

This meeting has been noticed according to the Brown Act rules. The Board of Directors meets regularly on the third Monday of each month, except in January, February. The meetings begin at 7:00 PM.



AGENDA  
**Regular Meeting**  
**Board of Directors**  
**Monterey Peninsula Water Management District**

\*\*\*\*\*

**Monday, July 15, 2019**  
**6:00 pm – Closed Session**  
**7:00 pm – Regular Meeting**  
Conference Room, Monterey Peninsula Water Management District  
5 Harris Court, Building G, Monterey, CA

Staff notes will be available on the District web site at  
<http://www.mpwmd.net/who-we-are/board-of-directors/bod-meeting-agendas-calendar/>  
by 5 PM on Thursday, July 11, 2019

The meeting will be televised on Comcast Channels 25 & 28. Refer to broadcast schedule on page 3.

**6:00 PM – Closed Session**

As permitted by Government Code Section 54956 et seq., the Board may adjourn to closed or executive session to consider specific matters dealing with pending or threatened litigation, certain personnel matters, or certain property acquisition matters.

1. **Public Comment** - Members of the public may address the Board on the item or items listed on the Closed Session agenda.
2. **Adjourn to Closed Session**
3. **Conference with Labor Negotiators (Gov. Code 54957.6)**  
Agency Designated Representatives: David Stoldt; Suresh Prasad and Mi Ra Park  
Employee Organization: General Staff and Management Bargaining Units Represented by United Public Employees of California/LIUNA, Local 792
4. **Conference with Legal Counsel – Pending and Threatened Litigation (Gov. Code 54956.9(b)) – Two Cases**
5. **Adjourn to 7 pm Regular Meeting**

**7:00 PM – Regular Meeting**

**CALL TO ORDER/ROLL CALL**

**Board of Directors**

Molly Evans, Chair – Division 3  
Alvin Edwards, Vice Chair – Division 1  
George Riley – Division 2  
Jeanne Byrne – Division 4  
Gary D. Hoffmann, P.E. – Division 5  
Mary Adams, Monterey County Board of Supervisors Representative  
David Potter – Mayoral Representative

**General Manager**

David J. Stoldt

This agenda was posted at the District office at 5 Harris Court, Bldg. G Monterey on Thursday, July 11, 2019. Staff reports regarding these agenda items will be available for public review on Friday, July 12, 2019 at the District office and at the Carmel, Carmel Valley, Monterey, Pacific Grove and Seaside libraries. After staff reports have been distributed, if additional documents are produced by the District and provided to a majority of the Board regarding any item on the agenda, they will be available at the District office during normal business hours, and posted on the District website at [www.mpwmd.net/who-we-are/board-of-directors/bod-meeting-agendas-calendar/](http://www.mpwmd.net/who-we-are/board-of-directors/bod-meeting-agendas-calendar/). Documents distributed at the meeting will be made available in the same manner. The next regular meeting of the Board of Directors is scheduled for August 19, 2019 at 7 pm.

## **PLEDGE OF ALLEGIANCE**

**ORAL COMMUNICATIONS** - Anyone wishing to address the Board on Consent Calendar, Information Items, Closed Session items, or matters not listed on the agenda may do so only during Oral Communications. Please limit your comment to three (3) minutes. The public may comment on all other items at the time they are presented to the Board.

**CONSENT CALENDAR** - The Consent Calendar consists of routine items for which staff has prepared a recommendation. Approval of the Consent Calendar ratifies the staff recommendation. Consent Calendar items may be pulled for separate consideration at the request of a member of the public, or a member of the Board. Following adoption of the remaining Consent Calendar items, staff will give a brief presentation on the pulled item. Members of the public are requested to limit individual comment on pulled Consent Items to three (3) minutes. Unless noted with double asterisks “\*\*”, Consent Calendar items do not constitute a project as defined by CEQA Guidelines section 15378.

1. Consider Adoption of Minutes of the June 17, 2019 Regular Board Meetings
2. Consider Contract for District Public Outreach and Communications Services with Thomas Brand Consulting for Fiscal Year 2019-2020
3. Consider Contract with Pueblo Water Resources to Provide Aquifer Storage and Recovery Operational Support
4. Consider Authorizing Monterey Bay Analytical Services to Provide Laboratory Support for Watermaster Water Quality Monitoring
5. Consider Authorizing Monterey Bay Analytical Services to Provide Laboratory Support for Aquifer Storage and Recovery Project Operations
6. Consider Funding Upgrades to Six Carmel River Monitoring Stations
7. Approve Slate of Candidates for Election to Special District Risk Management Authority Board of Directors
8. Consider Approval of Expenditure for Leasing Three Photocopy Machines
9. Consider Adoption of Resolution No. 2019-09 Amending Rule 24, Table 4: High Efficiency Appliance Credits for Graywater and Rainwater Reuse
10. Consider Adoption of Resolution No. 2019-10 Amending Table 2: Non-Residential Water Use Factors
11. Consider Adoption of Treasurer's Report for May 2019

## **GENERAL MANAGER'S REPORT**

12. Status Report on California American Water Compliance with State Water Resources Control Board Order 2016-0016 and Seaside Groundwater Basin Adjudication Decision
13. Update on Development of Water Supply Projects

## **ATTORNEY'S REPORT**

14. Report on 6:00 pm Closed Session of the Board

## **DIRECTORS' REPORTS (INCLUDING AB 1234 REPORTS ON TRIPS, CONFERENCE ATTENDANCE AND MEETINGS)**

15. Oral Reports on Activities of County, Cities, Other Agencies/Committees/Associations

## **DISCUSSION**

16. Update on Status of Ryan Ranch Unit of California American Water and Use of Emergency Intertie between the Bishop and Ryan Ranch Units

**PUBLIC HEARINGS** – Public comment will be received on each of these items. Please limit your comment to three (3) minutes per item.

- 17. Consider Second Reading and Adoption of Ordinance No. 183 – Adding Rule 20-E Establishing a Zone of Controlled Drinking Water Well Construction and a Zone of Potential Controlled Drinking Water Well Construction Related to Pure Water Monterey Injection of Highly Purified Water (Categorical exemption from CEQA review per section 14 Cal. Code Regs. §15307)**

*Action: The Board will consider second reading and adoption of Ordinance No. 183 that proposes to establish a control zone for drinking water well construction and a secondary control zone requiring further study near the Pure Water Monterey injection well field in the Paso Robles Formation and the Santa Margarita Sandstone.*

- 18. Consider Approval of a CEQA Addendum to the ASR EIR/EA for the Water Treatment Facility Modification (Subject to CEQA Review per CEQA Guideline Sections 15162 and 15164)**

*Action: The Board will consider approval of a resolution adopting the Water Treatment Facility Modification Addendum as Addendum 5 to the ASR/EIR/EA.*

**INFORMATIONAL ITEMS/STAFF REPORTS** - The public may address the Board on Information Items and Staff Reports during the Oral Communications portion of the meeting. Please limit your comments to three minutes.

- 19. Report on Activity/Progress on Contracts Over \$25,000
- 20. Status Report on Measure J/Rule 19.8 Spending
- 21. Letters Received Supplemental Letter Packet
- 22. Committee Reports
- 23. Monthly Allocation Report
- 24. Water Conservation Program Report
- 25. Quarterly Water Use Credit Transfer Status Report
- 26. Carmel River Fishery Report for June 2019
- 27. Quarterly Carmel River Riparian Corridor Management Program Report
- 28. Semi-Annual Financial Report on the CAWD/PBCSD Wastewater Reclamation Project
- 29. Draft Water Year 2018 Aquifer Storage and Recovery Project Summary of Operations Report
- 30. Monthly Water Supply and California American Water Production Report

## ADJOURNMENT

Board Meeting Broadcast Schedule – Comcast Channels 25 & 28  
 View Live Webcast at <https://www.ampmedia.org/peninsula-tv/>

Ch. 25, Mondays, 7 PM	Monterey, Del Rey Oaks, Pacific Grove, Sand City, Seaside
Ch. 25, Mondays, 7 PM	Carmel, Carmel Valley, Del Rey Oaks, Monterey, Pacific Grove, Pebble Beach, Sand City, Seaside
Ch. 28, Mondays, 7 PM	Carmel, Carmel Valley, Del Rey Oaks, Monterey, Pacific Grove, Pebble Beach, Sand City, Seaside
Ch. 28, Fridays, 9 AM	Carmel, Carmel Valley, Del Rey Oaks, Monterey, Pacific Grove, Pebble Beach, Sand City, Seaside

### Board Meeting Schedule

Monday, August 19, 2019	Regular Board Meeting	7:00 pm	District conference room
Monday, September 16, 2019	Regular Board Meeting	7:00 pm	District conference room
Monday, October 21, 2019	Regular Board Meeting	7:00 pm	District conference room

Upon request, MPWMD will make a reasonable effort to provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. MPWMD will also make a reasonable effort to provide translation services upon request. Please submit a written request, including your name, mailing address, phone number and brief description of the requested materials and preferred alternative format or auxiliary aid or service by 5:00 PM on Thursday, July 11, 2019. Requests should be sent to the Board Secretary, MPWMD, P.O. Box 85, Monterey, CA, 93942. You may also fax your request to the Administrative Services Division at 831-644-9560, or call 831-658-5600.

U:\staff\Boardpacket\2019\20190715\July-15-2019-Board-Mtg-Agenda.docx



**ITEM:     CONSENT CALENDAR**

**1.       CONSIDER ADOPTION OF MINUTES OF THE JUNE 17, 2019 REGULAR BOARD MEETING**

**Meeting Date:**   July 15, 2019

**Budgeted:**       N/A

**From:**           David J. Stoldt,  
                      General Manager

**Program/**         N/A  
**Line Item No.:**

**Prepared By:**   Arlene Tavani

**Cost Estimate:**   N/A

**General Counsel Review:** N/A

**Committee Recommendation:** N/A

**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

---

**SUMMARY:** Attached as **Exhibit 1-A** are draft minutes of the June 17, 2019 Regular meeting of the Board.

**RECOMMENDATION:** District staff recommends approval of the minutes with adoption of the Consent Calendar.

**EXHIBIT**

**1-A**   Draft Minutes of the June 17, 2019 Regular Meeting of the Board of Directors





DRAFT MINUTES  
**Regular Meeting**  
**Board of Directors**  
**Monterey Peninsula Water Management District**  
*June 17, 2019*

Board Chair Evans called the meeting to order at 7:10 pm in the MPWMD conference room.

**CALL TO ORDER/ROLL CALL**

*Directors Present:*

Molly Evans – Chair, Division 3  
 Alvin Edwards, Vice Chair, Division 1  
 George Riley, Division 2  
 Jeanne Byrne – Division 4  
 Gary D. Hoffmann, P.E. – Division 5  
 Mary Adams – Monterey County Board of Supervisors Rep.  
 David Potter – Mayoral Representative

*Directors Absent:* None

*General Manager present:* David J. Stoldt

*District Counsel present:* Heidi Quinn

The assembly recited the Pledge of Allegiance.

**PLEDGE OF ALLEGIANCE**

District Counsel announced that the presentation by California American Water (Cal-Am) representatives Joe Conner, Esq. and George Soneff, Esq. would be time-limited. There would be no opportunity for Board discussion of the item. Members of the public could present comments during Oral Communications.

**ADDITIONS AND CORRECTIONS TO AGENDA**

General Manager Stoldt noted that the Proposed FY 2019-2020 Budget was distributed to the Board and public on Friday, 6/14/19.

**ORAL COMMUNICATIONS**

The following comments were presented to the Board of Directors during Oral Communications. **(1) Melodie Chrislock** representing Public Water Now, read a statement on file at the District office the agency's website. She distributed a list of 400 water systems that had achieved successful public water buyouts within the last 25 years. **(2) Dan Turner**, resident of Monterey, cautioned that the scheduled presentation from California American Water would focus on warning the Board about the high cost to obtain public ownership of the water system. Mr. Turner stated that the community pays approximately \$15 to \$25 million per year above operational costs to Cal-Am. Money that would not be paid if the water system were publicly owned. **(3) Michael Baer**, advised the District that in order

for agencies to make informed decisions regarding the desalination plant, the General Manager should make clear to the State Water Resources Control Board, Regional Water Quality Control Board, the Coastal Commission and Monterey County Board of Supervisors that if Cal-Am were to miss the first milestone, there is a reserve that could be used to meet the community's water needs. **(4) Susan Schiavone**, resident of Seaside, urged the Board to pursue an honest, reality based evaluation process for feasibility despite Cal-Am's scare tactics. **(5) Maryann Carbone**, Mayor of Sand City, requested that the District provide a clear statement of its argument for the public necessity of public ownership; provide budget estimates of the true expected costs of the feasibility study; the costs of litigation and condemnation assuming a win or loss in the public necessity trial; and the range of costs associated with acquisition of the water system.

A summary of the presentation is on file at the District office and the agency's website. Mr. Conner commented on slides 1 – 8 of the presentation and Mr. Soneff spoke to slides 9 – 16. There was no discussion by the Board.

On a motion by Potter and second of Byrne, the Consent Calendar was approved with the exception of items 5, 6, 11 and 19 that were pulled for separate consideration. The motion was approved on a vote of 7 – 0 by Potter, Byrne, Adams, Edwards, Evans, Hoffmann and Riley.

Adopted.

Approved an expenditure of \$70,000.

Approved an expenditure of \$50,000.

Approved an expenditure of \$35,000.

On a motion by Edwards and second of Byrne, an expenditure of up to \$99,320 was approved on a unanimous vote of 7 – 0 by Edwards, Byrne, Adams, Evans, Hoffmann, Potter and Riley.

**PRESENTATION BY JOE CONNER, ESQ.  
AND GEORGE SONEFF, ESQ.,  
CALIFORNIA AMERICAN WATER  
REGARDING CONSIDERATIONS FOR  
FEASIBILITY**

**CONSENT CALENDAR**

1. **Consider Adoption of Minutes of the May 20, 2019 Regular Board Meetings**
2. **Consider Approval of Amendment No. 3 to Agreement with Regional Government Services Authority for Management and Administrative Services**
3. **Consider Expenditure for Temporary Agency Employee to Assist with Document Scanning for All District Divisions During FY 2019-2020**
4. **Consider Approval of Agreement with Lynx Technologies for Geographic Information System (GIS) Services**
5. **Authorize Funds to Contract for Limited-Term Field Positions during FY 2019-2020**

On a motion by Edwards and second of Byrne, an expenditure of up to \$55,500 was approved on a unanimous vote of 7 – 0 by Edwards, Byrne, Adams, Evans, Hoffmann, Potter and Riley.

Approved an expenditure of \$14,000.

Approved an expenditure of \$30,000.

Approved an expenditure of \$114,600.

Approved an expenditure of \$2,000.

On a motion by Byrne and second of Adams, the item was referred back to the Public Outreach Committee for further consideration. The motion was approved on a unanimous vote of 7 – 0 by Byrne, Adams, Edwards, Evans, Hoffmann, Potter and Riley.

Approved an expenditure of \$35,000.

Approved an expenditure of \$100,000.

Approved an expenditure of \$10,000.

Confirmed the appointment of Birt Johnson, Jr.

Adopted Resolution No. 2019-05.

Adopted Resolution No. 2019-07.

6. **Consider Approval of Six Temporary Field Staff Positions Funded Through an Interagency Contract between MPWMD and NMFS to Provide for Legally Mandated Cooperative Research and Monitoring Projects in FY 2019-2020**
7. **Consider Expenditure of Funds With CoreLogic Information Solutions, Inc.**
8. **Approve Expenditure to Corporation Service Company - Recording Fees**
9. **Authorize Expenditure for Software Maintenance Agreements**
10. **Consider Expenditure to Amend Contract with Pueblo Water Resources to Provide Hydrogeologic Review for Water Distribution System Permits**
11. **Consider Contract for District Public Outreach and Communications Services with Thomas Brand Consulting for Fiscal Year 2019-2020**
12. **Consider Renewal of Contract with JEA & Associates for Legislative and Administrative Services**
13. **Consider Renewal of Contract with the Ferguson Group for Legislative and Administrative Services**
14. **Consider Approval of Additional Expenditure to HDR Engineering, Inc. for the Los Padres Dam Fish Passage Study**
15. **Confirm Appointment to Ordinance No. 152 Oversight Panel**
16. **Consider Adoption of Resolution 2019-05 Certifying Compliance with State Law with Respect to the Levying of General and Special Taxes, Assessments, and Property-Related Fees and Charges**
17. **Consider Adoption of Resolution 2019-07 Establishing Article XIII(B) Fiscal Year 2019-20 Appropriations Limit**

Adopted Resolution No. 2019-08.

Byrne offered a motion that was seconded by Edwards to approve the proposal to establish a reduced Water Use Capacity of 75% for toilet flushing in residential projects that flush toilets with rainwater and/or Graywater systems; and to refer back to the Water Demand Committee for further consideration the proposed requirement to meter both the Graywater and Potable backup systems. The motion was approved unanimously on a vote of 7 – 0 by Byrne, Edwards, Adams, Evans, Hoffmann, Potter and Riley.

Approved.

A summary of General Manager Stoldt's presentation is on file at the District office and can be viewed on the agency's website. He explained why missing the first milestone set by the State Water Resources Control Board in Order 2016-0016, would not result in water rationing for the community. If a milestone is missed, the effective diversion limit (water that could be diverted from the Carmel River) could be reduced by 1,000 acre-feet. However, even with that reduction, if water use does not increase drastically over 2018 levels, adequate water would be available to the community for one year. If two milestones were missed, the effective diversion limit could be reduced by 2,000 acre-feet and the community would be 528 acre-feet short of needed water supply. However, a carryover credit of 3,600 acre-feet exists, based on water savings achieved over time. The SWRCB would allow 528 acre-feet of that carryover credit to be utilized to meet community water needs. Stoldt reported that since October 2018: rainfall received was 30.93 inches or 147% of long-term average; unimpaired flow was measured at 140 acre-feet or 215% of long term average; and useable storage was at 101% of long-term average. Operation of the Aquifer Storage and Recovery project ended on May 30, 2019 for a total of 1,335 acre-feet injected into the Seaside Basin.

District Counsel Laredo reported that under item 3, the Board provided general direction to the labor negotiator, David Stoldt. Regarding item 4, information was provided to the Board on both matters and no reportable action was taken.

**18. Consider Adoption of Resolution 2019-08 Update to Rule 24, Table 3, Capacity Fee History**

**19. Consider Adoption of Resolution No. 2019-09 Amending Table 4 of Rule 25.5: High Efficiency Appliance Credits**

**20. Consider Adoption of Treasurer's Report for April 2019**

#### **GENERAL MANAGER'S REPORT**

**21. Status Report on California American Water Compliance with State Water Resources Control Board Order 2016-0016 and Seaside Groundwater Basin Adjudication Decision**

#### **ATTORNEY'S REPORT**

**22. Report on 6:00 pm Closed Session of the Board**

**3. Conference with Labor Negotiators (Gov. Code 54957.6)**  
Agency Designated Representatives:  
David Stoldt; Suresh Prasad and Mi Ra Park  
Employee Organization: General

Staff and Management Bargaining  
Units Represented by United  
Public Employees of  
California/LIUNA, Local 792

4. **Conference with Legal Counsel – Pending and Threatened Litigation (Gov. Code 54956.9(b)) – Two Cases**

**DIRECTORS' REPORTS (INCLUDING AB 1234 REPORTS ON TRIPS, CONFERENCE ATTENDANCE AND MEETINGS)**

Director Riley apologized for his absence at the June 5, 2019 Seaside Groundwater Basin Watermaster meeting.

General Manager Stoldt briefly reviewed information provided in the staff note. No action was taken by the Board.

Riley offered a motion that was seconded by Edwards to approve the staff recommendation. The motion was approved unanimously on a vote of 7 – 0 by Riley, Edwards, Adams, Evans, Hoffmann, Potter and Byrne. No public comment was directed to the Board.

Potter offered a motion that was seconded by Byrne to approve the staff recommendation. The motion was approved unanimously on a vote of 7 – 0 by Potter, Byrne, Adams, Edwards, Evans, Hoffmann and Riley.

The following comments were directed to the Board. **(a) Judi Lehman** complemented the Board on its excellent staff and said she was pleased that staff could be promoted from within the organization. **(b) Tom Rowley** said that he was looking forward to hearing the results of the fish ladder study.

Byrne offered a motion to approve the first reading of Ordinance No. 183 and schedule second reading and adoption for July 15, 2019. The motion was seconded by Edwards and approved on a unanimous vote of 7 – 0 by Byrne, Edwards, Adams, Evans, Hoffmann, Potter and Riley.

During the public hearing on this item, Rudy Fischer expressed support for adoption of the ordinance, and cited the effort as an example of the District's leadership and cooperation with other agencies.

23. **Oral Reports on Activities of County, Cities, Other Agencies/Committees/Associations**

**DISCUSSION ITEMS**

24. **Provide Guidance to General Manager Regarding Proposed Reorganization of District**

**ACTION ITEMS**

25. **Consider Converting the Senior Hydrogeologist Position to Water Resources Manager Position**
26. **Consider Converting the Riparian Projects Coordinator Position to Environmental Resources Manager Position**

**PUBLIC HEARINGS**

27. **Consider First Reading of Ordinance No. 183 – Adding Rule 20-E Establishing a Zone of Controlled Drinking Water Well Construction and a Zone of Potential Controlled Drinking Water Well Construction Related to Pure Water Monterey Injection of Highly Purified Water (Categorical exemption from CEQA review per section 14 Cal. Code Regs. §15307)**

Potter offered a motion to adopt the Quarterly Water Supply Strategy and Budget. The motion was seconded by Riley and approved on a unanimous vote of 7 – 0 by Potter, Riley, Adams, Byrne, Edwards, Evans and Hoffmann. No public comment was directed to the Board.

Adams offered a motion to adopt the 2019-2020 MPWMD Budget and Resolution 2019-06. The motion was seconded by Byrne and approved on a vote of 6 – 1 by Adams, Byrne, Edwards, Evans, Potter and Riley. Hoffmann was opposed. No public comment was directed to the Board.

No discussion of these items.

The meeting was adjourned at 9:10 pm.

**28. Consider Adoption of July through September 2019 Quarterly Water Supply Strategy and Budget**

**29. Consider Adoption of Proposed FY 2019-2020 MPWMD Budget and Resolution 2019-06**

**INFORMATIONAL ITEMS/STAFF REPORTS**

**30. Report on Activity/Progress on Contracts Over \$25,000**

**31. Status on Measure J/Rule 19.8 Spending**

**32. Receive Notice of Appointments to Carmel River Advisory Committee**

**33. Letters Received**

**34. Committee Reports**

**35. Monthly Allocation Report**

**36. Water Conservation Program Report**

**37. Carmel River Fishery Report for March 2019**

**38. Monthly Water Supply and California American Water Production Report**

**ADJOURNMENT**



**ITEM:        CONSEN CALENDAR****2.    CONSIDER CONTRACT FOR DISTRICT PUBLIC OUTREACH AND COMMUNICATIONS SERVICES WITH THOMAS BRAND CONSULTING FOR FISCAL YEAR 2019-2020**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>Professional Fees</b>
<b>Prepared By:</b>	<b>Stephanie Locke</b>	<b>Cost Estimate:</b>	<b>\$42,000</b>

**General Counsel Review: N/A****Committee Recommendation: The Public Outreach Committee reviewed this item on June 27, 2019, and recommended approval. The Administrative Committee reviewed this item on July 8, 2019 and recommended approval.****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.**

---

**SUMMARY:** Staff is requesting the Board renew a contract with Thomas Brand Consulting (TBC) for work related to MPWMD outreach and communications with a retainer of \$3,500 per month (e.g., \$42,000 for FY 19-20). Funding for contractor assistance with public outreach and communication services was included in the District's budget. In addition to the retainer, funds were separately budgeted for services such as graphic design, printing, website upgrades, media buys, etc. TBC's proposed Scope of Work is attached as **Exhibit 2-A**.

On June 17, 2019, the proposed public outreach contract was referred to the Public Outreach Committee for review and recommendation before it is considered by the Board. The committee met on June 27, 2019, and Steve Thomas of TBC provided an overview of the past year's outreach efforts before discussing concepts for the coming year. The Public Outreach Plan for Fiscal Year 2019-20 will be similar to the previous year with a focus on branding, social media, and promotion of District events and activities, with an emphasis on reaching as many District residents and businesses as possible. The Public Outreach Committee gave feedback and will further refine the plan and review the schedule at its July 25, 2019, meeting. The Committee unanimously recommended the Board approve the outreach contract with TBC for this fiscal year.

**RECOMMENDATION:** Staff recommends that the Board of Directors approve the contract with Thomas Brand Consulting for outreach services for Fiscal Year 2019-2020. Staff recommends that the Public Outreach Committee review the need for, and scope of, such activities for FY 2020-2021 prior to development of next year's budget.

**EXHIBIT****2-A    Proposed Scope of Work for Public Outreach & Communication Services, FY 2019-2020**





# **Proposed Scope of Work For Public Outreach & Communication Services FY19-20**

## **Prepared for:**

Monterey Peninsula Water Management District

## **Submitted by:**

TBC Communications & Media

183 Forest Avenue, Suite 4 • Pacific Grove, CA 93950  
Tel: 831.920.1693 • Fax: 831.920.1729  
[www.tbccommunications.com](http://www.tbccommunications.com)  
[steve@thomasbrandconsulting.com](mailto:steve@thomasbrandconsulting.com)

## **Introduction to the Proposed Scope of Work**

In 2018, the Monterey Peninsula Water Management District began to be widely regarded as the region's authority on matters of water supply, demand and conservation. This newly gained level of public trust, was a contributing factor to the passage of Measure J. In 2019-20, there will be an ongoing need to continue the promotion of the District's accomplishments and messaging to the public for informative purposes and to help combat any negative messaging that may arise in the process of the measure's completion. This also offers an opportunity to increase its top of mind position with the general public and local, state and federal elected officials and organizations.

TBC is a full-service agency with expertise in multiple disciplines; because we examine a company or organization from a brand perspective, we are able to implement a strategic plan that takes into account many different aspects of current and future messaging. Laying the groundwork in this manner, will ultimately lead a more streamlined and cohesive voice and ensure that the district's key messages are consistent across all platforms.

By bringing this unique skill-set, an unwavering commitment to excellence and a true belief, both personally and professionally, in the goals of the District and this ongoing project, the TBC team is uniquely positioned to effectively manage and facilitate the needs of the MPWMD .

## **Scope of Work**

Upon approval, TBC Communications & Media will continue to represent the MPWMD across several areas. These areas, as listed below, constitute the scope and type the work proposed. While there are no changes in the type of work being performed, the individual deliverables will be listed in detail.

- **Ongoing Internal Communications Representation**
  - Including Internal community outreach integration facilitated through communications with staff, board of directors, relevant partners and stakeholders to determine the need for publication and/or distribution
- **Ongoing Brand Management & Key Message Development**
  - Regular ongoing meetings with the Monterey Peninsula Water Management District (MPWMD) Board of Directors, its staff and relevant stakeholders to ensure approval of any new, revised or ongoing key message development, as well as branding issues
- **Public Relations Tactics**
  - Including but not limited to:
    - Press Release Development
    - Media Kit Development
    - Ongoing message-specific campaign to targeted media outlets
    - Updating of any relevant listings in trade, community and other member-based organizations, in which the MPWMD is active or represented
    - Targeted regions: additional local and regional outreach with a focus on areas of significance in relation to current resident or stakeholder base
    - Distribution of press releases to trade publications, trade/business organizations, community groups/advocates and general news outlets
    - Vetting of media inquiries, as well as facilitation and coordination of valuable media opportunities, interviews and FAM tours
    - Tracking, review and clipping of media coverage
- **Community Relations & Public Events**
  - Outreach and relationship building with current user base, targeted community groups/advocates, stakeholders, relevant local businesses, educational institutions and other potential partners

- Outreach, introductions and relationship building with local, state and federal agencies
  - Coordination of regular and special events and promotions geared towards locals and partners as a vehicle to garner increased exposure of your services, programs and projects.
  - Regular communication and dissemination of news and promotions to targeted locals, as well as District support groups/committees via email blast capabilities, advertising and in-person contact
  - Continued, regular communication, meetings and brainstorming with the MPWMD, its current partners, targeted stakeholders and the community at large
  - Identification and facilitation of new community, business and agency partnerships designed to further the goals of the District and support existing projects and programs
  - Facilitation of community workshops held in each district to establish an open line of communication between Directors and their constituents
- 
- **Social Media**
    - Ongoing implementation of the social media communications strategy
    - Refreshed and additional content development and postings of relevant material and coverage from and of events, the media and the MPWMD
    - Management of your current Social Media presence to ensure consistent messaging and relevant content
    - Identification of new and viable platforms to utilize and integrate into the plan including YouTube, Twitter, Pinterest, Instagram, etc.
    - Outreach to, and integration with, industry blogs and information sources
- 
- **Advertising**
    - Review existing advertising commitments, as well as research and provide strategic counsel as relevant advertising opportunities arise in alignment with agreed upon MPWMD based outreach.
    - Upon receipt from graphic designer/artist/producer, provide appropriate artwork and related materials/information to advertising outlets
    - Manage an advertising schedule to ensure proper placement, per agreed upon contracts
    - Post-buy analysis to ensure agreed upon audience composition, reach and frequency
- 
- **Data/Contact Information Collection System**
    - Management of current Data Collection System, MailChimp
    - Continued creation of tactics and themes for future email marketing efforts and the outreach of the MPWMD

- Continued creation and implementation of data collecting initiatives to increase database totals and targeted reach
- Creation of industry partnerships to ensure widespread reach of public outreach initiatives
- **Coordination of Annual Newsletter/Copywriting**
  - Utilizing agreed upon messaging and information, TBC will work with MPWMD staff to provide creative direction and copywriting as needed.
  - If desired TBC can also design the newsletter or work with your current graphic artist
  - TBC also recommends the coordination of key messages, language and style of the newsletter and your other publications or collateral material
- **Specific Initiatives Continued From FY: 18-19\***
- **Specific Initiatives Initiated for FY: 19-20\***
- **Regular attendance at Board of Directors Meetings & Relevant Events**
- **General Strategic Counsel & Regular Meetings/Communication with MPWMD Board of Directors, Staff, Shareholders, and Project Partners.**

**Disclosure**

*Thomas Brand Consulting is not party to any former or current ongoing civil or criminal investigation or litigation. At no time has our company defaulted or failed to perform our duties leading to a legal termination of contract.*

**\*Specific Deliverables**

Upon the agreement of both parties to the Scope of Work, a schedule of deliverables will be determined based upon an agreed to communications strategy and outreach plan. The tenants of which follow on a separate document. That draft schedule is included on a separate sheet

**Budget**

Per the above outlined Scope of Work, TBC Communications & Media proposes a contractual retainer for 12 months with a range of 30 to 32 hours per month. A \$3500 retainer is proposed for July 1, 2019 through June 30, 2020 totaling \$42,000. All out of scope work unless otherwise agreed upon in writing by both parties shall be billed at \$175 per hour. The costs of any associated media buys or collateral production that would fall under the proposed Scope of Work will be determined upon examination of current programs.

