NEW LIGHT AND GLARE AT WELL SITE

The project would not be constructed of reflective material and would, therefore, not create a source of glare. The baseline condition for light and glare at the well site is moderate because it is along General Jim Moore Boulevard, and there are a number of sources of nighttime light and developed structures that are sources of daytime glare. The control facility buildings associated with the well would include minimal nighttime lighting for security purposes. This would represent a new source of light and glare. Motorists traveling on General Jim Moore Boulevard and residents west of General Jim Moore Boulevard in Seaside could be affected by potential light and glare.

This impact is considered significant, but would be reduced to a less-than-significant level with implementation of Mitigation Measure VIS-1

Mitigation Measure VIS-1: Incorporate Light-Reduction Measures into the Plan and Design of Exterior Lighting at Well Site. Where lighting is required or proposed, the MPWMD will incorporate the following light-reduction measures into the lighting design specifications to reduce light and glare. The lighting design will also meet minimum safety and security standards.

- Luminaires will be the minimum required for property security to minimize incidental light.
- Luminaires will be cutoff-type fixtures that cast low-angle illumination to minimize incidental spillover of light onto adjacent properties and open space. Fixtures that project light upward or horizontally will not be used.
- Luminaires will be focused only where needed (such as building entrances) and should not provide a general "wash" of light on building surfaces.
- Luminaires will be directed away from habitat and open space areas adjacent to the project site.
- Luminaires will provide good color rendering and natural light qualities. Low-pressure sodium and high-pressure sodium fixtures that are not color-corrected will not be used.
- Luminaire mountings will be downcast and the height of poles minimized to reduce potential for backscatter into the nighttime sky and incidental spillover of light onto adjacent properties and open space. Light poles will be no higher than 20 feet. Luminaire mountings will have non-glare finishes.

CULTURAL RESOURCES

IMPACT CR-1: POTENTIAL FOR DISCOVERY OF BURIED CULTURAL DEPOSITS AND HUMAN REMAINS DURING CONSTRUCTION OF THE WELL

There are no known archeological sites, nor cultural resources meeting the four criteria for listing on the California Register of Historic Resources, and no structures more than 45 years old at or adjacent to the proposed project area. Although there are no known cultural resources in the project study area, there is always the potential for inadvertent discovery of buried cultural deposits and/or human remains at any location in which ground-disturbing activities will be taking place.

This impact is considered significant, but would be reduced to a less-than-significant level by implementing Mitigation Measures CR-1 and CR-2.

Mitigation Measure CR-1: Stop Work If Buried Cultural Deposits Are Encountered during Construction Activities.
If buried cultural resources such as chipped stone or groundstone, historic debris, building foundations, or human bone are inadvertently discovered during ground-disturbing activities, the construction contractor will stop work in that area and within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include avoidance strategies or mitigation of impacts through data recovery programs such as excavation or detailed documentation.

Mitigation Measure CR-2: Stop Work If Human Remains Are Encountered during Construction Activities.
If human skeletal remains are encountered, the construction contractor will notify MPWMD and the county coroner immediately. MPWMD will ensure the construction specifications include this order.
If the county coroner determines that the remains are Native American, the coroner will be required to contact the NAHC (pursuant to Section 7050.5 [c] of the California Health and Safety Code) and the County Coordinator of Indian Affairs. A qualified archaeologist will also be contacted immediately.
If human remains are discovered in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- the coroner of the county has been informed and has determined that no investigation of the cause of death is required; and
- if the remains are of Native American origin:
- the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of with appropriate dignity the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or
- the NAHC was unable to identify a descendent or the descendent failed to make a recommendation within 24 hours after being notified by the commission.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.

NOISE

IMPACT NZ-1: EXPOSURE OF NOISE-SENSITIVE LAND USES TO CONSTRUCTION NOISE IN EXCESS OF APPLICABLE STANDARDS

Construction associated with the proposed project would temporarily increase noise in the vicinity of project components. Project components that would be built include wells, buildings, and transport pipelines. Noise increases would result both from on-site construction activities, especially during site preparation, grading, and other earthmoving activities, and from construction-related vehicle traffic delivering materials to and from the construction site. The magnitude of construction noise impacts is assumed to depend on the type of construction activity, the noise level generated by various pieces of construction equipment, and the distance between the activity and noise-sensitive land uses. As sensitive receptors (residences and Seaside Middle School) may be located close enough to construction activities to exceed the applicable noise level standards.

This impact is considered potentially significant, but would be reduced to a less-than-significant level with implementation of Mitigation Measures NZ-1a through NZ-1d.

Mitigation Measure NZ-1a: Prohibit Ancillary and Unnecessary Equipment During Nighttime Well Drilling Activities.
The project applicant shall ensure that the construction contractor prohibit the use of all ancillary equipment (i.e., backhoe, truck, air compressor, and pump, etc.) during nighttime hours. The only equipment that will be allowed to operate during nighttime activities would be the drilling equipment; cleanup and other activities will occur only during daytime activities.

Mitigation Measure NZ-1b: Employ Noise-Reducing Construction Practices to Meet Nighttime Standards.
The construction contractor will employ noise-reducing construction practices such that nighttime standards (Table 10-3 of the Phase 1 ASR EIR/EA) are not exceeded. Measures that will be used to limit noise include, but are not limited to:

- using noise-reducing enclosures around noise-generating equipment;
- constructing barriers between noise sources and noise-sensitive land uses or taking advantage of existing barrier features (terrain, structures) to block sound transmission; and
- enclosing equipment.

Mitigation Measure NZ-1c: Prepare a Noise Control Plan.
The construction contractor will prepare a detailed noise control plan based on the construction methods proposed. This plan will identify specific measurement that will be taken to ensure compliance with the noise limits specified above. The noise control plan will be reviewed and approved by City staff, if required, before any noise-generating construction activity begins.

Mitigation Measure NZ-1d: Disseminate Essential Information to Residences and Implement a Complaint/Response Tracking Program.
The construction contractor will notify residences within 500 feet of the construction areas of the construction schedule in writing prior to construction. The construction contractor will designate a noise disturbance coordinator who will be responsible for responding to complaints regarding construction noise. The coordinator will determine the cause of the complaint and will ensure that reasonable measures are implemented to correct the problem. A contact telephone number for the noise disturbance coordinator will be conspicuously posted on construction site fences and will be included in the written notification of the construction schedule sent to nearby residents.

Initial Study Checklist
for
Full Implementation of Aquifer Storage and Recovery Water Project 2

Monterey Peninsula Water Management District

April 2012

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APPENDICES

FIGURES

TABLES

I. Project Data

1. **Project Title:** Full Implementation of Aquifer Storage and Recovery (ASR) Water Project 2

2. **Lead Agency Name and Address:** Monterey Peninsula Water Management District (MPWMD), 5 Harris Court, Building G, Monterey, CA 93940. Mailing Address is: PO Box 85, Monterey, CA 93942-0085

3. **Contact Person and Phone Number**: Joe Oliver (831) 658-5640

4. **Project Proponents:** MPWMD and California-American Water Company (CAW)

5. **Project Location:** North of Coe Avenue, west of General Jim Moore Boulevard and east of Seaside Middle School, City of Seaside in Monterey County.

6. **Project Description**: The conversion of a full-scale test well to a permanent, operational well (the 3rd ASR Well, or ASR-3), plus construction, testing and operation of a new ASR well (the 4th ASR Well, or ASR-4), a backflush pit, and an electrical building at the Seaside Middle School site. See Section IV, below, for more detail.

II. Introduction

This Initial Study Checklist evaluates the potential significant impacts associated with the full implementation of ASR Water Project 2 (the "proposed project" evaluated in this analysis) by the MPWMD. The proposed project would not result in any new, previously unidentified physical effects on the environment, new significant effects, or an increase in the severity of previously identified significant impacts. This Initial Study Checklist tiers from the Phase 1 Aquifer Storage and Recovery Project Final Environmental Impact Report/Environmental Assessment, prepared by Jones & Stokes/MPWMD (August 2006), as described within.

III. Project Location

The proposed project site consists of a 0.7-acre property owned by the Monterey Peninsula Unified School District (MPUSD)[1]. The site is situated east of Seaside Middle School buildings and west of General Jim Moore Boulevard. The site is approximately 700 feet north of the Coe Avenue/Eucalyptus Road/General Jim Moore Boulevard intersection. The proposed project site is located on Assessor's Parcel Number 031-051-006. The location of the proposed project site is shown on **Figure 1**. Currently, a test well, two monitoring wells, and electrical equipment are located on the proposed project site, as described further below. In addition, existing Santa Margarita ASR wells are located in the proposed project vicinity. These wells are commonly referred to as ASR Water Project 1 and are described in more detail in the following sections.

[1] California American Water Company acquired an easement on the site from MPUSD and an encroachment permit from the City of Seaside for ingress and egress.

N	ASR Water Project Locations	Figure 1

IV. Project Description

1. ASR Project Background

The MPWMD and California American Water Company (CAW) are cooperating on the further development of the Seaside Basin ASR Project. The ASR Project concept entails diverting water from the Carmel River Alluvial Aquifer when there are excess winter flows in the Carmel River, between December 1st and May 31st, and conveying the water to the Seaside Basin via the existing CAW delivery system. This water is then injected into specially-constructed ASR wells for subsequent recovery and delivery to CAW customers during typical dry periods of the year (June 1st through November 30th). The ASR concept was successfully tested in the Seaside Basin between 1998 and 2007, and permanent injection operations began in 2008 at the ASR facility on the Santa Margarita site, also known as ASR Water Project 1. During 2011, ASR-1 was first operated in extraction mode under CAW's permit amendment from the California Department of Public Health ([CDPH], issued August 2, 2011). The following, **Table 1**, summarizes key events related to the various phases of the ASR project.

Table 1.
Seaside Basin ASR Projects Key Events

Dates	Key Events
1996 – 1997	MPWMD initiates ASR feasibility and testing at inactive Playa #4 Well.
2000 - 2001	MPWMD constructs Santa Margarita Test Injection Well (SMTIW) test well (later renamed as SMW-1, now ASR-1) at the Santa Margarita Well site.
2002 - 2005	SMTIW operates as a test well using annual temporary water rights permits issued by SWRCB; began work on the ASR Project Phase 1 EIR/EA.
August 21, 2006	MPWMD certifies Final EIR on Phase 1 ASR Project.
February 2007	MPWMD, in consultation with CAW, constructs ASR-2 Well at Santa Margarita site.
June/July 2007	RWQCB authorizes project injections under the National Pollutant Discharge System: General Waiver of Specific Types of Discharges (Resolution R3-2008-0010).
November 30, 2007	SWRCB approves Amended Permits 20808A and 20808B to allow some of the water rights from the 1995 New Los Padres Reservoir Project (Decision 1632) to be applied to ASR.
Water Year 2008	MPWMD/CAW begins injections into Water Project 1 Wells (ASR-1 and ASR-2)
2008-2009	MPWMD/CAW installs exploratory monitor well at Seaside Middle School site under a CEQA exemption for data collection.
2009-2010	MPWMD/CAW plan, design and obtain permits (easement from MPUSD and encroachment from Seaside) for full-scale test well at Seaside Middle School site.
2009 – 2011	CAW installs ASR system infrastructure improvements (including General Jim Moore Boulevard pipelines, Del Rey Oaks pump station, Carlton/Plumas Pipeline, system pressure reducing valves, Camino Aguajito pipeline, and Fairgrounds bridge).
Water Year 2011	MPWMD/CAW injects record amount of water for a single season (1,117 acre-feet, AF)
August 2010	MPWMD/CAW constructs and tests full-scale test well (ASR-3) under a CEQA exemption for information collection/resource evaluation (June 3, 2010).
April 2011	SWRCB publishes draft water rights permit for ASR Phase 2.
August 2011	CAW, in consultation with MPWMD, begins extraction of groundwater from ASR-1 based upon amended water distribution system permit 79-007 amendment 17 from CDPH.
November 30, 2011	MPWMD/CAW receive final amended water rights permit from SWRCB for ASR Water Project 2 on November 30, 2011 (see Appendix A).
January 2012	MPWMD, in consultation with CAW, initiates work on this Addendum/IS Checklist to Phase 1 EIR to enable permanent use of ASR-3 Well and construction of new ASR-4 Well.

In October 2009, the State Water Resources Control Board (SWRCB) adopted its Order 2009-0060 (i.e., Cease and Desist Order [CDO]), which requires reductions in CAW production from their Carmel River

system sources according to a schedule that will reduce CAW Carmel River production to the legally-mandated limit of 3,376 AFY by January 1, 2017. One of the conditions of the CDO (Condition 5) requires that CAW "shall implement one or more small projects that, when taken together, total not less than 500 AFY to reduce unlawful diversions from the river" within 24 months of the CDO. CAW requested that a new ASR well at the Seaside Middle School site be allowed to meet this small project requirement. Accordingly, once authorized by SWRCB and MPUSD, CAW and MPWMD began a cooperative effort to drill and construct an ASR test well at the site, which if proven successful, could be utilized to meet this CDO requirement[2].

A Notice of Exemption (NOE) pursuant to CEQA was filed by MPWMD in June 2010. The NOE described MPWMD's intent to conduct an assessment of expansion of the ASR Project in the Seaside Groundwater Basin at the Seaside Middle School site. Activities specified under the NOE included: drilling a 990-foot pilot borehole; conducting geophysical logging of the pilot bore; reaming the pilot bore to 32 inches; installing a well casing, screen, gravel pack, and annular seal; conducting well development and test pumping of the well. The objective of the activities outlined in the NOE was to benefit the existing Phase 1 ASR Project and enable planning for ASR expansion (i.e., ASR Water Project 2, as considered by this Initial Study Checklist).

Construction of the test well facilities, as noticed in the June 2010 NOE above, began in summer 2010 and resulted in the following existing onsite ASR facilities:

- **Existing ASR Monitor Wells**
  Two monitor wells, a "shallow" and "deep" monitor well, are installed at the project site. The 2-inch diameter shallow well is 640 feet deep and completed in the Paso Robles Formation aquifer; the 4-inch diameter deep well is 960 feet deep and completed in the Santa Margarita Sandstone aquifer.

- **Existing ASR Test Well**
  The well is 960 feet deep and 22 inches in diameter; it is constructed of stainless steel blank and wire-wrapped screen casing. The test well will be tested in injection and recovery operations; however, these tests have not yet been comprehensively conducted at this location within the target Santa Margarita Sandstone aquifer. Given the variability of hydrogeologic conditions within this aquifer across the Seaside Basin and MPWMD's ASR experience, ASR well performance needs to be demonstrated at this new location. It is anticipated that this testing will be conducted during this Water Year 2012 injection season. The well has been constructed, however, such that it will be able to serve as a full-scale ASR well for the full implementation of the proposed project at the site. The well has appurtenant fixtures including above-ground piping, valves, and metering to facilitate injection, as well as backflushing and extraction operations. Temporary construction fencing currently encloses the well and appurtenant fixtures.

- **Electrical Equipment**
  Currently, a permanent Pacific Gas & Electric (PG&E) electrical transformer and temporary well motor switchboard control panel exist at the site.

[2] If proven to be feasible through testing, as has been established, the test well on the Seaside Middle School site would become labeled as ASR-3 and would be operated in injection and extraction modes as existing permits allow.

2. Full Implementation of ASR Water Project 2 (Proposed Project)[3]

The proposed project would involve the following physical facilities at the Seaside Middle School site: two ASR wells (one existing well at the site [ASR-3] and one to be drilled [ASR-4]), a new backflush percolation basin, new appurtenant pipelines and valves, and a new small building to house the well control equipment (replacing the current fenced area enclosing electrical equipment on the site).

Figure 2 shows site access driveways from General Jim Moore Boulevard. Once fully constructed, the site will be enclosed by permanent security gates and a perimeter fence. The preliminary site plan showing the locations of permanent above- and below-ground facilities is shown in **Figure 2.** The primary permanent facility features planned for installation on the Seaside Middle School site associated with full implementation of Water Project 2 are briefly described as follows[4]:

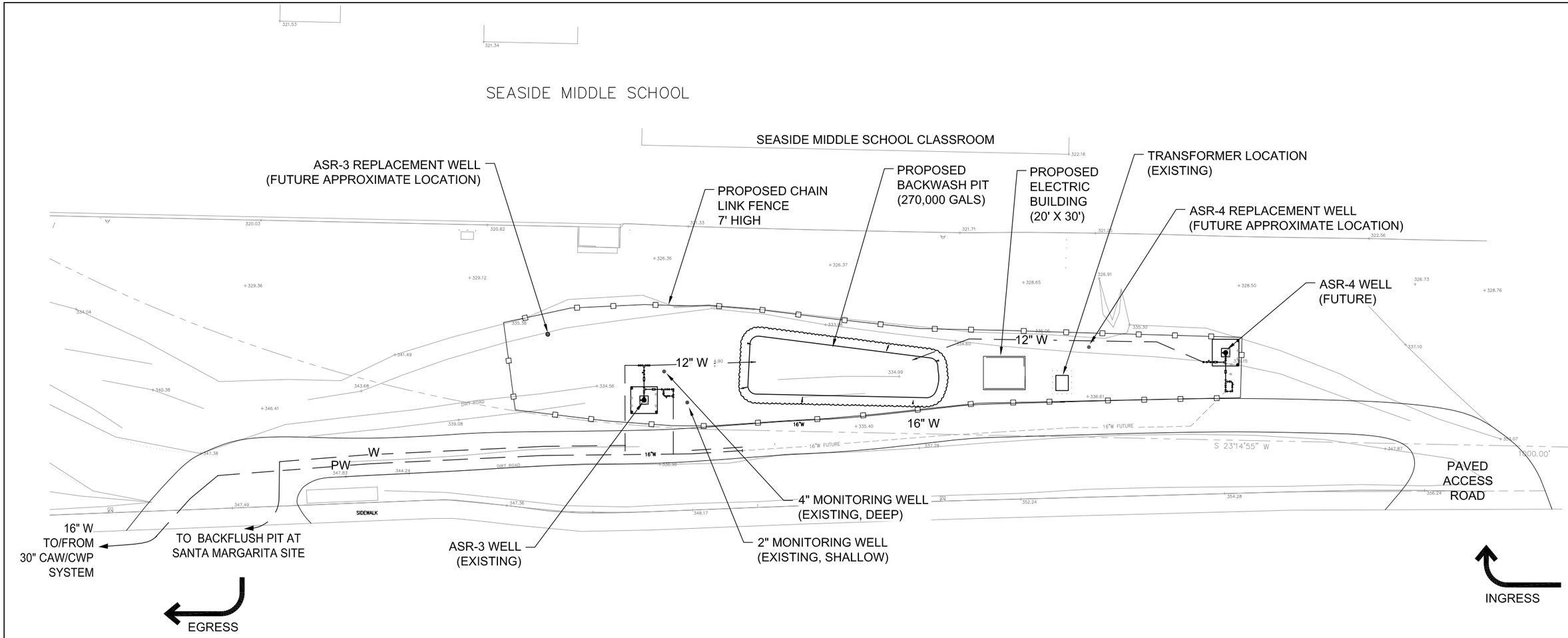
- **ASR-4 Well**
  The new well to be established on the Seaside Middle School site will be located at the northern end of the site and is anticipated to be of similar construction as the existing ASR well (ASR-3) at the site. MPWMD anticipates, based upon an understanding of the regional geology, that most likely the target Santa Margarita aquifer will be encountered at a slightly deeper below grade and with slightly greater thickness at this location compared to the ASR-3 well.

- **Backflush Pit**
  A percolation pit will be constructed to receive discharges during routine backflushing operations of both ASR wells on the proposed project site. The approximately 30 feet x 120 feet x 10 feet deep basin will be designed to hold 270,000 gallons, which will accommodate 77 minutes of backflushing at 3,500 gallons per minute flow rate. Due to the proposed location of the backflush pit above the slope on the east side of the adjacent school buildings, the pit will need to be engineered with appropriate features to prevent any slope failure due to temporary saturation of the pit sidewalls during backflushing operations. In addition, a low (approximately 4 feet high or less) diversion wall will be constructed at the base of the slope to contain any runoff that could escape the site in the event of a pipeline rupture.