The proposed contract does not include creative expenses such as graphic design, web development, photography, video production, any and all media buys and out of pocket expenses including travel/mileage, printing, postage and items associated with the production of events. Thomas Brand Consulting requires client approval for outside expenses greater than \$150.00.

Upon the approval of the of the agreed upon contract and any additional budget stipulations, work will start on an agreed upon date with the first month's or portion of the first month's payment due. From that point forward, the client will be invoices on the 1<sup>st</sup> of each month, payable within 30 days unless otherwise agreed to by both parties. TBC will work within your established accounting practices to ensure a smooth process.

Additional contractual stipulations to include:

1. Monthly reporting of specific hours utilized per individual project.



**Addendum:**

## INSURANCE

- A. Consultant shall obtain and keep insurance policies in full force and effect for the following forms of coverage:
1. Automobile liability including property damage and bodily injury with a combined single limit of \$300,000.
  2. Comprehensive General Liability (CGL) with a combined single limit of \$1,000,000
3. Consultant shall add to his/her Comprehensive General Liability insurance policy a severability or interest clause or such similar wording if his/her policy does not automatically have this clause already written into it. Such language shall be similar to: "The insurance afforded applies separately to each insured against whom claim is made or suit is brought, including claims made or suits brought by any person included within the persons insured provision of this insurance against any other such person or organization."
- B. Consultant shall provide photocopies of its current Automobile insurance policy [or policies], including endorsements thereto, or current certificates of insurance in lieu thereof, to MPWMD.
- C. Consultant shall provide notice to MPWMD of any cancellation or material change in insurance coverage where MPWMD has been named as an insured, such notice to be delivered to the MPWMD in accord with Section XV of this Agreement at least sixty (60) days before the effective date of such change or cancellation of insurance.
- D. Evidence acceptable to MPWMD that Consultant has complied with the provisions of this Section VII shall be provided to the MPWMD, prior to commencement of work under this Agreement.
- E. All policies carried by Consultant shall provide primary coverage instead of any and all other policies that may be in force. MPWMD shall not be responsible for any premium due for the insurance coverage specified in this Agreement.

**Acceptance of Proposal:**

\_\_\_\_\_  
*David J. Stoldt or Suresh Prasad*  
*Monterey Peninsula Water Management District*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Stephen C. Thomas*  
*TBC Communications & Media*

\_\_\_\_\_  
*Date*



**Monterey Peninsula Water Management District  
Draft Public Outreach Items and Deliverables  
July 1, 2019 – June 30, 2020**

**Fiscal Year 2019-20**

- Monthly Deliverables
  - a. District Branding
    - Content Creation
    - Graphic Design
    - Placement
    - Specific Social Media
    - Eblast
    - Blog Post
  - b. Generic Outreach
    - Blog Posts on District & Monterey Water Info websites
    - Social Media Posts
    - District Update Eblast

**Current District Initiatives:**

- Water Compliant Business Recognition
- Updates to collateral pieces
- Conservation Vignettes – Rain Barrel Installation, Leaks, Faucets Etc.

**New Initiatives:**

- BOD Public Outreach
- Multi-Family Unit or HEART Program
- Vacation/STR Outreach & Table Tent
- Measure J Assistance
- MCCVB Sustainable Moments Campaign

**General Ongoing Non-Date Specific Deliverables**

- Award & Abstract Submission
- Rebate Outreach
- Conservation Event Outreach
- Website Updates
- Collateral Updates
- Editorials
- Letters to the Editor – District Support
- Press Releases & Media Relations

**ITEM:        CONSENT CALENDAR****3.        CONSIDER CONTRACT WITH PUEBLO WATER RESOURCES TO PROVIDE  
AQUIFER STORAGE AND RECOVERY OPERATIONAL SUPPORT**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt General Manager</b>	<b>Program/ Line Item No.:</b>	<b>Water Supply Projects 1-2-1</b>
<b>Prepared By:</b>	<b>Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>\$70,000</b>

**General Counsel Review: N/A****Committee Recommendation: The Administrative Committee reviewed this item on July 8, 2018 and recommended approval.****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.**

---

**SUMMARY:** The District's Carmel River Aquifer Storage and Recovery (ASR) project is operated under a cooperative agreement between the District and California American Water (Cal-Am.) Under this agreement, the District operates the wells during the injection season and collects the data required to meet permit requirements for the State Water Resources Control Board Division of Water Rights (DWR) and the Regional Water Quality Control Board. The District also provides data to the Seaside Groundwater Basin Watermaster (Watermaster) related to the Storage and Recovery agreement between Cal-Am and the Watermaster. Pueblo Water Resources (PWR) is used to support District staff with the field work, data collection, and report preparation to operate the wells while injecting and comply with permit requirements.

**DISCUSSION:** Due to the seasonal nature of work associated with ASR operations, the District has opted to not hire full time operators dedicated solely to ASR, but to hire PWR as support staff on an as-needed basis to keep costs of ASR operation low. PWR will assist in field work, support data networks, and assist in the preparation of compliance reports. PWR has 16 years of experience in supporting this project and is familiar with the ASR procedures and regulations and therefore is able to plug in quickly with little spin up time when their services are needed. Budget estimate is based on a wet water year type where there would be over 150 operational days. If WY 2020 is not a wet water year, less support will be needed and the full budget will not be spent. Staff proposes to retain PWR to support the District with operations on an as-needed basis for the WY 2020 ASR season.

**RECOMMENDATION:** Staff recommends that the Board of Directors authorize the General Manager to enter into an agreement on an as-needed basis, not to exceed \$70,000 with PWR to support the District with WY 2020 ASR operations.

**BACKGROUND:** The District completes annual water quality monitoring at the ASR facilities as outlined in the ASR Sample and Analysis Plan, which is a requirement for project operations by the Regional Water Quality Control Board. The District also monitors and reports streamflow

and diversion volumes to the DWR, NOAA Fisheries, and State Department of Fish and Wildlife for permit compliance. In addition, the District reports volumes of water injected and recovered to the Watermaster as required by the Storage and Recovery agreement between Cal-Am and the Watermaster. The District has used PWR for 16 years to support the development and operation of the Carmel River ASR project.

**IMPACT TO STAFF/RESOURCES:** Funds for this project are included in the FY 2019-20 budget under “Water Supply Projects,” line item 1-2-1. Funds expended to complete this work will be shared between the District and Cal-Am through the ASR Management and Operations agreement between the District and Cal-Am. Staff time will be utilized to aid consultant in sample collection.

## **EXHIBIT**

**3-A** Sample and Analysis Plan outlining annual ASR project monitoring as required by the Regional Water Quality Control Board



**MONTEREY PENINSULA  
AQUIFER STORAGE AND RECOVERY PROJECT  
SAMPLING AND ANALYSIS PLAN**

Prepared for:



December 2017



## **MONTEREY PENINSULA AQUIFER STORAGE AND RECOVERY PROJECT**

### **GROUNDWATER SAMPLING AND ANALYSIS PLAN**

#### **INTRODUCTION**

This Groundwater Sampling and Analysis Plan (SAP) has been developed for the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project. The project is cooperatively implemented by the Monterey Peninsula Water Management District (MPWMD or District) and California American Water (CAW), and generally involves the diversion of excess winter/spring flows from the Carmel River system for recharge, storage and subsequent recovery in the Seaside Groundwater Basin (SGB). Treated (potable) drinking water from the CAW distribution system is injected into the Santa Margarita Sandstone aquifer in the SGB via four existing ASR wells located at two ASR facilities in the SGB. The injected water is stored within the aquifer and subsequently recovered into the CAW distribution system during dry periods. The overall objective of the project is to facilitate the conjunctive use of water supplies in the Carmel River system and SGB that will benefit the resources of both systems.

ASR operations generally consist of three components or phases: (1) injection of drinking-quality water into the aquifer through the ASR wells; (2) storage of the injected water within the aquifer; and, (3) recovery of the stored water by pumping at one or more of the ASR wells. Periodic samples of the injected, stored, and recovered waters are to be collected from the ASR wells and associated monitoring wells and analyzed for a variety of water-quality constituents pursuant to requirements of the Central Coast Regional Water Quality Control Board (RWQCB) for the project.

The purpose of this SAP is to identify the locations, sample collection frequency, and parameters to be monitored as part of the project's ongoing water-quality data collection program. The project location and associated wells in the SGB are shown on **Figure 1**.

#### **GROUNDWATER MONITORING**

##### **Groundwater Monitoring Wells**

**ASR Project On-Site Wells.** There are two ASR facilities located in the SGB; the Santa Margarita and Seaside Middle School ASR Facilities. Groundwater monitoring wells for collection of on-site water-quality samples include four ASR wells and two associated monitoring wells that have been constructed at the two ASR facilities.

All four existing ASR wells are completed solely within the Santa Margarita Sandstone (Tsm) aquifer. Two of the ASR wells are located at the Santa Margarita (SM) ASR Facility and are designated as ASR-1 and ASR-2 and two are located at the Seaside Middle School (SMS) ASR Facility and are designated as ASR-3 and ASR-4.



In addition to four ASR wells, there are two on-site monitoring wells (one located at each ASR facility) that are also completed solely within the Tsm aquifer. SM MW-1 is located at the SM ASR Facility and SMS Deep MW is located at the SMS ASR Facility. An additional monitoring well is located at the SMS ASR Facility that is completed within the overlying Paso Robles aquifer, designated as SMS Shallow MW. This well is instrumented with a submersible water-level transducer/data logger unit to observe the water-level response of this aquifer to ASR operations (it is not designed or equipped for collection of water-quality samples).

The locations of the ASR wells and on-site monitoring wells are shown on **Figure 2**. A summary of the on-site wells is presented in **Table 1** below:

**Table 1. On-Site Wells Summary**

Well ID	Distance from ASR Well (feet)				Aquifer Completed
	ASR-1	ASR-2	ASR-3	ASR-4	
ASR-1	--	280	1,380	1,760	Tsm
ASR-2	280	--	1,235	1,600	Tsm
SM MW-1	90	190	1,325	1,700	Tsm
ASR-3	1,380	1,235	--	385	Tsm
ASR-4	1,760	1,600	385	--	Tsm
SMS Deep MW	1,380	1,240	20	385	Tsm
SMS Shallow MW	1,415	1,265	25	350	QTp

**Table 1 Notes:**

Tsm: Santa Margarita Sandstone aquifer

QTp: Paso Robles aquifer

**Off-Site SGB Wells.** In addition to the on-site wells at the two ASR facility sites, submersible water-level transducer/data logger units have been installed at seven off-site District monitoring well sites in the SGB to observe the water-level response of the aquifer system to ASR operations. The locations of the off-site monitoring wells are shown on **Figure 1**. The distances from each of the ASR facilities and aquifers monitored by the off-site wells are summarized in **Table 2** below:

**Table 2. Off-site Monitoring Wells Summary**

Well ID	Distance from ASR Facility (feet)		Aquifer Monitored
	SM	SMS	
Paralta Test	680	740	QTp & Tsm
Ord Grove Test	1,540	2,535	QTp & Tsm
Ord Terrace (Deep)	2,275	2,910	Tsm
FO-7 (Deep)	4,265	3,700	Tsm
FO-7 (Shallow)			QTp
PCA East (Deep)	6,390	6,200	Tsm
PCA East (Shallow)			QTp
FO-9 (Deep)	7,290	6,125	Tsm
FO-8 (Deep)	7,585	6,450	Tsm

**Table 2 Notes:**

Monitoring well distances are measured to centroid of each ASR site.

Tsm: Santa Margarita Sandstone aquifer

QTp: Paso Robles aquifer

In addition to water-level monitoring at the above off-site monitoring wells, CAW's Paralta municipal production well and PCA East Deep monitoring well have been designated as off-site monitoring wells for periodic water-quality sampling as part of this SAP (refer to **Table 4**).

### Groundwater Monitoring Equipment

The equipment required to perform the groundwater monitoring as prescribed in the SAP includes:

- Sampling Pumps
- Pressure Transducers/Data Loggers
- Electric Water Level Sounder
- Field Water Quality Monitoring Devices
- Flow-Thru Cell Device(s)
- Sample Containers
- Coolers and Ice

Each of the on-site wells is equipped with a dedicated pump. The ASR wells are equipped with water-lubricated, vertical line-shaft turbine pumps. SM MW-1, SMS Deep MW, and PCA East Deep are equipped with submersible sampling pumps. Paralta is equipped with a submersible production pump. The flow rates for each monitored wells are measured using





in-line totalizing flow meters. Sampling ports on the well-head piping at each well allow for the collection of grab samples during injection and pumping operations.

Field water-quality monitoring is to be performed using various instruments that allow for the field analysis of a variety of constituents, including but not limited to: chlorine residual, conductivity, dissolved oxygen, pH, temperature, redox/ORP, and Silt Density Index (SDI). The field water-quality monitoring devices are to be routinely calibrated as prescribed in the operating procedures manual for each device.

All of the ASR and monitoring wells are instrumented with dedicated pressure/level transducers and dataloggers. Reference-point elevations have been established by surveying on each of the monitored wells. Static water-levels in each of the wells are to be measured with an electric sounder on a quarterly basis (minimum) and the transducers calibrated accordingly. The transducers are to be programmed with the reference static water-level and the data-collection interval, which will measure and record the water level in each of the wells a minimum of four times per day.

### **Purging and Sampling**

During injection periods, samples of the injectate are to be collected directly at one of the ASR wellheads while active injection is occurring. During storage periods, each of the ASR wells that has been utilized for injection during the season will be periodically purged and sampled. During recovery periods, one or more of the ASR well pumps will be operating and purging is continuous and sustained. Groundwater samples are also to be collected routinely during all three ASR periods (i.e., injection, storage and recovery) from both the on-site monitoring wells (SM MW-1 and SMS Deep MW) and periodically from the far-field off-site monitoring wells (Paralta and PCA-E Deep).

The existing pumps will be used to purge a volume equivalent to a minimum of three (3) casing volumes from the well prior to sampling. Purge water from the ASR wells during backflushing and sampling is to be discharged to the backflush pit at the SM ASR Facility and percolated back into the SGB. Water produced by the ASR well(s) during recovery period operations is to be pumped into the CAW potable water supply system for distribution (in accordance with Department of Drinking Water approvals). Purge water from the monitoring wells will be directed to either the SM backflush pit or to the ground away from the wellheads and percolated back into the SGB.

During purging and prior to sampling, field water-quality parameters of temperature, pH and specific conductance are to be monitored. Stabilization of these water-quality parameters will indicate when collection of a representative sample is obtainable.

### **Chain-of-Custody, Sample Handling, and Transport**

All samples collected will be labeled in a clear and precise way for proper identification in the field and for tracking in the laboratory. All sample shipments for analyses will be accompanied by a chain-of-custody record. Forms will be completed and sent with the samples



for each shipment. The chain-of-custody form will identify the contents of each shipment and maintain the custodial integrity of the samples. Samples will be placed in a cooler for delivery to the laboratory.

### **Documentation Procedures**

Field data will be recorded by field personnel and routinely submitted to the Project Manager for review and QA/QC. Field data will include the completed field sampling-log form and chain-of-custody records. At a minimum, documentation of each monitoring and sampling event will include the following information:

- Sample location and description
- Sampler's name(s)
- Date and time of sample collection
- Type of sampling equipment used
- Field instrument calibration procedures and results
- Field instrument readings
- Field observations and details related to analysis or integrity of samples (e.g., weather conditions, noticeable odors, colors, etc.)
- Sample preservation
- Shipping arrangements
- Name(s) of recipient laboratory
- Any deviations from SAP procedures

Project information will be filed by Water Year. The project file will contain project field data, correspondence, survey reports, laboratory reports, charts, tables, permits, and other project-related information. This information will be utilized in the preparation of the annual Summary of Operations Reports for the project.

### **LABORATORY PROGRAM**

A complete list of constituents and constituent “groups” to be monitored as part of the ASR Project for injected, stored, and recovered waters is presented in **Table 3** below. **Table 4** summarizes the planned sample constituent group frequencies for each source for the injection, storage, and recovery periods.



Table 3. Analytic Testing Program Constituent Summary

Constituent	PQL	General Parameters	Disinfection Byproducts	Supplemental	Field <sup>1</sup>
Group ID		G-1	DBP	S-1	F-1
<b>Major Cations</b>					
Calcium (Ca)	1 mg/L	✓			
Magnesium (Mg)	1 mg/L	✓			
Sodium (Na)	1 mg/L	✓			
Potassium (K)	0.5 mg/L	✓			
<b>Major Anions</b>					
Total Alkalinity (as CaCO <sub>3</sub> )	10 mg/L	✓			
Sulfate (SO <sub>4</sub> )	1 mg/L	✓			
Chloride	1 mg/L	✓	✓		
Nitrate as (NO <sub>3</sub> )	1 mg/L	✓			
Nitrite as (Nitrogen)	0.1 mg/L	✓			
<b>General Physical</b>					
pH	0.1 units	✓			✓
Temperature	0.5 °C				✓
Specific Conductance (EC)	10 uS	✓			✓
ORP (redox potential / Eh) <sup>2</sup>	10 mV				✓
Total Dissolved Solids (TDS)	10 mg/L	✓			
<b>Metals</b>					
Aluminum (Al)	10 ug/L			✓	
Antimony (Sb)	1 ug/L			✓	
Arsenic (As)	1 ug/L			✓	
Barium (Ba)	0.5 mg/L			✓	
Beryllium (Be)	1 ug/L			✓	
Cadmium (Cd)	0.5 ug/L			✓	
Chromium (Cr) (Total)	2 ug/L			✓	
Fluoride (F)	0.1 mg/L			✓	
Iron (Fe) (Total and Dissolved)	50 ug/L	✓			
Lithium (Li)	5 ug/L			✓	
Manganese (Mn) (Total and Dissolved)	10 ug/L	✓			
Molybdenum (Mo)	5 ug/L			✓	
Mercury (Hg) (Total and Dissolved)	0.5 ug/L			✓	
Nickel (Ni)	10 ug/L			✓	
Selenium (Se)	5 ug/L			✓	
Strontium (Sr)	5 ug/L			✓	



Constituent	PQL	General Parameters	Disinfection Byproducts	Supplemental	Field <sup>1</sup>
Group ID		G-1	DBP	S-1	F-1
Thallium (Tl)	1 ug/L			✓	
Uranium (U)	1 pCi/L			✓	
Vanadium (V)	5 ug/L			✓	
Zinc (Zn)	0.5 ug/L			✓	
<b>Miscellaneous</b>					
Ammonia (as N)	0.05 mg/L	✓			
Boron (B)	0.05 mg/L	✓			
Chlorine residual (free)	0.1 mg/L				✓
Chloramines	50 ug/L		✓		
Cyanide	5 ug/L			✓	
Dissolved Methane	0.5 ug/L			✓	
Dissolved Oxygen (DO) <sup>2</sup>	0.025 mg/L				✓
Gross Alpha	1 pCi/L			✓	
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 mg/L				✓
Total Nitrogen (N)	0.2 mg/L	✓			
Perchlorate	2 ug/L			✓	
Total Phosphorous	0.05 mg/L	✓			
Orthophosphate as P	0.05 mg/L	✓			
Radium 226	1 pCi/L			✓	
Silt Density Index (SDI)	0.1 units				✓
Total Kjeldahl N (TKN)	0.2 mg/L	✓			
<b>Organic Analyses</b>					
Total Trihalomethanes (TTHM)	1 ug/L		✓		
Bromodichloromethane	1 ug/L		✓		
Bromoform	1 ug/L		✓		
Chloroform	1 ug/L		✓		
Dibromochloromethane	1 ug/L		✓		
Haloacetic Acids (HAA)	1 ug/L		✓		
Monobromoacetic Acid	1 ug/L		✓		
Monochloroacetic Acid	1 ug/L		✓		
Dibromoacetic Acid	1 ug/L		✓		
Dichloroacetic Acid	1 ug/L		✓		
Trichloroacetic Acid	1 ug/L		✓		
Organic Carbon (Total and Dissolved)	0.1 mg/L	✓			

**Table 3 Notes:**

1 – Field Parameters (Group F-1) must be taken concurrently with collection of all laboratory samples.

2 – ORP and DO must be analyzed utilizing a flow-thru cell device.

**Table 4. Analytic Testing Program Schedule**

<b>INJECTION PERIOD (active injection)</b>			
<b>Analyte Group</b>	<b>Injectate</b>	<b>On-Site MWs</b>	<b>Off-Site MWs</b>
F-1	Bi-Weekly	Bi-Weekly	Semiannually
DBP	Monthly	Monthly	Semiannually
G-1	Quarterly	Quarterly	Semiannually
S-1	Quarterly	Quarterly	Semiannually
<b>STORAGE PERIOD</b>			
<b>Analyte Group</b>	<b>ASR Wells</b>	<b>On-Site MWs</b>	<b>Off-Site MWs</b>
F-1	Monthly	Monthly	Semiannually
DBP	Monthly	Monthly	Semiannually
G-1	Quarterly	Quarterly	Semiannually
S-1	Quarterly	Quarterly	Semiannually
<b>RECOVERY PERIODS</b>			
<b>Analyte Group</b>	<b>ASR Wells</b>	<b>On-Site MWs</b>	<b>Off-Site MWs</b>
F-1	Bi-Weekly <sup>1</sup>	Bi-Weekly	Semiannually <sup>2</sup>
DBP	Monthly	Monthly	Semiannually <sup>2</sup>
G-1	Quarterly	Quarterly	Semiannually <sup>2</sup>
S-1	Quarterly	Quarterly	Semiannually <sup>2</sup>

**Table 4 Notes:**

1 – During active recovery for any given ASR well.

2 – Near the beginning and end of the SGB production/recovery season (e.g., in June and November).





**FIGURE 1. PROJECT LOCATION MAP**  
**Monterey Peninsula ASR Project**  
**Sampling and Analysis Plan**





**FIGURE 2. SITE LOCATION MAP**  
**Monterey Peninsula ASR Project**  
**Sampling and Analysis Plan**





**ITEM:        CONSENT CALENDAR****4.        CONSIDER AUTHORIZING MONTEREY BAY ANALYTICAL SERVICES TO PROVIDE LABORATORY SUPPORT FOR WATERMASTER WATER QUALITY MONITORING**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt General Manager</b>	<b>Program/ Line Item:</b>	<b>Water Supply Projects 2-5-2</b>
<b>Prepared By:</b>	<b>Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>\$10,000</b>

**General Counsel Review: N/A****Committee Recommendation: The Administrative Committee reviewed this item on July 8, 2018 and recommended approval.****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.**

---

**SUMMARY:** Staff proposes to use Monterey Bay Analytical Services (MBAS) to complete water quality analysis in support of the Seaside Groundwater Basin Watermaster (Watermaster). The District currently has a business relationship with MBAS and is billed on a net 30 following completion of laboratory analysis. This item is in the FY 2019-2020 budget as item 2-5-2.

**RECOMMENDATION:** Staff recommends that the Board of Directors authorize the General Manager to spend up to \$10,000 to complete laboratory analysis related to the Watermaster in WY 2020.

**BACKGROUND:** The District provides water quality monitoring and data management support to the Watermaster to meet the requirements outlined in the Seaside Groundwater Basin Monitoring and Management Plan. The Plan is a requirement outlined in the 2007 Adjudication Decision. The Monitoring and Management plan was adopted by the Monterey County Superior Court in 2008 and outlines a series of monitor and production wells to be sampled each water year. The District has a contract with the Watermaster to carry out this work on their behalf. District staff uses MBAS to complete the laboratory analysis for the sampling required by the Plan. MBAS has been selected for this task because the lab is local to the Monterey Peninsula and represents a local hire. Their rates are comparable to other Laboratories providing the same services and MPWMD receives a discount for repeat patronage and avoids currier charges associated with using a non-local lab.

**EXHIBIT**

None



**ITEM: CONSENT CALENDAR****5. CONSIDER AUTHORIZING MONTEREY BAY ANALYTICAL SERVICES TO PROVIDE LABORATORY SUPPORT FOR AQUIFER STORAGE AND RECOVERY PROJECT OPERATIONS**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt General Manager</b>	<b>Program/ Line Item:</b>	<b>Water Supply Projects 1-2-1A 2b &amp; 1-2-1B 1B</b>
<b>Prepared By:</b>	<b>Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>\$60,000</b>

**General Counsel Review:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 8, 2018 and recommended approval.**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.

**SUMMARY:** Staff proposes to use Monterey Bay Analytical Services (MBAS) to complete water quality analysis in support of the Regional Water Quality Control Board's (RWQCB) Sample and Analysis (SAP) plan required to operate the Aquifer Storage and Recovery (ASR) project. The District currently has a business relationship with MBAS and is billed on a net 30 following completion of laboratory analysis. This item is in the FY 2019-2020 budget as items 1-2-1A2b and 1-2-1B1b.

**RECOMMENDATION:** Staff recommends that the Board of Directors authorize the General Manager to spend funds up to \$60,000 to complete laboratory analysis related to the SAP in WY 2020.

**BACKGROUND:** The District operates the ASR project and is required by the RWQCB to complete and submit an Annual Operations Report. A component of this report requires various water quality sampling from injected water to off-site wells to characterize and monitor the water quality of the Seaside Groundwater Basin. Staff utilizes MBAS to complete the water quality analysis outlined in the SAP. MBAS has been selected for this task because the lab is local to the Monterey Peninsula and represents a local hire. Their rates are comparable to other Laboratories providing the same services and MPWMD receives a discount for repeat patronage. All funds spent for laboratory analysis related to the SAP are reimbursed by California American Water (Cal-Am) through the ASR Operations Agreement between the District and Cal-Am.

**EXHIBIT**

None



**ITEM:      CONSENT CALENDAR****6.      CONSIDER FUNDING UPGRADE TO SIX CARMEL RIVER MONITORING STATIONS**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt General Manager</b>	<b>Program/ Line Item:</b>	<b>Projects Hydrologic Monitoring</b>
<b>Prepared By:</b>	<b>Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>\$20,000</b>

**General Counsel Review:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 8, 2019 and recommended approval.**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.

**SUMMARY:** Staff proposes to complete the equipment upgrade to the Los Padres Reservoir, Below Los Padres, Sleepy Hollow Weir, Don Juan Bridge, Highway 1, and Lagoon water level and gaging stations. These set of stations are the Carmel River main stem stations and are equipped with remote access via cellular modem. This effort is the final step in a 3 year process of upgrading the District's stream gage and water level monitoring network. Over the past 2 years District Staff have upgraded 12 stations at the rate of 6 per year. Equipment upgrades include replacement of pressure transducers, data loggers, modems, solar panels and enclosures at the six sites. Current equipment at the gaging stations are Campbell Scientific CR-510 data loggers which will no longer be supported after 2019. Also, the modems at the stations are 3G modems and will not function on the cellular network past 2020. District staff will be upgrading to the Campbell Scientific CR-300 a combined data logger and 4G modem. The surface water network was built over 30 years ago with Campbell Scientific equipment because it was and still is the industry standard equipment used for surface water monitoring. Their client list includes the California Department of Water and the US Geological Survey. **Exhibit 6-A** outlines the stations and equipment to be upgraded and a cost estimate of the upgrade. This work is included in the FY 2019 – 2020 budget as item 2-5-3.

**RECOMMENDATION:** Staff recommends that the Board of Directors authorize the purchase of equipment to upgrade the Carmel River main stem water level and stream gage network in the amount not to exceed \$20,000.

**BACKGROUND:** Since its inception, the District has historically collected streamflow measurements at approximately 15 mainstem sites on the Carmel River and on 16 tributaries to the Carmel River. The District's current principal streamflow measuring sites within the Carmel River Basin (CRB) are shown in **Exhibit 6-B**. Prior to 1991, the streamflow measurements were instantaneous measurements made by the current-meter method. In 1991, a concerted effort was made to upgrade the streamflow monitoring network as staff installed continuous recorders at six

selected tributary sites. Since that time, the District has continued to expand its streamflow monitoring network, which currently consists of 18 continuous-recording gaging stations.

Data collected at the District streamflow monitoring sites are analyzed for use in water-supply planning, fishery, riparian and erosion control programs. More specific uses of streamflow data include, but are not limited, to the items listed below:

- Defining the general hydrologic conditions in the basin
- Setting flow requirements for meeting aquatic life goals
- Monitoring compliance with minimum-flow requirements
- Forecasting water-supply availability
- Assessing and scheduling fish rescue activities
- Assessing effectiveness of riparian mitigations
- Evaluating surface and groundwater interaction
- Developing and calibrating hydrologic models
- Delineating and managing flood plains
- Evaluating and designing water-supply projects
- Providing data for forecasting floods and defining flood-recurrence intervals
- Assessing hydrologic impacts from water-development projects
- Supporting Aquifer Storage and Recovery (ASR) operations

Streamflow gaging station O&M at each of the above sites involves obtaining monthly discharge measurements, maintaining recording equipment, obtaining staff gage readings and occasional surveying. Subsequently, river/creek stage and discharge data are processed in-house utilizing Hydstra Time-Series Software (Kisters North America, Inc.), to produce continuous streamflow records for the sites.

## **EXHIBITS**

**6-A** Stations and equipment to be upgraded

**6-B** Current principal streamflow measuring sites within the Carmel River Basin (CRB)

## **EXHIBIT 6-A**

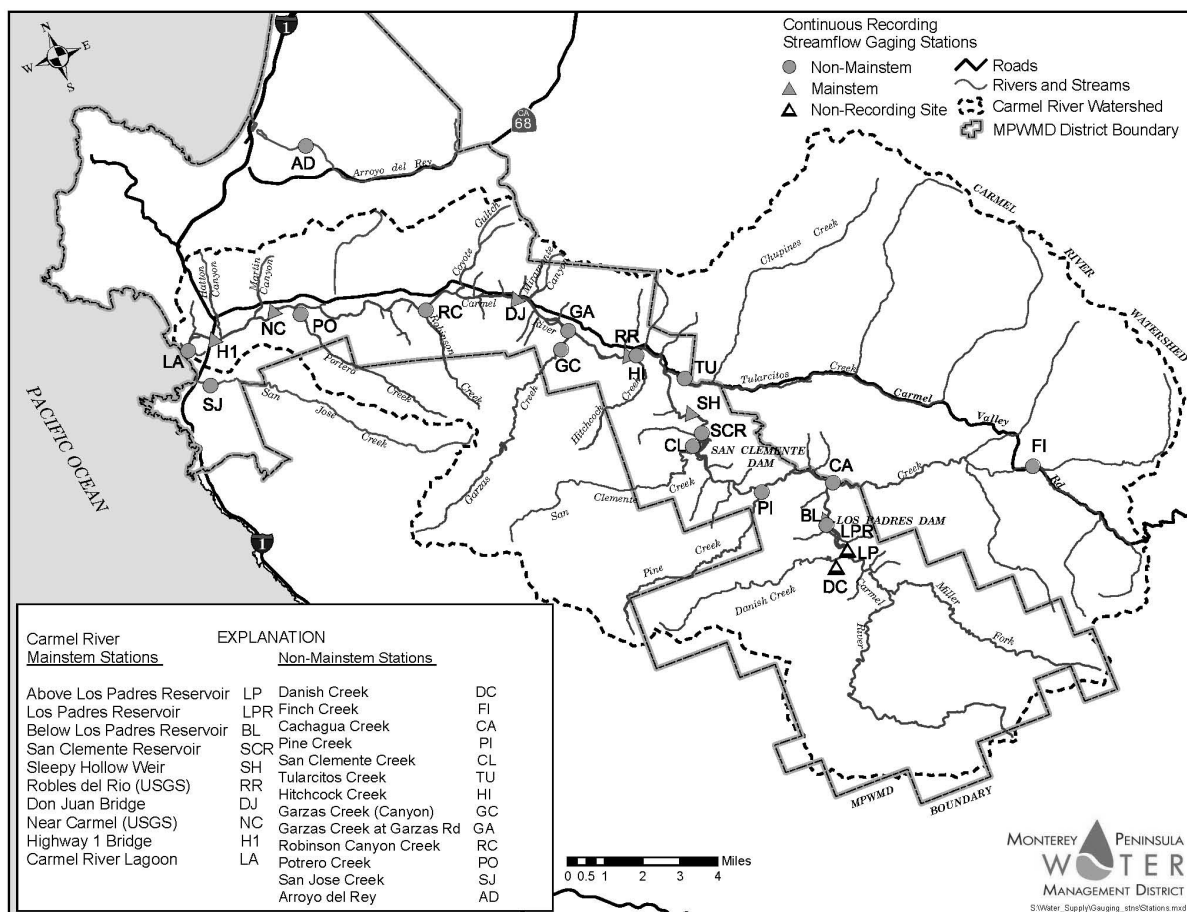
### Upgrade Streamflow Gaging Stations including Telecommunications

1	Los Padres Reservoir (LPR)	CR300 - CELL 205 (Datalogger w/built in modem)	995
		CS451 Pressure Transducer	
		(100' cable)	890
		Omni Antenna (15' cable)	190
		12V Charging	
		Regulator	245
		Solar Panel (use existing)	0
		Weather Resistand Enclosure (use existing)	0
2	CR below Los Padres Reservoir (BL)	CR300 - CELL 205 (Datalogger w/built in modem)	995
		CS451 Pressure Transducer	
		(100' cable)	890
		Omni Antenna (15' cable)	190
		12V Charging	
		Regulator	245
		20 Watt	
		Solar Panel	323
		Weather Resistand Enclosure (use existing)	0
3	CR at Sleepy Hollow Weir (SHW)	CR300 - CELL 205 (Datalogger w/built in modem)	995
		CS451 Pressure Transducer	
		(100' cable)	890
		Solar Panel (use existing)	0
		Omni Antenna (15' cable)	190
		12V Charging	
		Regulator	245
		Weather Resistand Enclosure (use existing)	0
4	CR at Don Juan Bridge (DJ)	CR300 - CELL 205 (Datalogger w/built in modem)	995
		CS451 Pressure Transducer	
		(100' cable)	890
		Solar Panel (use existing)	0

	Omni Antenna (15' cable)	190
	12V Charging Regulator	245
	Weather Resistant Enclosure (use existing)	0
5	CR at Highway 1 Bridge	
	CR300 - CELL 205 (Datalogger w/built in modem)	995
	CS451 Pressure Transducer (100' cable)	890
	20 Watt Solar Panel	323
	Omni Antenna (15' cable)	190
	12V Charging Regulator	245
	Weather Resistant Enclosure (use existing)	0
6	CR Lagoon	
	CR300 - CELL 205 (Datalogger w/built in modem)	995
	CS451 Pressure Transducer (100' cable)	890
	Omni Antenna (15' cable)	190
	12V Charging Regulator	245
	Weather Resistant Enclosure (use existing)	0
	Back-up Units (respond to hardware malfunction)	
	CR300 - CELL 205 (Datalogger w/built in modem)	995
	CS451 Pressure Transducer (100' cable)	890
	20 Watt Solar Panel (Qty. 2)	686
		1713
	subtotal	7



## EXHIBIT 6-B





**ITEM:     CONSENT CALENDAR****7.     APPROVE SLATE OF CANDIDATES FOR ELECTION TO SPECIAL DISTRICT RISK MANAGEMENT AUTHORITY BOARD OF DIRECTORS****Meeting Date:**   July 15, 2019**Budgeted:**       N/A**From:**           David J. Stoldt,  
                      General Manager**Program/**         N/A  
**Line Item No.:****Prepared By:**   Arlene Tavani**Cost Estimate:**   N/A**General Counsel Review:** N/A**Committee Recommendation:** N/A**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

**SUMMARY:** The District is a member of the Special District's Risk Management Authority (SDRMA) that is conducting an election for members of its board of directors. The SDRMA submitted ballots to its members and requested that three candidates be selected, and that the completed ballot be transmitted to SDRMA by August 21, 2019. The Board Chair and Vice Chair requested that management staff review the Statements of Qualifications submitted and select three candidates. Attached as **Exhibit 7-A** is the Official Election Ballot that specifies the three candidates recommended for election. Attached as **Exhibit 7-B** are the Statement of Qualifications submitted by those candidates.

**RECOMMENDATION:** The Board should approve the ballot as presented, and authorize staff to transmit the completed ballot to SDRMA.

**EXHIBIT****7-A**   Official 2019 Election Ballot – SDRMA Board of Directors**7-B**   Statements of Qualifications for Three Candidates



**OFFICIAL 2019 ELECTION BALLOT**  
**SPECIAL DISTRICT RISK MANAGEMENT AUTHORITY**  
**BOARD OF DIRECTORS**

**VOTE FOR ONLY THREE (3) CANDIDATES**

Mark each selection directly onto the ballot, voting for no more than three (3) candidates. Each candidate may receive only one (1) vote per ballot. A ballot received with more than three (3) candidates selected will be considered invalid and not counted. All ballots must be sealed and received by mail or hand delivery in the enclosed self-addressed, stamped envelope at SDRMA on or before 4:30 p.m., Wednesday, August 21, 2019. Faxes or electronic transmissions are NOT acceptable.

- ☒ **BOB SWAN (INCUMBENT)**  
Board Member, Groveland Community Services District
- ☐ **JESSE D. CLAYPOOL**  
Board Chair, Honey Lake Valley Resource Conservation District
- ☐ **PATRICK K. O'ROURKE, MPA/CFRM**  
Board Member, Redwood Region Economic Development Commission
- ☐ **SANDY SEIFERT- RAFFELSON (INCUMBENT)**  
Finance Manager/Treasurer, Herlong Public Utility District
- ☐ **JAMES (Jim) M. HAMLIN**  
Board President, Burney Water District

**ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2019 by the Monterey Peninsula Water Management District at a public meeting by the following votes:

AYES: \_\_\_\_\_  
NOES: \_\_\_\_\_  
ABSTAIN: \_\_\_\_\_  
ABSENT: \_\_\_\_\_

ATTEST: \_\_\_\_\_  
\_\_\_\_\_

APPROVED: \_\_\_\_\_  
\_\_\_\_\_



**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

**This information will be distributed to the membership with the ballot, "exactly as submitted" by the candidates – no attachments will be accepted. No statements are endorsed by SDRMA.**

Candidate\* Bob Swan

District/Agency Groveland Community Services District (GCSD)

Work Address P.O. Box 350, Groveland, CA 95321

Work Phone (209) 962-7161

Home Phone (408) 398-4731

\*The name or nickname and any designations (i.e. CPA, SDA, etc.) you enter here will be printed on the official ballot, exactly as submitted.

**Why do you want to serve on the SDRMA Board of Directors? (Response Required)**

I am a current Board member. I would like to be elected to a second term because:

1. As a board member of Groveland CSD, I am particularly aware of the great value that smaller districts get from SDRMA, and I'd like to continue to do my part to make sure that this important agency continues to operate smoothly and stably into the indefinite future.
2. The insurance market in California (and nationwide) is going through a period of rapid change. The Board and staff are engaged in a major re-evaluation of SDRMA's approach to fulfilling its mission of providing cost-effective risk management services to its members. I believe that it is important to maintain Board continuity in this effort.
3. SDRMA Board members are either board members ("electeds") or employees of a member agency. I think there is value in having a balance between elected and employee Board members. The Board seats that are NOT up for election are currently 3 employees / 1 elected. I'd like to make sure the new Board has at least 2 elected members.

**What Board or committee experience do you have that would help you to be an effective Board Member? (SDRMA or any other organization) (Response Required)**

1. SDRMA Board Member since 2016. This year (2019), I serve as Secretary. During our "no CEO" period in late 2017 - early 2018, I was a member of the ad hoc Personnel Committee. I am also a member of the Alliance Executive Council, and a backup member of the Legislative Committee.
2. Groveland CSD Board Member since I was appointed in June 2013. For the years 2014-2018, I served as Board President. (We finally implemented mandatory rotation of the office in 2019).
3. Member of the Board of Southside Community Connections, a local nonprofit in Groveland that provides educational, social, and recreational services to seniors, as well as free transportation to those who cannot drive.
4. Board Member (currently Treasurer) of Pine Cone Performers, a local choral and acting group, since 2010.
5. Back during my work life, I was a corporate representative on an IEEE standards committee concerned with wireless networking. It was very educational being on a committee where the members had widely differing (competing) goals.

**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

**What special skills, talents, or experience (including volunteer experience) do you have?  
(Response Required)**

History: BS Physics, MS Computer Science. 3 years in USAF. 30 years in the semiconductor industry, first as an engineering manager, later as a business unit manager. Now retired (so I have plenty of time).

Skills, etc.: Very familiar with financial reports, cost accounting, quantitative analysis. Working knowledge of modern computer and communications technology. Managed distributed organizations with up to 150 technical people and up to \$120M in annual sales. Pretty good at listening to different views, and helping to achieve consensus (or, at least, compromise).

**What is your overall vision for SDRMA? (Response Required)**

Well, obviously I support our (newly revised) vision statement: "To be the exemplary public agency risk pool of choice for California special districts and other public agencies". In order to achieve this vision, I believe the key issues are:

1. Maintain long term financial stability. This includes ensuring that there is a fair allocation of cost versus risk across the pool membership.
2. Continue to retain / acquire highly qualified staff, and ensure that this is a desirable place to work.
3. Remember who are our target clientele, which in my opinion are small to mid-sized districts with limited options for insurance.
4. In light of ever-evolving California workers-compensation law, expand risk-management training even further than we now provide.
5. Maintain good relations with our re-insurers (who insulate us from catastrophe). In the long run, explore the possibility of joining a "captive" re-insurer to improve stability.

**I certify that I meet the candidate qualifications as outlined in the SDRMA election policy. I further certify that I am willing to serve as a director on SDRMA's Board of Directors. I will commit the time and effort necessary to serve. Please consider my application for nomination/candidacy to the Board of Directors.**

Candidate Signature



Date

4-24-2019



**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

This information will be distributed to the membership with the ballot, "exactly as submitted" by the candidates – no attachments will be accepted. No statements are endorsed by SDRMA.

Candidate\* Jesse D. Claypool

District/Agency Honey Lake Valley Resource Conservation District

Work Address USDA Service Center 170 Russell Avenue, Suite C Susanville, CA 96130

Work Phone 530-257-7271 ext 100 Home Phone 530-310-0232

\*The name or nickname and any designations (i.e. CPA, SDA, etc.) you enter here will be printed on the official ballot, exactly as submitted.

**Why do you want to serve on the SDRMA Board of Directors? (Response Required)**

My interest for being on the SDRMA Board of Directors is because I believe it is imperative for there to be a knowledgeable and experienced voice on the Board with the perspective of the small to mid-size special district, working together with the other SDRMA Board Members, to ensure relevant—affordable solutions are available to all size special districts.

**What Board or committee experience do you have that would help you to be an effective Board Member? (SDRMA or any other organization) (Response Required)**

I am currently serving my fifth (5th) consecutive term as Chairman of the Board of a special district. I served two (2) yrs. on a Technical Advisory Committee for the prevention of violence against schools K-12. I served one (1) term on an elementary school board. I am currently serving my second (2nd) consecutive term on CSDA's committee for Professional Development. I am currently serving my sixth (6th) consecutive term on the board of a Regional Water Management Group. I am currently serving my second (2nd) consecutive term on CSDA's committee for Member Services. I am currently serving as a member of the County's Civil Grand Jury.

I have attended and completed the California School Board Association's New Board Member Training. I have Certificates of Completion from CSDA for General Manager Evaluation, Exercising Legislative Authority and Achieving Transparency. I attended and completed CSDA's Extraordinary Leader training. I attended and completed CSDA's Special District Leadership Academy and I have received CSDA's Recognition in Special District Governance certificate.

**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

**What special skills, talents, or experience (including volunteer experience) do you have?  
(Response Required)**

My experience with special districts and governance, belief in the importance of quality governing policies, the ability to work effectively with the other board members and staff and a desire to give back to SDRMA and its membership will be what I bring to the SDRMA Board of Directors.

**What is your overall vision for SDRMA? (Response Required)**

For SDRMA to continually advance as an industry leader providing affordable solutions for special districts of any size enabling them to be effective within the communities they serve.

**I certify that I meet the candidate qualifications as outlined in the SDRMA election policy. I further certify that I am willing to serve as a director on SDRMA's Board of Directors. I will commit the time and effort necessary to serve. Please consider my application for nomination/candidacy to the Board of Directors.**

Candidate Signature



Date

4-26-19

51

**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

**This information will be distributed to the membership with the ballot, "exactly as submitted" by the candidates. No statements are endorsed by SDRMA.**

**Candidate\* Sandy Seifert-Raffelson**

**District/Agency Herlong Public Utility District**

**Work Address 447-855 Plumas St., P o Box 115, Herlong, CA 96113**

**Work Phone (530) 827-3150 Cell Phone (530) 310-4320**

\*The name or nickname and any designations (i.e. CPA, SDA, etc.) you enter here will be printed on the official ballot, exactly as submitted.

**Why do you want to serve on the SDRMA Board of Directors?**

**I am a current Board member of SDRMA and feel that I have added my financial background to make better informed decisions for our members. As a Board member, I continue to improve my education of insurance issues and look forward to representing small District's and Northern California as a voice on the SDRMA Board. I feel I am an asset to the Board with my degree in Business and my 30 plus years' experience in accounting and auditing.**

**I understand the challenges that small District face every day when it comes to managing liability insurance, worker's compensation and health insurance for a few employees with limit revenue and staff. My education and experience give me an appreciation of the importance of risk management services and programs, especially for smaller District that lack expertise with insurance issues on a daily basis.**

**I feel I am an asset to this Board, and would love a chance to stay on 4 more years!**

**What Board or committee experience do you have that would help you to be an effective Board Member? (SDRMA or any other organization)**

**While serving on the SDRMA Board, I have been privilege to be Secretary of the Board for two years, and currently the Vice-President. I have served on CSDA's Audit and Financial Committee's for 6 years; I have served on the SDLF Board; Northeastern Rural Health Clinic Board; Fair Board; School and Church boards; 4-H Council and leader for 15 years; and UC Davis Equine Board. In the past 25 years, I have learn that there is no "I" in Board and it can be very rewarding to be part of a team that makes a difference for others.**

**As part of my many duties working with Herlong PUD, I worked to form the District and was directly involved with LAFCo, Lassen County Board of Supervisors and County Clerk to establish the initial Board of Directors and first Policies for HPUD. I have administered the financial portion of 2 large capital improvement project with USDA as well as worked on the first ever successful water utility privatization project with the US Army and Department of Defense. I am currently working on a 4.2 million grant from California for new infrastructure for the small District HPUD absorb through LAFCo in 2017. I am also the primary administrator of a federal contract for utility services with the Federal Bureau of Prison and the US Army.**

**Special District Risk Management Authority  
Board of Directors  
Candidate's Statement of Qualifications**

What special skills, talents, or experience (including volunteer experience) do you have?

I have my Bachelor's Degree in Business with a minor in Sociology. I have audited Small Districts for 5 years, worked for a Small District for almost 15 years and have over 30 years of accounting experience. I am a good communicator and organizer. I have served on several Boards and feel I work well within groups or special committee. I am willing to go that extra mile to see things get completed.

I believe in recognition for jobs well done. I encourage incentive programs that get members motivated to participate and strive to do their very best to keep all losses at a minimum and reward those with no losses.

I have completed my Certificate for Special District Board Secretary/Clerk Program in both regular and advance course work through CSDA and co-sponsored by SDRMA. I have completed the CSDA Special District Leadership Academy and Special District Governance Academy. I am in the processes of getting my small District re-certified for their District of Transparency and hope one day to attain our District of Distinction.

I work for a District in Northeastern California that has under gone major changes from a Cooperative Company to a 501c12 Corporation, to finally a Public Utility District. I have worked with LAFCo to become a District. Also our small District consolidated another small District into our District. Through past experience I feel I make a great Board member representing the small districts of Northern California and their unique issues and will make decisions that would help all rural/small districts.

What is your overall vision for SDRMA?

For SDRMA to be at the top of the risk management field and to continue communicating and listening to the needs of all California Special Districts and meeting those needs at a reasonable price that Special Districts can afford. I would like to continue education and rewards for no claims and explore avenues of financial endeavors that will benefit our customers.

I certify that I meet the candidate qualifications as outlined in the SDRMA election policy. I further certify that I am willing to serve as a director on SDRMA's Board of Directors. I will commit the time and effort necessary to serve. Please consider my application for nomination/candidacy to the Board of Directors.

Candidate Signature

*Sandy Siefert-Raffelson*

Date

*4/16/19*



exceed price of \$48,000 plus applicable taxes.

**EXHIBIT**

None

U:\staff\Boardpacket\2019\20190715\ConsentClnr\08\Item-8.docx

**ITEM: CONSENT CALENDAR****9. CONSIDER ADOPTION OF RESOLUTION NO. 2019-09 AMENDING RULE 24, TABLE 4: HIGH EFFICIENCY APPLIANCE CREDITS FOR GRAYWATER AND RAINWATER REUSE****Meeting Date:** July 15, 2019 **Budgeted:** N/A**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:****Prepared By:** Stephanie Kister **Cost Estimate:** N/A**General Counsel Review:** N/A**Committee Recommendation:** The Water Demand Committee reviewed this item on April 23, 2019 and recommended approval.**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

**SUMMARY:** The California Plumbing Code allows for the reuse of treated rainwater and graywater for flushing toilets and clothes washing. The Monterey County Health Department requires a backup water supply from a reliable source to augment a rainwater/Graywater system. The Water Demand Committee recommended approval for a reduced Water Use Capacity of 75% for toilet flushing with Graywater/rainwater in Multi-Family Dwellings. It should be noted that these systems require compliance with Chapter 15 of the Plumbing Code, including backflow protection and other requirements. Monterey County Health Department permits and approves the system design.

Clothes washing in Multi-Family Dwelling projects is being discussed at the Water Demand Committee meeting on July 11, 2019, as this use was not discussed in April. Staff's recommendation is to similarly grant a 75% reduced factor in Multi-Family Dwellings that use treated Graywater/Rainwater for clothes washing.

In granting a credit for Graywater and rainwater systems, the District will require meters on the inflow and outflow and on the Potable water backup to the system (as well as annual reporting to the District) to facilitate review of the effectiveness of the system and the appropriateness of the Water Credit. As this technology is relatively new, data will be an important way to verify and quantify reductions in Potable use. The metering and reporting will be recorded as a permanent requirement on the property title. Resolution 2019-09 updates Rule 24, Table 4 High Efficiency Appliance Credits, to reflect the credit.

**RECOMMENDATION:** Adoption of Resolution 2019-09 with the Consent Calendar will amend Rule 24, Table 4: High Efficiency Appliance Credits to allow for a reduced Water Use Capacity of 75% for toilet flushing and/or clothes washing with Graywater/rainwater in Multi-Family Dwelling projects.

**BACKGROUND:** In 2013 California Plumbing Code allowed for the reuse of treated rainwater and Graywater for flushing toilets and clothes washing. New construction of hotels and apartment complexes are best able to incorporate this technology in the building design to reduce their water demand. The Monterey County Health Department requires a backup water supply from a reliable source to augment the rainwater/Graywater system. This can be done by installing dual plumbing to the water fixtures or by adding an auto fill valve to the storage tank.

The District has received a request to reduce the Estimated Annual Water Use Capacity for installation of a Graywater system to flush toilets and wash clothes in three proposed Multi-Family Dwellings in Monterey. Staff estimates that between 10 to 15 gallons of treated Graywater (depending on the flush volume of the toilets) would be needed to meet the toilet demands of an apartment with an average of 2.3 persons per household. This demand would be easily offset with Graywater generated from bathing (e.g., one ten-minute shower). Design of the system would need to have adequate storage to meet demand for three days to ensure that the Potable water backup would not be used. A similar requirement would apply to a rainwater system, which would require significantly more storage to meet demands during the dry months.

Staff received direction from the Water Demand Committee on April 23, 2019, regarding amendment to Rule 24, Table 4: High Efficiency Appliance Credits for Graywater and rainwater systems for toilet flushing. This table can be amended by Resolution of the Board of Directors. The Committee discussed whether a complete offset of the toilet fixture count should be available, or whether the fixture count should be reduced for these systems. The Water Demand Committee agreed that a credit of 75% of the fixture unit count for toilet flushing should be applied to Multi-Family Dwelling residential projects that flush toilets with rainwater and/or Graywater systems, and that Rule 24, Table 4 High Efficiency Appliance Credits should also be amended to reflect the credit.

This item was pulled from the June Consent Agenda for review of the water-metering requirement by the Water Demand Committee on July 11, 2019.

## **EXHIBITS**

**9-A** Draft Resolution 2019-09

**9-B** Table 4 – Attachment 1 to Draft Resolution 2019-09



**DRAFT****EXHIBIT 9-A****RESOLUTION NO. 2019-09**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
AMENDING RULE 25.5, TABLE 4:  
HIGH EFFICIENCY APPLIANCE CREDITS  
FOR GRAYWATER AND RAINWATER  
REUSE SYSTEMS**

**WHEREAS** District Rule 25.5-F-4-b *Water Use Credits and On-Site Water Credits* allows changes to Table 4: High Efficiency Appliances Credits; and

**WHEREAS** the 2013 California Plumbing Code allows for the reuse of treated Graywater/rainwater for flushing toilets and clothes washing; and

**WHEREAS** the Monterey County Health Department requires a backup water supply from a reliable source to augment the Graywater/rainwater system. This can be done by adding a Potable auto fill valve to the storage tank. The Monterey County Health Department will approve and permit these systems; and

**WHEREAS** to qualify for a reduced toilet and/or clothes washer Water Use Capacity, the Graywater/rainwater system capacity shall meet 100 percent of projected annual demand with adequate storage to meet demand for an additional three days to ensure that the Potable water backup would not be used; and

**WHEREAS** the rainwater/Graywater toilet flushing and/or clothes washing systems shall reduce the fixture unit value by seventy-five percent (75%) for Multi-Family Dwelling applications; and

**WHEREAS** the District shall require metering on the Graywater/rainwater in and outflow and on the Potable connection to the system, and will require annual reporting; and

**WHEREAS** the District will require a *Notice and Deed Restriction Regarding Limitation on Use of Water on a Property* as a permanent requirement on the property title;

**NOW, THEREFORE**, the Board of Directors of the Monterey Peninsula Water Management District resolves that District Rule 25.5-F-4-b, *Water Use Credits and On-Site Water Credits*, Table 4: High Efficiency Appliance Credits, shall be amended to include a Water Credit for the installation of a rainwater/Graywater toilet flushing and/or clothes washing systems as shown on **Attachment 1**.

On motion of Director \_\_\_\_\_, and second by Director \_\_\_\_\_, the foregoing resolution is duly adopted this 15th day of July 2019, by the following vote:

AYES:

NAYS:

ABSENT:

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify that the foregoing is a resolution duly adopted on the 15th day of July 2019.

Witness my hand and seal of the Board of Directors this \_\_\_\_ day of July, 2019.

\_\_\_\_\_  
David J. Stoldt, Secretary to the Board of Directors

**EXHIBIT 9-B**

Attachment 1 to MPWMD Resolution 2019-09

**TABLE 4: HIGH EFFICIENCY APPLIANCE CREDITS**

Appliance	Description	Water Use Credit in Fixture Units (FU)
High Efficiency Toilets	A toilet designed to have an average maximum flush of 1.3 gallons.	0.5 FU
Ultra High Efficiency Toilet	A toilet designed and manufactured to flush with a maximum of 0.8 gallon of water and that is labeled by the U.S. Environmental Protection Agency's WaterSense program.	1 FU
Instant-Access Hot Water System	A recirculating hot water system or other device(s) that results in hot water contact at every point of access throughout the Dwelling Unit within ten (10) seconds. Instant-Access Hot Water Systems shall be installed in each auxiliary building plumbed with hot water on a Single Family Residential Site. There shall be no Water Use Credit for installation of Instant-Access Hot Water Systems for New Structures.	0.5 FU
High Efficiency Dishwasher	A dishwasher designed to use a maximum of 5.8 gallons per cycle. A High Efficiency Dishwasher shall have Energy Star certification.	0.5 FU
High Efficiency Clothes Washer	A Clothes Washer with a Water Factor of 5.0 or less.	1 FU
<i>Rainwater/Graywater Toilet Flushing System for Multi-Family Dwellings</i>	<i>A rainwater or Graywater recycling storage system used to flush toilet(s). System capacity shall meet 100% projected annual demand, plus three days.</i>	<i>75% of FU</i>
<i>Rainwater/Graywater Clothes Washing System for Multi-Family Dwellings</i>	<i>A rainwater or Graywater recycling storage system used to wash clothes. System capacity shall meet 100% projected annual demand, plus three days.</i>	<i>75% of FU</i>

*Table 4 amended by Resolution 2008-03 (2/28/2008); Resolution 2009-10 (7/20/2009); Ordinance No. 140 (11/16/2009); Resolution 2009-14 (12/14/2009); Ordinance No. 151 (11/19/2012); Ordinance No. 156 (11/18/2013); Resolution 2019-09 (7/15/2019)*

U:\staff\Boardpacket\2019\20190715\ConsentCldr\09\Item-9-Exh-B.docx

**ITEM:      CONSENT CALENDAR**

**10.      CONSIDER ADOPTION OF RESOLUTION NO. 2019-10 AMENDING TABLE  
2: NON-RESIDENTIAL WATER USE FACTORS**

**Meeting Date:**      **July 15, 2019**                      **Budgeted:**              **N/A**

**From:**                      **David J. Stoldt,**                      **Program/**              **N/A**  
   **General Manager**                      **Line Item No.:**

**Prepared By:**      **Stephanie Locke**                      **Cost Estimate:**      **N/A**

**General Counsel Review:** **No**

**Committee Recommendation:** **The Water Demand Committee reviewed this item on April 23, 2019**

**CEQA Compliance:** **This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

**SUMMARY:** Draft Resolution 2019-10 (**Exhibit 10-A**) would amend Rule 24, Table 2: Non-Residential Water Use Factors to reduce the factor for hotel/motel rooms. The previous factor was last updated in 1993. Changes in technology and practices have resulted in a one-third reduction in water use over the past twenty years.

**RECOMMENDATION:** Staff recommends that the Board of Directors adopt Resolution 2019-10 and approve the change to the hotel/motel room factor on Table 2.