- **Electric Building**
  An approximately 600 square feet (20 feet x 30 feet) unoccupied building will be constructed to house the electrical control equipment for both ASR wells on the proposed project site. The precise dimensions will not be known until the equipment is specified and ordered; however, the building will be the minimum size needed to house this equipment. The building will be considerably smaller than its equivalent at the Water Project 1 site because the Water Project 1 building (i.e., the Santa Margarita facility building) will house a water disinfection system in addition to its existing electrical control equipment; there will be no water treatment equipment at the Seaside Middle School site. The design of the smaller building will likely be a Spanish mission style, similar to the Water Project 1 facility building at the Santa Margarita site.

[3] Full Implementation of ASR Water Project 2 will comply with the Water Rights permit issued for ASR Phase 2 by the State Water Resources Control Board (SWRCB) on November 30, 2011. The Water Rights permit for ASR Phase 1 was issued on December 3, 2007.

[4] CAW water conveyance pipelines and associated infrastructure exists within General Jim Moore Boulevard and the proposed project site already has an established connection to the CAW infrastructure. No trenching or pipeline construction would occur off of the Seaside Middle School site as a result of the proposed project.



PRELIMINARY DESIGN
FOR PLANNING / PERMITTING
NOT FOR CONSTRUCTION

03-26-2012

Source: Pueblo Water Resources, March 2012

ASR Water Project 2 Site Plan

Figure
2

- **Replacement Wells**
  The proposed project includes the potential future replacement of ASR-3 and/or ASR-4 with new wells in approximately the locations shown on Figure 2, if and when the wells at the site have served their useful service life. The size, functionality, and use of the replacement wells would be the same as ASR-3 and the proposed ASR-4 well.

Construction Activities/Equipment

Construction activities for the installation of one new well, a backflush pit, and electric building on the proposed project site would include grading and site work; installation and removal of temporary noise attenuators (sound walls); well drilling; final site work; well equipping; installation of connecting piping to pipelines in General Jim Moore Boulevard, installation of permanent electrical, instrumentation, and controls; and, constructing shelters, fencing, and pump houses. Construction activity would normally occur between 7 AM and 7 PM, up to 6 days per week during periods when Seaside Middle School is not in session. Approximately 10 vehicle trips would be generated to and from the site. All waste material generated by land clearing and drilling that must be exported would be transported to an approved facility, including any drilling fluids. See Appendix B for more detail.

Standard construction equipment is anticipated to be used to prepare the site, drill the well, and perform final site work and well equipping. Typically, the following equipment is used for a project of this size and scope: drill rig, backhoe, crane, water tanker, grader, air compressors, flatbed trucks, excavator, bulldozer, off-highway trucks, compactors, hauling, concrete truck, front-end loaders, and paving equipment.

The proposed area of disturbance is the 0.4-acre project parcel, referred to as the Seaside Middle School site. All construction activities would occur on the proposed project parcel including staging areas for stockpiling soil and/or storing materials and equipment during construction.

Schedule / Phasing

Design of the proposed project site components is currently underway. It is anticipated that construction of the described project components would commence in June 2012 and be completed prior to the end of December 2013.

Construction activities would include:

- Drilling new well at the site,
- Performing final site work, including grading, installing yard piping and remaining pipe connections to the pipelines in General Jim Moore Boulevard;
- Constructing backflush pit, and,
- Installing wellhead equipment, electrical, instrumentation and controls, and electrical building.

Construction activity would be regulated by the City of Seaside, through its encroachment / easement permit processes, as the proposed project site is located within the City's boundaries. CAW currently maintains an easement from the City for access and use of the proposed project site; however, MPWMD serves and would continue to serve as the developer of the proposed project site facilities. It is likely that prior to completion of project construction, CAW and MPWMD will enter into a management and operations agreement for this site or amend the existing ASR Management and Operations Agreement (March 28, 2006).

Heavy construction shall be limited to periods when classes at the adjacent middle school are not in session (i.e., during school break periods). In order to avoid temporary significant air pollutant, noise and ground borne vibration impacts on sensitive receptors (specifically, Seaside Middle School), construction activities that may significantly disrupt the neighboring middle school will be restricted to only during the school's scheduled break periods or conducted when school classes are not in session. MPWMD will schedule construction activities on the proposed project site after coordinating with MPUSD before commencing construction.

Post-Construction Operations

Once construction of the two ASR wells and appurtenant pipelines, valves and controls is completed, sound-proof enclosures will be installed over the wells' electric motors. These sound-proof enclosures have a proven track record for mitigating well motor noise effects, and have been successfully employed at other sites within CAW's Monterey District water supply system. When the ASR site facilities become fully operational, periodic visits to the site will be made by a well operator. During the winter injection season, this would occur approximately once per day when injection operations are underway. During the summer extraction season, the site would also be visited about once per day or less frequently to monitor equipment, or conduct maintenance and repairs, as needed.

The two additional ASR wells in the Seaside Groundwater Basin (SGB) will have a combined maximum recharge rate of approximately 3,590 gallons per minute (gpm, equivalent to 8.0 cubic feet per second). Water Project 2 has a maximum annual Carmel River system diversion amount of approximately 2,900 AFY and an anticipated annual average extraction from the Seaside Basin of 1,000 AFY.[5] The proposed project is intended to maximize the use of the remaining existing CAW diversion ability in the Carmel Valley Alluvial Aquifer system pursuant to SWRCB Permit #20808C included in Appendix A. Pursuant to the referenced SWRCB permits, all winter diversions would be subject to the specific instream flow requirements established in Permit #20808C in order to ensure that potential impacts to aquatic resources are minimized. See Appendix A for more detail.

V. Project Objectives

The objective of the proposed project is to increase the Phase 1 Aquifer Storage and Recovery (ASR) Project benefits to the natural resources of the Carmel River and Seaside Groundwater Basins by expanding the ASR Project's injection and extraction capacity through permanent use of one existing test well and construction of one new well at the Seaside Middle School site.

VI. Previous Environmental Analysis

Aquifer Storage and Recovery Project EIR/EA and Alternatives

The Phase 1 EIR/EA evaluated the Seaside Middle School site as a location for development of two ASR wells within *Alternative 2 Non-Contiguous New Injection/Extraction Well Location* to Phase 1 ASR

[5] These quantities are above the amounts allowed to be diverted and recovered by ASR Water Project 1 that has a maximum annual diversion quantity of 2,426 AFY from the CVAA and an anticipated annual average recovery quantity of 920 AFY.

Project. The Phase 1 EIR/EA concluded that impacts associated with this alternative would be similar to those of the project analyzed by the Phase 1 EIR/EA.

Alternative 2 in the Phase 1 EIR/EA, includes constructing and operating an ASR facility similar to the proposed project evaluated in the Phase 1 EIR/EA (i.e., the ASR Water Project 1 or Santa Margarita site), with the exception of the location of the facility site, which would be constructed adjacent to the former Seaside Middle School on the west side of General Jim Moore Boulevard. As described in the Phase 1 EIR/EA, the well would be constructed to the same depth as the wells for the Phase 1 EIR/EA project site. A new pipeline, approximately 500-feet long, would be constructed to connect the well to the existing water distribution system. New onsite facilities would include a backflush percolation pit, an enclosure for electrical equipment, chemical equipment, and chemical storage. The amount of water produced by Alternative 2 would be the same as the Phase 1 EIR/EA's proposed project.

As identified in the Phase 1 EIR/EA, many of the effects of Alternative 2 would be the same or nearly the same as the Phase 1 EIR/EA's proposed project, because each is composed of the same primary elements (e.g., injection/extraction wells and associated onsite facilities) and would be operated in an equivalent manner. Similar impacts identified in the Phase 1 EIR/EA include air emissions, seismic risk, exposure to hazardous materials, public services, and transportation and circulation. Compared to the proposed project, the Phase 1 EIR/EA concluded that implementation of Alternative 2 would result in greater construction-related environmental impacts than those of the proposed project, but that operational impacts would be equivalent.

The Phase 1 EIR/EA identified that construction-related cultural resources, land use, and noise impacts would be greater than the proposed project in the Phase 1 EIR/EA. The Phase 1 EIR/EA stated that these impacts, with the exception of cultural resources, were expected to be greater because of the proximity of the school to the alternative facility site. The Phase 1 EIR/EA found that cultural resource impacts would be greater because more ground-disturbing activity would occur with the commensurate increased potential to unearth buried cultural resources. Furthermore, the Phase 1 EIR/EA found that Alternative 2 would result in less severe impacts to biological resources and due to change in the visual character of the middle school site as compared to the Santa Margarita site; both attributable to the relatively disturbed nature of the middle school site compared to the project site in the Phase 1 EIR/EA. Additionally, the beneficial impacts on Carmel River aquatic resources were determined to be equivalent of the Phase 1 EIR/EA proposed project for Alternative 2, as operation of the aquifer storage and recovery element would be identical for each.[6]

Overview of Disclosure of Proposed Project in ASR EIR/EA

This Addendum addresses the impacts of full implementation of Water Project 2 at the site proposed for Alternative 2 in the Phase 1 ASR EIR/EA compared to the proposed project. **Table 2**, **Summary of Impacts and Mitigation Measures** identifies impacts and mitigation measures presented in the Phase 1 EIR/EA and defines if previously identified impacts and mitigation measures are applicable for the proposed full implementation of Water Project 2 as further detailed in subsequent sections of the Initial Study Checklist.

[6] The Alternative 2 analysis found these conclusions based on the implementation of the proposed project (Phase 1 of the ASR Project) at the Seaside Middle School site rather than the Santa Margarita site.

Table 2
Summary of Impacts and Mitigation Measures
(See Section VII for more detailed discussion)

Potential Impact	Discussion Referenced in Phase 1 ASR EIR/EA	Mitigation	Significance Determination for Phase 1 ASR Proposed Project	Significance Determination for Full Implementation of Proposed Water Project 2
Air Quality				
AQ-1: Short-term increase in PM10 emissions from well drilling.	Section 3, Page 12	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
AQ-2: Short-term increase in PM10 emissions from pipeline construction.	Section 3, Page 12 & Section 2, Page 13	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
AQ-3: Short-term increase in PM10 emissions from building construction.	Section 3, Page 12 & Section 2, Page 13	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
AQ-4: Exposure of sensitive receptors to elevated health risks from exposure to diesel particulate matter from construction activities.	Section 3, Page 13	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
AQ-5: Exposure of sensitive receptors to elevated health risks from exposure to acrolein from diesel exhaust from construction activities.	Section 3, Page 14 & Section 2, Page 14	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
Vegetation and Wildlife				
BIO-1: Removal of maritime chaparral.	Section 4, Page 17 & Section 2, Page 14	None Required	Less than Significant	*No Impact.* *(See Appendix B)*

Table 2 **Summary of Impacts and Mitigation Measures** *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
BIO-2: Disturbance of the Fort Ord Natural Resource Management Areas.	Section 4, Page 18	**Mitigation Measure BIO-1**: Minimize or prevent disturbance to adjacent NRMA.	Less than Significant with Mitigation	*No Impact. Proposed project site is outside NRMA.*
BIO-3: Destruction of Monterey spineflower, sandmat manzanita, Eastwood's goldenbush, and Kellogg's horkelia.	Section 4, Page 18	None Required	Less than Significant	*No Impact.*
BIO-4: Potential direct mortality or disturbance of California horned lizards and potential permanent or temporary loss of California horned lizard habitat.	Section 4, Page 19	None Required	Less than Significant	*No Impact.*
BIO-5: Potential direct mortality or disturbance of black legless lizards and potential permanent and temporary loss of black legless lizard habitat.	Section 4, Page 19	None Required; mitigation is included in the Fort Ord Multispecies Habitat Management Plan.	Less than Significant	*No Impact.*
BIO-6: Potential direct mortality or disturbance of Monterey dusky-footed woodrat and potential permanent and temporary loss of Monterey dusky-footed woodrat habitat.	Section 4, Page 19	None Required; mitigation is included in the Fort Ord Multispecies Habitat Management Plan.	Less than Significant	*No Impact.*
BIO-7: Potential direct mortality or disturbance of American badger and potential permanent and temporary loss of American badger habitat.	Section 4, Page 20	None Required	Less than Significant	*No Impact.*

Table 2 Summary of Impacts and Mitigation Measures *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
BIO-8: Potential loss of nest trees and disturbance or mortality of migratory birds.	Section 4, Page 20	**Mitigation Measure BIO-2**: Remove trees and shrubs during the nonbreeding season for most birds (September 1 to February 15).	Less than Significant	*No Impact.*
Aquatic Resources				
AR-1: Change in flows for adult steelhead upstream migration.	Section 5, Page 21 & Section 2, Page 15	None required to reduce impacts; **Measure AR-1:** Conduct annual survey below river in January-June period.	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
AR-2: Change in juvenile steelhead rearing habitat.	Section 5, Page 21 & Section 2, Page 16	None required to reduce impacts; **Mitigation Measure AR 2**: Cooperate to help develop a project to maintain, recover, or increase storage in Los Padres Reservoir and if needed, continue funding program to rescue and rear isolated juveniles.	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
AR-3: Improved flows for fall/winter downstream migration.	Section 5, Page 23	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
AR-4: Maintenance of flows for spring emigration.	Section 5, Page 23	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
AR-5: Changes in California red-legged frog habitat due to changes in river levels.	Section 5, Page 24	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
AR-6: Changes in habitat for other aquatic species due to changes in river flows.	Section 5, Page 24	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.

Table 2 Summary of Impacts and Mitigation Measures *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
Cultural Resources				
CR-1: Potential for discovery of buried cultural deposits and human remains during construction of the well and pipelines.	Section 6, Page 7	**Mitigation Measure CR-1**: Stop work if buried cultural deposits are encountered during construction activities. **Mitigation Measure CR-2**: Stop work if human remains are encountered during construction activities.	Less than Significant with Mitigation	*Less than Significant with Mitigation*. **Mitigation Measure CR-1** and **CR-2** would apply. No new significant impacts or substantially more severe significant impacts would result.
Geology, Soils, and Seismicity				
GS-1: Potential short-term increase in erosion resulting from project construction.	Section 7, Page 7	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GS-2: Potential structural damage and threat to public safety from fault displacement and ground shaking during a seismic event.	Section 7, Page 8	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GS-3: Potential structural damage and threat to public safety from earthquake-induced liquefaction and lateral spread.	Section 7, Page 8	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GS-4: Potential rupture of pipelines and threat to public safety caused by expansive soils and pipeline corrosion.	Section 7, Page 9	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.

Table 2
Summary of Impacts and Mitigation Measures
(See Section VII for more detailed discussion)

Potential Impact	Discussion Referenced in Phase 1 ASR EIR/EA	Mitigation	Significance Determination for Phase 1 ASR Proposed Project	Significance Determination for Full Implementation of Proposed Water Project 2
Surface and Groundwater Hydrology and Water Quality				
GWH-1: Changes in Seaside Basin groundwater storage.	Section 8, Page 10 & Section 2, Page 17	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
GWH-2: Short-term changes in Seaside Basin groundwater quality.	Section 8, Page 11	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GWH-3: Long-term changes in Seaside Basin groundwater quantity.	Section 8, Page 12	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
GWH-4: Changes in Seaside Basin groundwater levels in overlying units.	Section 8, Page 15	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GWH-5: Potential for Seaside Basin Hydrofracturing.	Section 8, Page 15	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GWH-6: Short-term change in Seaside Basin groundwater quality.	Section 8, Page 16	None required to reduce impacts; **Mitigation Measure GWH-1**: Comply with performance standards in NPDES Permits.	Less than Significant	*Less than Significant*. **Mitigation Measure GWH-1** has been, and will continue to be, implemented. No new significant impacts or substantially more severe significant impacts would result.
GWH-7: Long-term change in Seaside Basin groundwater quality from mixing groundwater with injected water.	Section 8, Page 17 & Section 2, Page 19	None required to reduce impacts; **Mitigation Measure GWH-2**: Operate project in compliance with SWRCB and DHS Policies. **Mitigation Measure GWH-3**: Modify project operations as required by results of monitoring.	Less than Significant	*Less than Significant*. **Mitigation Measures GWH-2** and **GWH-3** have been, and will continue to be, implemented. No new significant impacts or substantially more severe significant impacts would result.

Table 2
Summary of Impacts and Mitigation Measures
(See Section VII for more detailed discussion)

Potential Impact	Discussion Referenced in Phase 1 ASR EIR/EA	Mitigation	Significance Determination for Phase 1 ASR Proposed Project	Significance Determination for Full Implementation of Proposed Water Project 2
GWH-8: Changes in Seaside Basin groundwater quality caused by ASR well operation discharges.	Section 8, Page 19	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GWH-9: Changes in Seaside Basin recovered water quality.	Section 8, Page 19	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
GWH-10: Effects on other Seaside Basin groundwater users.	Section 8, Page 20	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
GWH-11: Changes in Carmel River streamflow during high flow periods.	Section 8, Page 30 & Section 2, Page 21	None required to reduce impacts; **Mitigation Measure GWH-4**: Operate project in compliance with NOAA Fisheries recommendations, and reduce unlawful diversions.	Less than Significant	*Less than Significant*. **Mitigation Measure GWH-4** has been, and will continue to be, implemented. No new significant impacts or substantially more severe significant impacts would result.
GWH-12: Changes in Carmel Valley alluvial aquifer storage during high flow periods.	Section 8, Page 33	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.
GWH-13: Changes in Carmel River streamflow during low flow periods.	Section 8, Page 34	None required to reduce impacts; **Mitigation Measure GWH-4**: Operate project in compliance with NOAA Fisheries recommendations, and reduce unlawful diversions.	Less than Significant	*Less than Significant*. **Mitigation Measure GWH-4** has been, and will continue to be, implemented. No new significant impacts or substantially more severe significant impacts would result.
GWH-14: Changes in Carmel Valley alluvial aquifer storage during low flow periods.	Section 8, Page 36	None Required	Beneficial	*Beneficial*. No new significant impacts or substantially more severe significant impacts would result.

Table 2
Summary of Impacts and Mitigation Measures
(See Section VII for more detailed discussion)

Potential Impact	Discussion Referenced in Phase 1 ASR EIR/EA	Mitigation	Significance Determination for Phase 1 ASR Proposed Project	Significance Determination for Full Implementation of Proposed Water Project 2
Land Use				
LU-1: Disruption of existing land uses or neighborhoods during construction of the well site.	Section 9, Page 4	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
LU-2: Disruption of existing land uses or neighborhoods during construction of the Santa Margarita Well Pipeline and New Well Pipeline.	Section 9, Page 5	None Required	Less than Significant	*No Impact.* No new significant impacts or substantially more severe significant impacts would result.
LU-3: Incompatibility with existing adjacent land uses from operation of the proposed pipelines and well.	Section 9, Page 5	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
LU-4: Potential inconsistencies with relevant land use plans and policies from operation of the proposed well and pipelines.	Section 9, Page 5	None Required	Less than Significant	*Less than Significant.* No new significant impacts or substantially more severe significant impacts would result.
Noise				
NZ-1: Exposure of noise-sensitive land uses to construction noise in excess of applicable standards.	Section 10, Page 8 & Section 2, Page 22	**Mitigation Measure NZ-1a**: Prohibit ancillary and unnecessary equipment during nighttime well drilling activities. **Mitigation Measure NZ-1b**: Employ noise-reducing construction practices to meet nighttime standards. **Mitigation Measure NZ-1c**: Prepare a Noise Control Plan. **Mitigation Measure NZ-1d**: Disseminate essential information to residences and implement a complaint/response tracking program.	Less than Significant with Mitigation	*Less than Significant with Mitigation*. **Mitigation Measures NZ-1a**, **NZ-1b**, **NZ-1c**, and **NZ-1d** would apply. No new significant impacts or substantially more severe significant impacts would result.