**EXHIBIT**

**10-A**      Draft Resolution 2019-10 Amending Rule 24 - Table 2 Non-Residential Water Use Factors





**DRAFT**

**EXHIBIT 10-A**

**RESOLUTION NO. 2019-10**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
AMENDING TABLE 2: NON-RESIDENTIAL WATER USE FACTORS**

**WHEREAS** District Rule 24-B (Non-Residential Calculation of Water Use Capacity) allows changes to Table 2: Non-Residential Water Use Factors through Resolution of the Board of Directors; and

**WHEREAS** on April 23, 2019, the Water Demand Committee was briefed on staff's finding that the existing hotel room factor (last updated in 1993) overestimates Capacity and that a lower factor for a hotel room is more indicative of the water used in a hotel room. The proposed factor of 0.064 AF/room was validated through 14 samples that have had District inspections to verify compliance with current water efficiency requirements;

**WHEREAS** current technology has reduced hotel room use through lower flush volumes in toilets, lower flow rates from showerheads and faucets, water efficient washers, as well as through conservation education and reuse programs where the District requires the hotel to offer the customer the choice to reuse towels and linens during their visit;

**WHEREAS** the Monterey County Hospitality Association and the Monterey County Association of Realtors were notified of the proposed change; and

**NOW, THEREFORE**, the Board of Directors of the Monterey Peninsula Water Management District resolves that District Rule 24-B, Table 2: Non-Residential Water Use Factors shall be adopted as shown in **Attachment 1**.

On motion of Director \_\_\_\_\_, and second by Director \_\_\_\_\_, the foregoing resolution is duly adopted this 15th day of July 2018, by the following vote:

AYES:

NAYS:

ABSENT:

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify that the foregoing Resolution was duly adopted on the 15th day of July 2019.

Witness my hand and seal of the Board of Directors this \_\_\_\_ day of \_\_\_\_\_ 2019.

---

David J. Stoldt, Secretary to the Board of Directors

U:\staff\Boardpacket\2019\20190715\ConsentCIndr\10\Item-10-Exh-A.docx



## Attachment 1 to MPWMD Resolution No. 2019-10

### TABLE 2: NON-RESIDENTIAL WATER USE FACTORS

#### **Group I**      0.00007 AF/SF

Users in this category are low water uses where water is primarily used for employee hygiene and minimal janitorial uses. Examples are offices, warehouses, and low water use retail businesses.

#### **Group II**      0.0002 AF/SF

Users in this category prepare and/or sell food/beverages that are primarily provided to customers in/on disposable tableware. Food with high moisture content and liquid food may be served on reusable tableware. Glassware may be used to serve beverages. Users in this category are not full-service restaurants.

#### **Group III**

Assisted Living (more than 6 beds) <sup>2</sup>	0.085 AF/Bed
Bar (limited food/not a full-service restaurant)	0.0002 AF/SF <sup>1</sup>
Beauty Shop/Dog Grooming	0.0567 AF/Station
Child/Dependent Adult Day Care	0.0072 AF/Person
Dry Cleaner w/on-Site laundry	0.0002 AF/SF
Dormitory <sup>3</sup>	0.02 AF/Bed
Laundromat	0.2 AF/Machine
Motel/Hotel/Bed & Breakfast	<del>0.1</del> <b>0.064</b> AF/Room
w/Large Bathtub (Add to room factor)	0.03 AF/Tub
w/Each additional Showerhead beyond one (Add to room factor)	0.02 AF/Showerhead
Nail Salon	0.00007 AF/SF
Irrigated Areas/Landscaping	ETWU (See Rule 142.1)
Plant Nursery	0.00009 AF/SF Land Area
Public Toilet	0.058 AF/Toilet
Public Urinal	0.036 AF/Urinal
Zero Water Consumption Urinal	No Value
Recreational Vehicle Water Hookup	0.1 AF
Restaurant - Full Service (including associated Bar Seats)	0.02 AF/Interior Restaurant Seat
Exterior Restaurant Seats above the "Standard Exterior Seat Allowance" <sup>4</sup>	0.01 AF/Exterior Restaurant Seat
Exterior Restaurant Seats within the "Standard Exterior Seat Allowance"	No Value
Restaurant (24-Hour and Fast Food)	0.038 AF/Interior Restaurant Seat
School or Church	0.00007 AF/SF
Self-Storage	0.0008 AF/Storage Unit
Skilled Nursing/Alzheimer's Care	0.12 AF/Bed
Spa	0.05 AF/Spa
Swimming Pool	0.02 AF/100 SF of Surface Area
Theater	0.0012 AF/Seat

#### **Group IV - MODIFIED NON-RESIDENTIAL USES**

Users in this category have reduced water Capacity from the types of uses listed in Groups I-V and have received a Water Use Credit for modifications (Rule 25.5-F-4-d) or permanent installation of known and validated technology that results in a quantifiable reduction in Water Use Capacity. Please inquire for specific property information.

#### **Group V – INDUSTRIAL USES**

Users in this category use water during the production process for either creating their products or cooling equipment. Industrial water may also be used for fabricating, processing, washing, diluting, cooling, or transporting a product. Water is also used by industries producing chemical products and food products. Industrial uses also include certain hospital uses. Water Use Capacity shall be determined following review of the project's construction and business plans and estimated water use and may be considered for Rule 24 Special Circumstances.

Notes: Any Non-Residential water use which cannot be characterized by one of the use categories set forth in Table 2 shall be designated as "other" and assigned a factor which has a positive correlation to the anticipated Water Use Capacity for that Site. When a Non-Residential project proposes two or more of the uses set forth in Table 2, each proposed use shall be subject to a separate calculation. When the proposed use appears to fall into more than one group or use, the higher factor shall be used.

**Attachment 1 to MPWMD Resolution No. 2019-10**

- <sup>1</sup> ABC Licensed Premises Diagram area shall be used for calculation of square-footage.
- <sup>2</sup> Assisted living Dwelling Units shall be permitted as Residential uses per Table 1, Residential Fixture Unit Count Values.
- <sup>3</sup> Dormitory water use at educational facilities is a Residential use, although the factor is shown on Table 2.
- <sup>4</sup> See Rule 24-B-1 and Rule 25.5 for information about the “Standard Exterior Seat Allowance”.

**ITEM:     CONSENT CALENDAR****11.     CONSIDER ADOPTION OF TREASURER'S REPORT FOR MAY 2019**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>N/A</b>
----------------------	----------------------	------------------	------------

<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>N/A</b>
--------------	---	------------------------------------	------------

<b>Prepared By:</b>	<b>Suresh Prasad</b>	<b>Cost Estimate:</b>	<b>N/A</b>
---------------------	----------------------	-----------------------	------------

**General Counsel Review:** N/A**Committee Recommendation:** The Administrative Committee considered this item on July 8, 2019 and recommended approval.**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

**SUMMARY:** Exhibit 11-A comprises the Treasurer's Report for May 2019. Exhibit 11-B and Exhibit 11-C are listings of check disbursements for the period May 1-31, 2019. Check Nos. 34756 through 34973, the direct deposits of employee's paychecks, payroll tax deposits, and bank charges resulted in total disbursements for the period in the amount of \$883,810.87. That amount included \$19,987.50 for conservation rebates. Exhibit 11-D reflects the unaudited version of the financial statements for the month ending May 31, 2019.

**RECOMMENDATION:** District staff recommends adoption of the May 2019 Treasurer's Report and financial statements, and ratification of the disbursements made during the month.

**EXHIBITS****11-A** Treasurer's Report**11-B** Listing of Cash Disbursements-Regular**11-C** Listing of Cash Disbursements-Payroll**11-D** Financial Statements



**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
TREASURER'S REPORT FOR MAY 2019**

<u>Description</u>	<u>Checking</u>	<u>MPWMD Money Market</u>	<u>L.A.I.F.</u>	<u>Wells Fargo Investments</u>	<u>Multi-Bank Securities</u>	<u>MPWMD Total</u>	<u>PB Reclamation Money Market</u>
Beginning Balance	(\$155,820.42)	\$2,777,681.07	\$8,669,973.73	\$1,762,107.60	\$2,263,631.23	\$15,317,573.21	\$627,146.38
Fee Deposits		1,540,499.14				1,540,499.14	311,885.63
MoCo Tax & WS Chg Installment Pymt						0.00	
Interest Received		65.10		3,228.80	7,558.93	10,852.83	7.28
Transfer - Money Market/LAIF		(1,500,000.00)	1,500,000.00			0.00	
Transfer - Money Market/Checking	1,300,000.00	(1,300,000.00)				0.00	
Transfer - Money Market/Multi-Bank						0.00	
Transfer - Money Market/Wells Fargo						0.00	
Transfer to CAWD						0.00	(600,000.00)
Voided Cks						0.00	
Bank Corrections/Reversals/Errors						0.00	
Bank Charges/Other	(353.56)	(30.00)				(383.56)	(30.00)
Returned Deposits	-					0.00	
Payroll Tax/Benefit Deposits	(99,598.48)					(99,598.48)	
Payroll Checks/Direct Deposits	(135,795.94)					(135,795.94)	
General Checks	(648,062.89)					(648,062.89)	
Bank Draft Payments	-					0.00	
<b>Ending Balance</b>	<b>\$260,368.71</b>	<b>\$1,518,215.31</b>	<b>\$10,169,973.73</b>	<b>\$1,765,336.40</b>	<b>\$2,271,190.16</b>	<b>\$15,985,084.31</b>	<b>\$339,009.29</b>



## Check Report

By Check Number

Date Range: 05/01/2019 - 05/31/2019



Monterey Peninsula Water Management Dist

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: APBNK	-Bank of America Checking					
Payment Type: Regular						
00236	AT&T Long Distance	05/03/2019	Regular	0.00	10.59	34756
12188	Brown and Caldwell	05/03/2019	Regular	0.00	9,263.25	34757
00252	Cal-Am Water	05/03/2019	Regular	0.00	85.66	34758
00252	Cal-Am Water	05/03/2019	Regular	0.00	84.48	34759
00252	Cal-Am Water	05/03/2019	Regular	0.00	118.78	34760
06268	Comcast	05/03/2019	Regular	0.00	286.62	34761
00761	Delores Cofer	05/03/2019	Regular	0.00	362.00	34762
00225	Escalon Services c/o Palace Business Solutions	05/03/2019	Regular	0.00	267.81	34763
00993	Harris Court Business Park	05/03/2019	Regular	0.00	721.26	34764
00986	Henrietta Stern	05/03/2019	Regular	0.00	1,218.97	34765
00277	Home Depot Credit Services	05/03/2019	Regular	0.00	54.55	34766
04717	Inder Osahan	05/03/2019	Regular	0.00	1,218.97	34767
06745	KBA Docusys - Lease Payments	05/03/2019	Regular	0.00	947.22	34768
00222	M.J. Murphy	05/03/2019	Regular	0.00	94.22	34769
00223	Martins Irrigation Supply	05/03/2019	Regular	0.00	358.45	34770
00118	Monterey Bay Carpet & Janitorial Svc	05/03/2019	Regular	0.00	1,000.00	34771
13396	Navia Benefit Solutions, Inc.	05/03/2019	Regular	0.00	70.00	34772
00154	Peninsula Messenger Service	05/03/2019	Regular	0.00	396.00	34773
00282	PG&E	05/03/2019	Regular	0.00	9.53	34774
00282	PG&E	05/03/2019	Regular	0.00	9.60	34775
00282	PG&E	05/03/2019	Regular	0.00	1,912.63	34776
00282	PG&E	05/03/2019	Regular	0.00	83.50	34777
00282	PG&E	05/03/2019	Regular	0.00	10,240.05	34778
13430	Premiere Global Services	05/03/2019	Regular	0.00	24.40	34779
00262	Pure H2O	05/03/2019	Regular	0.00	65.24	34780
00234	Rapid Printers	05/03/2019	Regular	0.00	270.79	34781
09989	Star Sanitation Services	05/03/2019	Regular	0.00	88.76	34782
00258	TBC Communications & Media	05/03/2019	Regular	0.00	22,292.50	34783
00207	Universal Staffing Inc.	05/03/2019	Regular	0.00	1,845.20	34784
00271	UPEC, Local 792	05/03/2019	Regular	0.00	1,140.00	34785
00221	Verizon Wireless	05/03/2019	Regular	0.00	859.13	34786
00763	ACWA-JPIA	05/10/2019	Regular	0.00	406.60	34791
00767	AFLAC	05/10/2019	Regular	0.00	2,414.88	34792
00253	AT&T	05/10/2019	Regular	0.00	3,541.34	34793
00252	Cal-Am Water	05/10/2019	Regular	0.00	192.80	34794
00243	CalPers Long Term Care Program	05/10/2019	Regular	0.00	50.06	34795
00046	De Lay & Laredo	05/10/2019	Regular	0.00	33,446.14	34796
02660	Forestry Suppliers Inc.	05/10/2019	Regular	0.00	848.27	34797
08990	Fort Ord Reuse Authority	05/10/2019	Regular	0.00	1,135.53	34798
00768	ICMA	05/10/2019	Regular	0.00	5,525.09	34799
00259	Marina Coast Water District	05/10/2019	Regular	0.00	173.52	34800
00259	Marina Coast Water District	05/10/2019	Regular	0.00	171.54	34801
05829	Mark Bekker	05/10/2019	Regular	0.00	1,018.00	34802
07418	McMaster-Carr	05/10/2019	Regular	0.00	596.52	34803
13396	Navia Benefit Solutions, Inc.	05/10/2019	Regular	0.00	881.26	34804
13394	Regional Government Services	05/10/2019	Regular	0.00	4,714.20	34805
04709	Sherron Forsgren	05/10/2019	Regular	0.00	736.35	34806
00258	TBC Communications & Media	05/10/2019	Regular	0.00	3,500.00	34807
04719	Telit Io T Platforms, LLC	05/10/2019	Regular	0.00	218.06	34808
09351	Tetra Tech, Inc.	05/10/2019	Regular	0.00	2,118.73	34809
00203	ThyssenKrup Elevator	05/10/2019	Regular	0.00	623.28	34810
11622	United States Geologic Survey	05/10/2019	Regular	0.00	20,000.00	34811
00207	Universal Staffing Inc.	05/10/2019	Regular	0.00	1,820.35	34812

**EXHIBIT 11-B**

72

**Check Report****Date Range: 05/01/2019 - 05/31/2019**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
06009	yourservicesolution.com	05/10/2019	Regular	0.00	113.00	34813
00249	A.G. Davi, LTD	05/17/2019	Regular	0.00	395.00	34881
00760	Andy Bell	05/17/2019	Regular	0.00	684.00	34882
00036	Bill Parham	05/17/2019	Regular	0.00	650.00	34883
12188	Brown and Caldwell	05/17/2019	Regular	0.00	5,295.75	34884
12601	Carmel Valley Ace Hardware	05/17/2019	Regular	0.00	39.07	34885
00046	De Lay & Laredo	05/17/2019	Regular	0.00	72,763.48	34886
00041	Denise Duffy & Assoc. Inc.	05/17/2019	Regular	0.00	3,872.25	34887
03857	Joe Oliver	05/17/2019	Regular	0.00	1,218.97	34888
03969	Jonathan Lear	05/17/2019	Regular	0.00	770.40	34889
05830	Larry Hampson	05/17/2019	Regular	0.00	195.76	34890
12658	McCampbell Analytical, Inc.	05/17/2019	Regular	0.00	2,462.00	34891
00755	Peninsula Welding Supply, Inc.	05/17/2019	Regular	0.00	64.50	34892
00159	Pueblo Water Resources, Inc.	05/17/2019	Regular	0.00	24,942.58	34893
07627	Purchase Power	05/17/2019	Regular	0.00	500.00	34894
13394	Regional Government Services	05/17/2019	Regular	0.00	948.00	34895
01020	Sara Reyes - Petty Cash Custodian	05/17/2019	Regular	0.00	209.11	34896
00176	Sentry Alarm Systems	05/17/2019	Regular	0.00	215.50	34897
04353	Thomas Christensen	05/17/2019	Regular	0.00	270.00	34898
04366	Tom Lindberg	05/17/2019	Regular	0.00	130.79	34899
00207	Universal Staffing Inc.	05/17/2019	Regular	0.00	1,799.07	34900
18163	Wex Bank	05/17/2019	Regular	0.00	1,027.39	34901
06009	yourservicesolution.com	05/17/2019	Regular	0.00	2,448.00	34902
00754	Zone24x7	05/17/2019	Regular	0.00	2,522.00	34903
00269	U.S. Bank	05/20/2019	Regular	0.00	8,985.49	34904
	**Void**	05/20/2019	Regular	0.00	0.00	34905
	**Void**	05/20/2019	Regular	0.00	0.00	34906
01188	Alhambra	05/24/2019	Regular	0.00	175.19	34908
00243	CalPers Long Term Care Program	05/24/2019	Regular	0.00	50.06	34909
12601	Carmel Valley Ace Hardware	05/24/2019	Regular	0.00	38.96	34910
03968	Central Coast Fly Fishing	05/24/2019	Regular	0.00	161.57	34911
00237	Chevron	05/24/2019	Regular	0.00	296.31	34912
00230	Cisco WebEx, LLC	05/24/2019	Regular	0.00	110.20	34913
00028	Colantuono, Highsmith, & Whatley, PC	05/24/2019	Regular	0.00	683.74	34914
06268	Comcast	05/24/2019	Regular	0.00	286.52	34915
00281	CoreLogic Information Solutions, Inc.	05/24/2019	Regular	0.00	1,016.58	34916
01009	Cory Hamilton	05/24/2019	Regular	0.00	379.07	34917
11822	CSC	05/24/2019	Regular	0.00	4,000.00	34918
04041	Cynthia Schmidlin	05/24/2019	Regular	0.00	691.33	34919
00046	De Lay & Laredo	05/24/2019	Regular	0.00	18,177.00	34920
00041	Denise Duffy & Assoc. Inc.	05/24/2019	Regular	0.00	13,047.00	34921
07626	Ecology Action of Santa Cruz	05/24/2019	Regular	0.00	13,144.50	34922
00225	Escalon Services c/o Palace Business Solutions	05/24/2019	Regular	0.00	456.15	34923
00192	Extra Space Storage	05/24/2019	Regular	0.00	869.00	34924
00758	FedEx	05/24/2019	Regular	0.00	17.32	34925
00986	Henrietta Stern	05/24/2019	Regular	0.00	1,218.97	34926
00277	Home Depot Credit Services	05/24/2019	Regular	0.00	55.17	34927
00768	ICMA	05/24/2019	Regular	0.00	5,525.09	34928
00094	John Arriaga	05/24/2019	Regular	0.00	2,500.00	34929
06999	KBA Docusys	05/24/2019	Regular	0.00	742.74	34930
00222	M.J. Murphy	05/24/2019	Regular	0.00	61.08	34931
01012	Mark Dudley	05/24/2019	Regular	0.00	10.00	34932
00223	Martins Irrigation Supply	05/24/2019	Regular	0.00	99.69	34933
16823	Mercer-Fraser Company	05/24/2019	Regular	0.00	192,835.82	34934
01002	Monterey County Clerk	05/24/2019	Regular	0.00	-2,454.75	34935
01002	Monterey County Clerk	05/24/2019	Regular	0.00	2,454.75	34935
13396	Navia Benefit Solutions, Inc.	05/24/2019	Regular	0.00	881.26	34936
00755	Peninsula Welding Supply, Inc.	05/24/2019	Regular	0.00	60.41	34937
00282	PG&E	05/24/2019	Regular	0.00	9.86	34938
00282	PG&E	05/24/2019	Regular	0.00	20.36	34939
00282	PG&E	05/24/2019	Regular	0.00	49.82	34940



**EXHIBIT 11-B**

73

**Check Report****Date Range: 05/01/2019 - 05/31/2019**

<b>Vendor Number</b>	<b>Vendor Name</b>	<b>Payment Date</b>	<b>Payment Type</b>	<b>Discount Amount</b>	<b>Payment Amount</b>	<b>Number</b>
00282	PG&E	05/24/2019	Regular	0.00	10.41	34941
00752	Professional Liability Insurance Service	05/24/2019	Regular	0.00	33.54	34942
00159	Pueblo Water Resources, Inc.	05/24/2019	Regular	0.00	17,956.07	34943
09925	QED Environmental Systems	05/24/2019	Regular	0.00	6,237.18	34944
00176	Sentry Alarm Systems	05/24/2019	Regular	0.00	150.00	34945
00766	Standard Insurance Company	05/24/2019	Regular	0.00	1,548.78	34946
00258	TBC Communications & Media	05/24/2019	Regular	0.00	948.00	34947
09425	The Ferguson Group LLC	05/24/2019	Regular	0.00	8,165.68	34948
17965	The Maynard Group	05/24/2019	Regular	0.00	27,970.10	34949
00203	ThyssenKrup Elevator	05/24/2019	Regular	0.00	942.50	34950
00207	Universal Staffing Inc.	05/24/2019	Regular	0.00	1,204.48	34951
08105	Yolanda Munoz	05/24/2019	Regular	0.00	540.00	34952
01002	Monterey County Clerk	05/24/2019	Regular	0.00	2,404.75	34953
01002	Monterey County Clerk	05/24/2019	Regular	0.00	50.00	34954
00010	Access Monterey Peninsula	05/31/2019	Regular	0.00	1,400.00	34955
14037	AECOM Technical Services, Inc.	05/31/2019	Regular	0.00	15,850.00	34956
01347	ARC Document Solutions, LLC	05/31/2019	Regular	0.00	219.68	34957
00263	Arlene Tavani	05/31/2019	Regular	0.00	54.12	34958
00236	AT&T Long Distance	05/31/2019	Regular	0.00	10.59	34959
01001	CDW Government	05/31/2019	Regular	0.00	56.79	34960
00024	Central Coast Exterminator	05/31/2019	Regular	0.00	104.00	34961
06441	City of Pacific Grove	05/31/2019	Regular	0.00	123.00	34962
00761	Delores Cofer	05/31/2019	Regular	0.00	342.00	34963
00041	Denise Duffy & Assoc. Inc.	05/31/2019	Regular	0.00	3,742.00	34964
18225	DUDEK	05/31/2019	Regular	0.00	1,777.50	34965
00235	Green Rubber- Kennedy AG	05/31/2019	Regular	0.00	114.11	34966
00993	Harris Court Business Park	05/31/2019	Regular	0.00	721.26	34967
04717	Inder Osahan	05/31/2019	Regular	0.00	1,218.97	34968
12597	Maureen Hamilton	05/31/2019	Regular	0.00	1,325.18	34969
00275	Monterey County Herald	05/31/2019	Regular	0.00	163.14	34970
00207	Universal Staffing Inc.	05/31/2019	Regular	0.00	1,931.20	34971
00221	Verizon Wireless	05/31/2019	Regular	0.00	835.72	34972
18163	Wex Bank	05/31/2019	Regular	0.00	199.08	34973
<b>Total Regular:</b>					<b>628,075.39</b>	

**EXHIBIT 11-B**

74

**Check Report****Date Range: 05/01/2019 - 05/31/2019**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
<b>Payment Type: Bank Draft</b>						
00266	I.R.S.	05/10/2019	Bank Draft	0.00	11,940.73	DFT0001386
00266	I.R.S.	05/10/2019	Bank Draft	0.00	2,769.26	DFT0001387
00267	Employment Development Dept.	05/10/2019	Bank Draft	0.00	4,613.25	DFT0001388
00266	I.R.S.	05/10/2019	Bank Draft	0.00	300.08	DFT0001389
00266	I.R.S.	05/10/2019	Bank Draft	0.00	30.95	DFT0001391
00266	I.R.S.	05/10/2019	Bank Draft	0.00	66.58	DFT0001392
00266	I.R.S.	05/10/2019	Bank Draft	0.00	284.58	DFT0001393
00769	Laborers Trust Fund of Northern CA	05/14/2019	Bank Draft	0.00	29,040.00	DFT0001395
00256	PERS Retirement	05/10/2019	Bank Draft	0.00	15,863.76	DFT0001396
00266	I.R.S.	05/24/2019	Bank Draft	0.00	11,586.47	DFT0001398
00266	I.R.S.	05/24/2019	Bank Draft	0.00	2,714.64	DFT0001399
00267	Employment Development Dept.	05/24/2019	Bank Draft	0.00	4,468.53	DFT0001400
00266	I.R.S.	05/24/2019	Bank Draft	0.00	255.06	DFT0001401
00256	PERS Retirement	05/24/2019	Bank Draft	0.00	15,664.59	DFT0001407
<b>Total Bank Draft:</b>					<b>99,598.48</b>	

	Bank Code APBNK	Summary		
Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	215	144	0.00	630,530.14
Manual Checks	0	0	0.00	0.00
Voided Checks	0	3	0.00	-2,454.75
Bank Drafts	22	14	0.00	99,598.48
EFT's	0	0	0.00	0.00
	237	161	0.00	727,673.87

**EXHIBIT 11-B**

75

**Check Report****Date Range: 05/01/2019 - 05/31/2019**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
<b>Bank Code: REBATES-02-Rebates: Use Only For Rebates</b>						
<b>Payment Type: Regular</b>						
18252	Ambrose Pollock	05/17/2019	Regular	0.00	125.00	34814
18294	Andrea Eisinger	05/17/2019	Regular	0.00	2,000.00	34815
18228	Angela Look	05/17/2019	Regular	0.00	75.00	34816
18229	Barbara Zabrowski	05/17/2019	Regular	0.00	75.00	34817
18288	Ben Ellsworth	05/17/2019	Regular	0.00	100.00	34818
18265	Beth Webel	05/17/2019	Regular	0.00	500.00	34819
18291	Carisa Hotari	05/17/2019	Regular	0.00	200.00	34820
18293	Carolina Bayne	05/17/2019	Regular	0.00	150.00	34821
18266	David Marr	05/17/2019	Regular	0.00	500.00	34822
18267	David Minor	05/17/2019	Regular	0.00	500.00	34823
18253	David Obertello	05/17/2019	Regular	0.00	125.00	34824
18230	Donald Rhoads	05/17/2019	Regular	0.00	75.00	34825
18232	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34826
18239	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34827
18255	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34828
18238	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34829
18236	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34830
18235	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34831
18240	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34832
18241	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34833
18233	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34834
18231	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34835
18237	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34836
18268	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	500.00	34837
18234	Ecology Action of Santa Cruz	05/17/2019	Regular	0.00	125.00	34838
18269	Fred Sammis	05/17/2019	Regular	0.00	500.00	34839
18242	Gloria Gambale	05/17/2019	Regular	0.00	75.00	34840
18256	Harold Jones	05/17/2019	Regular	0.00	125.00	34841
18257	Hope Cappuccio	05/17/2019	Regular	0.00	125.00	34842
18270	Hunter & Lynn Finnell	05/17/2019	Regular	0.00	500.00	34843
18243	James & Nancy Stainton	05/17/2019	Regular	0.00	75.00	34844
18258	James Brady	05/17/2019	Regular	0.00	125.00	34845
18271	Jeff & Rachel Lynn	05/17/2019	Regular	0.00	500.00	34846
18244	Jill Houlette	05/17/2019	Regular	0.00	225.00	34847
18272	Jim Hughes	05/17/2019	Regular	0.00	500.00	34848
18273	Joan Costello	05/17/2019	Regular	0.00	500.00	34849
18292	Karen Levy	05/17/2019	Regular	0.00	137.50	34850
18259	Kim Maykranz	05/17/2019	Regular	0.00	225.00	34851
18245	Laura Hoke	05/17/2019	Regular	0.00	225.00	34852
18246	Liayas Telase	05/17/2019	Regular	0.00	75.00	34853
18260	Linda Parise	05/17/2019	Regular	0.00	125.00	34854
18261	Lynn Johnson	05/17/2019	Regular	0.00	125.00	34855
18262	Margo Thomas	05/17/2019	Regular	0.00	125.00	34856
18247	Mary Gillies	05/17/2019	Regular	0.00	75.00	34857
18274	Max Troyer	05/17/2019	Regular	0.00	700.00	34858
18275	Merekemeni Senivota	05/17/2019	Regular	0.00	500.00	34859
18248	Michael Phillipi	05/17/2019	Regular	0.00	75.00	34860
18276	Nancy Knapp	05/17/2019	Regular	0.00	500.00	34861
18277	Nancy Stabler & Elizabeth Moore	05/17/2019	Regular	0.00	500.00	34862
18263	Norman Jacobson	05/17/2019	Regular	0.00	125.00	34863
18287	Patrick Casey	05/17/2019	Regular	0.00	500.00	34864
18278	Peri Basseri& Charles Davis	05/17/2019	Regular	0.00	600.00	34865
18279	Philip Mraz	05/17/2019	Regular	0.00	500.00	34866
18249	Raquel Barata	05/17/2019	Regular	0.00	150.00	34867
18280	Richard Ronan	05/17/2019	Regular	0.00	500.00	34868
18264	Rick Hattori	05/17/2019	Regular	0.00	125.00	34869
18295	Robert Aloiotti	05/17/2019	Regular	0.00	1,000.00	34870
18289	Robert Feole	05/17/2019	Regular	0.00	100.00	34871
18281	Ronald Berry	05/17/2019	Regular	0.00	500.00	34872

**EXHIBIT 11-B**

76

**Check Report****Date Range: 05/01/2019 - 05/31/2019**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
18290	Ryan Olson	05/17/2019	Regular	0.00	100.00	34873
18250	Sharon Parody	05/17/2019	Regular	0.00	150.00	34874
18282	Terry Brutzman	05/17/2019	Regular	0.00	500.00	34875
18251	Theodore Kier	05/17/2019	Regular	0.00	75.00	34876
18283	Thomas Hatori	05/17/2019	Regular	0.00	500.00	34877
18284	Timothy Cummings	05/17/2019	Regular	0.00	500.00	34878
18285	Tom Freel & Linda Michaels	05/17/2019	Regular	0.00	500.00	34879
18286	Trudy Star	05/17/2019	Regular	0.00	500.00	34880
<b>Total Regular:</b>					<b>19,987.50</b>	

**Bank Code REBATES-02 Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	67	67	0.00	19,987.50
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>67</b>	<b>67</b>	<b>0.00</b>	<b>19,987.50</b>

**All Bank Codes Check Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	282	211	0.00	650,517.64
Manual Checks	0	0	0.00	0.00
Voided Checks	0	3	0.00	-2,454.75
Bank Drafts	22	14	0.00	99,598.48
EFT's	0	0	0.00	0.00
	<b>304</b>	<b>228</b>	<b>0.00</b>	<b>747,661.37</b>