Table 2 Summary of Impacts and Mitigation Measures *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
NZ-2: Exposure of sensitive land uses to construction-related vibration levels in excess of applicable standards.	Section 10, Page 12 & Section 2, Page 22	**Mitigation Measure NZ-1a**: Prohibit ancillary and unnecessary equipment during nighttime well drilling activities. **Mitigation Measure NZ-1b**: Employ noise-reducing construction practices to meet nighttime standards. **Mitigation Measure NZ-1c**: Prepare a Noise Control Plan. **Mitigation Measure NZ-1d**: Disseminate essential information to residences and implement a complaint/response tracking program.	Less than Significant with Mitigation	*Applicable*. **Mitigation Measures NZ-1a**, **NZ-1b**, **NZ-1c**, and **NZ-1d** would apply. No new significant impacts or substantially more severe significant impacts would result.
NZ-3: Exposure of sensitive land uses to operational noise in excess of city standards.	Section 10, Page 14	**Mitigation Measure NZ-2**: Design pump stations to meet local noise standards.	Less than Significant with Mitigation	*Less than Significant with Mitigation*. **Mitigation Measure NZ-2** would apply. No new significant impacts or substantially more severe significant impacts would result.
Hazardous Materials				
HAZ-1: Exposure of employees and public to hazardous materials during construction of a well and pipelines at the former Fort Ord.	Section 11, Page 8 & Section 2, Page 23	**Mitigation Measure HAZ-1**: Implement MEC Safety Precautions during grading and construction activities at the proposed project site.	Less than Significant	*No Impact.* The Site is outside all "impact" or areas with hazardous materials.
HAZ-2: Handling and use of hazardous materials during construction within 0.25 miles of a school.	Section 11, Page 9	None Required	Less than Significant	*Less than Significant.* The project would avoid construction while school is in session. No new significant impacts or substantially more severe significant impacts would result.

Table 2 Summary of Impacts and Mitigation Measures *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
HAZ-3: Potential creation of a hazard to the public and environment from routine use of hazardous materials or accidental release of hazardous materials during operation of the well site.	Section 11, Page 9	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
HAZ-4: Handling of hazardous materials during operation within 0.25 miles of a school.	Section 11, Page 10	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
HAZ-5: Public exposure to contaminated drinking water.	Section 11, Page 10	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
Public Services and Utilities				
PS-1: Increase in solid waste generation and construction debris during construction of well and pipelines.	Section 12, Page 6	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
PS-2: Temporary disruption of existing underground utilities and utility service during construction of well and pipelines.	Section 12, Page 6	**Mitigation Measure PS-2**: Coordinate relocation and interruptions of service with utility providers during construction. **Mitigation Measure PS-3**: Protect all existing utilities slated to remain.	Less than Significant	*No Impact*. Mitigation Measures PS-2 and PS-3 are not required. No existing underground utilities are located at the sites and no other utility services would be affected.
PS-3: Increased demand for electricity from operation of ASR facilities.	Section 12, Page 7	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.

Table 2 Summary of Impacts and Mitigation Measures *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
Transportation and Circulation				
TR-1: Temporary traffic increase and potential for level of service degradation during construction of wells and pipelines.	Section 13, Page 3	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
TR-2: Potential conflict with fixed-route Monterey-Salinas Transit service during construction of wells and pipelines.	Section 13, Page 3	None Required	Less than Significant	*No Impact*. No new significant impacts or substantially more severe significant impacts would result.
TR-3: Potential pedestrian and bicycle hazards from pathway and bikeway closures or disruption during construction of well and pipeline.	Section 13, Page 4	None Required	Less than Significant	*No Impact*. No new significant impacts or substantially more severe significant impacts would result.
TR-4: Potential for increased traffic and level of service degradation from operation and maintenance of the well site.	Section 13, Page 4	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
TR-5: Increased parking demand attributable to operations and maintenance of the well.	Section 13, Page 5	None Required	Less than Significant	*No Impact*. No new significant impacts or substantially more severe significant impacts would result.
Visual Resources				
VIS-1: Temporary alteration of scenic views during construction of well and pipelines.	Section 14, Page 6	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.

Table 2
Summary of Impacts and Mitigation Measures
(See Section VII for more detailed discussion)

Potential Impact	Discussion Referenced in Phase 1 ASR EIR/EA	Mitigation	Significance Determination for Phase 1 ASR Proposed Project	Significance Determination for Full Implementation of Proposed Water Project 2
VIS-2: Degrade existing visual character during construction of well and pipelines.	Section 14, Page 6	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
VIS-3: Creation of light and glare during construction of well and pipelines.	Section 14, Page 7	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
VIS-4: Alteration of existing visual character at well site.	Section 14, Page 7	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
VIS-5: Creation of new light and glare at well site.	Section 14, Page 7	**Mitigation Measure VIS-1**: Incorporate light-reduction measures into the plan and design of exterior lighting at well site.	Less than Significant with Mitigation	*Less than Significant with Mitigation*. **Mitigation Measure VIS-1** would apply. No new significant impacts or substantially more severe significant impacts would result.
Cumulative Impacts				
CUME-1: The proposed project could result in cumulative impacts on traffic and transportation.	Section 15, Page 3	None Required	Less than Significant	*Applicable*. No new significant impacts or substantially more severe significant impacts would result.
CUME-2: The proposed project could result in a considerable contribution to NOx and PM10 emissions when considered together with other projects that could be constructed in the same timeframe.	Section 15, Page 4	**Mitigation Measure CUME-1**: Coordinate with relevant local agencies to develop and implement a phased Construction Plan to reduce cumulative traffic, air quality, and noise impacts.	Less than Significant with Mitigation	*Less than Significant*. **Mitigation Measure CUME-1** would not be required based upon air quality analysis prepared for the full implementation of Water Project 2. No new significant impacts or substantially more severe significant impacts would result.

Table 2 **Summary of Impacts and Mitigation Measures** *(See Section VII for more detailed discussion)*				
Potential Impact	**Discussion Referenced in Phase 1 ASR EIR/EA**	**Mitigation**	**Significance Determination for Phase 1 ASR Proposed Project**	**Significance Determination for Full Implementation of Proposed Water Project 2**
CUME-3: The proposed project could contribute considerably to construction noise and vibration, affecting sensitive receptors when considered together with other projects that could be constructed in the same timeframe in the same area and affecting the same sensitive noise receptors.	Section 15, Page 6	**Mitigation Measure CUME-1**: Coordinate with relevant local agencies to develop and implement a phased Construction Plan to reduce cumulative traffic, air quality, and noise impacts.	Less than Significant	*Less than Significant*. **Mitigation Measure CUME-1** would not be required (see CUME-2 discussion). No new significant impacts or substantially more severe significant impacts would result.
CUME-4: Construction of the well and associated pipelines could result in the loss or disturbance to special-status plant and wildlife species or their habitat.	Section 15, Page 6	None Required	Less than Significant	*Less than Significant*. No new significant impacts or substantially more severe significant impacts would result.
CUME-5: There would be a cumulative energy effect from the proposed project because operation of the new ASR well would require 10,000 kilowatt hours of electricity daily.	Section 15, Page 7	None Required	Less than Significant	*Applicable*. No new significant impacts or substantially more severe impacts

VI. Environmental Factors Potentially Affected

All of the following environmental factors identified below are discussed within **Section VII. Evaluation of Environmental Impacts.** Those that are checked were found to be areas that the full implementation of Water Project 2 may significantly impact without mitigation. Sources used for analysis of environmental effects are listed in **Section VIII. References.**

☒ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☒ Cultural Resources	☐ Geology/Soils
☐ Hazards/Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	
☐ Greenhouse Gases		

VII. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the proposed project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the proposed project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).

2. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level mitigation measures.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.
b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

a) The significance criteria or threshold, if any, used to evaluate each question; and
b) The mitigation measure identified, if any, to reduce the impact to less than significance.

1. AESTHETICS

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Discussion/Conclusion

Potential aesthetic impacts from development of the proposed project have been evaluated in the certified MPWMD Phase 1 ASR Project EIR/EA (EIR/EA) (see **Table 2, Summary of Impacts and Mitigation Measures**). The Phase 1 EIR/EA concluded that potential visual impacts of development on the proposed project site to be similar to those of ASR Water Project 1, with the exception that potential impacts to degrading existing visual character would be lessened for development on the proposed project site. The Phase 1 EIR/EA identified a less-than-significant impact to scenic views, degradation of site visual character, creation of light and glare during construction activities, and alteration of existing visual character. The Phase 1 EIR/EA identified a significant impact regarding creation of new light and glare associated with well operation that would be reduced to less than significant with implementation of **Mitigation Measure VIS-1**.

Well infrastructure currently exists on the proposed project site, as well as a fenced area containing an electrical transformer and motor control. The electrical control equipment existing on the proposed project site would be housed in an approximately 600 square feet building that would likely be constructed in a Spanish mission style, similar to the existing electrical equipment building at the Santa Margarita site. Replacement of an open fenced area and exposed electrical equipment with a building per design specifications of the Phase 1 EIR/EA could be viewed as a beneficial visual improvement at the Seaside Middle School site. Full implementation of project would not result in new or previously unidentified physical impacts or increase the significance of previously identified aesthetic impacts. The proposed project site is not located in a visually sensitive area and site improvements would have a negligible effect on the visual character of the site. **Mitigation Measure VIS-1**, requiring the incorporation of light-reduction measures into the plan and design of exterior lighting at the well site, would apply; no new mitigation is required.

a, b) No Impact: The Phase 1 EIR/EA identified a less-than-significant impact based upon temporary alteration of scenic vistas during construction activities (VIS-1). This impact is not applicable to the

proposed development as the proposed project site is not located within an area offering scenic vistas and is not located within a scenic highway.

c) Less than Significant: The Phase 1 EIR/EA identified a less-than-significant impact based on potential degradation to the proposed project site (VIS-2 and VIS-4). The site is currently improved with a variety of MPWMD ASR facilities and is considered disturbed and not visually sensitive; therefore, the addition of proposed new facilities on the site would not substantially degrade the existing visual character or quality of the site and its surroundings.

d) Less than Significant with Mitigation: The Phase 1 EIR/EA found that a potential significant impact exists from the permanent creation of new light and glare at the well site (VIS-3 and VIS-5); however, **Mitigation Measure VIS-1** would reduce the impact to a less than significant level. Similarly the proposed project would result in the same potential significant impact requiring implementation of Mitigation Measure VIS-1. The impact and mitigation measure were previously identified for the Phase 1 ASR/EA and there would be no substantial increase in severity of the impact. No additional mitigation measures are necessary beyond those identified in the Phase 1 EIR/EA.

2. AGRICULTURAL RESOURCES

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion/Conclusion

No impacts to agricultural resources were identified in the Phase 1 EIR/EA. The proposed project site and its surrounding area do not contain agricultural or forest lands. The proposed project would not convert prime, unique, or farmland of statewide importance to non-agricultural use or involve any other

changes that would result in the conversion of farmland, impact a Williamson Act contract, or disrupt any agricultural operations. The proposed project would not convert forest land or timberland or involve any other changes that would result in the conversion or loss of forest land. The proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the Phase 1 EIR/EA.

3. AIR QUALITY

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Result in significant construction-related air quality impacts?	☐	☐	☐	☒
e) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA evaluated potential air quality effects associated with the development of the ASR Project and project alternatives. The Phase 1 EIR/EA identified potential adverse significant impacts during construction due to short-term emissions of PM_{10} (AQ-1, AQ-2, AQ-3), exposures of sensitive receptors (e.g. Seaside Middle School) to elevated health risks from exposure to diesel particulates (AQ-4), and exposure of sensitive receptors to acrolein health hazards (AQ-5). No significant operational air quality impacts were identified. The Phase 1 EIR/EA found all potential air quality impacts to be less-than-significant. **Table 2** contains a summary of the environmental effects identified in the Phase 1 EIR/EA and their applicability to the proposed project.

As described in the following analysis, the proposed project would not result in any new, previously unidentified significant impacts. Moreover, the proposed project would not increase the severity or

intensity of impacts beyond those already evaluated. While the Phase 1 EIR/EA identified that development on this site would cause potential temporary increased air quality effects on adjacent sensitive receptors (e.g. students), the proposed project has been designed to avoid construction during periods when school is in session. The easement to conduct the ASR Water Project 2 granted to CAW by MPUSD stipulates that all construction activities occur when school is out of session (e.g. summer, winter break, etc.). As a result, the proposed project would avoid significant impacts related to exposure of sensitive receptors to air pollutants emitted at the proposed project site during construction. Mitigation measures would not be necessary for the proposed project in light of constraints imposed upon MPWMD and CAW in the easement (i.e., to avoid construction activities when school is in session). The following provides a more detailed analysis of each of the applicable thresholds of significance identified in Appendix G of the CEQA Guidelines.

a) No Impact: CEQA Guidelines §15125(b) requires that a project is evaluated for consistency with applicable regional plans, including the Air Quality Management Plan (AQMP). The MBUAPCD 2008 AQMP addresses attainment of the State ozone standard and federal air quality standard. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments (AMBAG) and other indicators. Consistency determinations are issued for commercial, industrial, residential, and infrastructure related projects that have the potential to induce population growth. A project is considered inconsistent with the AQMP if it has not been accommodated in the forecast projections considered in the AQMP. The proposed project would not result in any direct air pollutant emissions aside from temporary construction-related emissions. The proposed project would not cause and/or otherwise induce population growth because all water extracted from the ASR-3 and ASR-4 wells would be used to reduce dry season diversions from the Carmel River. In addition, due to lack of operational emissions, it would not cause any long-term adverse air quality affects. As a result, this project would not conflict with and/or otherwise obstruct the implementation of MBUAPCD's 2008 AQMP.

b, c, d) Less than Significant: The MBUAPCD 2008 CEQA Air Quality Guidelines contains standards of significance for evaluating potential air quality affects of projects subject to the requirements of CEQA (see **Table 3, Construction Emissions**). According to MBUAPCD, a project would violate an air quality standard and/or contribute to an existing or project violation if it would:

- Emit 137 or more of volatile organic compounds (VOC) or oxides of nitrogen (NO_x);
- Directly emit 550 lbs/day of carbon monoxide (CO);
- Generate traffic that significantly affects levels of service;
- Directly emit 82 lb/day or more of PM_{10} on site during operation of construction;
- Generate traffic on unpaved roads of 82 lb/day or more of PM_{10}; or
- Directly emit 150 lb/day or more of oxides of sulfur (SO_x).

The proposed project would result in temporary increases in emissions of inhalable particulates ($PM_{2.5}$ and PM_{10}), VOC, and NO_x associated with construction-related activities. Construction-related fugitive dust emissions associated with the proposed project would be generated from project site grading, construction of the ASR wells, excavation for the backflush pit, and associated construction activities. Fugitive dust resulting from construction activities are anticipated to be temporary, ceasing upon completion of earthmoving activities during project construction. In addition to construction-related fugitive dust, exhaust emissions associated with construction vehicles and equipment would also be generated. **Table 3** identifies construction-related emissions associated with the proposed project, and demonstrates that the proposed project would not result in significant construction emissions such that they would exceed applicable MBUAPD thresholds of significance.

Table 3 Construction Air Pollutant Emissions					
	Emissions in Pounds / Day				
	CO	NO_X	$PM_{2.5}$	PM_{10}	ROG
Significance Threshold (MBUAPCD):	550	137	--	82	137
Proposed Project	24	39	2.7	6.9	4.8
Emissions Source: Urbemis 2007 Version 9.2.4 ASR Water Project 2, Appendix B Significance Threshold Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), 2008					

The proposed project operation would not result in a significant impact due to air quality emissions based on the scale of operational activities at the site and lack of direct pollutant sources. Operational activities resulting in minor indirect, off-site emissions would consist of vehicular travel associated with maintenance (typically, only 2 trips per day average) and a slight increase in electricity consumption to operate the pumps and other facility operations. Based upon this evidence, operation of the proposed facilities would not result in emissions that would exceed or violate the applicable air quality standards.

MBUAPCD has identified that construction projects using typical construction equipment such as dump trucks, scrappers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NO_x), are accommodated in the emission inventories of State- and federally-required air plans. Temporary emissions associated with the operation of construction equipment have been accommodated in State- and federally-required air plans.

Based upon the above information, the proposed project would not contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of a criteria pollutant, or result in significant construction-related air quality impacts. All air quality impacts would be temporary and less-than-significant due to lack of exceedances of any thresholds of significance. Moreover, implementation of standard construction Best Management Practices (BMPs) would further minimize these temporary emissions.

e) No Impact: The proposed project is located on property owned by MPUSD. The site is immediately adjacent to the Seaside Middle School, a sensitive receptor, and approximately ¼ mile northeast of the nearest residence, another sensitive receptor. The Phase 1 EIR/EA previously identified that construction of ASR improvements at this location would result in comparatively greater impacts to sensitive receptors (e.g., Seaside Middle School) than at the Santa Margarita site (location of ASR Water Project 1). The proposed project has been designed to ensure that all impacts to the Seaside Middle School students, faculty, and staff during project construction would be avoided. Specifically, all noise-generating construction-related activities will occur when school is not in session (e.g., school breaks) or when classes are not in session during school periods, to avoid impacts to sensitive receptors as specified in the easement granted to CAW by MPUSD. As a result, this project would result in a less severe impact than identified in the Phase 1 EIR/EA. In addition, the distance to the nearest residence (approximately ¼ mile) and short duration and intensity of construction activities would prevent exposure that would create a substantial risk to the residential sensitive receptors. As a result, the proposed project, as designed, would not result in any significant impacts to sensitive receptors.

f) **No Impact**. No substantial odors would be emitted from the proposed project site as a result of the proposed project's implementation based upon the type of construction activities and project operations proposed.

4. BIOLOGICAL RESOURCES

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion/Conclusion

Potential impacts to biological resources from project development were evaluated in the Phase 1 EIR/EA (see **Table 2, Summary of Impacts and Mitigation Measures**). The Phase 1 EIR/EA identified less than significant impacts for removal and destruction of sensitive vegetation and potential direct mortality or disturbance of protected animal species. The Phase 1 EIR/EA identified significant impacts related to potential disturbance of the Fort Ord NRMA and potential loss of nest trees and disturbance or mortality of migratory birds; however, as discussed further below, the proposed project would not have those impacts based upon the existing disturbed nature of the site and survey by Nicole Nedeff in April 2010 (see Appendix C) with follow up July 2010 survey and personal communication by

Ms. Nedeff (Nicole Nedeff, personal communication with Joe Oliver, July 2010). **Mitigation Measures BIO-1** and **BIO-2** were identified and implemented at the Santa Margarita Site to reduce impacts to a less-than-significant level; however, these measures are not required at the proposed project site.

The Phase 1 EIR/EA noted that the ASR Project has the potential to affect special status aquatic species within the river corridor of the Carmel River, but has been designed to minimize any adverse impacts. Special status aquatic species that occur within the Carmel River are steelhead (*Oncorhynchus mykiss*), California red-legged frog (*Rana aurora draytonii*), California newt (*Triturus torosus*), western pond turtle (*Clemmys marmorata*), and possibly the foothill yellow-legged frog (*Rana boylei*). Of these species steelhead and California redlegged frogs are listed as threatened under the Federal Endangered Species Act. **Mitigation Measures AR-1 and AR-2** were identified in the Phase 1 EIR/EA in association with potential impacts to flows for upstream migration and potential impacts to juvenile steelhead rearing habitat. Potential benefits to steelhead and California red-legged frog include the reduction of groundwater pumping along the Carmel River in the dry summer months from the use of the Seaside Groundwater Basin for municipal supply. The net effect of these operational changes will likely increase streamflow and improve environmental conditions along the Carmel River. Thus, the Phase 1 EIR/EA concluded that the ASR Project would be beneficial to steelhead and the California red-legged frog.

The proposed project would not result in any new or more severe significant impacts than those previously identified in the Phase 1 EIR/EA. As described below, the proposed project would result in a net benefit to aquatic resources by reducing the extent of diversions during dry months and adequate provisions are in place to ensure that winter diversions would not affect the minimum daily instream flow volumes. The proposed project would result in less severe impacts as compared to the ASR Water Project 1 by avoiding impacts to a number of sensitive species and habitat types. The proposed project would not result in any significant impacts and no mitigation measures would be required.

a, b, c, d) Less than Significant: The Phase 1 EIR/EA identified less than significant impacts to candidate, sensitive, or special status vegetation and wildlife species and aquatic resources (BIO-1, BIO-2, BIO-3,BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, AR-1, AR-2, AR-3, AR-4, AR-5, and AR-6). A biological survey was commissioned by MPWMD on the proposed project site in spring of 2010. The survey concluded that although there is a flora species located on the site that is relatively rare, there are no federal or state candidate, sensitive, or special status species on the proposed project site that would be adversely impacted by implementation of the proposed project (Letter report from Nicole Nedeff, April 19, 2010 included as Appendix C and personal communication, Nedeff, July 3, 2010). Furthermore, **Mitigation Measure BIO-1** is not applicable to the proposed development, based on the ASR Water Project 2 site's location. **Mitigation Measure BIO-2** is equally not applicable, as there would be no removal of trees or significant shrubs associated with construction activities of the proposed development. The proposed development would not significantly increase the severity of significant impacts previously identified and would not result in additional significant impacts beyond those identified in the Phase 1 EIR/EA.