**Fund Summary**

Fund	Name	Period	Amount
99	POOL CASH FUND	5/2019	747,661.37
			<b>747,661.37</b>



**EXHIBIT 11-C**

Monterey Peninsula Water Management Dist

**Payroll Bank Transaction Report**

By Payment Number

Date: 5/1/2019 - 5/31/2019

Payroll Set: 01 - Monterey Peninsula Water Management District

Payment Number	Payment Date	Payment Type	Employee Number	Employee Name	Check Amount	Direct Deposit Amount	Total Payment
4381	05/10/2019	Regular	1024	Stoldt, David J	0.00	5,720.87	5,720.87
4382	05/10/2019	Regular	1025	Tavani, Arlene M	0.00	2,089.94	2,089.94
4383	05/10/2019	Regular	1044	Bennett, Corryn D	0.00	2,138.35	2,138.35
4384	05/10/2019	Regular	1006	Dudley, Mark A	0.00	2,646.64	2,646.64
4385	05/10/2019	Regular	1018	Prasad, Suresh	0.00	4,259.54	4,259.54
4386	05/10/2019	Regular	1019	Reyes, Sara C	0.00	1,768.84	1,768.84
4387	05/10/2019	Regular	1045	Atkins, Daniel N	0.00	1,795.95	1,795.95
4388	05/10/2019	Regular	1005	Christensen, Thomas T	0.00	3,189.30	3,189.30
4389	05/10/2019	Regular	1042	Hamilton, Maureen C.	0.00	3,962.85	3,962.85
4390	05/10/2019	Regular	1008	Hampson, Larry M	0.00	3,079.95	3,079.95
4391	05/10/2019	Regular	1009	James, Gregory W	0.00	3,300.33	3,300.33
4392	05/10/2019	Regular	1011	Lear, Jonathan P	0.00	3,719.39	3,719.39
4393	05/10/2019	Regular	1012	Lindberg, Thomas L	0.00	2,514.67	2,514.67
4394	05/10/2019	Regular	1048	Lumas, Eric M	0.00	1,651.38	1,651.38
4395	05/10/2019	Regular	6035	Besson, Jordan C.	0.00	1,080.11	1,080.11
4396	05/10/2019	Regular	1004	Chaney, Beverly M	0.00	2,532.04	2,532.04
4397	05/10/2019	Regular	1007	Hamilton, Cory R	0.00	2,229.06	2,229.06
4398	05/10/2019	Regular	6048	Paulson, Timothy	0.00	937.98	937.98
4399	05/10/2019	Regular	1043	Suwada, Joseph	0.00	1,833.90	1,833.90
4400	05/10/2019	Regular	1026	Urquhart, Kevan A	0.00	2,211.93	2,211.93
4401	05/10/2019	Regular	1001	Ayala, Gabriela D	0.00	2,437.89	2,437.89
4402	05/10/2019	Regular	1010	Kister, Stephanie L	0.00	2,685.29	2,685.29
4403	05/10/2019	Regular	1017	Locke, Stephanie L	0.00	3,459.33	3,459.33
4404	05/10/2019	Regular	1040	Smith, Kyle	0.00	2,173.88	2,173.88
4405	05/10/2019	Regular	1047	Timmer, Christopher	0.00	1,995.20	1,995.20
4406	05/10/2019	Regular	7015	Adams, Mary L	0.00	124.67	124.67
4407	05/10/2019	Regular	7014	Evans, Molly F	0.00	490.07	490.07
4408	05/10/2019	Regular	7017	Hoffmann, Gary D	0.00	498.69	498.69
4409	05/10/2019	Regular	7018	Riley, George T	0.00	124.67	124.67
4410	05/24/2019	Regular	1024	Stoldt, David J	0.00	5,720.87	5,720.87
4411	05/24/2019	Regular	1025	Tavani, Arlene M	0.00	2,089.95	2,089.95
4412	05/24/2019	Regular	1044	Bennett, Corryn D	0.00	2,138.36	2,138.36
4413	05/24/2019	Regular	1006	Dudley, Mark A	0.00	2,646.65	2,646.65
4414	05/24/2019	Regular	1018	Prasad, Suresh	0.00	4,259.54	4,259.54
4415	05/24/2019	Regular	1019	Reyes, Sara C	0.00	1,768.84	1,768.84
4416	05/24/2019	Regular	1045	Atkins, Daniel N	0.00	1,795.96	1,795.96
4417	05/24/2019	Regular	1005	Christensen, Thomas T	0.00	3,189.30	3,189.30
4418	05/24/2019	Regular	1042	Hamilton, Maureen C.	0.00	3,287.89	3,287.89
4419	05/24/2019	Regular	1008	Hampson, Larry M	0.00	3,079.95	3,079.95
4420	05/24/2019	Regular	1009	James, Gregory W	0.00	3,300.33	3,300.33
4421	05/24/2019	Regular	1011	Lear, Jonathan P	0.00	3,719.39	3,719.39
4422	05/24/2019	Regular	1012	Lindberg, Thomas L	0.00	2,514.68	2,514.68
4423	05/24/2019	Regular	1048	Lumas, Eric M	0.00	1,362.17	1,362.17
4424	05/24/2019	Regular	6035	Besson, Jordan C.	0.00	804.42	804.42
4425	05/24/2019	Regular	1004	Chaney, Beverly M	0.00	2,532.05	2,532.05
4426	05/24/2019	Regular	1007	Hamilton, Cory R	0.00	2,229.06	2,229.06
4427	05/24/2019	Regular	6048	Paulson, Timothy	0.00	937.98	937.98
4428	05/24/2019	Regular	1043	Suwada, Joseph	0.00	1,833.90	1,833.90
4429	05/24/2019	Regular	1026	Urquhart, Kevan A	0.00	2,211.94	2,211.94
4430	05/24/2019	Regular	1001	Ayala, Gabriela D	0.00	2,437.89	2,437.89
4431	05/24/2019	Regular	1010	Kister, Stephanie L	0.00	2,685.27	2,685.27
4432	05/24/2019	Regular	1017	Locke, Stephanie L	0.00	3,459.33	3,459.33
4433	05/24/2019	Regular	1040	Smith, Kyle	0.00	2,173.88	2,173.88
4434	05/24/2019	Regular	1047	Timmer, Christopher	0.00	1,995.20	1,995.20
34787	05/10/2019	Regular	1046	Whitmore, Cortina	1,309.03	750.00	2,059.03
34788	05/10/2019	Regular	7007	Byrne, Jeannie	249.34	0.00	249.34
34789	05/10/2019	Regular	7009	Edwards, Alvin	476.36	0.00	476.36

<b>EXHIBIT 11-C</b>							
<b>Payment Number</b>	<b>Payment Date</b>	<b>Payment Type</b>	<b>Employee Number</b>	<b>Employee Name</b>	<b>Check Amount</b>	<b>Direct Deposit Amount</b>	<b>80 Total Payment</b>
34790	05/10/2019	Regular	7004	Potter, David L	124.67	0.00	124.67
34907	05/24/2019	Regular	1046	Whitmore, Cortina	1,309.03	750.00	2,059.03
<b>Total:</b>					<b>3,468.43</b>	<b>132,327.51</b>	<b>135,795.94</b>





Monterey Peninsula Water Management Dist

# Statement of Revenue Over Expense - No Decimals

## Group Summary

For Fiscal: 2018-2019 Period Ending: 05/31/2019

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Revenue</b>								
R100 - Water Supply Charge	0	283,333	-283,333	0.00 %	3,337,566	3,400,000	-62,434	98.16 %
R120 - Property Taxes Revenues	0	162,481	-162,481	0.00 %	1,969,406	1,950,000	19,406	101.00 %
R130 - User Fees	316,326	374,967	-58,641	84.36 %	3,734,833	4,500,000	-765,167	83.00 %
R140 - Connection Charges	221	37,500	-37,279	0.59 %	535,228	450,000	85,228	118.94 %
R150 - Permit Processing Fee	1,154	14,578	-13,424	7.92 %	213,205	175,000	38,205	121.83 %
R160 - Well Registration Fee	0	0	0	0.00 %	1,375	0	1,375	0.00 %
R190 - WDS Permits Rule 21	0	4,667	-4,667	0.00 %	14,500	56,000	-41,500	25.89 %
R200 - Recording Fees	31	1,665	-1,634	1.86 %	4,123	20,000	-15,877	20.62 %
R210 - Legal Fees	0	1,333	-1,333	0.00 %	3,600	16,000	-12,400	22.50 %
R220 - Copy Fee	0	0	0	0.00 %	203	0	203	0.00 %
R230 - Miscellaneous - Other	-1	1,250	-1,251	-0.08 %	1,443	15,000	-13,557	9.62 %
R240 - Insurance Refunds	0	0	0	0.00 %	19	0	19	0.00 %
R250 - Interest Income	65	14,999	-14,934	0.43 %	201,431	180,000	21,431	111.91 %
R260 - CAW - ASR	0	40,950	-40,950	0.00 %	-34,411	491,600	-526,011	-7.00 %
R270 - CAW - Rebates	15,269	80,801	-65,532	18.90 %	525,471	970,000	-444,529	54.17 %
R290 - CAW - Miscellaneous	0	3,749	-3,749	0.00 %	0	45,000	-45,000	0.00 %
R300 - Watermaster	0	4,548	-4,548	0.00 %	15,170	54,600	-39,430	27.78 %
R308 - Reclamation Project	0	1,666	-1,666	0.00 %	0	20,000	-20,000	0.00 %
R310 - Other Reimbursements	0	14,057	-14,057	0.00 %	0	168,700	-168,700	0.00 %
R320 - Grants	200,000	178,895	21,105	111.80 %	1,370,008	2,147,600	-777,592	63.79 %
R510 - Operating Reserve	0	178,563	-178,563	0.00 %	0	2,143,500	-2,143,500	0.00 %
<b>Total Revenue:</b>	<b>533,065</b>	<b>1,400,001</b>	<b>-866,936</b>	<b>38.08 %</b>	<b>11,893,169</b>	<b>16,803,000</b>	<b>-4,909,831</b>	<b>70.78 %</b>

**EXHIBIT 11-D**

82

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Expense</b>								
<b>Level1: 100 - Personnel Costs</b>								
1100 - Salaries & Wages	195,286	222,294	27,008	87.85 %	2,281,522	2,668,600	387,078	85.50 %
1110 - Manager's Auto Allowance	462	500	38	92.34 %	5,308	6,000	692	88.47 %
1120 - Manager's Deferred Comp	714	758	44	94.21 %	8,153	9,100	947	89.59 %
1130 - Unemployment Compensation	0	250	250	0.00 %	2,649	3,000	351	88.30 %
1150 - Temporary Personnel	8,600	6,082	-2,518	141.40 %	66,744	73,000	6,256	91.43 %
1160 - PERS Retirement	16,717	44,057	27,340	37.94 %	486,990	528,900	41,910	92.08 %
1170 - Medical Insurance	27,731	28,372	641	97.74 %	285,620	340,600	54,980	83.86 %
1180 - Medical Insurance - Retirees	9,375	6,872	-2,502	136.41 %	90,437	82,500	-7,937	109.62 %
1190 - Workers Compensation	4,018	4,648	630	86.45 %	46,568	55,800	9,232	83.46 %
1200 - Life Insurance	325	483	159	67.16 %	3,612	5,800	2,189	62.27 %
1210 - Long Term Disability Insurance	1,115	1,233	118	90.41 %	12,020	14,800	2,780	81.22 %
1220 - Short Term Disability Insurance	221	267	45	83.00 %	2,386	3,200	814	74.55 %
1230 - Other Benefits	70	125	55	56.02 %	1,046	1,500	454	69.76 %
1260 - Employee Assistance Program	56	125	69	45.14 %	606	1,500	894	40.42 %
1270 - FICA Tax Expense	453	400	-54	113.38 %	4,598	4,800	202	95.80 %
1280 - Medicare Tax Expense	2,783	3,315	532	83.95 %	34,021	39,800	5,779	85.48 %
1290 - Staff Development & Training	900	2,241	1,341	40.16 %	6,470	26,900	20,430	24.05 %
1300 - Conference Registration	365	408	43	89.42 %	6,331	4,900	-1,431	129.20 %
1310 - Professional Dues	695	233	-462	298.05 %	1,684	2,800	1,116	60.14 %
1320 - Personnel Recruitment	0	250	250	0.00 %	912	3,000	2,088	30.41 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>269,885</b>	<b>322,913</b>	<b>53,028</b>	<b>83.58 %</b>	<b>3,347,678</b>	<b>3,876,500</b>	<b>528,822</b>	<b>86.36 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	2,835	2,832	-3	100.10 %	26,595	34,000	7,405	78.22 %
2020 - Board Expenses	0	416	416	0.00 %	6,682	5,000	-1,682	133.65 %
2040 - Rent	1,914	1,933	19	99.04 %	20,087	23,200	3,113	86.58 %
2060 - Utilities	2,460	2,749	289	89.50 %	27,517	33,000	5,483	83.39 %
2120 - Insurance Expense	4,979	4,332	-647	114.94 %	55,004	52,000	-3,004	105.78 %
2130 - Membership Dues	50	2,974	2,924	1.68 %	31,821	35,700	3,879	89.13 %
2140 - Bank Charges	456	333	-123	136.94 %	5,279	4,000	-1,279	131.97 %
2150 - Office Supplies	1,829	1,416	-413	129.14 %	12,640	17,000	4,360	74.35 %
2160 - Courier Expense	475	666	191	71.28 %	3,715	8,000	4,285	46.44 %
2170 - Printing/Photocopy	439	42	-398	1,054.89 %	472	500	28	94.33 %
2180 - Postage & Shipping	532	558	26	95.26 %	3,731	6,700	2,969	55.69 %
2190 - IT Supplies/Services	149	10,829	10,680	1.38 %	125,931	130,000	4,069	96.87 %
2200 - Professional Fees	19,775	29,821	10,047	66.31 %	285,066	358,000	72,934	79.63 %
2220 - Equipment Repairs & Maintenance	185	583	398	31.70 %	4,849	7,000	2,151	69.27 %
2235 - Equipment Lease	947	1,166	219	81.22 %	11,959	14,000	2,041	85.42 %
2240 - Telephone	4,479	4,632	153	96.71 %	62,343	55,600	-6,743	112.13 %
2260 - Facility Maintenance	3,757	3,432	-325	109.46 %	34,281	41,200	6,919	83.21 %
2270 - Travel Expenses	2,174	2,216	42	98.12 %	23,323	26,600	3,277	87.68 %

**EXHIBIT 11-D**

83

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	2,536	2,832	296	89.54 %	23,365	34,000	10,635	68.72 %
2300 - Legal Services	17,121	33,320	16,199	51.38 %	282,478	400,000	117,522	70.62 %
2380 - Meeting Expenses	433	558	126	77.49 %	3,148	6,700	3,552	46.99 %
2420 - Legal Notices	163	258	95	63.18 %	163	3,100	2,937	5.26 %
2460 - Public Outreach	50	208	158	24.23 %	2,024	2,500	476	80.97 %
2480 - Miscellaneous	0	250	250	0.00 %	17,071	3,000	-14,071	569.02 %
2500 - Tax Administration Fee	0	1,666	1,666	0.00 %	19,947	20,000	53	99.74 %
2900 - Operating Supplies	1,178	1,591	413	74.05 %	12,831	19,100	6,269	67.18 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>68,917</b>	<b>111,614</b>	<b>42,697</b>	<b>61.75 %</b>	<b>1,102,322</b>	<b>1,339,900</b>	<b>237,578</b>	<b>82.27 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	479,142	717,286	238,144	66.80 %	4,514,205	8,611,200	4,096,995	52.42 %
4000 - Fixed Asset Purchases	11,188	45,681	34,493	24.49 %	329,119	548,400	219,281	60.01 %
5000 - Debt Service	63,560	19,159	-44,401	331.75 %	128,961	230,000	101,039	56.07 %
5500 - Election Expenses	0	13,328	13,328	0.00 %	221,004	160,000	-61,004	138.13 %
6000 - Contingencies	0	6,248	6,248	0.00 %	0	75,000	75,000	0.00 %
6500 - Reserves	0	163,488	163,488	0.00 %	0	1,962,000	1,962,000	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>553,891</b>	<b>965,190</b>	<b>411,299</b>	<b>57.39 %</b>	<b>5,193,288</b>	<b>11,586,600</b>	<b>6,393,312</b>	<b>44.82 %</b>
<b>Total Expense:</b>	<b>892,693</b>	<b>1,399,717</b>	<b>507,024</b>	<b>63.78 %</b>	<b>9,643,289</b>	<b>16,803,000</b>	<b>7,159,711</b>	<b>57.39 %</b>
<b>Report Total:</b>	<b>-359,628</b>	<b>284</b>	<b>-359,912</b>		<b>2,249,881</b>	<b>0</b>	<b>2,249,881</b>	

**EXHIBIT 11-D****Statement of Revenue Over Expense - No Decimals**

84

For Fiscal: 2018-2019 Period Ending: 05/31/2019

**Fund Summary**

<b>Fund</b>	<b>May Activity</b>	<b>May Budget</b>	<b>Variance Favorable (Unfavorable)</b>	<b>Percent Used</b>	<b>YTD Activity</b>	<b>Total Budget</b>	<b>Variance Favorable (Unfavorable)</b>	<b>Percent Used</b>
24 - MITIGATION FUND	-195,408	137	-195,546		460,992	0	460,992	
26 - CONSERVATION FUND	-51,837	0	-51,837		437,398	0	437,398	
35 - WATER SUPPLY FUND	-112,383	147	-112,530		1,351,491	0	1,351,491	
<b>Report Total:</b>	<b>-359,628</b>	<b>284.07</b>	<b>-359,912</b>		<b>2,249,881</b>	<b>0</b>	<b>2,249,881</b>	



Monterey Peninsula Water Management Dist

# Statement of Revenue Over Expense - No Decimals

## Group Summary

For Fiscal: 2018-2019 Period Ending: 05/31/2019

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Fund: 24 - MITIGATION FUND</b>								
<b>Revenue</b>								
R120 - Property Taxes Revenues	0	100,000	-100,000	0.00 %	1,211,942	1,200,000	11,942	101.00 %
R130 - User Fees	199,148	231,667	-32,519	85.96 %	2,226,732	2,780,000	-553,268	80.10 %
R160 - Well Registration Fee	0	0	0	0.00 %	1,375	0	1,375	0.00 %
R190 - WDS Permits Rule 21	0	4,667	-4,667	0.00 %	14,500	56,000	-41,500	25.89 %
R220 - Copy Fee	0	0	0	0.00 %	2	0	2	0.00 %
R230 - Miscellaneous - Other	0	417	-417	0.00 %	393	5,000	-4,607	7.86 %
R240 - Insurance Refunds	0	0	0	0.00 %	8	0	8	0.00 %
R250 - Interest Income	13	4,166	-4,153	0.32 %	50,779	50,000	779	101.56 %
R290 - CAW - Miscellaneous	0	3,749	-3,749	0.00 %	0	45,000	-45,000	0.00 %
R310 - Other Reimbursements	0	9,642	-9,642	0.00 %	0	115,700	-115,700	0.00 %
R320 - Grants	0	158,270	-158,270	0.00 %	1,170,008	1,900,000	-729,992	61.58 %
R510 - Operating Reserve	0	23,750	-23,750	0.00 %	0	285,000	-285,000	0.00 %
<b>Total Revenue:</b>	<b>199,161</b>	<b>536,326</b>	<b>-337,166</b>	<b>-37.13 %</b>	<b>4,675,738</b>	<b>6,436,700</b>	<b>-1,760,962</b>	<b>72.64 %</b>

**EXHIBIT 11-D**

86

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Expense</b>								
<b>Level1: 100 - Personnel Costs</b>								
1100 - Salaries & Wages	75,483	88,439	12,957	85.35 %	890,189	1,061,700	171,511	83.85 %
1110 - Manager's Auto Allowance	92	100	8	92.34 %	1,062	1,200	138	88.47 %
1120 - Manager's Deferred Comp	143	117	-26	122.47 %	1,630	1,400	-230	116.45 %
1130 - Unemployment Compensation	0	100	100	0.00 %	1,060	1,200	140	88.30 %
1150 - Temporary Personnel	3,440	2,433	-1,007	141.40 %	26,698	29,200	2,502	91.43 %
1160 - PERS Retirement	6,514	17,660	11,145	36.89 %	194,946	212,000	17,054	91.96 %
1170 - Medical Insurance	11,360	12,145	785	93.53 %	113,722	145,800	32,078	78.00 %
1180 - Medical Insurance - Retirees	3,750	2,749	-1,001	136.41 %	36,409	33,000	-3,409	110.33 %
1190 - Workers Compensation	2,379	2,766	387	86.01 %	27,359	33,200	5,841	82.41 %
1200 - Life Insurance	138	217	79	63.59 %	1,495	2,600	1,105	57.49 %
1210 - Long Term Disability Insurance	448	516	68	86.82 %	4,791	6,200	1,409	77.28 %
1220 - Short Term Disability Insurance	89	108	19	82.21 %	952	1,300	348	73.20 %
1230 - Other Benefits	28	50	22	56.02 %	419	600	181	69.76 %
1260 - Employee Assistance Program	23	50	27	46.38 %	243	600	357	40.44 %
1270 - FICA Tax Expense	348	167	-181	208.81 %	3,610	2,000	-1,610	180.48 %
1280 - Medicare Tax Expense	1,150	1,316	166	87.38 %	14,097	15,800	1,703	89.22 %
1290 - Staff Development & Training	0	708	708	0.00 %	1,851	8,500	6,649	21.77 %
1300 - Conference Registration	0	117	117	0.00 %	1,983	1,400	-583	141.63 %
1310 - Professional Dues	270	50	-220	540.22 %	727	600	-127	121.25 %
1320 - Personnel Recruitment	0	100	100	0.00 %	533	1,200	667	44.39 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>105,655</b>	<b>129,907</b>	<b>24,252</b>	<b>81.33 %</b>	<b>1,323,773</b>	<b>1,559,500</b>	<b>235,727</b>	<b>84.88 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	1,134	1,133	-1	100.10 %	10,646	13,600	2,954	78.28 %
2020 - Board Expenses	0	167	167	0.00 %	2,559	2,000	-559	127.96 %
2040 - Rent	870	883	13	98.54 %	9,119	10,600	1,481	86.03 %
2060 - Utilities	987	1,108	120	89.13 %	11,066	13,300	2,234	83.20 %
2120 - Insurance Expense	1,992	1,733	-259	114.94 %	22,002	20,800	-1,202	105.78 %
2130 - Membership Dues	0	908	908	0.00 %	11,391	10,900	-491	104.51 %
2140 - Bank Charges	186	133	-52	139.19 %	1,974	1,600	-374	123.39 %
2150 - Office Supplies	732	550	-182	133.06 %	5,046	6,600	1,554	76.46 %
2160 - Courier Expense	190	267	77	71.28 %	1,486	3,200	1,714	46.44 %
2170 - Printing/Photocopy	176	17	-159	1,054.86 %	189	200	11	94.33 %
2180 - Postage & Shipping	213	225	12	94.56 %	1,492	2,700	1,208	55.27 %
2190 - IT Supplies/Services	60	4,332	4,272	1.38 %	50,372	52,000	1,628	96.87 %
2200 - Professional Fees	7,630	11,929	4,299	63.96 %	110,824	143,200	32,376	77.39 %
2220 - Equipment Repairs & Maintenance	126	233	108	53.89 %	1,991	2,800	809	71.12 %
2235 - Equipment Lease	407	466	59	87.32 %	5,143	5,600	457	91.83 %
2240 - Telephone	1,960	1,849	-110	105.95 %	26,142	22,200	-3,942	117.76 %
2260 - Facility Maintenance	1,503	1,383	-120	108.67 %	13,725	16,600	2,875	82.68 %
2270 - Travel Expenses	1,185	708	-477	167.36 %	6,216	8,500	2,284	73.13 %

**EXHIBIT 11-D**

87

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	2,253	1,141	-1,111	197.39 %	18,871	13,700	-5,171	137.75 %
2300 - Legal Services	3,988	11,662	7,674	34.19 %	53,075	140,000	86,925	37.91 %
2380 - Meeting Expenses	173	225	52	76.92 %	1,218	2,700	1,482	45.13 %
2420 - Legal Notices	65	108	43	60.26 %	65	1,300	1,235	5.02 %
2460 - Public Outreach	20	83	63	24.21 %	755	1,000	245	75.50 %
2480 - Miscellaneous	0	100	100	0.00 %	152	1,200	1,048	12.63 %
2500 - Tax Administration Fee	0	483	483	0.00 %	7,044	5,800	-1,244	121.45 %
2900 - Operating Supplies	162	108	-53	149.20 %	1,668	1,300	-368	128.32 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>26,009</b>	<b>41,933</b>	<b>15,925</b>	<b>62.02 %</b>	<b>374,233</b>	<b>503,400</b>	<b>129,167</b>	<b>74.34 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	251,717	310,696	58,979	81.02 %	2,360,023	3,729,800	1,369,777	63.27 %
4000 - Fixed Asset Purchases	11,188	11,794	606	94.86 %	68,316	141,600	73,284	48.25 %
5500 - Election Expenses	0	5,331	5,331	0.00 %	88,401	64,000	-24,401	138.13 %
6000 - Contingencies	0	2,499	2,499	0.00 %	0	30,000	30,000	0.00 %
6500 - Reserves	0	34,028	34,028	0.00 %	0	408,400	408,400	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>262,905</b>	<b>364,349</b>	<b>101,444</b>	<b>72.16 %</b>	<b>2,516,740</b>	<b>4,373,800</b>	<b>1,857,060</b>	<b>57.54 %</b>
<b>Total Expense:</b>	<b>394,569</b>	<b>536,189</b>	<b>141,620</b>	<b>73.59 %</b>	<b>4,214,746</b>	<b>6,436,700</b>	<b>2,221,954</b>	<b>65.48 %</b>
<b>Total Revenues</b>	<b>199,161</b>	<b>536,326</b>	<b>-337,166</b>	<b>-37.13 %</b>	<b>4,675,738</b>	<b>6,436,700</b>	<b>-1,760,962</b>	<b>-72.64 %</b>
<b>Total Fund: 24 - MITIGATION FUND:</b>	<b>-195,408</b>	<b>137</b>	<b>-195,546</b>		<b>460,992</b>	<b>0</b>	<b>460,992</b>	

**EXHIBIT 11-D**

88

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Fund: 26 - CONSERVATION FUND</b>								
<b>Revenue</b>								
R120 - Property Taxes Revenues	0	49,981	-49,981	0.00 %	605,971	600,000	5,971	101.00 %
R130 - User Fees	72,850	89,967	-17,117	80.97 %	888,550	1,080,000	-191,450	82.27 %
R150 - Permit Processing Fee	1,154	14,578	-13,424	7.92 %	213,205	175,000	38,205	121.83 %
R200 - Recording Fees	31	1,665	-1,634	1.86 %	4,123	20,000	-15,877	20.62 %
R210 - Legal Fees	0	1,333	-1,333	0.00 %	3,600	16,000	-12,400	22.50 %
R220 - Copy Fee	0	0	0	0.00 %	1	0	1	0.00 %
R230 - Miscellaneous - Other	-1	417	-418	-0.24 %	782	5,000	-4,218	15.64 %
R240 - Insurance Refunds	0	0	0	0.00 %	5	0	5	0.00 %
R250 - Interest Income	9	3,333	-3,324	0.27 %	52,400	40,000	12,400	131.00 %
R270 - CAW - Rebates	15,269	80,801	-65,532	18.90 %	525,471	970,000	-444,529	54.17 %
R320 - Grants	0	12,712	-12,712	0.00 %	0	152,600	-152,600	0.00 %
R510 - Operating Reserve	0	24,632	-24,632	0.00 %	0	295,700	-295,700	0.00 %
<b>Total Revenue:</b>	<b>89,312</b>	<b>279,417</b>	<b>-190,105</b>	<b>-31.96 %</b>	<b>2,294,109</b>	<b>3,354,300</b>	<b>-1,060,191</b>	<b>68.39 %</b>