Carmel River winter diversion associated with the proposed project would not result in potential adverse environmental effects to aquatic resources, as identified in the Phase 1 EIR/EA. The proposed project would not cause and/or otherwise increase the severity of previously identified significant impacts beyond those identified in the Phase 1 EIR/EA. Specifically, applicable SWRCB permit requirements (see SWRCB permit #20808C) stipulate that extensive instream monitoring be conducted through the duration of diversions and for the life of the permit. SWRCB permit #20808C requires that adequate provisions are in place to avoid potential effects to sensitive species dependent upon the Carmel River. "For the protection of fisheries, wildlife, and other instream uses in the Carmel River, diversions under

this permit shall be subject to maintenance of minimum mean daily instream flows…No water shall be diverted under this permit if the instream flows would be reduced by such diversion below the minimum mean daily flows…" In order to ensure compliance with these requirements, the permit has extensive monitoring and reporting requirements. As a result, winter diversions associated with the proposed project would not adversely affect aquatic resources. Minimum flow requirements are established for the Carmel River in order to ensure that aquatic resources are not adversely affected. Moreover, this project would result in a net benefit to biological resources dependent on the Carmel River ecosystem by reducing the extent of diversions occurring during dry months. **Mitigation Measures AR-1** and **AR-2** are not applicable to the proposed project as they are already required of the ASR Project by the permit. No new additional mitigation would be necessary beyond those measures already identified in the Phase 1 EIR/EA as described above.

e, f) No Impact: The proposed project would not conflict with local policies protecting biological resources and no tree removal would be associated with the proposed development. Lands of the former Fort Ord southeast of the proposed project site across General Jim Moore Boulevard and south of Eucalyptus Road are within the boundaries of a Habitat Management Plan and a proposed Habitat Conservation Plan; however, the proposed project site is not located within the boundaries of any adopted a habitat management or conservation plan area. Therefore, **Mitigation Measures BIO-1** and **BIO-2** would not be applicable to proposed development.

5. CULTURAL RESOURCES

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion/Conclusion

Potential impacts to cultural resources from development of the ASR Project have been evaluated in the Phase 1 EIR/EA (see **Table 2, Summary of Impacts and Mitigation Measures**). The Phase 1 EIR/EA noted a significant impact due to the potential for discovery of buried unknown cultural deposits and human remains during construction activities; however, **Mitigation Measures CR-1** and **CR-2** were presented and adopted to reduce potential impacts to a less than significant level. The Phase 1 EIR/EA identified that potential impacts to cultural resources would be increased with development on the ASR

Water Project 2, based upon additional ground disturbance; however, since the Phase 1 EIR/EA was prepared, the site has been disturbed for exploratory work and construction of the test well and associated facilities. The proposed project would not result in any new significant impacts or an increase in severity of any previously identified significant impact. Mitigation Measures CR-1 and CR-2 would be required to ensure impacts remain at a less than significant level; however, no additional mitigation would be necessary.

a) **No Impact**: The proposed project would not impact historic resources; there are no documented historical resources on the proposed project site or in the vicinity even with dozens of surveys in the immediate project vicinity.

b) **Less than Significant Impact with Mitigation**: Ground disturbance in any form may unearth unknown archaeological resources. However, the proposed project area has previously been surveyed for nearby and adjacent projects. There is a low possibility of archaeological resources to be present at the proposed project site. In addition, the site is considered highly disturbed due to construction of the existing monitoring and test wells. The area of ground disturbance proposed is also limited to one additional well, one backflush pit, and an above-ground structure; therefore, the chance for uncovering unknown resources is low. While previously unknown or buried archaeological resources are not anticipated to be encountered during project construction, the implementation of **Mitigation Measure CR-1** identified in the Phase 1 EIR/EA, would ensure that impacts due to the potential to uncover or disturb unknown archaeological resources would be less-than-significant. The proposed project would not result in any new or substantially more severe significant impacts beyond those identified in the Phase 1 EIR/EA. No additional mitigation would be necessary beyond those measures already identified in the Phase 1 EIR/EA.

c) **No Impact**: There are no known paleontological resources on the proposed project site that would be disturbed by implementation of the proposed project based on lack of previously identified paleontological resources on the site or in the vicinity.

d) **Less than Significant Impact with Mitigation:** Implementation of the proposed project would not be expected to disturb human remains based upon lack of previously identified human remains on the site and in the vicinity. In the unlikely event that human remains are discovered during earthmoving activities, **Mitigation Measure CR-2** is required to reduce the potential impact to a less-than-significant level. The proposed project would not result in any new or more severe significant impacts than those identified in the Phase 1 EIR/EA. No additional mitigation would be necessary beyond those identified in the Phase 1 EIR/EA.

6. GEOLOGY AND SOILS

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA found that all geologic, soils, and seismicity impacts of the ASR Project would be less than significant and that development of ASR facilities at the Seaside Middle School site would have the same impacts (see **Table 2, Summary of Impacts and Mitigation Measures**). The proposed project would not result in a new or more severe significant impacts than those identified in the Phase 1 EIR/EA, and no additional mitigation measures are necessary.

a, b, c) Less than Significant: The Phase 1 EIR/EA found that development of ASR facilities at the proposed project site would have less-than-significant geology, soils, and seismicity impacts. The proposed project would not result in any new or more severe significant impacts beyond those identified in the Phase 1 EIR/EA and no mitigation is required.

d, e) No Impact: The ASR Water Project 2 site is not located on expansive soils according to soil borings taken on the project site and the proposed project does not involve septic or alternative wastewater disposal systems (see *Section 9 Hydrology and Water Quality* for discussion of the proposed on-site backflush pit).

7. Greenhouse Gases

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA did not contain an analysis of greenhouse gas (GHG) emissions and climate change, because at the time the Phase 1 EIR/EA was prepared, AB32 the Global Warming Solutions Act and associated updates to the CEQA statutes and guidelines were not in effect. Although an analysis of potential climate change impacts was not completed as part of the Phase 1 EIR/EA, air quality modeling was completed for temporary construction phase impacts. As described previously (see *Section 3 Air Quality),* all potential air quality related effects associated with the ASR Water Project 1 were considered less-than-significant due to the temporary nature of project emissions. GHG emissions associated with the ASR Water Project 1 construction are also minor and temporary in nature.[7]

While the Phase 1 EIR/EA did not evaluate potential GHG related effects associated with the ASR Project or alternatives, those effects would not be considered significant for the purposes of CEQA. As described below, the proposed project would not result in any new significant environmental effects beyond those identified in the Phase 1 EIR/EA. The proposed project would cause temporary increases in GHG emissions during project construction, but no new significant or more severe impacts would occur. This analysis reflects updated CEQA requirements and changes in regulatory conditions since the certification of the Phase 1 EIR/EA. The following provides a more detailed analysis of each of the applicable thresholds of significance identified in Appendix G of the CEQA Guidelines.

[7] The 2010 Final EA/FONSI for the Monterey Bay Regional Water Project – ASR Project determined that GHG emissions were considered temporary in nature and insignificant.

a) **Less Than Significant.** Construction and operation of the proposed project would generate a minor amount of GHG emissions, directly during construction (estimated 160 metric tons (MT) of CO2e total) and indirectly through electricity demand and vehicular access to the site during operation (less than 500 MT CO2e per year). MBUAPCD does not currently have an adopted threshold of significance for GHG emissions. These estimated GHG emission amounts that would be associated with the proposed project would not exceed any CEQA thresholds of significance adopted by other agencies.

b) **No Impact.** The proposed project would not conflict with any plan, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions, because AB32 recommends conjunctive groundwater use projects, such as ASR, as a key strategy for reducing the demand for more energy intensive water supply sources, such as desalination.

8. HAZARDS AND HAZARDOUS MATERIALS

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA evaluated hazardous materials impacts of the Phase 1 ASR Project and concluded there to be a significant impact related to construction activities occurring on the former Fort Ord in "impact areas"[8] (see **Table 2, Summary of Impacts and Mitigation Measures**). **Mitigation Measure HAZ-1** was applied to reduce the potential impact to a less than significant level. The Phase 1 EIR/EA identified less than significant impacts associated with handling of associated materials on the proposed project site and public exposure to contaminated drinking water. The Phase 1 EIR/EA determined potential impacts related to development on the ASR Water Project 2 site to be generally equivalent to those of the Phase 1 ASR Project. As described below, the proposed project would not result in any additional environmental impacts beyond those identified in the Phase 1 EIR/EA. In fact, the proposed project would lessen the extent of potential impacts since the proposed project is not located on former Fort Ord lands that contain hazardous materials. Therefore, construction personnel and on-site employees would not be exposed to potential military munitions and contaminated soil/groundwater related hazards.

a, b, c) Less than Significant: Potential less than significant impacts identified in the Phase 1 EIR/EA apply to the proposed development. The proposed project site is located within ¼ mile of an existing or proposed school. The proposed project site is land owned by the MPUSD immediately adjacent to Seaside Middle School facilities. However, construction and implementation of the proposed project would not result in exposure of the school facilities' students, staff, or faculty to hazardous materials, substances, or wastes. Emissions associated with construction activities could be hazardous to the nearby middle school; however, the easement for the project restricts construction phases of the proposed project to periods when the school is not in session (*see Section 12 Noise*). In addition, a Hazardous Materials Management Plan similar to existing plans required for all similar CAW facilities would be prepared, implement at the ASR Water Project 2 site. Therefore, there would be no new significant impacts or increase in severity of any previously identified significant impacts. **Mitigation Measure HAZ-1** would not apply to the proposed ASR Water Project 2, because the site is not located on the former Fort Ord military munitions areas.[9]

[8] The ASR Phase 1 (now called Water Project 1) facilities at the Santa Margarita site overlie portions of Army parcels E34 and E23.1. These parcels, which are scheduled for eventual transfer to the City of Seaside for residential development, are located within the former Fort Ord firing range/impact area. Surface and subsurface removal of munitions and explosives of concern (MECs) were conducted on the parcels; multiple MECs were removed. The proposed ASR Water Project 2 site is not located on these areas; there has been no evidence or documentation of MECs at this site according to FORA and U.S. Army staff.

[9] Ibid.

d, e, f) No Impact: The proposed project site is not included in the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., when the land was conveyed to the MPUSD, it was deemed to be cleared of hazardous materials) and the proposed project site is not located within two miles of a municipal or private airport.

g, h) No Impact: Implementation of the proposed project would not interfere with evacuation plans because it involves no construction or operational activities that would block transportation pathways. The proposed project would not expose people or structures to a significant risk from wildland fires because it is surrounded by urban development.

9. HYDROLOGY AND WATER QUALITY

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Adverse Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒ [beneficial impact]
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Adverse Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA identified less than significant and beneficial hydrology and water quality impacts (see **Table 2, Summary of Impacts and Mitigation Measures**) of the ASR Phase 1 project. **Mitigation Measures GWH-1**, **GWH-2**, **GWH-3**, and **GWH-4** were recommended for the Phase 1 ASR Project; however, no significant impacts requiring mitigation were identified. The Phase 1 EIR/EA concluded that impacts related to development of the ASR Water Project 2 site would be considered generally equivalent. Based on the following analysis, the proposed project would not result in any new or more severe significant impacts beyond those identified in the Phase 1 EIR/EA. Overall, the proposed project would increase the beneficial impacts identified in the Phase 1 EIR/EA by further reducing the extent of dry-weather diversions from the Carmel River and subterranean system and would comply with regulatory requirements of the Regional Water Quality Control Board (RWQCB) and the California Department of Public Health (CDPH) to protect water quality.

a, b, f) Less Than Significant: The analysis of surface and groundwater hydrology and water-quality impacts in the Phase 1 EIR/EA apply to the proposed full implementation of the ASR Water Project 2 (GWH-1 – GWH-14). Pueblo Water Resources prepared a Groundwater Hydrologic Impacts Assessment for the proposed ASR Water Project 2 (Appendix D). That assessment evaluated the proposed project's potential hydrology and water quality impacts consistent with the impact analysis contained in the Phase 1 EIR/EA to confirm that the proposed project would not result in any new significant impacts or more severe significant impacts than those identified in the Phase 1 EIR/EA. The assessment concluded that the incremental increase in injection capacity from the proposed project would have the following beneficial impacts:

GWH-1: Changes in Seaside Basin groundwater storage.
GWH-3: Long-term changes in Seaside Basin groundwater quantity.
GWH-10: Effects on other Seaside Basin groundwater users.
GWH-12: Changes in Carmel Valley alluvial aquifer storage during high flow periods.
GWH-14: Changes in Carmel Valley alluvial aquifer storage during low flow periods.

All of the following impact areas were found to be less than significant with implementation of the Phase 1 ASR Project and would also be less than significant due to full implementation of ASR Water Project 2 as presented in Appendix D:

GWH-2: Short-term changes in Seaside Basin groundwater quality.
GWH-4: Changes in Seaside Basin groundwater levels in overlying units.
GWH-5: Potential for Seaside Basin Hydrofracturing.
GWH-6: Short-term change in Seaside Basin groundwater quality.
GWH-7: Long-term change in Seaside Basin groundwater quality from mixing groundwater with injected water.
GWH-8: Changes in Seaside Basin groundwater quality caused by ASR well operation discharges.
GWH-9: Changes in Seaside Basin recovered water quality.
GWH-11: Changes in Carmel River streamflow during high flow periods.
GWH-13: Changes in Carmel River streamflow during low flow periods.

The proposed project would be required to comply with all applicable SWRCB water rights, SWRCB/RWQCB NPDES, and CDPH water supply permit requirements, as well as other applicable regulatory requirements. **Mitigation Measures GWH-1**, **GWH-2**, **GWH-3**, and **GWH-4** in the Phase 1 EIR/EA were not required to mitigate any significant impacts, but MPWMD and CAW have been and will continue to implement these measures to demonstrate and ensure compliance with permits and authorizations issued by the state. Based upon the Groundwater Hydrologic memorandum, the proposed project would have no new, previously unidentified significant impacts and would not increase the severity of significant impacts identified in the Phase 1 EIR/EA. No additional mitigation or alterations to mitigation measures identified in the Phase 1 EIR/EA would be required.

c, d, e, g, h, i, j) **No Impact**: The proposed project site does not contain drainages, floodways, or floodplain areas according to the Flood Insurance Rate Maps (FIRM) applicable to the proposed project site. Implementation of the proposed project would not significantly alter the drainage scheme on the site or substantially increase runoff; new impervious surface area on the proposed project site would be minimal (less than 700 square feet). The proposed project does not include residential housing. The proposed project site is not located within a flood hazard zone, near a dam or levee structure, or located in an area subject to significant seiche, tsunami, or mudflow risk.

10. LAND USE AND PLANNING

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion/Conclusion

Potential land use impacts were evaluated in the Phase 1 EIR/EA (see **Table 2, Summary of Impacts and Mitigation Measures**). The Phase 1 EIR/EA identified less than significant impacts associated with land use capability and implementation of the proposed project.

a) No Impact: Implementation of the proposed project would not physically divide an established community as it is contained on a small (less than an acre) discrete site along an existing roadway. Project components are currently already installed on the proposed project site.

b) Less than Significant: The proposed project property is designated by the City of Seaside General Plan as Public/Institutional and the proposed project resulting in the installation of public utility infrastructure on the proposed project site would be a compatible use. Although impacts associated with the ASR Water Project 2 site were concluded to be generally equivalent, a greater potential for an impact was determined for the Seaside Middle School site based upon its close proximity to a school. Due to the easement requirement to limit construction to school breaks and providing fencing around the site, the full implementation of Water Project 2 would have less than significant land use impacts and no mitigation would be required. As described below, the proposed project would not create a new significant impact nor would it result in a more severe significant impact than as identified in the Phase 1 EIR/EA. In fact, the proposed project would lessen the severity of impacts at the Seaside Middle School site identified in the Phase 1 EIR/EA alternative by limiting noise-generating construction to occur when school is out of session, or when classes are not in session during school periods.

c) **No Impact**. The proposed project site is not located within any conservation plan area.

11. MINERAL RESOURCES

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion/Conclusion

No potential impacts to mineral resources were identified in the Phase 1 EIR/EA. The proposed project site is not located in an area of potential mineral resources; the proposed project would not impact mineral resources.

12. NOISE

Checklist

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA identified significant noise impacts due to exposure of sensitive receptors to elevated noise and vibration levels during construction activities and increased noise levels during operational phases. (see **Table 2, Summary of Impacts and Mitigation Measures**). **Mitigation Measures NZ-1a, NZ1-b, NZ1-c, NZ1-d** and **NZ-2** were prescribed to reduce impacts to a less-than-significant level. The Phase 1 EIR/EA concluded that while similar, potential impacts from development on the ASR Water Project 2 site would be increased based on the site's proximity to a school. As described below, the proposed project would reduce the severity of this identified significant impact and would not result in any new or more severe significant impacts than as identified in the Phase 1 EIR/EA. Project design features, mitigation measures from the Phase 1 EIR/EA, and the easement for use of the site would ensure project impacts would be reduced in severity as compared to those identified in the Phase 1 EIR/EA.

a, b, c, d) **Less Than Significant Impact with Mitigation**: There are no new sensitive receptors at the site or in the nearby area. Project construction would generate temporary increases in noise associated with the use of construction equipment. Project construction could result in the exposure of adjacent and nearby sensitive receptors (e.g., students at Seaside Middle School and residents located approximately ¼ mile south and north of the site) to increased noise levels and ground-borne vibration beyond existing conditions. The Phase 1 EIR/EA identified that development adjacent to the Seaside Middle School would expose sensitive receptors to increased noise and ground borne vibration due to project construction. These impacts would, however, be temporary. In addition, the proposed project has been designed, in compliance with the easement granted to CAW for use of the site, to ensure that all noise-generating project construction activities occur when the school is out of session (e.g., school breaks), or when classes are not in session during school periods, in order to ensure that impacts would be avoided. As a result, the proposed project would lessen the extent of potential noise-related impacts as compared to those identified in the Phase 1 EIR/EA. Moreover, adherence to standard construction noise measures would further reduce noise impacts, including reducing the severity of impact on the residents to the nearest to the site. While the proposed project would avoid potential adverse effects associated with construction-related noise and operational noise is not anticipated to be significant (existing facilities are currently operating on-site without constituting a significant impact to adjacent receptors). The Phase 1 EIR/EA identified that noise control measures would be required in order to limit operational noise (see **Mitigation Measures NZ-1a, NZ1-b, NZ1-c, NZ1-d** and **NZ-2).** These measures, as well as project-specific design features (e.g. sound-proof enclosures) would ensure that all potential impacts would be less-than-significant. Based upon existing mitigation measures and the construction plan of the proposed development, the proposed project would not result in significant new impacts or an increase in severity of Impacts NZ-1, NZ-2, and NZ-3 identified in the Phase 1 EIR/EA. No additional mitigation would be necessary beyond those measures already identified in the Phase 1 EIR/EA as described above.

e, f) No Impact: The proposed project site is not located within two miles of a municipal airport or private airstrip and would not add new sensitive receptors to the site that would be exposed to existing or future nearby noise sources.

13. POPULATION AND HOUSING

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion/Conclusion

No potential impacts to population and housing were identified in the Phase 1 EIR/EA. The proposed project would not result in significant new impacts because, although new water supply infrastructure would be built, the proposed project results in the ability to use more wintertime flows from the Carmel River system in lieu of drawing water from the system during low flow months. No new development would be enabled because all new water that is diverted from the Carmel River system and injected into the Seaside Groundwater Basin will be used directly to reduce water withdrawals from the Carmel River during the low flow months. No growth would be accommodated directly or indirectly and no displacement of housing or people would occur.

14. PUBLIC SERVICES

Checklist

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Discussion/Conclusion

Potential impacts to public services were evaluated in the Phase 1 EIR/EA (see **Table 2, Summary of Impacts and Mitigation Measures).** The Phase 1 EIR/EA identified a significant impact based upon temporary disruption of existing underground utilities during construction activities and applied **Mitigation Measures PS-2** and **PS-3** in order to reduce the impact to a less than significant level. The Phase 1 EIR/EA concluded that potential public services and utilities impacts for development on the ASR Water Project 2 site to be generally equivalent. As described further below, the proposed project would not result in any significant impacts beyond those identified in the Phase 1 EIR/EA and would not increase the severity of previously identified significant impacts. The proposed project would lessen the extent of impacts related to public services. No mitigation is necessary.

a - e) No Impact: The Phase 1 EIR/EA identified no potential impacts to fire protection, police protection, schools, or parks. Implementation of the proposed development would result in no new significant impacts. (See *Section 10 Land Use* and *Section 12 Noise* regarding the proposed project site's proximity to a school).

The Phase 1 EIR/EA identified temporary disruption of existing utility services as a potentially significant impact. The proposed project site is currently developed with a variety of related infrastructure, including existing ASR monitoring wells and support infrastructure. Construction and operation of the proposed project is not anticipated to result in a significant disruption of existing services such that an adverse environmental effect would occur. In light of the recent construction activities and underground investigations for utilities, the site does not contain utilities that could be

disrupted during construction or operation of the full implementation of Water Project 2; therefore, this is considered a less-than-significant impact. No mitigation is considered necessary and **Mitigation Measures PS-2** and **PS-3** are not applicable. The proposed project would result in no new significant impacts and would reduce or lessen the severity of previously identified significant impacts to public services than the ASR Project evaluated in the Phase 1 EIR/EA.

15. RECREATION

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion/Conclusion

No potential impacts to recreation facilities were identified in the Phase 1 EIR/EA. The proposed project would not result in significant new impacts because there would be no direct or indirect increased use of parks or recreational facilities due to the proposed project and no recreational facilities included in the proposed project.

16. TRANSPORTATION AND TRAFFIC

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion/Conclusion

The Phase 1 EIR/EA found the Phase 1 ASR Project would have the following less than significant impacts to traffic and circulation (see **Table 2, Summary of Impacts and Mitigation Measures**):

- temporary construction-related traffic increases,
- construction phase conflicts with bus service lines and temporary pathway/bikeway closures,
- increased traffic and level of service degradation from operational phases,
- an increased demand for parking.

No mitigation measures were required. The Phase 1 EIR/EA determined that traffic impacts would be generally equivalent for development on the ASR Water Project 2 site. Based on the following analysis, the proposed project would not create a new or more severe significant impact than as identified in the Phase 1 EIR/EA.

a, b) Less than Significant: The proposed project would result in temporary increases in traffic during construction (approximately 10 vehicle trips per day). In addition, the proposed project would result in a negligible increase in operational traffic consistent with the analysis contained in the Phase 1 EIR/EA (i.e., 1-2 trips per day to the site on average). The proposed project would not cause any new significant impacts beyond those identified in the Phase 1 EIR/EA and would not increase the severity of any significant impacts in the Phase 1 EIR/EA.

c, d, e, f, g) No Impact: Implementation of the proposed project would not impact air traffic operations because the nearest airports are over 2 miles away. The proposed project does not involve any construction within existing roadway travel lanes, bike lanes or near any transit stops, and would not increase hazards based on a design feature or result in emergency access concerns. Access to the proposed project site will be provided from General Jim Moore Boulevard and parking areas will be accommodated on the proposed project site; therefore, there would be no significant parking or access impacts.

17. UTILITIES AND SERVICE SYSTEMS

Checklist

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion/Conclusion

The Phase 1 EIR/EA evaluated potential impacts to public utilities (see **Table 2, Summary of Impacts and Mitigation Measures**). Less than significant impacts were identified due to negligible increases in solid waste generation during construction activities and in demand of electricity from project operations. No mitigation was determined to be required. The Phase 1 EIR/EA determined that development on the ASR Water Project 2 site would be generally equivalent. The proposed project would not result in a new significant or more severe significant impacts beyond those identified in the Phase 1 EIR/EA.

a, b, c, e) **No Impact:** A percolation, backflush pit, is proposed to receive and percolate all discharge during routine backflushing operations of both ASR wells planned for the proposed project site; therefore, no wastewater will be generated that is not accommodated in the backflush pit. CAW water pipeline conveyance facilities are currently connected to the proposed project site; therefore, no

additional water lines would be required to operate the proposed project. The proposed project would not result in any new significant impacts or increased severity of previously identified significant impacts from the Phase 1 EIR/EA.

d) No Impact: The proposed project would not require additional water rights or entitlements; project operations would rely upon existing water rights as defined and limited in State Water Resources Control Board – Division of Water Rights Amended Permit #20808C (Appendix A) and MPWMD and CAW will comply with the permit conditions**.**

f, g) Less than Significant: The proposed project would result in a less than significant impact in terms of solid waste generation consistent with the analysis in the Phase 1 EIR/EA. The proposed project would not result in any new significant impacts nor would it increase the severity of impacts beyond the less than significant impact, PS-1, identified in the Phase 1 EIR/EA.

18. MANDATORY FINDINGS OF SIGNIFICANCE

Does the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion/Conclusion

a, b, c) Less than Significant: Implementation of the proposed project would not substantially degrade or reduce wildlife species or habitat or impact historic resources, as identified in this analysis. Construction and operation of the proposed project would not result in adverse impacts on human beings, either directly or indirectly; potential impacts would be temporary in nature and mitigated through the implementation of mitigation measures (to the extent they are applicable) identified in the Phase 1 EIR/EA. Implementation of the proposed project would not result in new significant impacts or significant impacts that would be increased in severity beyond those identified in the Phase 1 EIR/EA.

Potential cumulative impacts from development of the ASR Project have been evaluated in the Phase 1 EIR/EA (see **Table 2, Summary of Impacts and Mitigation Measures**). Impacts CUME-1, CUME-2, CUME-3, CUME-4, and CUME-5 would be applicable to the proposed project, as well as **Mitigation Measure CUME-1**. The following analysis considers the cumulative effect of the proposed project, when considered with reasonable foreseeable past, present, and future projects. CEQA Guidelines § 15130 requires an EIR to discuss cumulative impacts of a project when the proposed project's incremental effect is cumulatively considerable. As defined by CEQA Guidelines § 15355, a cumulative impact is an impact that is created as a result of the combination of the proposed project and related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Cumulative impacts refer to two or more individual effects that, when combined, are considerable, or would result in an increase in severity of an environmental impact.

Potential cumulative impacts associated with the proposed project would primarily occur in connection with temporary construction-related effects. As described in this analysis, operational impacts are limited and are not considered significant for the purposes of CEQA. No construction projects or other infrastructure-projects have been identified within the immediate vicinity of the proposed project with the exception of the ASR Water Project 1. In light of the nature of the proposed project and the extent of project impacts, the following cumulatively analysis is limited to primarily construction-related activities. Potential cumulative operational effects associated with this project and existing ASR 1 operations are also evaluated. Potential cumulative operational impacts would primarily be associated with increased winter diversions in connection with ASR Water Project 1 and the proposed project, as described below.[10]

Water Supply Projects. Numerous proposals have been contemplated for other water supply projects in the vicinity, including some that would utilize the SGB. The Regional Urban Water Augmentation Project: Recycled Water Project (RUWAP) is the only project that has a certified environmental document with construction initiated.[11] MRWPCA is currently considered a potential hydrogeologic monitoring well approximately ½ mile east of the site up Eucalptus Road. No other water supply projects are currently being considered in the proposed project vicinity that would cause a change in existing conditions or overlapping local construction activities. The ASR Water Project 1, when considered in combination with the proposed project, could cause potential cumulative operational effects related to groundwater/hydrology. While other future projects may occur that would potentially utilize the SGB (including Seaside Groundwater Replenishment and future phases of ASR), the extent of those projects' contribution towards a cumulative effect is unknown. Those projects would be subject to project-specific CEQA review at the time sufficient information is available to make a reasoned analysis; a consideration of their potential cumulative effects would be considered speculative for the purposes of this analysis. As a result, this analysis specifically evaluates the proposed projects' cumulative construction impacts with other water projects and operational impacts in combination with the ASR Water Project 1 only.

[10] The proposed project would not result in any contribution to population growth due to providing an additional water supply because the project does not increase total water diversions/supplies from all CAW sources (all new water supply provided by the project would directly reduce withdrawals from the Carmel River and alluvium during the low flow periods). It follows that new cumulative impacts associated with population growth would not occur.

[11] That project is currently on hold pending completion of financing and administrative activities; no construction or operational activities are scheduled to occur within the next two years.

Cumulative Construction Impacts

Aesthetics
Construction activities would temporarily alter views of the areas affected by the proposed project; however, no views of the affected areas would occur from scenic highways. As such visual disruption caused by construction activities would be temporary, and the existing visual character of areas affected by the proposed project would be restored after construction is completed, the proposed project's contribution to impacts with regard to aesthetics would not be cumulatively considerable.

Construction of the proposed facilities at the proposed locations would permanently alter existing views; however, due to the size of the proposed structures, proximity of existing land uses, the undergrounding of the pipelines, and the design measures proposed to reduce the visibility of the facilities within the visual landscape, the proposed project is not anticipated to substantially degrade the visual quality of the proposed project site or surrounding areas or significantly change existing views from public roadways within the proposed project area. As other future projects would be subject to review and implementation of mitigation or design measures to reduce the potential for impacts on visual resources to occur, the proposed project is not considered to contribute to potential cumulative effects on aesthetic resources. As such, project impacts would not be cumulatively considerable.

Air Quality
Regional Air Quality. Sources of cumulative air quality impacts would be related to construction activities, including construction equipment exhaust and fugitive dust from ground-disturbing activities. Emissions associated with the proposed project would conflict with and/or otherwise obstruct implementation of the 2008 AQMP. Pursuant to MBUAPCD policy, construction projects in the Basin that use typical construction equipment, such as dump trucks, scrappers, bulldozers, compactors and front-end loaders, that temporarily emit precursors of ozone (i.e., ROG and NOx) are accounted for in the emission inventories of State and Federally required air plans[12]. As such, the proposed project is consistent with the Air Quality Management Plan and would, therefore, not contribute adverse effects on regional air quality. Implementation of these measures would ensure that the proposed project does not result in emissions that would exceed or violate the applicable air quality standards.

Localized Air Quality. Monterey Air District has identified a threshold of 82 pounds per day (or disturbance of more than 2.2 acres per day) for PM10 emissions. The proposed project would not have a substantial cumulative contribution to localized concentrations of PM10 because standard dust control measures to control fugitive dust from ground-disturbing activities would be incorporated, and no other cumulative construction projects would be occurring within a ¼ mile of the proposed project.

Biological Resources
Concurrent construction of other planned projects in the region could result in cumulative impacts. Monterey dusky-footed woodrat (*Neotoma macrotis*), a California species of special concern; black legless lizard (*Anniella pulchra nigra*), a California species of special concern; coast horned lizard, a California species of special concern and raptors and other migratory birds were at or near the ASR Water Project 1 site. The proposed project would not have significant impacts on biological resources, because the site is highly degraded and consists of existing on-site infrastructure (Appendix C and pers. communication with Nicole Nedeff, July 2010). Therefore, cumulative impacts to biological resources would not be considerable.

[12] Pursuant to industry standards, drill rigs are also considered "typical construction equipment" in the case of this type of project.

Cultural Resources
Concurrent construction of other planned projects in the region would involve ground-disturbing activities, which could result in the inadvertent discovery of cultural resources. As discussed in *Section 5 Cultural Resources*, the proposed project is located in an area determined to have a low sensitivity potential according to the Monterey County archaeological sensitivity map. However, any cultural resource found in the proposed project area could provide significant cultural information, and cumulative development in the area could result in the loss of significant cultural resources. Any potential cumulative impacts to an unknown archaeological site would be minimized by evaluation of on-site resources, if present, and the development of a site-specific management plan in which specific protective measures are defined. Therefore, cultural resource impacts would be reduced and impacts would not be considered to be cumulatively considerable.

Noise
No other cumulative construction projects would be occurring within a ¼ mile of the proposed project and standard noise abatement measures will be required by the proposed project, no adverse cumulative noise impacts would result from implementation of the proposed project.

Traffic
As construction activities would be temporary and no other cumulative construction projects would be occurring within a ¼ mile of the proposed project, cumulative traffic-related impacts associated with construction activities have not been identified. In addition, the increase in vehicular traffic associated with the proposed project would be minimal. Therefore, no adverse cumulative traffic impacts would result from project implementation.

Cumulative Operational Impacts

Biological Resources
As specified in permits governing CAW use of their water sources in the Carmel River system, the proposed project, in combination with ASR Water Project 1, would not result in a potential operational phase cumulative impacts to biological resources, including due to increased winter diversions affects on sensitive species. The cumulative effect of increased diversions would not result in reduced flow volumes within the Carmel River during the low flow periods of concern for sensitive species (e.g. Steelhead) and other resource dependent species. Applicable SWRCB permit requirements stipulate that extensive instream monitoring be conducted through the duration of diversions and for the life of the permit. SWRCB permit #20808C requires that adequate provisions are in place to avoid potential cumulative effects to sensitive species dependent upon the Carmel River. "For the protection of fisheries, wildlife, and other instream uses in the Carmel River, diversions under this permit shall be subject to maintenance of minimum mean daily instream flows…No water shall be diverted under this permit if the instream flows would be reduced by such diversion below the minimum mean daily flows…" In order to ensure compliance with these requirements, the permit has extensive monitoring and reporting requirements. As a result, winter diversions associated with the proposed project and ASR Water Project 1 would not represent a cumulatively considerable impact under CEQA. Moreover, these cumulative projects would result in a net benefit to biological resources dependent on the Carmel River ecosystem by reducing the extent of diversions occurring during dry months.

Hydrology/Water Quality
The proposed project, in combination with ASR Water Project 1, would not result in potential cumulatively considerable impacts to surface water resources. As identified above, increased winter diversions would not adversely affect Carmel River hydrology. Adequate measures are in place in order to ensure that winter diversions would only occur under certain conditions where surface water flows are

above the minimum mean daily flow levels established in SWRCB Permit #20808C. As a result, adequate measures are in place in order to ensure that cumulative ASR developments would not adversely affect the existing hydrologic function of the Carmel River.

VIII. Report Preparation and References

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Appendix A. State Water Resources Control Board – Division of Water Rights Amended Permit #20808C

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

AMENDED PERMIT FOR DIVERSION AND USE OF WATER

APPLICATION 27614C PERMIT 20808C

of: Monterey Peninsula Water Management District and
California American Water
c/o Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93942-0085

The amended permit is being issued in accordance with the redelegations of authority (Resolution No. 2007-0057.) Therefore, an amended permit on **Application 27614C** filed on **December 16, 1982** has been approved by the State Water Board SUBJECT TO PRIOR RIGHTS and to the limitations and conditions of this amended permit

Permittees are hereby authorized to divert and use water as follows:

1. Source of water

Source:	Tributary to:
(1) Carmel River	**Pacific Ocean**
(5-32) Carmel River Subterranean Stream	**Pacific Ocean**

within the County of **Monterey.**

2. Location of points of diversion, points of injection and points of recovery.

Points of Diversion to Offstream Storage (By California Coordinate System of 1983-Zone 4)	40-acre subdivision of public land survey or projection thereof	Section (Projected)	Township	Range	Base and Meridian
(1) San Clemente Dam: North 2,053,010 feet and East 5,765,040 feet	**NW¼ of SW¼**	**24**	**17S**	**2E**	**MD**
(5) Canada Well: North 2,092,010 feet and East 5,715,190 feet	**NE¼ of SW¼**	**17**	**16S**	**1E**	**MD**
(6) San Carlos Well: North 2,091,660 feet and East 5,717,990 feet	**NE¼ of SE¼**	**17**	**16S**	**1E**	**MD**
(7) Cypress Well: North 2,087,610 feet and East 5,724,640 feet	**SW¼ of NW¼**	**22**	**16S**	**1E**	**MD**

(8) Pearce Well: North 2,087,360 feet and East 5,726,140 feet	SE¼ of NW¼	22	16S	1E	MD
(9) Schulte Well: North 2,087,410 feet and East 5,729,240 feet	SW¼ of NW¼	23	16S	1E	MD
(10) Manor #2 Well: North 2,086,460 feet and East 5,731,340 feet	NE¼ of SW¼	23	16S	1E	MD
(11) Begonia #2 Well: North 2,085,510 feet and East 5,734,740 feet	NW¼ of SW¼	24	16S	1E	MD
(12) Berwick #7 Well: North 2,084,460 feet and East 5,735,290 feet	SW¼ of SW¼	24	16S	1E	MD
(13) Berwick #8 Well: North 2,084,510 feet and East 5,736,090 feet	SE¼ of SW¼	24	16S	1E	MD
(15) Scarlett #8 Well: North 2,084,510 feet and East 5,740,590 feet	SW¼ of SW¼	19	16S	2E	MD
(17) Los Laureles #5 Well: North 2,080,310 feet and East 5,748,590 feet	NW¼ of SE¼	29	16S	2E	MD
(18) Los Laureles #6 Well: North 2,079,510 feet and East 5,749,440 feet	SE¼ of SE¼	29	16S	2E	MD
(19) West Garzas #4 Well: North 2,075,260 feet and East 5,752,190 feet	NE¼ of SW¼	33	16S	2E	MD
(20) Garzas Creek #3: North 2,073,610 feet and East 5,753,040 feet	SW¼ of SE¼	33	16S	2E	MD
(21) Panetta #2 Well: North 2,072,110 feet and East 5,754,740 feet	NW¼ of NW¼	3	17S	2E	MD
(22) Panetta #1 Well: North 2,071,960 feet and East 5,754,640 feet	NW¼ of NW¼	3	17S	2E	MD
(17) Robles #3 Well: North 2,067,110 feet and East 5759,490 feet	NE¼ of NE¼	10	17S	2E	MD
(24) Russell #4 Well: North 2,061,810 feet and East 5,764,040 feet	SW¼ of SE¼	14	17S	2E	MD
(25) Russell #2 Well: North 2,061,410 feet and East 5,764,040 feet	SE¼ of SE¼	14	17S	2E	MD
(26) A Well: North 2,091,070 feet and East 5,706,020 feet	SE ¼ of SE ¼	13	16S	1W	MD

(27) B Well: North 2,091,970 feet and East 5,709,420 feet	**NE ¼ of SW ¼**	**18**	**16S**	**1E**	**MD**
(28) C Well: North 2,087,220 feet and East 5,724,470 feet	**SW ¼ of NW ¼**	**22**	**16S**	**1E**	**MD**
(29) D Well: North 2,087,370 feet and East 5,7729,270 feet	**SW ¼ of NW ¼**	**23**	**16S**	**1E**	**MD**
(30) E Well: North 2,084,920 feet and East 5,737,320 feet	**SW ¼ of SE ¼**	**24**	**16S**	**1E**	**MD**
(31) F Well: North 2,072,120 feet and East 5,754,670 feet	**NW ¼ of NW ¼**	**3**	**17S**	**2E**	**MD**
(32) G Well: North 2,070,270 feet and East 5,755,270 feet	**SW ¼ of NW ¼**	**3**	**17S**	**2E**	**MD**

Points of Injection and Recovery (By California Coordinate System of 1983-Zone 4)	40-acre subdivision of public land survey or projection thereof	Section (Projected)	Township	Range	Base and Meridian
Seaside Middle School #1 Injection & Recovery Well North 2,122,180 feet and East 5,735,150 feet	**SE¼ of SE¼**	**13**	**15S**	**1E**	**MD**
Seaside Middle School #2 Injection & Recovery Well North 2,122,530 feet and East 5,735,250 feet	**SE¼ of SE¼**	**13**	**15S**	**1E**	**MD**
ASR-1 Injection & Recovery Well North 2,120,840 feet and East 5,734,970 feet	**NE¼ of NE¼**	**23**	**15S**	**1E**	**MD**
ASR-2 Injection & Recovery Well North 2,121,080 feet and East 5,735,250 feet	**SE¼ of SE¼**	**14**	**15S**	**1E**	**MC**

3. Purpose of use	4. Place of use	Section (Projected)	Township	Range	Base and Meridian	Acres
Municipal	**Within the boundaries of Monterey Peninsula Water Management District**					**110,000**

The points of diversion and place of use are shown on maps dated June 2008 and filed with the State Water Board.