**EXHIBIT 11-D**

89

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Expense</b>								
<b>Level1: 100 - Personnel Costs</b>								
1100 - Salaries & Wages	40,434	56,244	15,810	71.89 %	521,591	675,200	153,609	77.25 %
1110 - Manager's Auto Allowance	92	100	8	92.34 %	1,062	1,200	138	88.47 %
1120 - Manager's Deferred Comp	143	192	49	74.54 %	1,630	2,300	670	70.88 %
1130 - Unemployment Compensation	0	67	67	0.00 %	742	800	58	92.72 %
1150 - Temporary Personnel	2,408	1,700	-708	141.68 %	18,688	20,400	1,712	91.61 %
1160 - PERS Retirement	3,362	10,479	7,117	32.08 %	108,176	125,800	17,624	85.99 %
1170 - Medical Insurance	6,152	7,580	1,428	81.16 %	69,969	91,000	21,031	76.89 %
1180 - Medical Insurance - Retirees	2,625	1,924	-701	136.41 %	25,290	23,100	-2,190	109.48 %
1190 - Workers Compensation	155	250	95	62.05 %	2,010	3,000	990	67.00 %
1200 - Life Insurance	57	108	51	52.82 %	714	1,300	586	54.95 %
1210 - Long Term Disability Insurance	239	317	78	75.45 %	2,818	3,800	982	74.17 %
1220 - Short Term Disability Insurance	47	67	19	71.19 %	560	800	240	69.99 %
1230 - Other Benefits	20	33	14	58.82 %	293	400	107	73.25 %
1260 - Employee Assistance Program	13	33	21	37.64 %	150	400	250	37.62 %
1270 - FICA Tax Expense	49	58	9	84.39 %	461	700	239	65.91 %
1280 - Medicare Tax Expense	588	841	253	69.94 %	7,971	10,100	2,129	78.92 %
1290 - Staff Development & Training	0	900	900	0.00 %	2,954	10,800	7,847	27.35 %
1300 - Conference Registration	0	192	192	0.00 %	2,397	2,300	-97	104.21 %
1310 - Professional Dues	0	133	133	0.00 %	509	1,600	1,091	31.83 %
1320 - Personnel Recruitment	0	67	67	0.00 %	319	800	481	39.87 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>56,385</b>	<b>81,284</b>	<b>24,899</b>	<b>69.37 %</b>	<b>768,306</b>	<b>975,800</b>	<b>207,494</b>	<b>78.74 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	794	791	-2	100.31 %	7,443	9,500	2,057	78.34 %
2020 - Board Expenses	0	117	117	0.00 %	1,792	1,400	-392	127.96 %
2040 - Rent	243	233	-10	104.32 %	2,588	2,800	212	92.42 %
2060 - Utilities	680	750	70	90.64 %	7,539	9,000	1,461	83.77 %
2120 - Insurance Expense	1,394	1,216	-178	114.63 %	15,401	14,600	-801	105.49 %
2130 - Membership Dues	0	1,341	1,341	0.00 %	11,267	16,100	4,833	69.98 %
2140 - Bank Charges	119	92	-28	130.26 %	1,460	1,100	-360	132.70 %
2150 - Office Supplies	512	417	-96	122.94 %	3,682	5,000	1,318	73.63 %
2160 - Courier Expense	133	183	50	72.57 %	1,040	2,200	1,160	47.28 %
2170 - Printing/Photocopy	123	8	-115	1,476.83 %	132	100	-32	132.06 %
2180 - Postage & Shipping	149	150	1	99.29 %	1,047	1,800	753	58.14 %
2190 - IT Supplies/Services	42	3,032	2,990	1.38 %	35,236	36,400	1,164	96.80 %
2200 - Professional Fees	5,537	8,347	2,810	66.34 %	79,819	100,200	20,381	79.66 %
2220 - Equipment Repairs & Maintenance	0	167	167	0.00 %	1,306	2,000	694	65.29 %
2235 - Equipment Lease	227	325	98	69.98 %	2,916	3,900	984	74.78 %
2240 - Telephone	1,214	1,250	35	97.18 %	17,078	15,000	-2,078	113.86 %
2260 - Facility Maintenance	1,052	933	-119	112.74 %	9,593	11,200	1,607	85.65 %
2270 - Travel Expenses	11	925	914	1.17 %	10,745	11,100	355	96.80 %

**EXHIBIT 11-D**

90

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	3	566	564	0.49 %	1,649	6,800	5,151	24.25 %
2300 - Legal Services	2,693	4,998	2,305	53.89 %	36,690	60,000	23,310	61.15 %
2380 - Meeting Expenses	121	158	37	76.51 %	912	1,900	988	48.00 %
2420 - Legal Notices	46	58	13	78.34 %	46	700	654	6.53 %
2460 - Public Outreach	14	58	44	24.23 %	611	700	89	87.25 %
2480 - Miscellaneous	0	67	67	0.00 %	16,798	800	-15,998	2,099.72 %
2500 - Tax Administration Fee	0	475	475	0.00 %	3,522	5,700	2,178	61.79 %
2900 - Operating Supplies	1,017	1,391	375	73.08 %	10,626	16,700	6,074	63.63 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>16,124</b>	<b>28,047</b>	<b>11,923</b>	<b>57.49 %</b>	<b>280,934</b>	<b>336,700</b>	<b>55,766</b>	<b>83.44 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	68,640	130,059	61,419	52.78 %	538,717	1,561,300	1,022,583	34.50 %
4000 - Fixed Asset Purchases	0	24,715	24,715	0.00 %	206,873	296,700	89,827	69.72 %
5500 - Election Expenses	0	3,732	3,732	0.00 %	61,881	44,800	-17,081	138.13 %
6000 - Contingencies	0	1,749	1,749	0.00 %	0	21,000	21,000	0.00 %
6500 - Reserves	0	9,831	9,831	0.00 %	0	118,000	118,000	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>68,640</b>	<b>170,086</b>	<b>101,445</b>	<b>40.36 %</b>	<b>807,471</b>	<b>2,041,800</b>	<b>1,234,329</b>	<b>39.55 %</b>
<b>Total Expense:</b>	<b>141,149</b>	<b>279,417</b>	<b>138,268</b>	<b>50.52 %</b>	<b>1,856,711</b>	<b>3,354,300</b>	<b>1,497,589</b>	<b>55.35 %</b>
<b>Total Revenues</b>	<b>89,312</b>	<b>279,417</b>	<b>-190,105</b>	<b>-31.96 %</b>	<b>2,294,109</b>	<b>3,354,300</b>	<b>-1,060,191</b>	<b>-68.39 %</b>
<b>Total Fund: 26 - CONSERVATION FUND:</b>	<b>-51,837</b>	<b>0</b>	<b>-51,837</b>		<b>437,398</b>	<b>0</b>	<b>437,398</b>	

**EXHIBIT 11-D**

91

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Fund: 35 - WATER SUPPLY FUND</b>								
<b>Revenue</b>								
R100 - Water Supply Charge	0	283,333	-283,333	0.00 %	3,337,566	3,400,000	-62,434	98.16 %
R120 - Property Taxes Revenues	0	12,500	-12,500	0.00 %	151,493	150,000	1,493	101.00 %
R130 - User Fees	44,328	53,333	-9,005	83.12 %	619,551	640,000	-20,449	96.80 %
R140 - Connection Charges	221	37,500	-37,279	0.59 %	535,228	450,000	85,228	118.94 %
R220 - Copy Fee	0	0	0	0.00 %	200	0	200	0.00 %
R230 - Miscellaneous - Other	0	417	-417	0.00 %	268	5,000	-4,732	5.36 %
R240 - Insurance Refunds	0	0	0	0.00 %	6	0	6	0.00 %
R250 - Interest Income	43	7,500	-7,457	0.57 %	98,252	90,000	8,252	109.17 %
R260 - CAW - ASR	0	40,950	-40,950	0.00 %	-34,411	491,600	-526,011	-7.00 %
R300 - Watermaster	0	4,548	-4,548	0.00 %	15,170	54,600	-39,430	27.78 %
R308 - Reclamation Project	0	1,666	-1,666	0.00 %	0	20,000	-20,000	0.00 %
R310 - Other Reimbursements	0	4,415	-4,415	0.00 %	0	53,000	-53,000	0.00 %
R320 - Grants	200,000	7,914	192,087	2,527.33 %	200,000	95,000	105,000	210.53 %
R510 - Operating Reserve	0	130,181	-130,181	0.00 %	0	1,562,800	-1,562,800	0.00 %
<b>Total Revenue:</b>	<b>244,592</b>	<b>584,257</b>	<b>-339,666</b>	<b>-41.86 %</b>	<b>4,923,323</b>	<b>7,012,000</b>	<b>-2,088,677</b>	<b>70.21 %</b>

**EXHIBIT 11-D**

92

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
<b>Expense</b>								
<b>Level1: 100 - Personnel Costs</b>								
1100 - Salaries & Wages	79,369	77,610	-1,758	102.27 %	869,741	931,700	61,959	93.35 %
1110 - Manager's Auto Allowance	277	300	23	92.34 %	3,185	3,600	415	88.47 %
1120 - Manager's Deferred Comp	429	450	21	95.26 %	4,892	5,400	508	90.60 %
1130 - Unemployment Compensation	0	83	83	0.00 %	848	1,000	152	84.77 %
1150 - Temporary Personnel	2,752	1,950	-802	141.16 %	21,358	23,400	2,042	91.27 %
1160 - PERS Retirement	6,841	15,919	9,078	42.97 %	183,868	191,100	7,232	96.22 %
1170 - Medical Insurance	10,218	8,647	-1,572	118.18 %	101,929	103,800	1,871	98.20 %
1180 - Medical Insurance - Retirees	3,000	2,199	-801	136.41 %	28,737	26,400	-2,337	108.85 %
1190 - Workers Compensation	1,485	1,633	148	90.93 %	17,200	19,600	2,400	87.75 %
1200 - Life Insurance	130	158	29	81.87 %	1,402	1,900	498	73.81 %
1210 - Long Term Disability Insurance	427	400	-28	106.90 %	4,410	4,800	390	91.88 %
1220 - Short Term Disability Insurance	85	92	7	92.52 %	874	1,100	226	79.48 %
1230 - Other Benefits	22	42	19	53.78 %	335	500	165	66.97 %
1260 - Employee Assistance Program	21	42	21	49.65 %	213	500	287	42.64 %
1270 - FICA Tax Expense	56	175	119	32.16 %	527	2,100	1,573	25.11 %
1280 - Medicare Tax Expense	1,045	1,158	113	90.22 %	11,953	13,900	1,947	85.99 %
1290 - Staff Development & Training	900	633	-267	142.16 %	1,666	7,600	5,934	21.92 %
1300 - Conference Registration	365	100	-265	365.15 %	1,951	1,200	-751	162.60 %
1310 - Professional Dues	425	50	-375	850.70 %	447	600	153	74.54 %
1320 - Personnel Recruitment	0	83	83	0.00 %	61	1,000	939	6.08 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>107,845</b>	<b>111,722</b>	<b>3,877</b>	<b>96.53 %</b>	<b>1,255,600</b>	<b>1,341,200</b>	<b>85,600</b>	<b>93.62 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	907	908	1	99.92 %	8,506	10,900	2,394	78.04 %
2020 - Board Expenses	0	133	133	0.00 %	2,332	1,600	-732	145.73 %
2040 - Rent	801	816	16	98.07 %	8,380	9,800	1,420	85.51 %
2060 - Utilities	793	891	98	89.01 %	8,912	10,700	1,788	83.29 %
2120 - Insurance Expense	1,593	1,383	-210	115.22 %	17,601	16,600	-1,001	106.03 %
2130 - Membership Dues	50	725	675	6.90 %	9,163	8,700	-463	105.32 %
2140 - Bank Charges	151	108	-43	139.82 %	1,845	1,300	-545	141.91 %
2150 - Office Supplies	585	450	-135	130.10 %	3,912	5,400	1,488	72.44 %
2160 - Courier Expense	152	217	65	70.18 %	1,189	2,600	1,411	45.72 %
2170 - Printing/Photocopy	141	17	-124	843.94 %	151	200	49	75.47 %
2180 - Postage & Shipping	170	183	13	92.84 %	1,192	2,200	1,008	54.18 %
2190 - IT Supplies/Services	48	3,465	3,418	1.38 %	40,323	41,600	1,277	96.93 %
2200 - Professional Fees	6,608	9,546	2,938	69.22 %	94,424	114,600	20,176	82.39 %
2220 - Equipment Repairs & Maintenance	59	183	124	32.28 %	1,552	2,200	648	70.53 %
2235 - Equipment Lease	313	375	62	83.39 %	3,900	4,500	600	86.68 %
2240 - Telephone	1,306	1,533	227	85.17 %	19,122	18,400	-722	103.92 %
2260 - Facility Maintenance	1,202	1,116	-86	107.69 %	10,963	13,400	2,437	81.82 %
2270 - Travel Expenses	978	583	-395	167.79 %	6,362	7,000	638	90.89 %

**EXHIBIT 11-D**

93

**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2018-2019 Period Ending: 05/31/2019**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	280	1,125	844	24.93 %	2,845	13,500	10,655	21.07 %
2300 - Legal Services	10,440	16,660	6,220	62.66 %	192,713	200,000	7,287	96.36 %
2380 - Meeting Expenses	138	175	37	79.11 %	1,017	2,100	1,083	48.45 %
2420 - Legal Notices	52	92	39	56.97 %	52	1,100	1,048	4.75 %
2460 - Public Outreach	16	67	50	24.25 %	659	800	141	82.31 %
2480 - Miscellaneous	0	83	83	0.00 %	121	1,000	879	12.12 %
2500 - Tax Administration Fee	0	708	708	0.00 %	9,381	8,500	-881	110.36 %
2900 - Operating Supplies	0	92	92	0.00 %	537	1,100	563	48.83 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>26,784</b>	<b>41,633</b>	<b>14,849</b>	<b>64.33 %</b>	<b>447,155</b>	<b>499,800</b>	<b>52,645</b>	<b>89.47 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	158,785	276,531	117,746	57.42 %	1,615,466	3,320,100	1,704,634	48.66 %
4000 - Fixed Asset Purchases	0	9,171	9,171	0.00 %	53,930	110,100	56,170	48.98 %
5000 - Debt Service	63,560	19,159	-44,401	331.75 %	128,961	230,000	101,039	56.07 %
5500 - Election Expenses	0	4,265	4,265	0.00 %	70,721	51,200	-19,521	138.13 %
6000 - Contingencies	0	1,999	1,999	0.00 %	0	24,000	24,000	0.00 %
6500 - Reserves	0	119,630	119,630	0.00 %	0	1,435,600	1,435,600	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>222,345</b>	<b>430,755</b>	<b>208,410</b>	<b>51.62 %</b>	<b>1,869,077</b>	<b>5,171,000</b>	<b>3,301,923</b>	<b>36.15 %</b>
<b>Total Expense:</b>	<b>356,975</b>	<b>584,111</b>	<b>227,136</b>	<b>61.11 %</b>	<b>3,571,832</b>	<b>7,012,000</b>	<b>3,440,168</b>	<b>50.94 %</b>
<b>Total Revenues</b>	<b>244,592</b>	<b>584,257</b>	<b>-339,666</b>	<b>-41.86 %</b>	<b>4,923,323</b>	<b>7,012,000</b>	<b>-2,088,677</b>	<b>-70.21 %</b>
<b>Total Fund: 35 - WATER SUPPLY FUND:</b>	<b>-112,383</b>	<b>147</b>	<b>-112,530</b>		<b>1,351,491</b>	<b>0</b>	<b>1,351,491</b>	
<b>Report Total:</b>	<b>-359,628</b>	<b>284</b>	<b>-359,912</b>		<b>2,249,881</b>	<b>0</b>	<b>2,249,881</b>	

**EXHIBIT 11-D****Statement of Revenue Over Expense - No Decimals**

94

For Fiscal: 2018-2019 Period Ending: 05/31/2019

**Fund Summary**

<b>Fund</b>	<b>May Activity</b>	<b>May Budget</b>	<b>Variance Favorable (Unfavorable)</b>	<b>Percent Used</b>	<b>YTD Activity</b>	<b>Total Budget</b>	<b>Variance Favorable (Unfavorable)</b>	<b>Percent Used</b>
24 - MITIGATION FUND	-195,408	137	-195,546		460,992	0	460,992	
26 - CONSERVATION FUND	-51,837	0	-51,837		437,398	0	437,398	
35 - WATER SUPPLY FUND	-112,383	147	-112,530		1,351,491	0	1,351,491	
<b>Report Total:</b>	<b>-359,628</b>	<b>284.07</b>	<b>-359,912</b>		<b>2,249,881</b>	<b>0</b>	<b>2,249,881</b>	

## DISCUSSION ITEM

### 16. UPDATE ON STATUS OF RYAN RANCH UNIT OF CALIFORNIA AMERICAN WATER AND USE OF EMERGENCY INTERTIE BETWEEN THE BISHOP AND RYAN RANCH UNITS

**Meeting Date:** July 15, 2019 **Budgeted:** N/A

**From:** David J. Stoldt **Program/**  
General Manager **Line Item No.:** N/A

**Prepared By:** David J. Stoldt **Cost Estimate:** N/A

**General Counsel Approval:** N/A

**Committee Recommendation:** Water Supply Planning Committee recommended approval of Cal-Am's proposed solution at its July 9, 2019 meeting, 3-0

**CEQA Compliance:** Action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.

---

**DISCUSSION:** California American Water ("Cal-Am") has been relying on the emergency intertie to the Bishop Unit (also a Cal-Am system) to supply water to Ryan Ranch since February 2018. MPWMD has encouraged Cal-Am to amend its Water Distribution System ("WDS") permits to add Bishop as a Source of Supply for Ryan Ranch. However, before Cal-Am amends its permits, it sought to undertake a rehabilitation of its Ryan Ranch Well to try to bring production back to capacity. In April, Cal-Am indicated the well was able to run at 90 gpm (gallons per minute) and that on a regular basis they would seek to run it in the 60-70 gpm range, which equates to 45-55 AF/year. This causes the District concern because (a) this is below the System Capacity limit of 72 AF/year set by the District in its moratorium order in 2009, which was based on a firm capacity of 101 gpm; (b) ; actual Ryan Ranch production for customer service has averaged 57 AF/year the past five years, so additional well capacity is limited; and (c) State Title 22 standards for public water systems with fewer than 1,000 service connections require an additional source of supply or an emergency connection that can meet maximum day demand.

Over the past six months, the District's view has been as follows:

- The intertie was opened on an "emergency" basis for an extended period, without proper notification;
- A long-term solution should have been proposed during that time;
- We commend the company for finally addressing the problem with the rehab of the Ryan Ranch well;
- The newly revised capacity of the Ryan Ranch well is below the WDS System Capacity Limit the District established in conjunction with its Ryan Ranch moratorium in 2009. This worries the District that there could be inadequate supply if all vacancies are filled and/or

business increases at existing service connections, or if the well productivity declines;

- There is no redundancy, so the only source of back-up supply is either the Bishop interconnection or the Main System interconnection. These will likely need to be used multiple times and for multiple durations going forward, hence the Bishop and the Ryan Ranch systems should be combined unless the company has an alternative viable source. If the company does not want to amend their WDS for either system, the District would do it unilaterally unless there is an alternate solution; and
- Combining the Bishop and Ryan Ranch systems would result in the District's Ryan Ranch moratorium being lifted, which is counter to the company's stated desire for a moratorium in all three satellites Bishop, Ryan Ranch, and Hidden Hills.

This week, Cal-Am made a proposal which was presented to the Water Supply Planning Committee at its July 9<sup>th</sup> meeting. The Committee accepts the proposed solution and does not recommend amending the WDS to combine the Bishop and Ryan Ranch systems at this time.

The Bishop interconnect was closed on 6/14/19 and Cal-Am does not have any intention of opening it for regular operations. The well has been offline for several days since the Bishop interconnection has been closed, but Cal-Am was able to keep up with demand without the well operating continuously by relying on storage.

Cal-Am's proposed permanent solution is to implement the Ryan Ranch-Bishop Interconnection as contemplated in the Monterey Peninsula Water Supply Project (MPWSP) EIR. Cal-Am has completed the plans and specifications for the project and anticipates the following schedule;

Issue RFP	8/2/2019
Project Proposals Due	10/4/2019
Selection of Contractor	10/18/2019
Execution of Contract	10/25/2019
Mobilize/acquire permits etc.	12/2/2019
Complete Construction of Interconnection	4/6/2020

The project is part of the MPWSP and was included in the approved EIR. Cal-Am has been working with the City of Monterey and Caltrans on permit conditions. The City has agreed on permit conditions and will be executed once they have a contractor. The Caltrans Permit has been approved.

## **EXHIBIT**

None



**ITEM: PUBLIC HEARING**

- 17. CONSIDER SECOND READING AND ADOPTION OF ORDINANCE NO. 183 - ADDING RULE 20-E ESTABLISHING A ZONE OF CONTROLLED DRINKING WATER WELL CONSTRUCTION AND A ZONE OF POTENTIAL CONTROLLED DRINKING WATER WELL CONSTRUCTION RELATED TO PURE WATER MONTEREY INJECTION OF HIGHLY PURIFIED WATER (Categorical exemption from CEQA review per section 14 Cal. Code Regs. §15307)**

**Meeting Date:** July 15, 2019 **Budgeted:** N/A

**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:**

**Prepared By:** Jonathan Lear **Cost Estimate:** N/A

**General Counsel Review:** Yes

**CEQA Compliance:** This Ordinance is exempt from review under the California Environmental Quality Act ("CEQA") (California Public Resources Code Section 21000 et seq.). Pursuant to State CEQA Guidelines section 15307 (14 Cal. Code Regs., § 15307), this Ordinance is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance, restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for protection of the environment.

---

**SUMMARY:** Ordinance No. 183 creates a control zone for construction of drinking water wells and a secondary control zone requiring further study for the construction of drinking water wells. Establishing and enforcing these control zones is required by Statewide Title 22 Regulations to obtain the Department of Drinking Water permit for project operation. The draft ordinance is attached as (Exhibit 17-A).

**RECOMMENDATION:** Staff recommends the Board receive public comment on Ordinance No. 183, approve the second reading and adopt the ordinance.

**DISCUSSION:** The following points summarize Ordinance No. 183:

1. In order for Pure Water Monterey (PWM) to inject advanced treated water into the Seaside Groundwater Basin (SGB), a permit from the Department of Drinking Water Recycled Water Unit is required.
2. Title 22 Section 60320.200 requires the establishment of a zone of controlled installation of drinking water wells and a secondary zone of potential controlled drinking water well construction.
3. Title 22 Regulations define the zone of controlled drinking water well construction as the boundary around the injection wells representing a 180 day travel time from the injection well field. Drinking water wells are not permitted to be constructed inside this boundary.

4. Title 22 Regulations define the secondary zone of potential controlled drinking water well construction as the boundary around the injection wells representing a 2 year travel time from the injection well field. Drinking water wells proposed to be installed inside this zone will undergo further study prior to construction of the well.
5. Agreement No. A-06181 between MPWMD and Monterey County Water Resources Agency gives MPWMD, “exclusive authority to regulate the management of the Seaside Groundwater Basin within the present Fort Ord boundaries, and MCWRA will comply with and such ordinance enacted by MPWMD.”
6. Groundwater modeling completed to support preparation of the Title 22 Engineering report for PWM was used to establish the boundaries of the two zones of drinking water well construction.
7. Establishment of the control zones will not have adverse effects on the ability of water Purveyors to provide water to the communities. The area inside of the control zone will be incorporated into the City of Seaside upon the transfer of land from Fort Ord Reuse Authority. Marina Coast Water District is the water purveyor that will serve the area inside the zones of controlled drinking water well construction. MCWD cannot drill wells in the Seaside Groundwater Basin as they are not a named producer in the Seaside Groundwater Basin Adjudication Decision.
8. This ordinance adds Rule 20-E to establish the injection control zones for PWM highly purified water.

## **EXHIBIT**

### **17-A Draft Ordinance No. 183**

**EXHIBIT 17-A**

**ORDINANCE NO. 183**

**AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT ADDING RULE 20-E  
ESTABLISHING A ZONE OF CONTROLLED DRINKING WATER WELL  
CONSTRUCTION AND A ZONE OF POTENTIAL CONTROLLED DRINKING WATER  
WELL CONSTRUCTION RELATED TO PURE WATER MONTEREY INJECTION OF  
HIGHLY PURIFIED WATER**

**FINDINGS**

1. The Monterey Peninsula Water Management District (MPWMD) was created to address ground and surface water resources in the Monterey Peninsula area, which the Legislature found required integrated management, and was endowed with the powers set forth in the Monterey Peninsula Water Management District Law (Chapter 527 of the Statutes of 1977, found at West's Water Code, Appendix, Section 118-1, et seq.).
2. Monterey One Water (M1W) was formed in 1972 to regionalize wastewater treatment on the Monterey Peninsula and became a Joint Powers Authority in the late 1980's. M1W operates a regional waste water plant north of the City of Marina and has been supplying the Castroville Seawater Intrusion Project treated water for irrigation since 1998.
3. Marina Coast Water District (MCWD) was formed in 1970 and currently operates the water and wastewater systems for the City of Marina, California State University of Monterey Bay and the former Fort Ord. MCWD is the future water purveyor for the former Fort Ord referenced in the MCWD 5-year plan as the Ord Community (**Exhibit 1**).
4. MPWMD is partnered with M1W in the construction and operation of the Pure Water Monterey (PWM), a water resources project that will produce 100% recycled water in compliance with Title 22 Section 60320.216 requirements laid out in the California Code of Regulations.
5. PWM will bring 3,500 Acre Feet per year of advanced treated water from the Advanced

Water Purification Facility (AWPF) and inject it into the Paso Robles Aquifer and the Santa Margarita Sandstone in the Seaside Groundwater Basin (SGB). The injected water will be recovered through the California American Water and MPWMD wells in the SGB.

6. Title 22 Section 60320.200 (e) Part 2 requires, “a boundary representing a zone of controlled drinking water well construction, the greatest of the horizontal and vertical distances reflecting the retention times required pursuant to sections 60320.208 and 60320.224.” A zone of moratorium on installing drinking water wells shall be established around the PWM injection well field.
7. Title 22 Section 60320.200 (e) Part 3 also requires, “a secondary boundary representing a zone of potential controlled drinking water well construction, depicting the zone within which a well would extend the boundary in Part 2 to include existing or potential future drinking water wells, thereby requiring further study and potential mitigating activities prior to drinking water well construction.” A zone shall be established where proposed installation of drinking water wells are required to undergo further study prior to installation.
8. Agreement No. A-06181 between MPWMD, Monterey County Water Resources Agency (MCWRA), and Pajaro Valley Water Management Agency signed in 1993 gives MPWMD, “exclusive authority to regulate the management of the Seaside Groundwater Basin within the present Fort Ord boundaries, and MCWRA will comply with any such ordinance enacted by MPWMD.”
9. For establishment of the zone of controlled drinking water well construction, an area representing the 180 day travel time of injected water is required to be identified. This prevents wells from being installed inside the zone where groundwater has not achieved full Logarithmic Virus Removal Credits under Title 22 Section 60320.200 (e) Part 2. An area representing a 2 year travel time of injected water is required to establish the secondary zone of potential controlled drinking water well construction as required in Title 22 Section 60320.200 (e) Part 3. Figures 5-2 and 5-3 from the Title 22 Engineering report prepared for PWM show the modeled particle paths for water injected into the Paso Robles Aquifer and the Santa Margarita Sandstone respectively. These figures are included as **Exhibit 2** and **Exhibit 3** of Ordinance 183.
10. **Exhibit 4** shows the zones of controlled drinking water well construction for both aquifer units representing 180 day travel times as well as the secondary zone of potential controlled

drinking water construction representing a 2 year travel time required by Title 22 regulations. As a component of PWM startup a tracer test will be conducted. If the results of the tracer test are different than the modeled groundwater travel times, Exhibit 4 will be revised by MPWMD Board resolution.

11. Establishment of the control zones will not have adverse effects on the ability of water purveyors to provide water to the communities. The area inside of the control zones will be incorporated into the City of Seaside upon the transfer of land from Fort Ord Reuse Authority and will be developed according to the City's General Plan. Agreement No. A-06181 gives MCWRA the authority to regulate water delivery systems that deliver water to the area within the Fort Ord Boundaries and the MPWMD Boundary.
12. MCWRA recognizes MCWD as the water purveyor to serve the Ord Community development and MCWD cannot drill wells in the Seaside Groundwater Basin as they are not a named producer in the Seaside Groundwater Basin Adjudication Decision.
13. It is recognized that the Title 22 regulations are currently being reviewed by the State of California and in the future direct potable use (raw water augmentation) of highly treated water may be permitted. If PWM were to pursue and obtain permits for raw water augmentation, the control zones will sunset. The sunset of the control zones will be conducted by MPWMD.
14. This ordinance adds Rule 20-E to establish the injection control zones for PWM highly purified water.
15. This Ordinance is exempt from review under the California Environmental Quality Act ("CEQA") (California Public Resources Code Section 21000 et seq.). Pursuant to State CEQA Guidelines section 15307 (14 Cal. Code Regs., § 15307), this Ordinance is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance, restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for protection of the environment.

**NOW THEREFORE** be it ordained as follows:

## **ORDINANCE**

### **Section One:     Short Title**

This ordinance shall be known as the Pure Water Monterey controls zone for construction of drinking water Wells.

### **Section Two:     Purpose**

The Monterey Peninsula Water Management District (MPWMD) enacts this ordinance to comply with the Title 22 requirements establishing a control zone for drinking water Well construction and a secondary control zone requiring further study near the Pure Water Monterey (PWM) injection well field in the Paso Robles Formation and the Santa Margarita Sandstone.

### **Section Three:   Addition of Rule 20-E, Zones of Controlled Drinking Water**

The following text shall be added as Rule 20-E – Zones of Controlled Drinking Water

#### **RULE 20-E – ZONES OF CONTROLLED DRINKING WATER**

- A. Figure 10-1 from Todd Groundwater is a map showing the Zones of controlled drinking water and will be included in Rule 20-E. If the map needs to be updated in the future it will be done through MPWMD Board Resolution.
- B. Prohibition of installation of drinking water Wells within the control zones in the Paso Robles Aquifer and the Santa Margarita Sandstone shall be enacted once the Pure Water Monterey (PWM) begins injecting as required by Title 22 Regulations. Maps identifying the control zones are included with this Rule. The process shall be as follows:
  - 1. Monterey County Environmental Health (MCEH) requires MPWMD review and comment of all proposed well construction permits prior to the approval of a well construction permit if the proposed Well site is within the MPWMD boundaries.
  - 2. At the time of permit review, if the Well is determined to be inside the control zone, the permit will be denied.