The following acronyms are used in this permit:

Monterey Peninsula Water Management District – MPWMD or Permittee
National Marine Fisheries Service – NMFS
California Department of Fish and Game – DFG
California American Water – Cal-Am

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed **two thousand nine hundred (2,900) acre-feet per an**num to be collected to underground storage in Seaside Groundwater Basin at a maximum instantaneous rate of **eight (8.0) cubic feet per second** from December 1 of each year to May 31 of the succeeding year.

(0000005H)

6. Permittees' rights under this permit are junior to the rights of persons diverting water for reasonable beneficial use under valid and properly exercised riparian, overlying, and pre- and post-1914 appropriative claims of right which have a priority which is superior to the priority of Application 27614C.

(050T001)

7. Complete application of the water to the authorized use shall be made by December 1, 2020.

(0000009)

8. This permit shall not be construed as conferring upon the permittees right of access to the points of diversion.

(0000022)

9. Cal-Am shall consult with the Division of Water Rights and, within one year from the date of this permit, shall submit to the State Water Board its Urban Water Management Plan as prepared and adopted in conformance with Section 10610, et seq. of the California Water Code, supplemented by any additional information that may be required by the Board.

   All cost-effective measures identified in the Urban Water Management Plan and any supplements thereto shall be implemented in accordance with the schedule for implementation found therein.

(0000029A)

10. If it is determined after permit issuance that the as-built conditions of the project are not correctly represented by the map(s) prepared to accompany the application, permittees shall, at their expense, have the subject map(s) updated or replaced with equivalent as-built maps(s). Said revision(s) or new map(s) shall be prepared by a civil engineer or land surveyor registered or licensed in the State of California and shall meet the requirements prescribed in section 715 and sections 717 through 723 of the California Code of Regulations, Title 23. Said revision(s) or map(s) shall be furnished upon request of the Deputy Director for Water Rights.

(0000030)

11. Permittees shall (1) install devices to measure the instantaneous rate and cumulative quantity of water diverted from the Carmel River and placed into underground storage and (2) install devices to measure the cumulative quantity of Carmel River water recovered from underground storage and placed to beneficial use. All measuring devices and the method of determining the quantity of water recovered from underground storage shall be approved by the State Water Board. All measuring devices shall be properly maintained.

(0060900) (0080900)

12. Permittees shall calibrate and maintain, a continuous flow measurement device, satisfactory to the State Water Board, at Carmel River at Highway 1 Bridge (River Mile 1.1)

    If any measuring device is rendered inoperative for any reason, all diversions under this permit shall cease until such time as the device is restored to service.

    These requirements shall remain in force as long as water is diverted by permittees (or successors-in-interest) under any permit or license issued pursuant to Application 27614C.

    (0060062BP) (0000204)

13. Within six months of the issuance of this permit, the permittees shall submit a Compliance Plan for approval by the Deputy Director for Water Rights that will demonstrate compliance with the flow bypass terms specified in this permit. The Compliance Plan shall include the following:

    a. A description of the gages and monitoring devices that will be installed or have been installed to measure stream flow and diversion to underground storage.
    b. A time schedule for installation of these facilities.
    c. A description of the frequency of data collection and the methods for recording diversions, bypass flows and storage levels.
    d. An operation and maintenance plan that will be used to maintain gages and monitoring devices in good condition.

    The permittees shall be responsible for all costs associated with developing the Compliance Plan, and installing and maintaining all monitoring facilities described in the Compliance Plan.

    The monitoring data shall be maintained by the permittees for ten years from the date of collection and made available to the Deputy Director for Water Rights, upon request. Any non-compliance with the terms of the permit shall be reported by the permittees promptly to the Deputy Director for Water Rights.

    (0000070)

14. The priority of this permit shall be junior to any permit issued on the applications set forth in Table 13 of Decision 1632 or for the persons named in Table 13 of Decision 1632 for an amount of water not to exceed the quantity set forth in the column titled *"Quantity Reserved by SWRCB for Future Appropriations,"* or as modified in accordance with the procedures set forth in Decision 1632, Permit Condition 10.

    (0500800)

15. Permittees shall implement the Riparian Corridor Management Program outlined in the MPWMD's November 1990 Water Allocation Mitigation Program until Application 27614C is licensed. Survey data and analysis of results shall be submitted annually to DFG for review and comment.

    (0490500)

16. For the protection of fisheries, wildlife, and other instream uses in the Carmel River, diversions under this permit shall be subject to maintenance of minimum mean daily instream flows as specified in Table A, Minimum Mean Daily Instream Flow Requirements. No water shall be diverted under this permit if the instream flows would be reduced by such diversion below the minimum mean daily flows specified in Table A. To ensure compliance with these conditions, by September 30 of each year, Permittees shall file a report with the Deputy Director for Water Rights, DFG and NMFS containing the following information:

    a. Dates during the previous period of December 1 to May 31 of the succeeding year when water was diverted under this permit; and
    b. Mean daily flows recorded at the Carmel River at Highway 1 Bridge gage.

TABLE A	
MINIMUM MEAN DAILY INSTREAM FLOW REQUIREMENTS	
December 1-April 15	**April 16-May 31**
Prior to Carmel River lagoon opening to the ocean [1]: May divert with minimum bypass of **40 cfs** at the Carmel River at Highway 1 Bridge gage. **Following Carmel River lagoon opening to the ocean:** May divert with minimum bypass of **120 cfs** at the Carmel River at Highway 1 Bridge gage.	May divert with minimum bypass of **80 cfs** at the Carmel River at Highway 1 Bridge gage.

[1] On December 1, if water in the lagoon is flowing to the ocean, the lagoon shall be deemed to be open to the ocean. If on December 1 water in the lagoon is not flowing to the ocean, the lagoon shall be deemed to be open to the ocean when the lagoon level drops rapidly from a stable elevation to a lower elevation as evidenced by the water surface elevation gage located at the Carmel Area Wastewater District effluent pipeline across the south arm of the lagoon. This elevation gage is operated by Monterey Peninsula Water Management District.

(0400500)

17. Until the project authorized by this permit becomes fully operational, permittees shall continue to negotiate with DFG to maintain, insofar as possible, a minimum 5 cubic feet per second bypass flow below San Clemente Dam as measured at the Sleepy Hollow weir.

(0400500)

18. To prevent stranding of spring and fall steelhead juveniles and smolts during critically dry conditions, permittees shall continue to implement Fisheries Mitigation Measure 3 as outlined in the MPWMD's November 1990 Water Allocation Mitigation Program ("Rescue juveniles downstream of Robles del Rio in summer").

(0400500)

19. Permittees shall, in consultation with DFG, conduct studies to determine the effectiveness of fish rescue operations specified in the MPWMD's November 1990 Water Allocation Mitigation Program. The results shall be submitted to the Deputy Director for Water Rights, for review and approval.

(0400500)

20. Permittees shall implement the Lagoon Mitigation Program outlined in the MPWMD's November 1990 Water Allocation Mitigation Program. Annual reports shall be submitted to the Department of Parks and Recreation, DFG, and the Deputy Director for Water Rights for review.

(0400500)

21. Permittees shall maintain in good working order all riparian irrigation systems owned or operated by permittees under the MPWMD's November 1990 Water Allocation Mitigation Program for use as needed during dry and critically dry water years.

(0400500)

22. Recovery of Stored Water: Not later than June 1 of each year, the amount of water to be recovered from groundwater storage during that year's June 1 through November 30 period shall be determined by permittees, in consultation with DFG and NMFS, using the following procedures.

    a. The maximum amount for recovery each year (pumping of water previously diverted from the Carmel River and injected in the Seaside Groundwater Basin) was determined to be 1,500 acre-feet, using the logic developed for the computer simulation made by MPWMD's Carmel Valley Simulation (CVSIM) model. In any year, an alternative recovery amount may be agreed upon by permittees, DFG, and NMFS. The selected recovery amount shall be deemed the "Determined Recovery Amount."

    b. To the maximum extent operationally feasible, during each recovery season, permittees shall use their best efforts to recover the Determined Recovery Amount.

    c. Each year at the end of the injection season, the amount of water injected into the Seaside Basin during the current injection season shall be calculated. If this amount equals or exceeds the Determined Recovery Amount, then the Determined Recovery Amount shall be recovered. Any water injected during the current injection season that is in excess of the Determined Recovery Amount shall be added to "Carryover Storage."

    d. If the total amount of water injected during the current injection season is less than the Determined Recovery Amount, and the Carryover Storage from previous injection seasons is sufficient to make up the difference, then the Determined Recovery Amount shall be recovered. In this case, water from Carryover Storage shall be produced to supplement water injected during the current injection season to meet the Determined Recovery Amount. Any water that is produced from Carryover Storage to meet the Determined Recovery Amount shall be subtracted from Carryover Storage.

    e. If the total amount of water injected during the current injection season is less than the Determined Recovery Amount, and the Carryover Storage from previous injection seasons is insufficient to make up the difference, then the Determined Recovery Amount cannot be met. Instead, the amount of water recovered that year will be the total amount injected during the current injection season plus the total amount of Carryover Storage, if any, from previous injection seasons.

    f. Following the above decisions, if the amount of water stored by injection in the Seaside Groundwater Basin exceeds 7,200 acre-feet on June 1, the amount in excess of 7,200 acre-feet shall be added to the amount available for recovery that year.

    g. The actual amount of water produced from storage for recovery each year shall be uniformly distributed over the recovery season, unless modified and agreed upon by permittees, DFG, and NMFS.

    h. The water produced by permittees from the Aquifer Storage and Recovery (ASR) wells will be used to offset production from the Carmel River that would otherwise occur during the low-flow season. In any year that ASR water is recovered and delivered to the California American Water Company (Cal-Am) distribution system, Cal-Am shall, to the maximum extent operationally feasible, reduce water diversion from its Carmel River sources. The amount of ASR water that is recovered each year shall be subtracted from Cal-Am's total annual diversion allowance from its Carmel River sources in excess of Cal-Am's recognized rights. This condition shall sunset when the Deputy Director of Water Rights concurs in writing that Cal-Am has obtained a permanent supply of water that has been substituted for water diverted in excess of Cal-Am's recognized rights pursuant to Condition No. 11 of Order WR 2009-0060.

i. The following procedures will be implemented to facilitate cooperative compliance monitoring of the reductions in dry season (June-November) diversions from the Carmel River Aquifer that will be offset by utilizing water recovered from the ASR wells:

1) Cal-Am will provide copies by e-mail of its weekly "Carmel Valley & Seaside Production Report" to one designated contact each for DFG and NMFS.
2) This e-mail report will show daily values in acre-feet of the water produced from each source, vs. daily targets. These daily targets are derived from the monthly production targets developed as part of the Cal-Am/MPWMD Quarterly Water Budget process.
3) If the amount of water produced differs significantly from daily targets for more than two weeks, the designated DFG or NMFS contact can choose to call for the four parties to meet and confer on ongoing Cal-Am operations during the first five business days of the succeeding month.

In any case, these production numbers are and will continue to be reviewed as part of the Cal-Am/MPWMD Quarterly Water Budget process, which includes two regularly scheduled quarterly meetings during the dry season between permittees, DFG, and NMFS. DFG's and NMFS' ability to call for a monthly meeting to review Cal-Am's patterns of production for compliance with the intended offset of Carmel River Aquifer diversions by production from the ASR wells, will be in addition to the regularly-scheduled Quarterly Water Budget Meetings.

(0080900)

ALL PERMITS ISSUED BY THE STATE WATER BOARD ARE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

A. The amount authorized for appropriation may be reduced in the license if investigation warrants.

(0000006)

B. Progress reports shall be submitted promptly by permittees when requested by the State Water Board until a license is issued.

(0000010)

C. Permittees shall allow representatives of the State Water Board and other parties, as may be authorized from time to time by said State Water Board, reasonable access to project works to determine compliance with the terms of this permit.

(0000011)

D. Pursuant to California Water Code sections 100 and 275, and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this permit with a view to eliminating waste of water and to meeting the reasonable water requirements of permittees without unreasonable draft on the source. Permittees may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this

paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by the permittees in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

E. The quantity of water diverted under this permit and under any license issued pursuant thereto is subject to modification by the State Water Board if, after notice to the permittees and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

F. This permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050 - 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 - 1544). If a "take" will result from any act authorized under this water right, the permittees shall obtain authorization for an incidental take prior to construction or operation of the project. Permittees shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.

(0000014)

G. Permittees shall maintain records of the amount of water diverted and used to enable the State Water Board to determine the amount of water that has been applied to beneficial use pursuant to Water Code Section 1605.

(0000015)

H. No work shall commence and no water shall be diverted, stored or used under this permit until a copy of a stream or lake alteration agreement between the State Department of Fish and Game and the permittees is filed with the Division of Water Rights. Compliance with the terms and conditions of the agreement is the responsibility of the permittees. If a stream or lake agreement is not necessary for this permitted project, the permittees shall provide the Division of Water Rights a copy of a waiver signed by the State Department of Fish and Game.

(0000063)

This permit is issued and permittees take it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

STATE WATER RESOURCES CONTROL BOARD

James W. Kassel

for *Barbara Evoy, Deputy Director*
Division of Water Rights

Dated: NOV 30 2011

Appendix B. Air Quality Analysis for Full Implementation ASR Water Project 2

2/16/2012 10:47:34 AM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name:

Project Name: ASR Water Project 2

Project Location: Monterey County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	4.81	38.95	24.40	0.00	5.02	1.87	6.89	1.05	1.72	2.77	5,494.16

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2012-6/30/2012 Active Days: 26	3.58	29.87	16.50	0.00	5.01	1.34	6.34	1.05	1.23	2.28	4,224.79
Fine Grading 06/01/2012-08/29/2012	3.58	29.87	16.50	0.00	5.01	1.34	6.34	1.05	1.23	2.28	4,224.79
Fine Grading Dust	0.00	0.00	0.00	0.00	5.00	0.00	5.00	1.04	0.00	1.04	0.00
Fine Grading Off Road Diesel	3.51	29.73	14.80	0.00	0.00	1.33	1.33	0.00	1.23	1.23	4,093.06
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.14	1.70	0.00	0.01	0.01	0.01	0.00	0.00	0.01	131.72
Time Slice 7/2/2012-7/21/2012 Active Days: 18	**4.81**	**38.95**	**24.40**	**0.00**	**5.02**	**1.87**	**6.89**	**1.05**	**1.72**	**2.77**	**5,494.16**
Building 07/01/2012-07/22/2012	1.23	9.08	7.90	0.00	0.02	0.53	0.55	0.01	0.49	0.49	1,269.37
Building Off Road Diesel	1.03	7.87	4.56	0.00	0.00	0.49	0.49	0.00	0.45	0.45	893.39

Building Vendor Trips	0.10	1.00	0.85	0.00	0.01	0.04	0.05	0.00	0.04	0.04	183.19
Building Worker Trips	0.10	0.20	2.48	0.00	0.01	0.01	0.02	0.00	0.01	0.01	192.79
Fine Grading 06/01/2012-08/29/2012	3.58	29.87	16.50	0.00	5.01	1.34	6.34	1.05	1.23	2.28	4,224.79
Fine Grading Dust	0.00	0.00	0.00	0.00	5.00	0.00	5.00	1.04	0.00	1.04	0.00
Fine Grading Off Road Diesel	3.51	29.73	14.80	0.00	0.00	1.33	1.33	0.00	1.23	1.23	4,093.06
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.14	1.70	0.00	0.01	0.01	0.01	0.00	0.00	0.01	131.72
Time Slice 7/23/2012-8/29/2012 Active Days: 33	3.58	29.87	16.50	0.00	5.01	1.34	6.34	1.05	1.23	2.28	4,224.79
Fine Grading 06/01/2012-08/29/2012	3.58	29.87	16.50	0.00	5.01	1.34	6.34	1.05	1.23	2.28	4,224.79
Fine Grading Dust	0.00	0.00	0.00	0.00	5.00	0.00	5.00	1.04	0.00	1.04	0.00
Fine Grading Off Road Diesel	3.51	29.73	14.80	0.00	0.00	1.33	1.33	0.00	1.23	1.23	4,093.06
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.14	1.70	0.00	0.01	0.01	0.01	0.00	0.00	0.01	131.72

Phase Assumptions

Phase: Fine Grading 6/1/2012 - 8/29/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 1

Maximum Daily Acreage Disturbed: 0.25

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 9 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Building Construction 7/1/2012 - 7/22/2012 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Appendix C. Biological Survey Letter from Nicole Nedeff (April 19, 2010)

April 19, 2010

Joe Oliver
Water Resources Manager
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93942-0085

SUBJECT: Biological survey of proposed well sites

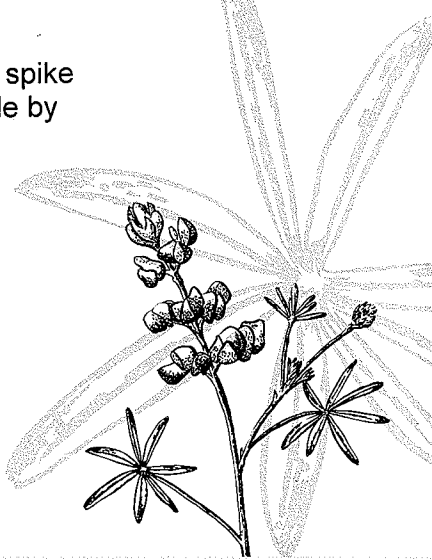
Dear Mr. Oliver:

At your request, I completed a focused biological survey of proposed well sites between General Jim Moore Boulevard and Fitch Middle School on the former Fort Ord military base. Field surveys were conducted on April 5, 12 and 15, 2010. I was assisted in the field on April 5 and April 12, 2010, by members of the Monterey Peninsula Water Management District staff. In addition to the proposed drilling areas, vehicle staging and access routes were also surveyed for special status species.

The two proposed well locations and their two alternate drilling sites are situated in an area dominated by weedy, mostly non-native vegetation. The list of species observed in the work area is attached as Table 1. Exotic grasses and forbs, including ice plant, cover the area and two parallel lines of planted Monterey cypress create a broken canopy. At some time in the past, the site was cleared of original natural cover and few native species are now present. There are many patches of bare ground, as well as areas thickly carpeted with needle duff from cypress and occasional Monterey pines.

Despite the weedy nature of the strip of land between General Jim Moore Blvd. and the paved edge of the Middle School grounds, the proposed work site supports a population of what appears to be the Federally Endangered Yadon's rein orchid (*Piperia yadonii*), an uncommon, native orchid associated with Maritime Chaparral and Monterey Pine Forest vegetation types. The natural distribution of Yadon's rein orchid is narrowly restricted to particular areas of Maritime Chaparral and Monterey Pine Forest around the Monterey Peninsula, Fort Ord and northern Monterey County. The species was designated Endangered in 1998 under the federal Endangered Species Act. Positive field identification of the Endangered orchid can not be completed until the species is in flower, which occurs between late spring and mid-summer.

The orchid sends out strap-shaped leaves in early spring, followed by a flower spike supporting numerous, small orchid blossoms that complete their blooming cycle by mid-summer. The leaves die back during the production of the flower spike and not all plants that leaf out will mature with flowers. Each plant grows from a small, tuberous bulb, which can remain dormant for several sequential years. The environmental or physiological conditions that trigger the plants to leaf out and/or flower are not well understood.



Nicole Nedeff
Consulting Ecologist
11630 McCarthy Road
Carmel Valley, CA 93924
(831) 659-4252
nikki@ventanaview.net

Well sites #1, # 2 and alternate (replacement) site #2 have Yadon's rein orchid plants in the immediate vicinity of the proposed bore holes and thus are not well-suited as drill sites. To compensate for the "take" of plants if these well sites are utilized, mitigation strategies would need to be developed commensurate with CEQA review and consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The map attached in Figure 2 documents the location of orchid plants in the work area, as observed between April 5 and April 15, 2010.

Alternate (replacement) drill site #1 does not have orchid plants in the immediate vicinity of the proposed bore hole. If replacement well site #1 is utilized, all documented orchid plants observed in the work area could be protected with appropriate fencing that will provide sufficient room for drilling equipment, placement of spoils, construction staging and access.

Recommended Actions:

- Designate alternate (replacement) well site #1 as the primary drilling location.

- Under the guidance of a qualified biologist, fence off the access route and entire construction area to protect all observed Yadon's rein orchid plants and adjoining habitat. Provide a minimum 5-foot buffer between plants and the fence placement. Orange plastic drift netting is recommended. Coconut fiber rolls are recommended around the backwash pit and all spoils.

- Maintain fencing along the vehicle access route, around orchid habitat and bordering the construction area at all times during well-drilling activities.

- Minimize areas of land disturbance and follow best management practices at all times during the construction staging, drilling work and clean-up.

- When the project is completed, remove fencing and seed a mix of appropriate native grasses over all areas of disturbed ground.

Please contact me at 831.659.4252 if I can be of further assistance.

Sincerely,

Nikki Nedeff

Nicole Nedeff
Consulting Ecologist

Attachments

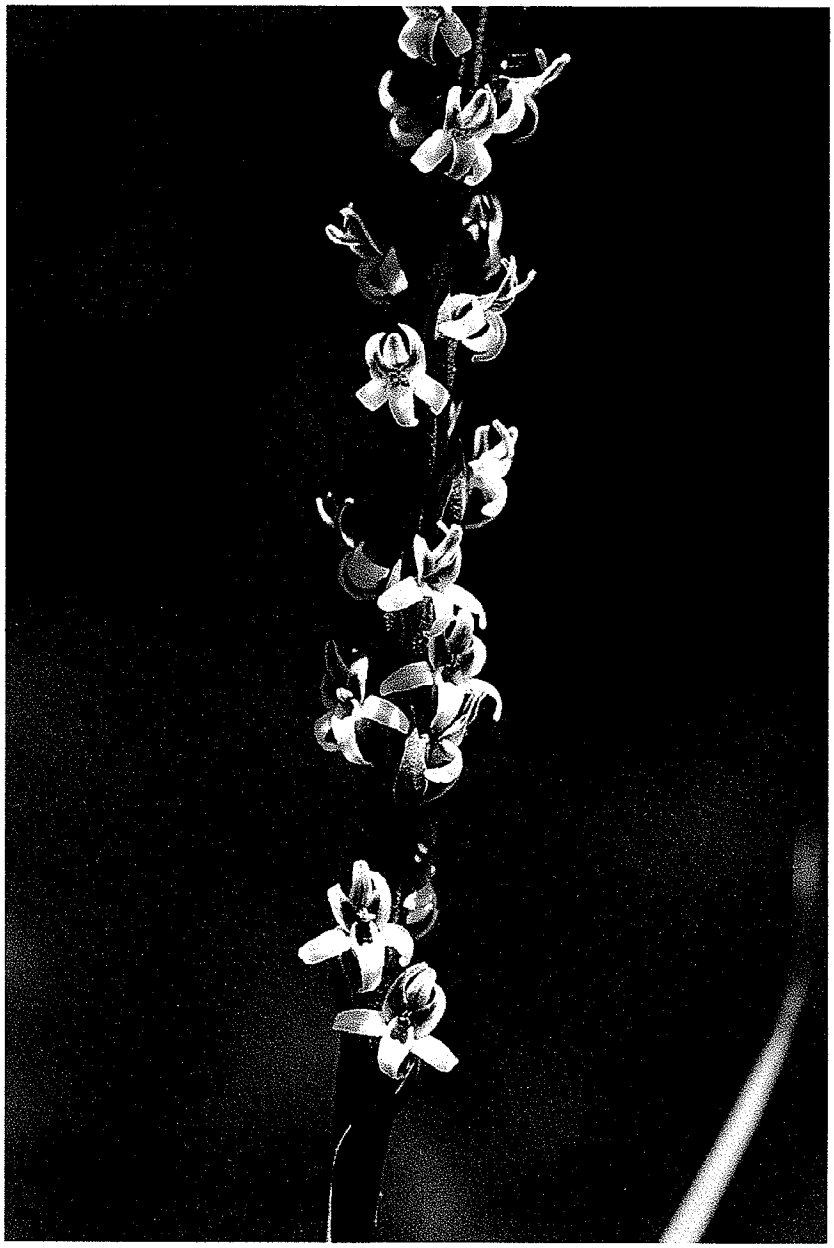


Figure 1 - Yadon's rein orchid flowers

TABLE 1 - List of plant species observed, Fort Ord well sites, April 5, 12, 15, 2010

Trees:
Cupressus macrocarpa, Monterey cypress
Pinus radiata, Monterey pine
Quercus agrifolia, coast live oak - several young trees

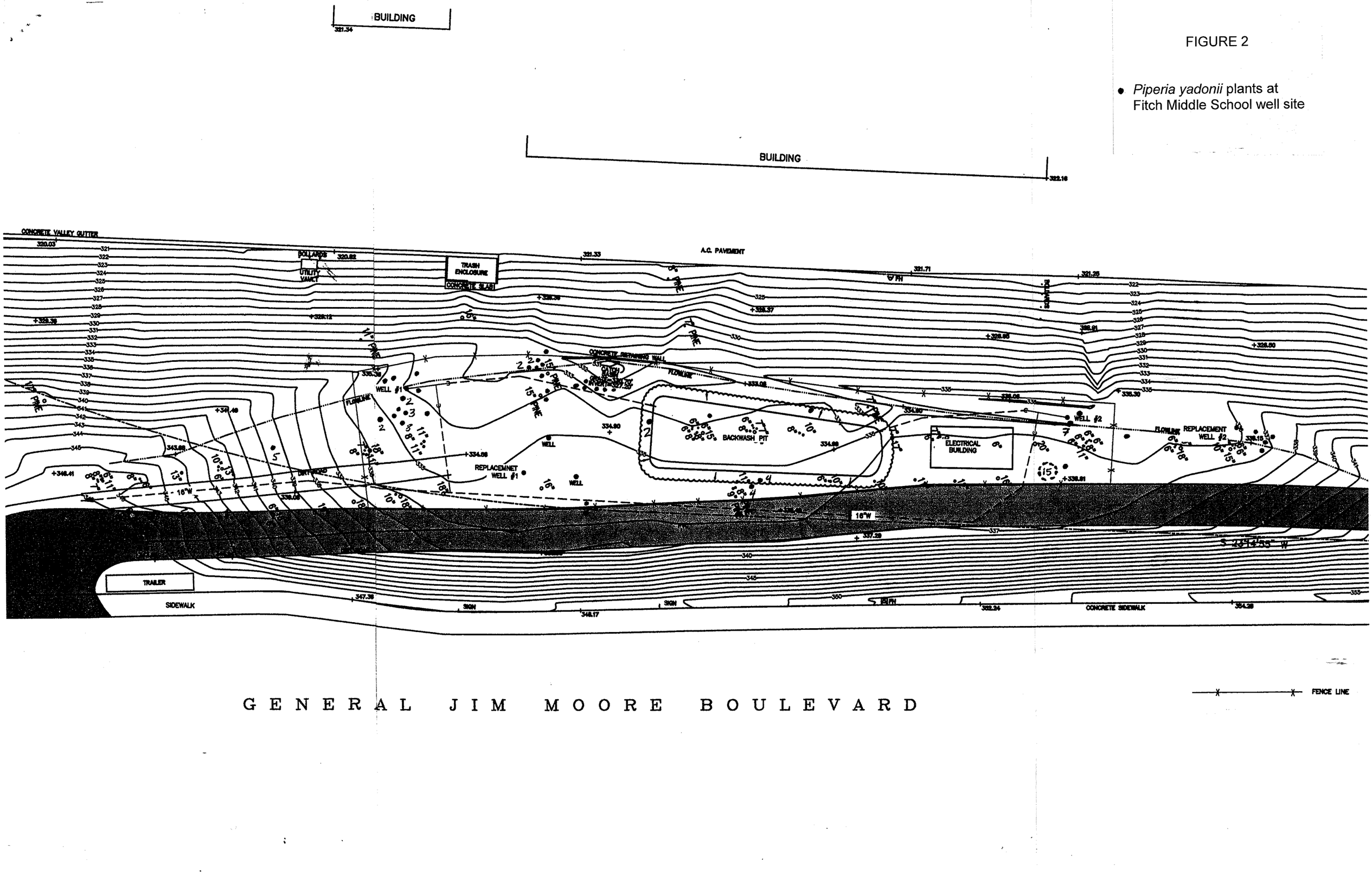
Shrubs:
Acrtostaphylos tomentosa ssp. *tomentosa*, shaggy-barked manzanita
Artemisia californica, California sagebrush
Baccharis pilularis, coyote brush
Ceanothus dentatus, dwarf ceanothus
Ericameria arborescens, golden fleece
Genista monsopessulana, French broom*
Helianthumum, scoparium, rush-rose
Heteromeles arbutifolia, toyon
Lotus scoparius, deerweed
Lupinus arboreus, tree lupine
Lupinus chamissonis, silver beach lupine
Toxicodendron diversilobum, poison oak

Forbs/Grasses/Miscellaneous plants
Achillea millefolium, yarrow
Anagallis arvensis, scarlet pimpernel*
Avena fatua, wild oat*
Bromus diandrus, ripgut brome*
Bromus hordeaceus, soft chess*
Calandrinia ciliata, red maids
Cardionema ramosissimum, sand mat
Carpobrotus chilensis, sea fig*
Carpobrotus edulis, Hottentot fig*
Chamomilla suaveolens, pineapple weed*
Claytonia perfoliata, miner's lettuce
Corethrogyne filaginifolia, branching beach-aster
Croton californicus, croton
Dichelostemma capitatum, blue dicks
Elymus glaucus, western ryegrass
Erodium botrys, long-beaked filaree*
Erodium cicutarium, red-stemmed filaree*
Eschscholzia californica, California poppy
Filago gallica, narrow-leaved filago*
Gnaphalium luteo-album, weedy cudweed*
Horkelia cuneata, wedge-leaved horkelia
Hypochaeris glabra, smooth cat's ears*
Linaria canadensis, toad flax
Marah fabaceous, man-root, wild cucmber
Medicago polymorpha, bur-clover*
Oxalis pes-caprae, Bermuda buttercup*
Piperia yadonii, Yadon's rein orchid
Plantago erecta, California plantain
Plantago lanceolata, English plantain*
Rumex acetosella, sheep sorrel
Sonchus oleraceus, common sow thistle*
Taraxacum offinale, common dandelion*
Vulpia myuros, fescue

* non-native plant

FIGURE 2

- *Piperia yadonii* plants at Fitch Middle School well site



Appendix D. Groundwater Hydrologic Impacts Assessment for EIR Addendum; Phase 2 ASR Project by Robert Marks (March 2012)

TECHNICAL MEMORANDUM
Pueblo Water Resources, Inc.
4478 Market St., Suite 705
Ventura, CA 93003
Tel: 805.644.0470
Fax: 805.644.0480

To:	MPWMD	Date:	March 27, 2012
Attention:	Joe Oliver, P.G., C.Hg, Water Resources Manager	Project No:	06-0025
Copy to:	Steve Tanner (PWR) Mike Burke (PWR) Alison Imamura (DDA)		
From:	Robert Marks, P.G., C.Hg		
Subject:	Groundwater Hydrologic Impacts Assessment for EIR Addendum; ASR Water Project 2		

INTRODUCTION

Presented in this Technical Memorandum is an assessment of the groundwater hydrologic impacts in the Seaside Groundwater Basin (SGB) associated with the Monterey Peninsula Water Management District's (MPWMD or District) and California-American Water Company Aquifer Storage and Recovery (ASR) Water Project 2 (previously referenced as "Phase 2 ASR Project"). A Final Environmental Impact Report / Environmental Assessment (FEIR/EA) for the ASR Project was certified by the MPWMD Board on August 21, 2006[1]. The District is preparing an Addendum to the FEIR/EA to reflect changes in the original Project Description. Changes to the original Project Description consist primarily of the addition of two additional ASR injection/extraction wells (called ASR-3, which is an existing test well, and ASR-4 which will be a new well) in the SGB with a combined maximum recharge rate of approximately 3,590 gallons per minute (gpm, equivalent to 8.0 cubic feet per second) and a maximum annual injection amount of approximately 2,900 acre-feet per year (afy). The expansion project is intended to maximize the use of the remaining *existing* California American Water (CAW) diversion capacity in the Carmel Valley Alluvial Aquifer (CVAA) system.

We have formatted the findings of our assessment in this document to be consistent with the format of the Impacts and Mitigation Measures section presented in Chapter 8 – Surface and Groundwater Hydrology and Water Quality of the FEIR/EA to facilitate their incorporation into the Addendum. A summary of our findings is presented below.

[1] Final EIR/EA for the MPWMD ASR Project, State Clearinghouse #2001412106, dated August 2006.

FINDINGS

Impacts and Mitigation Measures

Impact GWH-1: Changes in Groundwater Storage

Construction and operation of the proposed ASR Water Project 2 wells would occur under similar conditions as described in the Background and Approach section of the Carmel Valley Groundwater Basin discussion in the FEIR/EA. As described, during project operation, MPWMD would only extract the same net amount of groundwater that has been previously injected. During wet years, the storage of water supplies within the SGB by MPWMD associated with the original Project Description would not exceed 2,426 acre-feet (af). The incremental maximum storage amount associated with Water Project 2 wells would not exceed 2,903 af; therefore, the revised maximum storage volume totals 5,320 af. The Seaside Basin Watermaster recently declared that the total Usable Storage Space in the Coastal and Northern Inland Subareas (i.e., the Northern Subbasin) is 31,770 af (2/3/10 Board meeting Item VIII.A.1.a), confirming the availability of aquifer storage space for the proposed ASR operations. Therefore, project implementation would not adversely affect the current net storage within the SGB. Rather, the intent of the project is to increase the net usable storage within the SGB, and thus has a **beneficial effect**.

Mitigation: None required.

Impact GWH-2: Short-Term Changes in Groundwater Quantity

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-3: Long-Term Changes in Groundwater Levels

Effects on groundwater levels from operation of the two additional ASR wells were evaluated using the same groundwater flow simulation model of the Santa Margarita Sandstone aquifer in the SGB that was used for the FEIR/EA. The model uses the principal of superposition to evaluate the effects from multiple analytic functions (e.g., wells) in a uniform regional flow field. The new simulations assumed two additional ASR wells would be operational at the proposed site as described in the revised Project Description. For the injection scenario, the 2 additional wells were assigned combined rates of injection of 3,590 gpm and were assumed to be operating continuously for 183 days, for a total volume of approximately 2,903 af. For the extraction (recovery) scenario, the wells were assigned a combined extraction rate of 3,590 gpm and were assumed to be operating continuously for 153 days, for a total volume of 2,427 af.

Consistent with the assessment presented in the FEIR/EA, these scenarios also represent the range of likely "extreme" injection and extraction conditions that could be encountered over the life of the project. Actual injection/extraction operations would be less on

average than the extreme assumptions utilized, and would be determined according to supply and demand relationships, and storage goals.

Simulated incremental increases in groundwater levels (drawup) due to injection associated with the two additional ASR wells are shown on Figure 1. As shown, the model predicted incremental increases in water levels at the end of the simulated injection period range between approximately 18 feet at the coastline to 50 feet near the edge of the Water Project 2 site. The maximum drawup in the aquifer would be approximately 77 feet, directly adjacent (i.e., 1-foot radius from the wells) to the injecting wells.

Simulated incremental decreases in groundwater levels (drawdown) due to recovery/extraction pumping from the additional wells are shown on Figure 2. As shown, model predicted decreases in water levels at the end of the simulated recovery period are similar to, but slightly less than, the injection related increases, and range between approximately 18 at the coastline to 50 feet near the edge of the Water Project 2 site.

A summary of the model predicted incremental water level changes associated with the ASR Water Project 2 wells at existing water supply wells in the Santa Margarita Sandstone aquifer in the Northern Subbasin is presented in Table 1 below.

Table 1. Model Predicted Water Level Impacts from ASR Water Project Wells at Existing Santa Margarita Sandstone aquifer Production Wells

State Well No.	Well Name	Distance from ASR Water Project 2 Site (feet)	Model Predicted Maximum Water Level Changes (feet)	
			Injection	Recovery
15S/1E-14Rb	Paralta	800	+37	-35
15S/1E-23B03	Ord Grove	2,700	+27	-26
15S/1E-23G01	City of Seaside No.3	4,000	+24	-23
15S/1E-23D03	Luzern	4,350	+24	-22
15S/1E-23H05	La Salle No.2	4,950	+21	-20
15S/1E-22B04	Playa No.4	6,900	+19	-18

As shown in Table 1 above, predicted maximum water level increases due to injection at existing production wells pumping from the Santa Margarita Sandstone aquifer range between approximately 19 to 37 feet. Predicted water level decreases due to recovery pumping similarly range between approximately 18 to 35 feet.

The simulated combined increase in groundwater levels due to simultaneous injection at both the Water Project 1 and Water Project 2 ASR sites (i.e., four ASR wells injecting) are shown on Figure 3. As shown, the model predicted total increases in water levels at the end of the simulated injection period range between approximately 33 feet at the coastline to 80 feet near the edges of each ASR well site. The maximum drawup in the aquifer would be

approximately 82 to 92 feet, directly adjacent (i.e., 1-foot radius from the wells) to the Water Project 1 and Water Project 2 injection wells, respectively.

Simulated combined decreases in groundwater levels (drawdown) due to simultaneous recovery/extraction pumping from both ASR Water Project 1 and 2 sites (i.e., 2 ASR wells extracting, one at each site) are shown on Figure 4. As shown, model predicted decreases in water levels at the end of the simulated recovery period are similar to, but slightly less than, the injection related increases, and range between approximately 32 at the coastline to 80 feet near the edges of each ASR well site.

A summary of the model predicted peak, short-term water level changes associated with combined implementation of both ASR Water Project 1 and Water Project 2 at existing water supply wells in the Santa Margarita Sandstone aquifer in the Northern Subbasin is presented in Table 2 below.

Table 2. Model Predicted Maximum, Short-Term Water-Level Impacts from ASR Wells at Existing Santa Margarita Sandstone Aquifer Production Wells

State Well No.	Well Name	Model Predicted Maximum, Short-Term Water Level Changes (feet)					
		Water Project 1[1]		Water Project 2[2]		Combined	
		Injection	Recovery	Injection	Recovery	Injection	Recovery
15S/1E-14Rb	Paralta	+38	-36	+37	-35	+75	-71
15S/1E-23B03	Ord Grove	+27	-26	+27	-26	+54	-52
15S/1E-23G01	City of Seaside No.3	+23	-22	+24	-23	+47	-45
15S/1E-23D03	Luzern	+21	-20	+24	-22	+45	-44
15S/1E-23H05	La Salle No.2	+18	-17	+21	-20	+39	-37
15S/1E-22B04	Playa No.4	+17	-16	+19	-18	+36	-34

Notes:

1 – From Table 8-2 in FEIR/EA.
2 – From Table 1 above.

As shown in Table 2 above, predicted maximum water level increases due to combined injection at both Water Project 1 and 2 sites at existing production wells pumping from the Santa Margarita Sandstone aquifer range between approximately 36 to 75 feet. Predicted water level decreases due to recovery pumping similarly range between approximately 34 to 71 feet. It is important to note that these predicted water-level changes reflect seasonal peak maximum recovery and injection scenarios. Although maximum groundwater level decreases would be further reduced by implementation of Water Project 2 during the peak of recovery operations, these conditions would be short-term, lasting no more in duration than any one recovery season (i.e., June 1st – November 30th) and on a long-term, annual average basis, groundwater levels will be further seasonally increased (i.e., beyond Water Project 1, only) due to implementation of Water Project 2.

As described in the FEIR/EA, during operation of the proposed project, extraction would be no more than the net amount of water that had been previously injected into the SGB; therefore, no net reduction of supplies/levels would occur. Thus, the anticipated main effect of the proposed Water Project 2 and combined ASR operations would be to seasonally increase water levels, which will lessen the magnitude of the existing water level depression in the aquifer during injection. On an average long-term basis, owners of the existing wells are anticipated to experience higher groundwater levels and thus lower pumping costs with the proposed project. This reduction in pumping costs is considered to be a beneficial impact within the SGB. Therefore, impacts to water quantity in terms of well production would be **less than significant**.

Mitigation: None required.