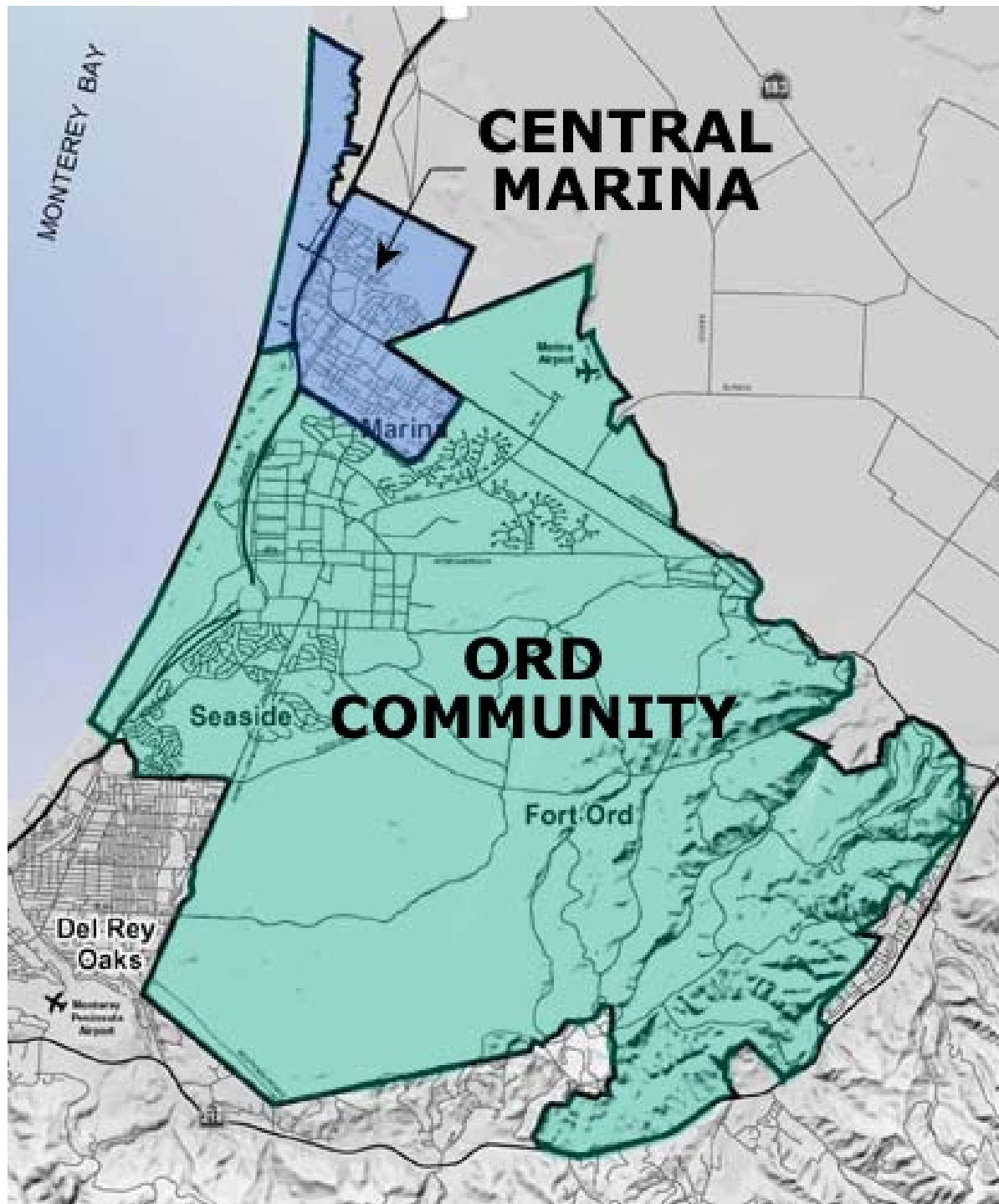
- C. An elevated level of study is required prior to MPWMD approving the permit in the MCEH review process in accordance with Title 22 Regulations. The study must demonstrate that Wells proposed to be installed in the secondary control zone will not capture water injected into the PWM injection wells that have had travel time shorter than 180 days from the injection well. The process shall be as follows:
1. MCEH requires MPWMD review and comment of all proposed well construction permits prior to the approval of a well construction permit if the proposed Well site is within the MPWMD boundaries.
  2. At the time of permit review, if the Well is determined to be inside the secondary control zone, MPWMD will work with MCEH and the Applicant to demonstrate appropriate travel time to the proposed Well.
  3. The cost of this study will be borne by the Applicant.
- D. The term “drinking water well” as used in these Regulations refers to any Well proposed to be used as a Potable supply of water for any reasonable and beneficial use.
- E. Title 22 Regulations are under review at the State level. Direct potable use of advanced treated water (raw water augmentation) may be permitted in the future. If PWM obtains permits for raw water augmentation, MPWMD will repeal Rule 20-E.

#### **Section Four:     Effective Date and Sunset**

Ordinance 183 shall take effect on the first day PWM begins injecting advanced treated water. MPWMD shall sunset Ordinance 183 if PWM obtains permits for raw water augmentation.

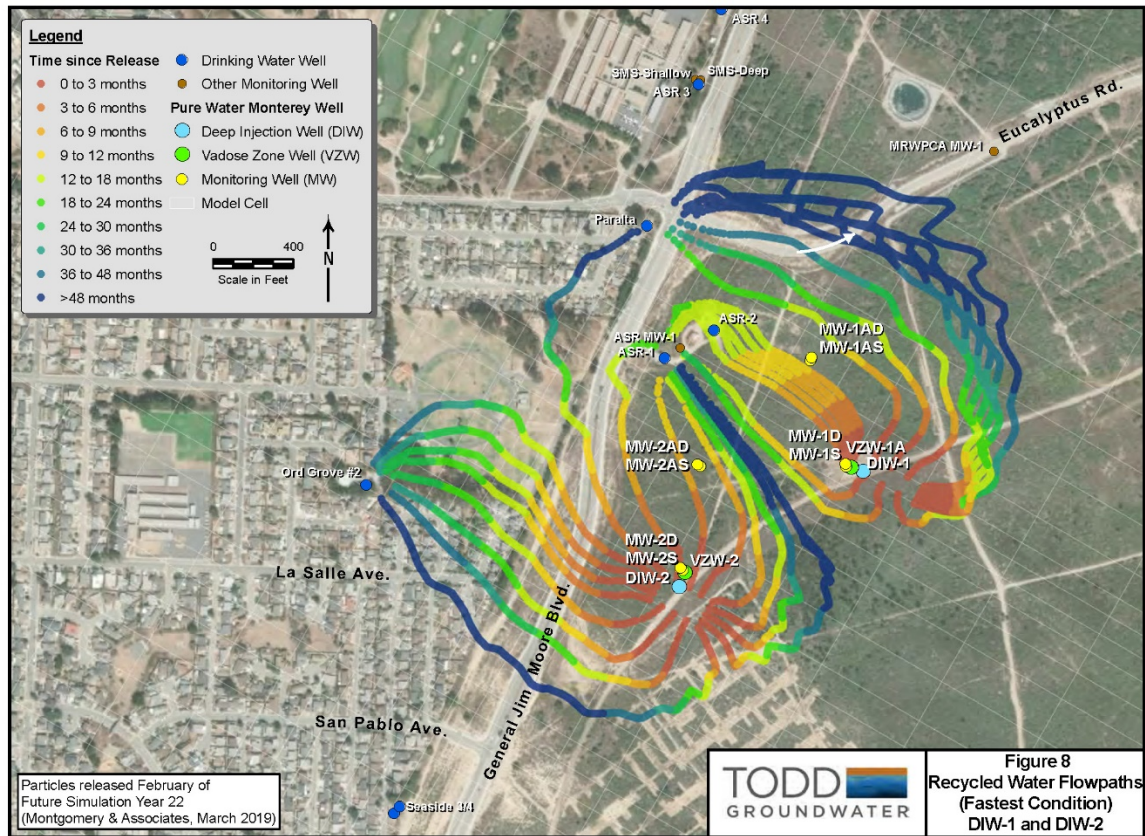
#### **Section Five:     Severability**

If any subdivision, paragraph, sentence, clause or phrase of this ordinance is, for any reason, held to be invalid or unenforceable by a court of competent jurisdiction, such invalidity shall not affect the validity or enforcement of the remaining portions of this ordinance, or of any other provisions of the Monterey Peninsula Water Management District Rules and Regulations. It is the District’s express intent that each remaining portion would have been adopted irrespective of the fact that one or more subdivisions, paragraphs, sentences, clauses, or phrases be declared invalid or unenforceable.

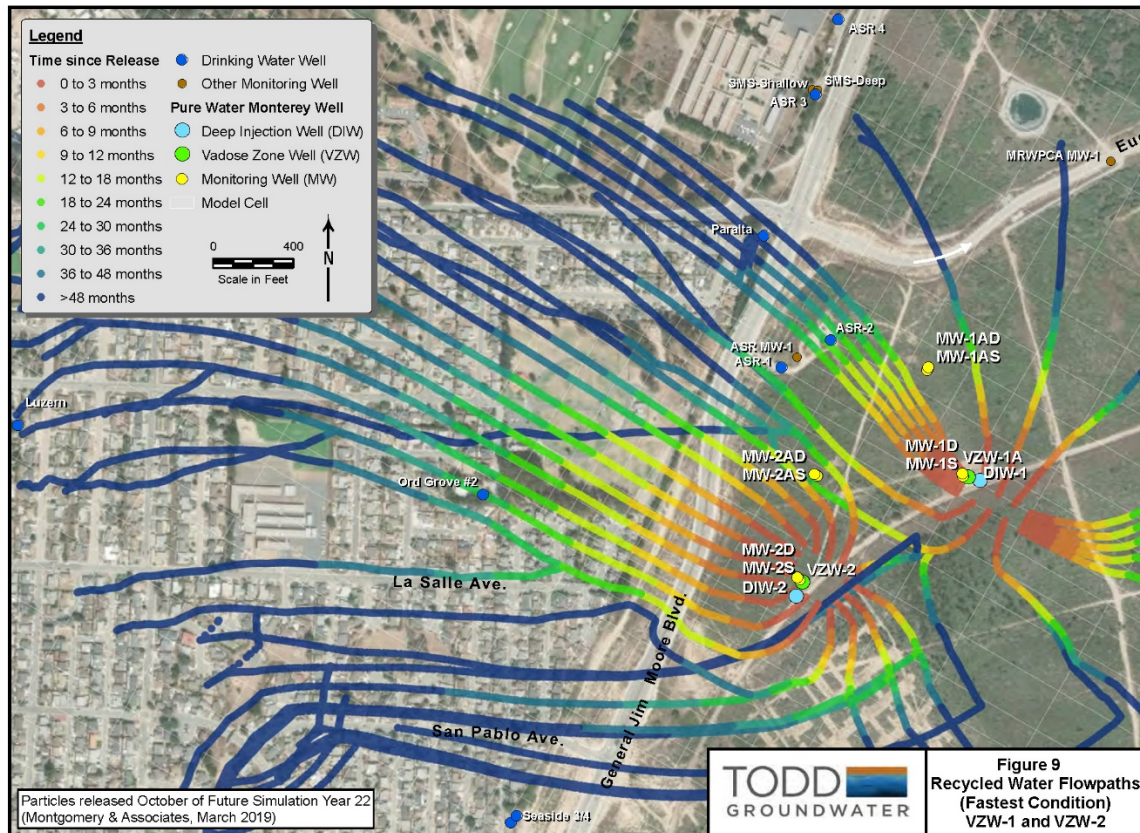


**EXHIBIT 1 – Area of Ord Community Proposed to be Served by MCWD**



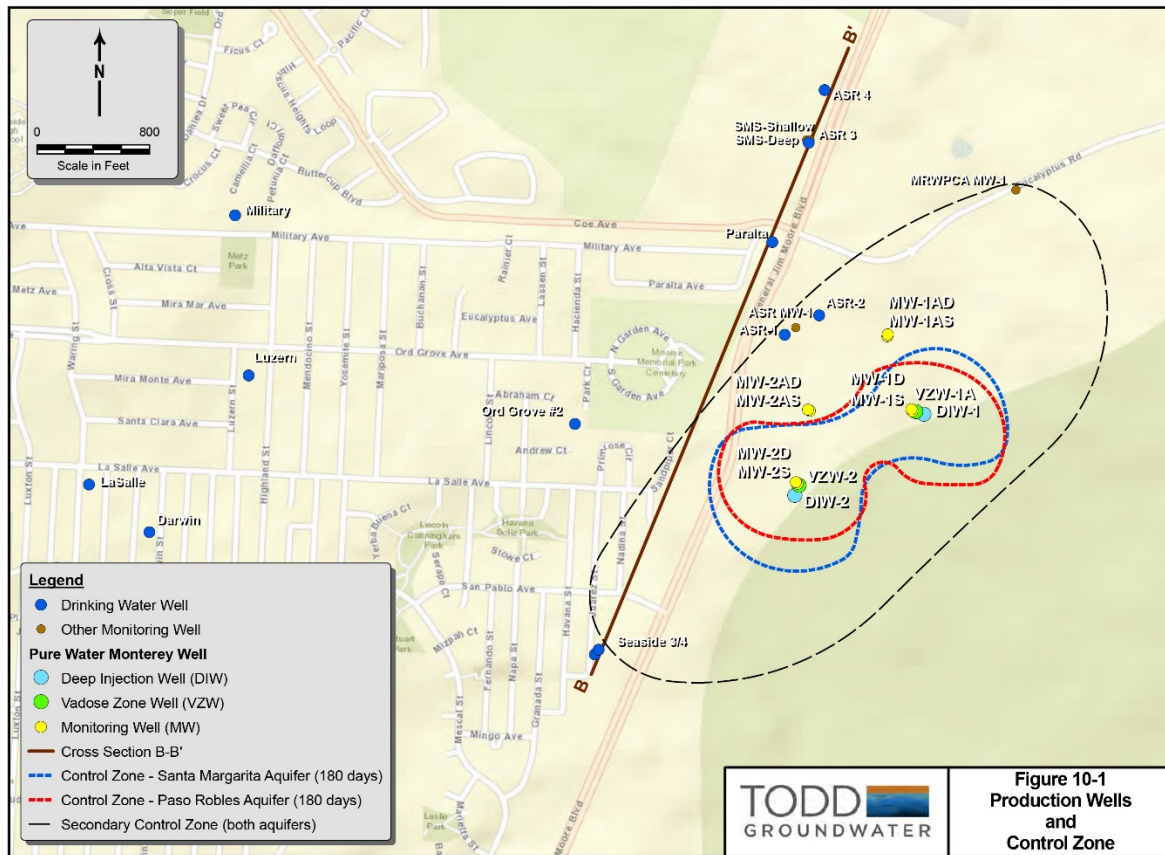


## **EXHIBIT 2 –Particle Paths for Water Injected into the Santa Margarita Sandstone**



### EXHIBIT 3 –Particle Paths for Water Injected into the Paso Robles Aquifer





**EXHIBIT 4 – Control Zone for the Paso Robles Aquifer and Santa Margarita Sandstone  
and Secondary Control Zone for both Geologic Units**

On motion of Director, and second by Director, the foregoing ordinance is adopted upon this \_\_\_\_ day of \_\_\_\_\_, 2019, by the following vote:

AYES:

NAYS:

ABSENT:

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify the foregoing ordinance was duly adopted on the \_\_\_\_ day of \_\_\_\_\_, 2019.

Witness my hand and seal of the Board of Directors this \_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
David J. Stoldt, Secretary to the Board

U:\staff\Boardpacket\2019\20190715\PublicHearing\17\Item-17-Exh-A.docx

**ITEM: PUBLIC HEARING****18. CONSIDER APPROVAL OF A CEQA ADDENDUM TO THE ASR EIR/EA FOR THE WATER TREATMENT FACILITY MODIFICATION *(Subject to CEQA Review per CEQA Guideline Sections 15162 and 15164)*****Meeting Date:** July 15, 2019 **Budgeted:** N/A**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item:** N/A**Prepared By:** Maureen Hamilton **Cost Estimate:** N/A**General Counsel Review:** Yes**Committee Recommendation:** N/A**CEQA Compliance: Addendum to EIR under CEQA Guidelines Sections 15162 and 15164**

**SUMMARY:** Permanent water treatment facilities at MPWMD's Aquifer Storage and Recovery (ASR) Santa Margarita site located at 1910 General Jim Moore Boulevard must be constructed. Improvements to the water treatment facilities analyzed in the MPWMD ASR Project Environmental Impact Report/Environmental Assessment (ASR EIR/EA) are required to accommodate production from Cal-Am's Seaside Middle School ASR site and to provide space for additional water treatments. The improvements include increased capacity, a second building, and an exterior injection manifold.

An evaluation of the environmental impacts due to the Water Treatment Facility Modification (Project) was prepared (**Exhibit 18-A**). The evaluation found that the Project would not result in any new significant environmental effects that cannot be mitigated with existing, previously identified mitigation measures in the ASR EIR/EA.

**RECOMMENDATION:** Staff recommends that the Board adopt Resolution No. 2019-11 (**Exhibit 18-B**) adopting the Water Treatment Facility Modification Addendum as Addendum 5 to the ASR EIR/EA.

**DISCUSSION:** MPWMD's **Phase 1 ASR Project**, located at 1910 General Jim Moore Boulevard, included construction of two ASR wells and a backflush basin sized to accommodate backflush water from two wells. Construction of a water treatment facility for disinfection, sized to accommodate the Santa Margarita site, was environmentally evaluated in the ASR EIR/EA.

On **August 21, 2006** the MPWMD Board adopted Findings, adopted the Mitigation and Monitoring Plan, certified the Final Environmental Impact Report/Environmental Assessment for the Phase 1 ASR Project, and approved the Phase 1 ASR Project. Documents for this action are incorporated by reference and are available at the MPWMD office or on the web at: <http://www.mpwmd.net/asd/board/boardpacket/2006/20060821/10/item10.htm>; the Draft ASR EIR/EA is available on the web at: <http://www.mpwmd.net/wp-content/uploads/2015/08/MPWMD-Draft-EIR-EA-3-06.pdf>; and the Final EIR/EA for the Phase 1 ASR Project is available on the web at: [http://www.mpwmd.net/wp-content/uploads/2015/08/FEIR\\_8-21-06.pdf](http://www.mpwmd.net/wp-content/uploads/2015/08/FEIR_8-21-06.pdf).

The **ASR Water Project 2**, located at 2111 General Jim Moore Boulevard, included construction of two ASR wells and an electrical building. Construction of a backflush basin was environmentally evaluated, but was disallowed by the school board because the site is elevated above a playground. Water treatment at the site was not environmentally evaluated because the school board disallowed storage of any chemicals at that ASR site. Water treatment for water produced from the Seaside Middle School property would be designed in the future.

On **April 16, 2012** the MPWMD Board approved and adopted the Addendum to the Phase 1 ASR EIR/EA, adopted the April 2012 Mitigation Monitoring Plan, and approved the full implementation of ASR Water Project 2. Documents for this action are incorporated by reference and are available at the MPWMD office or on the web at:

<http://www.mpwmd.net/asd/board/boardpacket/2012/20120416/16/item16.htm>.

The **Hilby Avenue Pump Station** project enabled the ASR project to take better advantage of existing water rights granted by the State Water Resources Control Board (SWRCB) to divert excess winter Carmel River flows. The Hilby Avenue Pump Station provided lift capacity to move water up from the Monterey Pipeline to the ASR injection sites.

On **June 20, 2016** the MPWMD Board approved the Hilby Avenue Pump Station and adopted the Hilby Avenue Pump Station Addendum as Addendum 2 to the ASR EIR/EA by Resolution No. 2016-12. Documents for this action are incorporated by reference, and are available at the MPWMD office or on the web at:

<http://www.mpwmd.net/asd/board/boardpacket/2016/20160620/16/Item-16.htm>

The MPWMD Board authorized issuance of WDS Permit Amendment #M16-01-L3 for the **Monterey Pipeline and Hilby Pump Station** on June 20, 2016. MPWMD became Lead Agency for the Monterey Pipeline and Hilby Pump Station under CEQA Section 15367.

On **February 22, 2017** the MPWMD Board approved a realignment of a segment of the Monterey Pipeline and adopted the Monterey Pipeline Addendum as Addendum 3 to the ASR EIR/EA by Resolution No. 2017-03. Documents for this action are incorporated by reference and are available at the District office or on the web at:

<http://www.mpwmd.net/asd/board/boardpacket/2017/20170222/02/Item-2.htm>

The **Santa Margarita backflush basin** approved in the 2006 ASR EIR/EA needed to be substantially expanded to accommodate backflush water from the Seaside Middle School site and the future Fitch Park ASR site because the latter two sites cannot accommodate a backflush basin.

On **July 16, 2018** the MPWMD Board adopted the Backflush Basin Expansion Addendum as Addendum 4 to the ASR EIR/EA by Resolution No. 2018-17. Documents for this action are incorporated by reference and are available at the District office or on the web at:

<https://www.mpwmd.net/asd/board/boardpacket/2018/20180716/16/Item-16.htm>.

The **Santa Margarita water treatment facility** must be modified to accommodate produced water from the Seaside Middle School site and additional treatments that the Regional Water Quality Control Board Division of Drinking Water may require. Modifications to the original ASR EIR that were evaluated include:

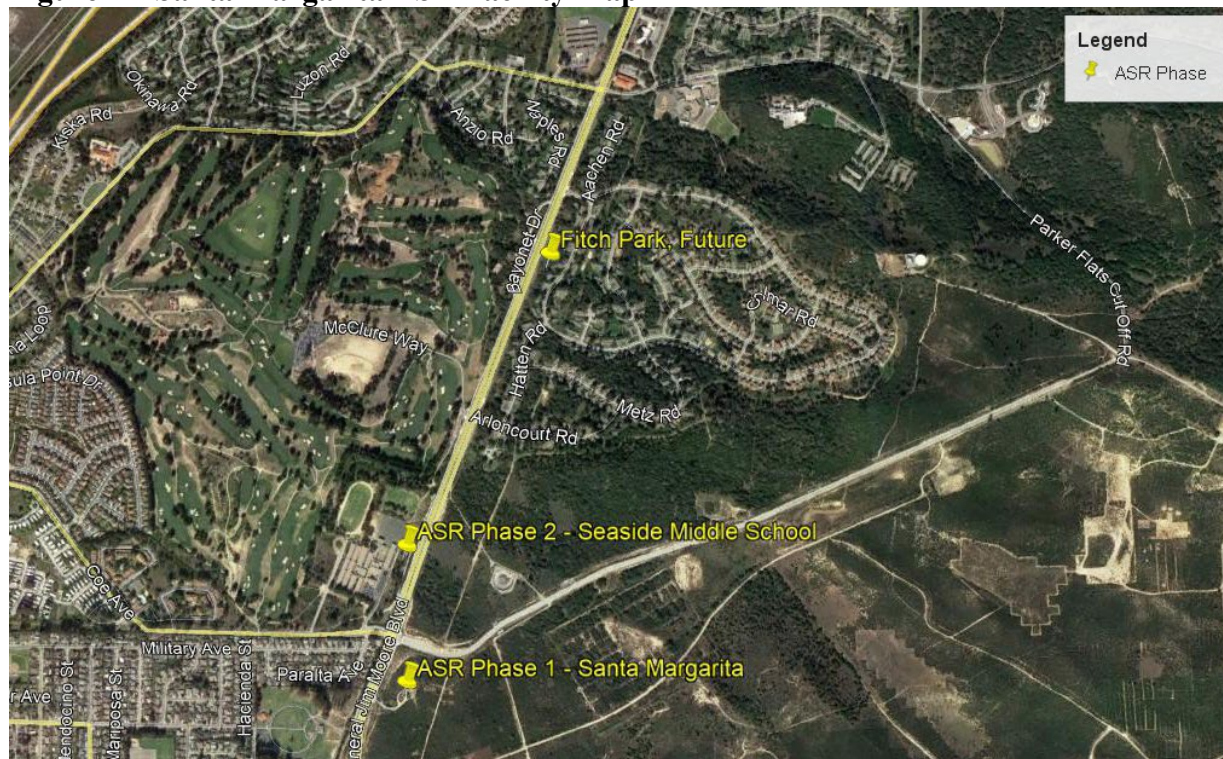


- a new building to house treatment works<sup>1</sup>,
- a delivery system, and
- a water treatment manifold constructed outside and located in between the buildings.

Potential impacts from the construction and operation of the Project will be similar to the impacts associated with other activities at the ASR sites including impacts to air quality, noise, and sensitive species. All appropriate measures to reduce impacts to less than significant described in the adopted 2006 and 2012 Mitigation and Monitoring Programs would apply to the Project.

CEQA Guidelines section 15162 “Subsequent EIRs and Negative Declarations” and 15164 “Addendum to an EIR or Negative Declaration” apply to this action. Under Section 15162, there are no new significant environmental effects nor new mitigation measures necessary from the proposed earthmoving activity. The proposed Project constitutes a technical change that under CEQA Section 15164 allows the Board to adopt an addendum to the existing EIR/EA, which has been amended by previous Addenda. The addendum for the Project consists of this staff note, the Water Treatment Facility Modification Addendum (**Exhibit 18-A**), Findings of Environmental Review and the Resolution (**Exhibit 18-B**).

**Figure 1 – Santa Margarita ASR Facility Map**



## EXHIBITS

**18-A** Addendum No. 5 to the ASR EIR/EA for Water Treatment Facility Modification

**18-B** Resolution 2019-11

U:\staff\Boardpacket\2019\20190715\PublicHearing\18\Item-18.docx

<sup>1</sup> The new building will be similar in size and architecture to the existing building on-site. Chemicals stored inside the building will be below-grade with double containment.





# **ADMINISTRATIVE DRAFT ADDENDUM No. 5**

*TO THE*

**AQUIFER STORAGE AND RECOVERY PROJECT  
ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL  
ASSESSMENT**

*FOR THE*

## **WATER TREATMENT FACILITY MODIFICATION**

**July 8, 2019**

**Prepared for  
Monterey Peninsula Water Management District**

**Prepared by  
Denise Duffy and Associates, Inc.**



*This Page Is Intentionally Blank*

**TABLE OF CONTENTS**

I.	Introduction .....	1
II.	Project Location .....	2
III.	Project Description.....	2
IV.	Comparison to the Conditions Listed in CEQA Guidelines Section15162 .....	2
V.	Changes to the Project.....	3

**LIST OF FIGURES**

1.	Location Map.....	5
2.	Site Plan .....	6
3.	Surrounding Land Uses.....	7

**LIST OF ATTACHMENTS**

1. Initial Study Checklist for the Water Treatment Facility Modification to Support Addendum No. 5 to the ASR EIR/EA
2. Air Quality and GHG Calculations Spreadsheets dated June 6, 2019
3. Approved MMRP for the Aquifer Storage and Recovery Project

*This Page Is Intentionally Blank*

## I. 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 Final Environmental Impact Report/Environmental Assessment for the Monterey Peninsula Water Management District Phase 1 Aquifer Storage and Recovery (ASR) Project (EIR/EA), certified by MPWMD's Board of Directors on August 21, 2006, as modified by:

- Addendum No. 1 to the ASR EIR/EA, which addressed full implementation of ASR Phase 2 and was adopted by MPWMD's Board of Directors on April 16, 2012;
- Addendum No. 2 to the ASR EIR/EA, which addressed the addition of the Hilby Pump Station and was adopted by MPWMD's Board of Directors on June 20, 2016;
- Addendum No. 3 to the ASR EIR/EA, which addressed the Monterey Pipeline and was adopted by MPWMD's Board of Directors on February 22, 2017; and,
- Addendum No. 4 to the ASR EIR/EA, which addressed the Backflush Basin Expansion and was adopted by MPWMD's Board of Directors on July 16, 2018.

MPWMD has prepared this Addendum to the ASR EIR/EA to address the effects of constructing and operating the proposed water treatment facility, which would constitute a change to the ASR Project. This Addendum evaluates the proposed water treatment facility modification at the ASR Phase 1 site, also known as the Santa Margarita site, to provide additional treatment capacity to serve the ASR project.

The ASR Project entails diversion of "excess" Carmel River winter flows, as allowed under water rights permits issued by the State Water Resources Control Board, which is then treated and transmitted via the California American Water (CalAm) distribution system to specially-constructed injection/recovery wells, known as ASR wells, in the Seaside Groundwater Basin and injected under an authorization from the Environmental Protection Agency (EPA). The excess water is diverted by CalAm wells only during periods when flows in the Carmel River exceed fisheries bypass flow requirements. After treatment to potable drinking water standards, water is then conveyed through CalAm's distribution system to ASR facilities (injection wells) to recharge the over-pumped Seaside Groundwater Basin. Available storage capacity in the Seaside Groundwater Basin serves as an underground reservoir for the diverted water. Water is then pumped back out from the Seaside Groundwater Basin in dry periods to help reduce pumping-related impacts on the Carmel River. This "conjunctive use" more efficiently utilizes local water resources to improve the reliability of the community's water supply while reducing the environmental impacts to the Carmel River and Seaside Groundwater Basins.

This Addendum evaluates whether construction and operation of the proposed water treatment facility would result in a new significant impact, or an impact that is substantially more severe than the impacts disclosed in the ASR EIR/EA as amended. This Addendum is supported by **Attachment 1, Initial Study Checklist for the Water Treatment Facility Modification**, which concludes the following in accordance with CEQA Guidelines Section 15464:

- No new or previously unidentified adverse significant impacts would result from the construction and operation of the water treatment facility.
- The proposed water treatment facility would not result in a substantial increase in the severity of the impacts identified in the ASR EIR/EA and Addenda.

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

MPWMD's Board of Directors will consider this Addendum, along with the certified ASR EIR/EA and its Addenda, prior to making a decision on any approvals pertaining to the proposed water treatment facility.

## II. PROJECT LOCATION

The proposed project is located in the City of Seaside, southeast of the intersection of General Jim Moore Boulevard and Eucalyptus Road, in an area known as the Santa Margarita Site. The project site is improved with various infrastructure improvements, including an existing backflush basin, electrical building, and other support infrastructure. **Figure 1. Location Map** shows the location of the facility within the City of Seaside.

## III. PROJECT DESCRIPTION

The proposed modification consists of the construction of a new water treatment building and above-grade treatment works, as well as related water treatment piping (**Figure 2, Site Plan**), commonly referred to as "water treatment facility" in this document. In addition, the project also entails the construction of a truck off-loading rack adjacent to the proposed water treatment facility. The building would be approximately 1,700 square feet. The maximum building height of the treatment facility would be approximately 19 feet above finish grade. The building would be designed to be visually compatible with existing structures located on-site. The proposed water treatment facility would increase treatment capacity to accommodate production from existing facilities, as well as other future facilities. The proposed treatment facility would increase the overall treatment capacity to approximately 12.9 million gallons per day (MGD) or 9,000 gallons per minute (gpm).