Impact GWH-4: Changes in Groundwater Levels in Overlying Units

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-5: Potential for Hydrofracturing

As discussed in the FEIR/EA, the maximum allowable drawup to avoid hydraulic fracturing of the confining layer is approximately 178 feet. As described above, the maximum drawup in the aquifer directly adjacent to the ASR wells is anticipated to be approximately 92 feet – approximately than 86 feet (or 48 percent) less than the maximum allowable drawup to avoid hydrofracturing. As such, the potential for aquitard fracturing during project implementation is considered very low. Therefore, potential impacts associated with aquitard fracture would be **less than significant**.

Mitigation: None required.

Impact GWH-6: Short-Term Change in Groundwater Quality

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-7: Long-Term Change in Groundwater Quality From Mixing Groundwater with Injected Water

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-8: Changes in Groundwater Quality Caused by ASR Well Operation Discharges

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-9: Changes in Recovered Water Quality

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

Impact GWH-10: Effects on Other Groundwater Users

The discussion in FEIR/EA is still valid and applicable to the revised Project Description.

No changes required.

CONCLUSIONS

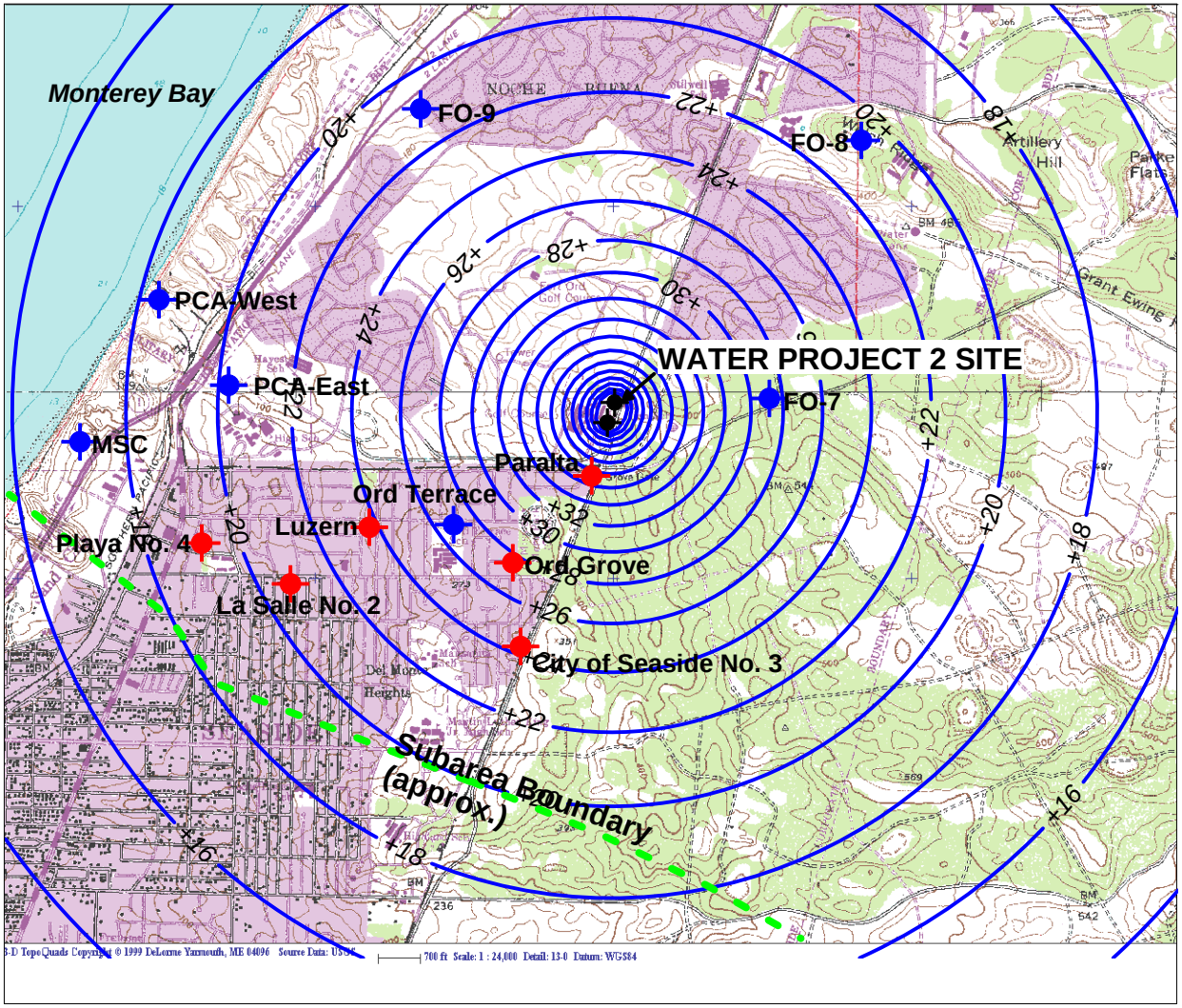
Based on our assessment of the potential groundwater hydrologic impacts associated with ASR Water Project 2, we offer the following conclusions:

- The incremental increase in injection capacity from the proposed ASR Water Project 2 wells will have a beneficial effect on groundwater storage in the SGB.
- The long-term changes in water levels in the SGB will have a less than significant effect at existing production wells in the SGB.
- The potential for hydrofracturing due to the increased changes in water levels is considered less than significant.
- The addition of the two ASR wells to the ASR Project Description will have no significant effect on the following impact areas that were evaluated in the FEIR/EA:
    - Impact GWH-2: Short-Term Changes in Groundwater Quantity
    - Impact GWH-4: Changes in Groundwater Levels in Overlying Units
    - Impact GWH-6: Short-Term Change in Groundwater Quality
    - Impact GWH-7: Long-Term Change in Groundwater Quality From Mixing Groundwater with Injected Water
    - Impact GWH-8: Changes in Groundwater Quality Caused by ASR Well Operation Discharges

- Impact GWH-9: Changes in Recovered Water Quality
- Impact GWH-10: Effects on Other Groundwater Users

CLOSURE

This memorandum has been prepared exclusively for the Monterey Peninsula Water Management District for the specific application to the full implementation of ASR Water Project 2 in the Seaside Groundwater Basin. The findings and conclusions presented herein were prepared in accordance with generally accepted hydrogeologic practices. No other warranty, express or implied, is made.



N

Scale:
1 inch = 3,000 feet
Approx.

0ft 3000ft 6000ft

ASR Well Location

Model Predicted Drawup
(2-foot Contour Intervals)

Tsm Monitoring Well Location

Tsm Production Well Location

Model Parameters

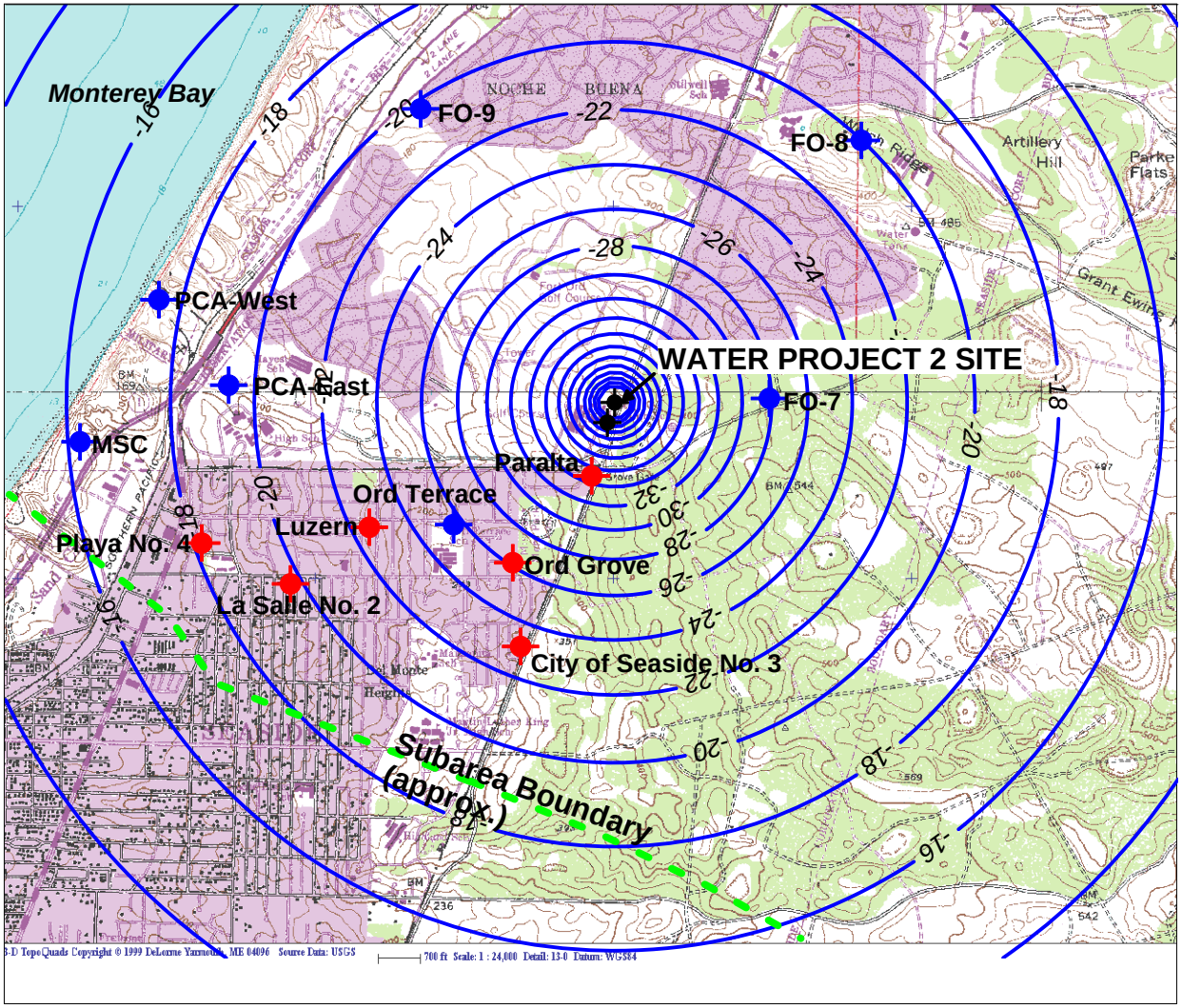
Transmissivity: 85,100 gpd/ft
Storativity: 0.0018 (dimensionless)

Scenario

No. ASR Wells: 2
Injection Rate: 3,590 gpm (combined)
Duration: 183 Days
Total Volume: 2,903 AF

PUEBLO water resources

MODEL PREDICTED WATER LEVEL DRAWUP
WATER PROJECT 2 - MAXIMUM INJECTION YEAR
FIGURE 1



N

Scale:
1 inch = 3,000 feet
Approx.

0ft 3000ft 6000ft

ASR Well Location

Model Predicted Drawdown
(2-foot Contour Intervals)

Tsm Monitoring Well Location

Tsm Production Well Location

Model Parameters

Transmissivity: 85,100 gpd/ft
Storativity: 0.0018 (dimensionless)

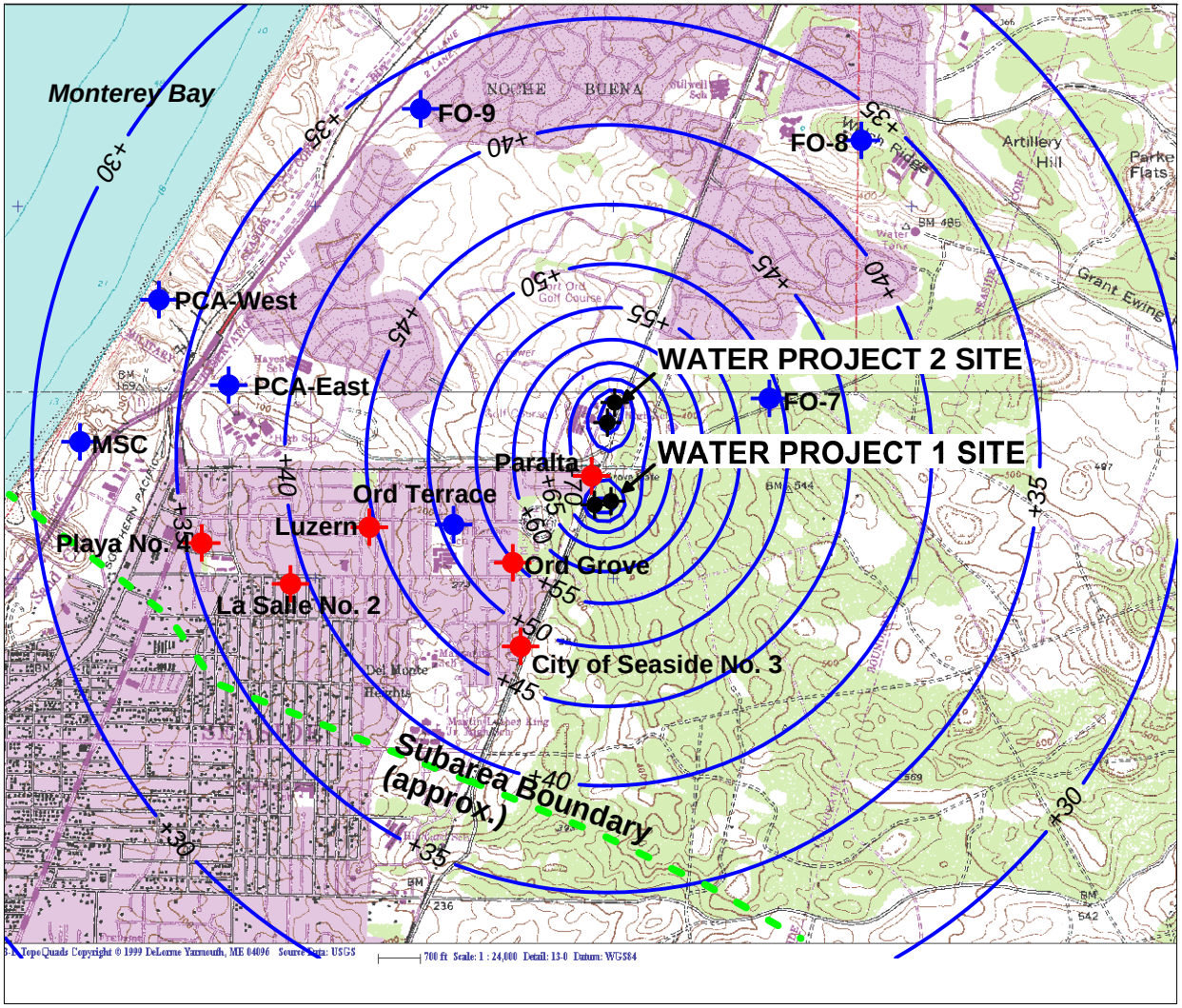
Scenario

No. ASR Wells: 1
Recovery Rate: 3,590 gpm
Duration: 153 Days
Total Volume: 2,427 AF

PUEBLO water resources

Monterey Peninsula Water Management District/California American Water Company - Aquifer Storage and Recovery Project

MODEL PREDICTED WATER LEVEL DRAWDOWN
WATER PROJECT 2 - MAXIMUM RECOVERY YEAR
FIGURE 2



N

Scale:
1 inch = 3,000 feet
Approx.

0ft 3000ft 6000ft

ASR Well Location

Model Predicted Drawup
(5-foot Contour Intervals)

Tsm Monitoring Well Location

Tsm Production Well Location

Model Parameters

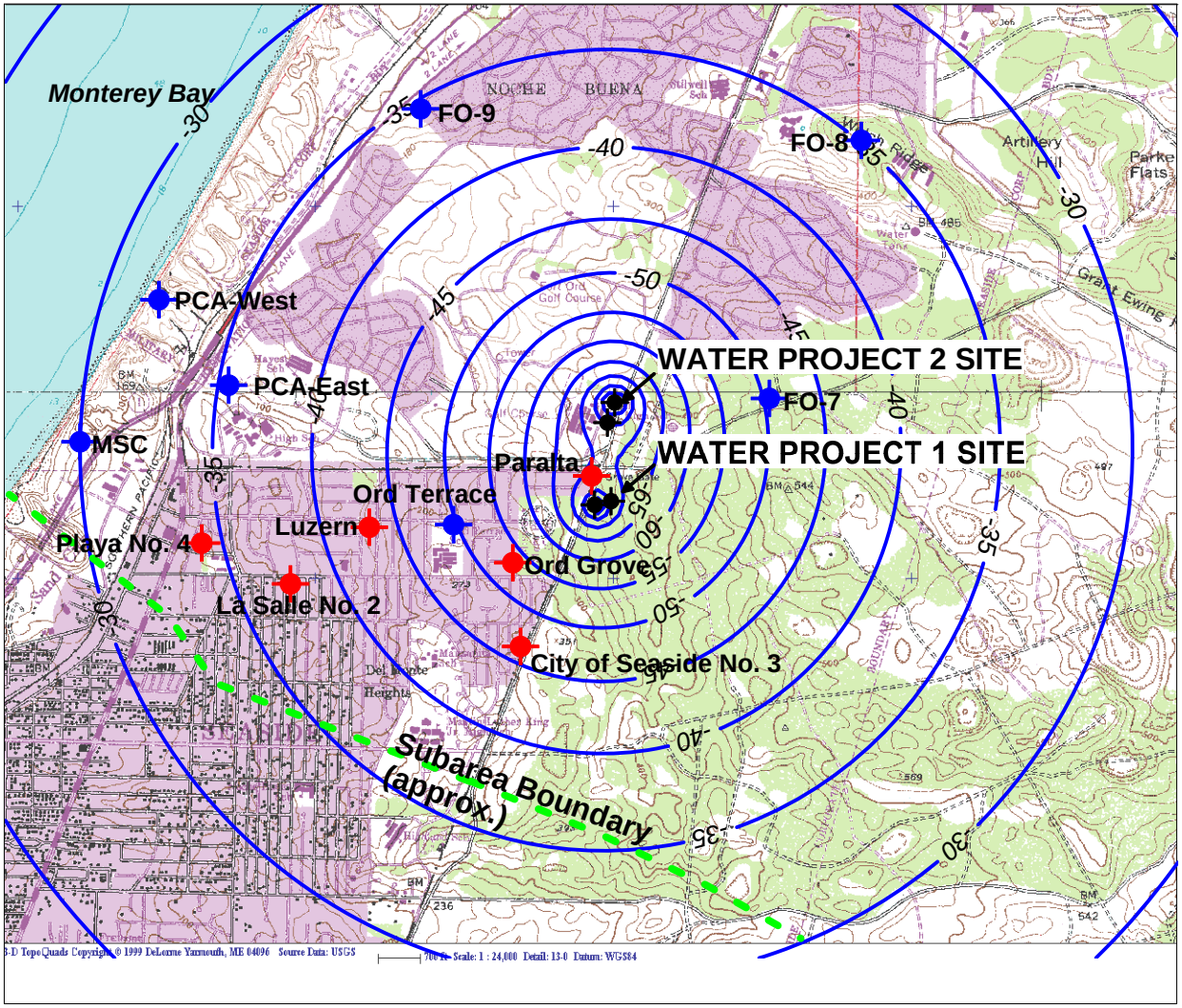
Transmissivity: 85,100 gpd/ft
Storativity: 0.0018 (dimensionless)

Scenario

No. ASR Wells: 4
Injection Rate: 6,590 gpm (combined)
Duration: 183 Days
Total Volume: 5,329 AF

PUEBLO water resources

MODEL PREDICTED WATER LEVEL DRAWUP
WATER PROJECTS 1 AND 2 - MAXIMUM INJECTION YEAR
FIGURE 3



N

Scale:
1 inch = 3,000 feet
Approx.

0ft 3000ft 6000ft

ASR Well Location

Model Predicted Drawdown
(5-foot Contour Intervals)

Tsm Monitoring Well Location

Tsm Production Well Location

Model Parameters

Transmissivity: 85,100 gpd/ft
Storativity: 0.0018 (dimensionless)

Scenario

No. ASR Wells: 2
Injection Rate: 6,590 gpm (combined)
Duration: 153 Days
Total Volume: 4,456 AF

PUEBLO water resources

MODEL PREDICTED WATER LEVEL DRAWUP
WATER PROJECTS 1 AND 2 - MAXIMUM RECOVERY YEAR
FIGURE 4