Typical earth moving equipment will be used during construction of works including clearing and trenching. All deleterious material and soil must remain onsite due to unexploded ordnance concerns associated with the former use of the project site as part of the former Fort Ord military base.

Construction is anticipated to begin in 2019 and may last approximately seven to nine months. Construction is planned to occur Monday through Friday from 7am to 7pm. It is estimated that an average of two (2) construction workers will be required onsite during construction with a peak on-site presence of approximately eight (8) to ten (10) personnel at the peak of construction. Materials and equipment will also be delivered to the site; however, these deliveries would be minimal (estimated to be about 20 deliveries for the duration of construction). Construction workers will access the site from the existing driveway and will park at or near site. Traffic control will be required during construction. Traffic controls will include, at a minimum, measures to ensure safety of pedestrians and bicyclists on General Jim Moore Boulevard.

## IV. COMPARISON TO THE CONDITIONS LISTED IN CEQA GUIDELINES SECTION 15162

This Addendum has been prepared pursuant to CEQA Guidelines Section 15164, 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 Section 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.

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

- 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 in connection with approvals for the proposed water treatment facility and why an addendum is appropriate.

## V. CHANGES TO THE PROJECT

### 1. Project Background

The ASR EIR/EA and its Addenda did not contemplate the proposed water treatment facility modification. The draft ASR EIR/EA can be accessed on the MPWMD website at the following address: <http://www.mpwmd.net/wp-content/uploads/2015/08/MPWMD-Draft-EIR-EA-3-06.pdf>; the final ASR EIR/EA can be accessed at the following address: [https://www.mpwmd.net/wp-content/uploads/2015/08/FEIR\\_8-21-06.pdf](https://www.mpwmd.net/wp-content/uploads/2015/08/FEIR_8-21-06.pdf). Addendum No. 1 to that document can be found online at the following address: [http://www.mpwmd.net/asd/board/boardpacket/2012/20120416/16/item16\\_exh16b.pdf](http://www.mpwmd.net/asd/board/boardpacket/2012/20120416/16/item16_exh16b.pdf), Addendum No. 2 can be found here: <http://www.mpwmd.net/asd/board/boardpacket/2016/20160620/16/Item-16-Exh-A.pdf>, and Addendum No. 3 can be found here: <https://www.mpwmd.net/asd/board/boardpacket/2017/20170222/02/Item-2-Exh-A.pdf>. Addendum No. 4 can be found here: <https://www.mpwmd.net/asd/board/boardpacket/2018/20180716/16/Item-16-Exh-A.pdf>.

### 2. Environmental Effects

As detailed in **Attachment 1, Initial Study Checklist for the Water Treatment Facility Modification**, the proposed modification would not result in any new significant environmental effects that cannot be mitigated with existing, previously identified mitigation measures in the ASR EIR/EA and its Addenda. In

addition, the proposed project would not substantially increase the severity of environmental effects identified in the ASR EIR/EA and its Addenda.

### **3. New Information**

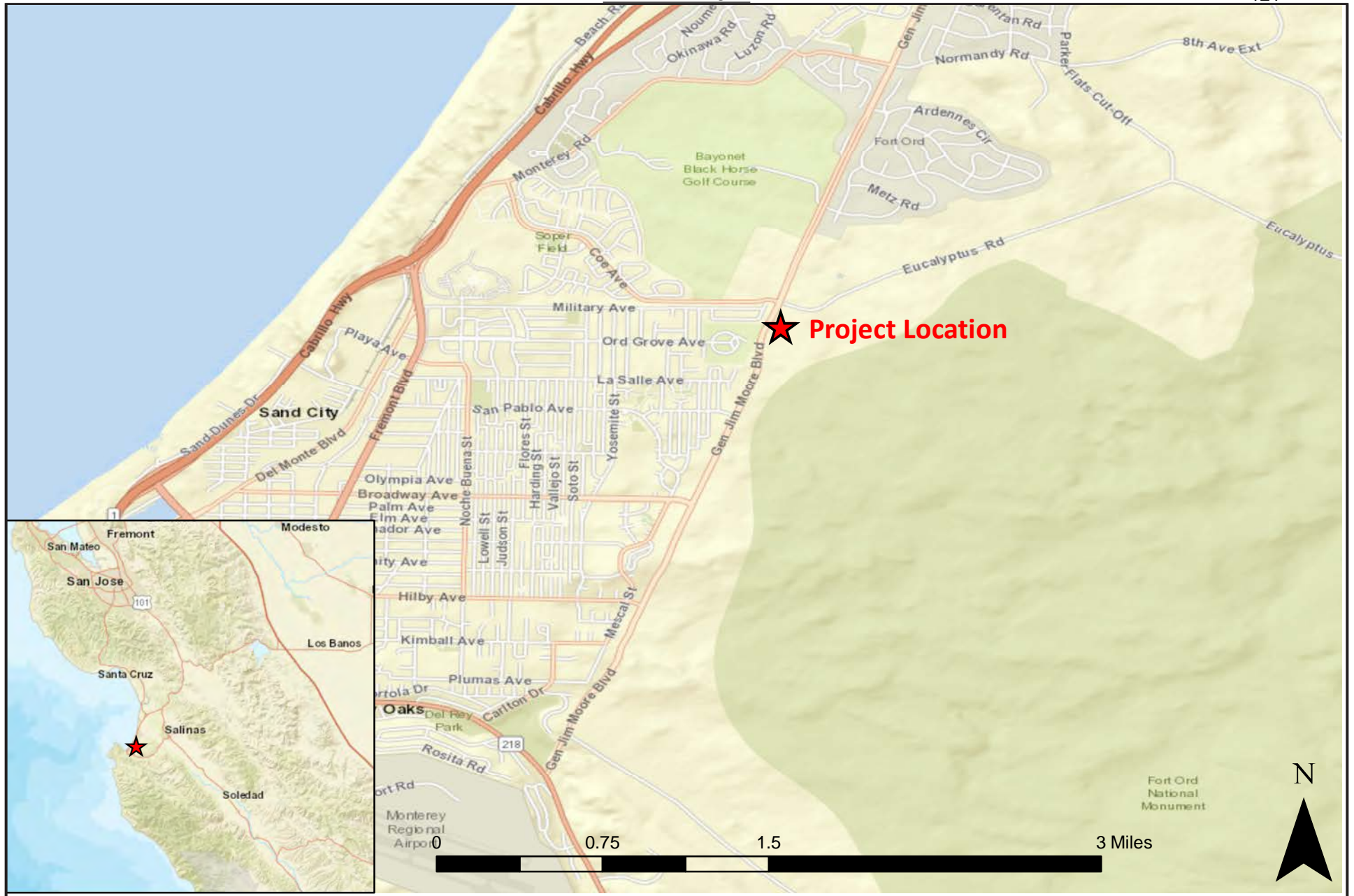
No new information of substantial importance has been identified or presented to MPWMD such that the ASR Project would result in: 1) significant environmental effects not identified in the ASR EIR/EA and its Addenda, or 2) more severe environmental effects than described in the ASR EIR/EA and its Addenda,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

### **4. Conclusion**

Section 15164 of the CEQA Guidelines states that 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 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 construction and operation of the water treatment facility;
- No substantial changes have occurred or would occur with respect to the circumstances under which the ASR Project was originally undertaken, which would require major revisions to the previously certified ASR EIR/EA due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and
- 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 the previous ASR EIR/EA and its Addenda were certified as complete.





## Location Map




July 2019

Addendum No. 5 to the Aquifer Storage and Recovery EIR/EA  
Water Treatment Facility Modifications

Figure

1



-  Truck Off-Loading Rack
-  Water Treatment Building
-  Existing Facilities covered in Addendum No. 4

Note: Figure is not to scale, locations are approximate. See site plans prepared by MAC Design Associates for more detailed site drawings. This figure includes major project components, minor components are not shown.



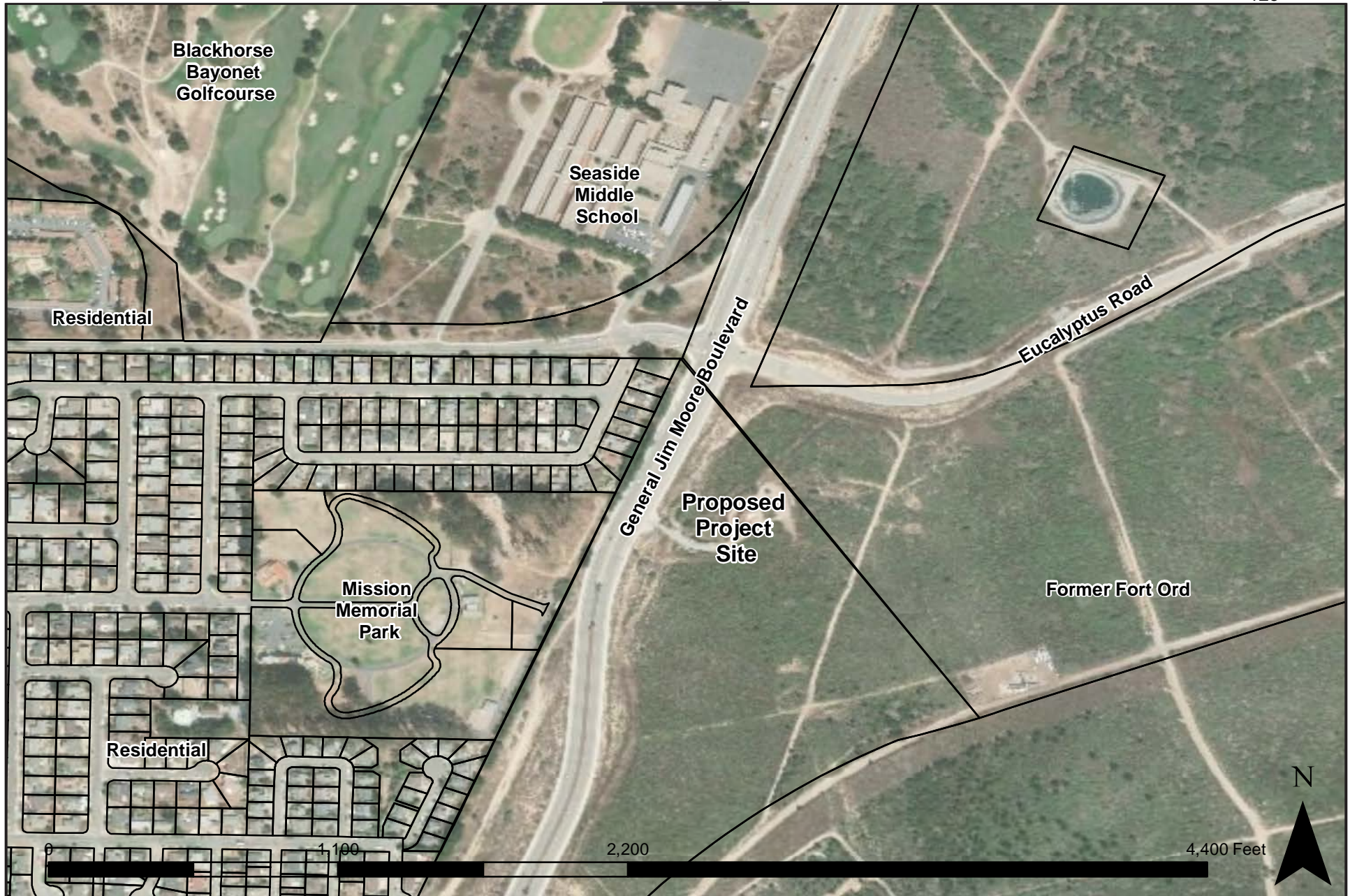
## Site Plan

July 2019

Addendum No. 5 to the Aquifer Storage and Recovery EIR/EA  
Water Treatment Facility Modifications

Figure  
2





## Surrounding Land Uses

July 2019

Addendum No. 5 to the Aquifer Storage and Recovery EIR/EA  
Water Treatment Facility Modifications

Figure  
**3**

*This Page Is Intentionally Blank*

**ATTACHMENT 1**

*INITIAL STUDY CHECKLIST FOR THE WATER TREATMENT FACILITY MODIFICATION  
TO SUPPORT ADDENDUM NO. 5 TO THE ASR EIR/EA*

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

*This Page Is Intentionally Blank*

## I. PROJECT DATA

**Project Title:** Water Treatment Facility Modification

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

**Contact Person and Phone Number:** Maureen Hamilton, (831) 658-5622

**Project Proponents:** Monterey Peninsula Water Management District (MPWMD)

**Project Location:** The project modification would be located at the existing Santa Margarita ASR Site, which is southeast of the intersection of General Jim Moore Boulevard and Eucalyptus Road in the City of Seaside.

**City of Seaside General Plan Designation:** Low Density Single Family Residential<sup>1</sup>

**Zoning:** Single Family Residential (RS-8)

**Project Description:** The proposed modification consists of the construction of a new water treatment building (commonly referred to as “water treatment facility” in this document) and above-grade treatment works, as well as related water treatment piping. In addition, the project also entails the construction of a truck off-loading rack adjacent to the proposed water treatment facility. The building would be approximately 1,700 square feet. The maximum building height of the treatment facility would be approximately 19 feet above finish grade. The building would be designed to be visually compatible with existing structures located on-site. The proposed water treatment facility would increase treatment capacity to accommodate production from existing facilities located at the Seaside Middle School site, as well as other future ASR facilities. The proposed treatment facility would increase the overall treatment capacity to approximately 12.9 MGD or 9,000 gpm.

**Surrounding Land Uses:**

- North: Eucalyptus Road followed by open space
- South: Open space
- East: Open space
- West: General Jim Moore Boulevard followed by residential and a cemetery

---

<sup>1</sup> This parcel is currently designated as Low Density Single Family Residential in the 2003 Seaside General Plan, however, it is designated as “Future Specific Plan” in *Figure 6. General Plan Designations* in the Draft Seaside 2040 General Plan.

Initial Study Checklist  
Water Treatment Facility Modification

## II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Aesthetics         | <input type="checkbox"/> Agricultural Resources        | <input type="checkbox"/> Air Quality                                |
| <input type="checkbox"/> Biological Resources          | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy                                     |
| <input type="checkbox"/> Geology and Soils             | <input type="checkbox"/> Greenhouse Gas Emissions      | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality   | <input type="checkbox"/> Land Use and Planning         | <input type="checkbox"/> Mineral Resources                          |
| <input type="checkbox"/> Noise                         | <input type="checkbox"/> Population and Housing        | <input type="checkbox"/> Public Services                            |
| <input type="checkbox"/> Recreation                    | <input type="checkbox"/> Transportation and Traffic    | <input type="checkbox"/> Tribal Cultural Resources                  |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire                      | <input type="checkbox"/> Mandatory Findings of Significance         |

## III. EVALUATION OF ENVIRONMENTAL IMPACTS

### 1. Aesthetics

#### EXISTING SETTING

The existing site is located in a disturbed area, south east of the intersection of General Jim Moore Boulevard and Eucalyptus Road in the City of Seaside. The Proposed Project site is not visible from Highway 1 or located near a designated scenic vista. The Proposed Project site is located on the Former Fort Ord. The site is improved with water infrastructure. The surrounding area is primarily open space. The visual quality of the site is considered medium, as it is surrounded primarily by open space which is characteristic of the region's natural visual environment. The overall visual sensitivity of the site is considered low, as there are existing water infrastructure facilities located on-site.

#### CHECKLIST

Except as provided in Public Resources Code Section 21099, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Initial Study Checklist  
Water Treatment Facility Modification

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA identified less than significant impacts related to scenic views, degradation of visual character, creation of light and glare during construction activities, and alteration of existing visual character. The ASR EIR/EA identified a significant impact resulting from 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: Incorporate Light-Reduction Measures into the Plan and Design of Exterior Lighting at Well Site*.
- Addendum No. 1 to the ASR EIR/EA also identified a potentially significant impact would result from implementation of ASR Phase 2 related to the creation of new light and glare at the well site, however, this impact would be reduced to less than significant with the implementation of *Mitigation Measure VIS-1: Incorporate Light-Reduction Measures into the Plan and Design of Exterior Lighting at Well Site*.
- Addendum No. 2 to the ASR EIR/EA did not identify any potentially significant aesthetic impacts related to the construction and operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any additional potentially significant aesthetic impacts related to the Monterey Pipeline Re-Alignment.
- Addendum No. 4 to the ASR EIR/EA did not identify any additional potentially significant aesthetics impacts related to the Backflush Basin Expansion project.

#### DISCUSSION

**a, b) Less Than Significant Impact.** The project site is not located within a scenic highway corridor. Moreover, the project site is not considered to be a scenic vista. The site is improved with water supply infrastructure and related improvements. As a result, the construction of additional water supply related infrastructure would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources within a state scenic highway. Therefore, the introduction of new water supply infrastructure would have a less than significant impact to scenic vista and scenic resources.

**c) Less than Significant Impact.** The proposed modification would result in minimal changes to the visual character of the proposed site, as the existing site is currently disturbed and contains water infrastructure facilities. The proposed modifications would result in the construction of a new water treatment facility and related improvements. The water treatment facility would be designed to be visually compatible with the surrounding environment and would be designed to be compatible with existing on-site structures (i.e., existing electrical building). Moreover, the final design of the proposed water treatment facility would be conducted in consultation with the City of Seaside. This impact is considered to be less than significant.

**d) Less than Significant Impact with Mitigation.** The proposed project would result in the construction and operation of additional water supply infrastructure on a previously developed site. As noted above, the site is currently improved with existing water supply infrastructure that is part of the ASR project. The

Initial Study Checklist  
Water Treatment Facility Modification

construction and operation of the proposed water treatment facility would result in the introduction of additional lighting and glare on the project site. The ASR EIR/EA previously evaluated potential impacts related to increase in lighting and glare. In order to lessen the potential impacts associated with site lighting, the ASR EIR/EA identified mitigation to ensure that impacts would be reduced to a less than significant level. The implementation of that mitigation would ensure that potential impacts associated with the proposed modification would remain less than significant. As a result, the proposed modification would not result in any additional adverse environmental effects beyond those previously evaluated in the ASR EIR/EA. Impacts associated with the proposed modification would be less than significant with the implementation of mitigation.

## **MITIGATION MEASURES**

### **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, 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 nonglare finishes.

Monitoring: Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.

## **CONCLUSION**

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to aesthetics. Because the modification could potentially contribute additional sources of lighting and glare associated with the construction and operation of the proposed water treatment facility, *Mitigation Measures VIS-1: Incorporate Light-Reduction Measures into the Plan and Design of Exterior Lighting at Well Site* from the previously approved ASR EIR/EA must be implemented.

Initial Study Checklist  
Water Treatment Facility Modification

## 2. Agricultural Resources

### EXISTING SETTING

The proposed project site and its surrounding area do not contain agricultural or forest lands.

### CHECKLIST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- No impacts to agricultural resources were identified in the ASR EIR/EA.
- No impacts to agricultural resources were identified in Addendum No. 1 to the ASR EIR/EA resulting from the implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any potentially significant impacts to agricultural resources resulting from the construction and operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any potentially significant impacts to agricultural resources related to the Monterey Pipeline Re-Alignment.

Initial Study Checklist  
Water Treatment Facility Modification

- Addendum No. 4 to the ASR EIR/EA did not identify any potentially significant impacts to agricultural resources related to the Backflush Basin Expansion.

## **DISCUSSION**

**a-e) No Impact.** The proposed water treatment facility site and its surrounding area do not contain agricultural or forest lands. As a result, the proposed modification 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 (Monterey County, 2010a). Moreover, the proposed modification would not convert forest land or timberland or involve any other changes that would result in the conversion or loss of forest land.

## **CONCLUSION**

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to agricultural resources.

## **3. Air Quality**

### **EXISTING SETTING**

The proposed modification would be located in the North Central Coast Air Basin (Air Basin). The Air Basin covers an area of 5,159 square miles along the central coast of California and is generally bounded by the Monterey Bay to the west, the Santa Cruz Mountains to the northwest, the Diablo Range on the northeast (Denise Duffy and Associates, 2015).

The proposed project area typically has average maximum and minimum winter (i.e., January) temperatures of 60 degrees Fahrenheit (°F) and 43 °F, respectively, while average summer (i.e., July) maximum and minimum temperatures are 68 °F and 52 °F, respectively. The proposed project site is within close proximity to the coast with temperature variations that are relatively moderate. Precipitation at the site averages approximately 20 inches per year (Denise Duffy and Associates, 2015).

The Monterey Bay Air Resources District (MBARD) is the regional agency tasked with managing air quality in the region. Existing levels of air pollutants in the area can generally be inferred from ambient air quality measurements conducted by MBARD at its closest station, the Salinas #3 monitoring station, located in the City of Salinas, east of East Laurel Drive and south of Constitution Boulevard. Data monitored at this station shows that although the area currently does not meet state standards for ozone, the number of days per year in exceedance of ozone standards has been decreasing, and the region is on course to meet these standards in the future.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA identified less than significant impacts during construction due to short-term emissions of PM<sub>10</sub>, exposures of sensitive receptors (e.g. Seaside Middle School) to elevated health risks from exposure to diesel particulates, and exposure of sensitive receptors to acrolein health hazards. No significant operational air quality impacts were identified.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts related to air quality resulting from construction or operation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA identified a potentially significant impact related to the exposure of sensitive receptors to pollutants during construction of the Hilby Pump Station. This impact could be mitigated to a less than significant level with the implementation of *Mitigation Measure AQ-1: Construction Fugitive Dust Control Plan*<sup>2</sup> from the Pure Water Monterey Mitigation Monitoring and Reporting Plan.
- Addendum No. 3 to the ASR EIR/EA did not identify any significant impacts related to air quality resulting from the Monterey Pipeline Re-Alignment.
- Addendum No. 4 to the ASR EIR/EA did not identify any potentially significant impacts related to air quality resulting from the Backflush Basin Expansion.

## DISCUSSION

Emissions would be generated during construction of the water treatment facility and related improvements from the operation of construction equipment and site grading. In addition, the proposed modification would also result in potential operational air quality emissions associated with the operation of the water treatment facility.

<sup>2</sup> Addenda No. 2 and No. 3 to the ASR EIR/EA were joint documents that amended both the ASR EIR/EA and the Pure Water Monterey Groundwater Replenishment Project (PWM) EIR. For this reason, mitigation measures from the PWM EIR were used to mitigate impacts resulting from those projects. However, the proposed modification covered under this Addendum is not subject to the PWM EIR or associated with this project; mitigation measures from the PWM EIR are not applicable to the proposed modification.

Initial Study Checklist  
Water Treatment Facility Modification

**a) Less than Significant Impact:** CEQA Guidelines Section 15125(b) requires that a project is evaluated for consistency with applicable regional plans, including the Air Quality Management Plan (AQMP). The MBARD is required to update their AQMP once every three years; the most recent update (MBARD, 2017) was approved in March of 2017. This plan 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 cause and/or otherwise induce population growth. In addition, due to lack of operational emissions, it would not cause any long-term adverse air quality effects. As a result, the proposed project would not conflict with and/or otherwise obstruct the implementation of MBARD's AQMP. For these reasons, the proposed project would have a less than significant impact related to conflicts with air quality plans.

**b) Less than Significant Impact:** The MBARD 2016 CEQA Air Quality Guidelines (Guidelines) contains standards of significance for evaluating potential air quality effects of projects subject to the requirements of CEQA. According to MBARD, a project will not have a significant air quality effect on the environment, if the following criteria are met:

Construction of the project will:

- Emit (from all sources, including exhaust and fugitive dust) less than;
  - 137 pounds per day of oxides of nitrogen (NO<sub>x</sub>);
  - 137 pounds per day of reactive organic gases (ROG);
  - 82 pounds per day of respirable particulate matter (PM<sub>10</sub>);
  - 55 pounds per day of fine particulate matter (PM<sub>2.5</sub>); and,
  - 550 pounds per day carbon monoxide (CO).

Operation of the project will:

- Emit (from all project sources, mobile, area, and stationary) less than;
  - 137 pounds per day of oxides of nitrogen (NO<sub>x</sub>)
  - 137 pounds per day of reactive organic gases (ROG)
  - 82 pounds per day of PM<sub>10</sub>
  - 55 pounds per day of PM<sub>2.5</sub>
  - 550 pounds per day carbon monoxide (CO)
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard;
- Not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment;
- Not exceed the health risk public notification thresholds adopted by the MBARD;
- Not create objectionable odors affecting a substantial number of people; and,
- Be consistent with the adopted federal and state Air Quality Plans (MBAPCD, 2016).

The MBARD CEQA Guidelines for evaluating impacts during construction state that if a project generates less than 82lb/day of PM<sub>10</sub> emissions, the project is considered to have less than significant impacts (see Table 5-1, MBARD, 2016). The Guidelines also state that a project will result in less than significant impacts if daily ground-disturbing activities entail less than 8.1 acres of minimal earthmoving, or less than 2.2 acres of grading and excavation. Construction projects below these acreage thresholds would be below the

Initial Study Checklist  
Water Treatment Facility Modification

applicable MBARD 82 lb/day threshold of significance and would constitute a less than significant effect for the purposes of CEQA (MBARD, 2016). The construction area of the proposed modification is anticipated to disturb approximately 1.9 acres, as a result, construction of the proposed modification would be below the threshold of 2.2 acres of daily grading. As a result, the Proposed Project would result in a less than significant construction-related air quality effect.

The proposed modification would result in temporary increases in emissions of inhalable particulates (PM<sub>2.5</sub> and PM<sub>10</sub>), VOC, and NO<sub>x</sub> associated with construction-related activities, see **Table 1. Construction Air Quality Emissions** below for detailed information on these emissions. See **Attachment 2, Air Quality and GHG Calculations Spreadsheets** for more information. Construction-related fugitive dust emissions associated with the proposed modification would be generated from site grading and construction. In addition to construction-related fugitive dust, exhaust emissions associated with construction vehicles and equipment would also be generated.

**Table 1. Construction Air Quality Emissions**

	Emissions in Pounds/Day			
	NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	ROG
Significance Threshold (MBARD)	137*	55	82	137*
Emissions generated by the Project	6.1	0.27	0.82	0.74
Exceed Threshold?	No	No	No	No
Emissions Source: Attachment 2, Air Quality and GHG Calculations Spreadsheets Significance Threshold Source: MBARD, 2016 * Applies to non-typical construction equipment (i.e., well drilling) MBARD has identified that construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NO <sub>x</sub> ), 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				

The construction emissions generated by the modification would not overlap with construction of other components of the ASR Project because all physical components of that project have already have been constructed, therefore the emissions associated with the construction of this modification would not add to the construction emissions of the ASR Project, and would not increase the severity of Impacts AQ-1, AQ-2, AQ-3, AQ-4, or AQ-5 identified in the ASR EIR/EA. Construction would last approximately seven (7) to nine (9) months. As shown in **Table 1. Construction Air Quality Emissions**, construction of the proposed modification would not exceed MBARD thresholds for emissions. As a result, the proposed modification would not result in a new or substantially more severe significant impact due to air quality emissions during construction.

The proposed modification would result in operational air quality emissions associated with the operation of the water treatment facility and related infrastructure. **Table 2. Operational Air Quality Emissions** identifies anticipated operational air quality emissions for the proposed modification. The increase in operational emissions associated with the proposed expansion would not increase the severity of impacts AQ-1, AQ-2, AQ-3, AQ-4, or AQ-5 identified in the ASR EIR/EA. Moreover, all operational emissions would be below applicable MBARD thresholds of significance. As a result, the proposed modification would not result in emissions that would result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA based on an exceedance or violation of the applicable air quality standards.

Initial Study Checklist  
Water Treatment Facility Modification

**Table 2. Operational Air Quality Emissions**

	Emissions in Pounds/Day			
	NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	ROG
Significance Threshold (MBARD)	137*	55	82	137*
Emissions generated by the Project	0.59	0.05	0.05	2.2
Exceed Threshold?	No	No	No	No
Emissions Source: Attachment 2, Air Quality and GHG Calculations Spreadsheets Significance Threshold Source: MBARD, 2016 * Applies to non-typical construction equipment (i.e., well drilling) MBARD has identified that construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., VOC or NO <sub>x</sub> ), 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				

**c) Less than Significant Impact:** The proposed modification would be located on Fort Ord Reuse Authority (FORA) owned property, which is currently occupied with similar facilities. The nearest sensitive receptors to the site are approximately 190 feet to the west of the project driveway. The proposed water treatment facility could create temporary construction dust given the proximity of the nearest residences. Implementation of the following standard construction best management practices (BMPs) would minimize temporary emissions from construction:

- Water all active construction areas as required with non-potable sources to the extent feasible; frequency should be based on the type of operation, soil, and wind exposure and minimized to prevent wasteful use of water and non-stormwater runoff.
- Prohibit grading activities during periods of high wind (over 15 mph).
- Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard.
- Hand sweep daily within paved areas.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Enclose, cover, or water daily exposed stockpiles (dirt, sand, aggregate, etc.).
- Replant vegetation in disturbed areas as quickly as possible.
- Provide stabilized construction entrances/exits to limit sediment tracking from the site.

With implementation of the above BMPs, construction of the proposed modification would result in a less than significant impact to sensitive receptors.

**d) No Impact.** No substantial odors would be emitted from the proposed modification site based upon the type of construction activities and project operations proposed.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to air quality resources.



Initial Study Checklist  
Water Treatment Facility Modification

## 4. Biological Resources

### EXISTING SETTING

The proposed site is located on the Former Fort Ord on a site referred to as the Santa Margarita Site. Vegetation clearing, grading and excavation activities were previously completed on the site in connection with the Backflush Basin Expansion project. Some minor earthwork would be necessary to accommodate construction of the proposed modification, although the extent of these activities would be generally limited given the footprint of the proposed modification. Moreover, all potential ground disturbing activities associated with the proposed modification would occur in previously disturbed areas and no vegetation removal is proposed in connection with this modification. While the extent of ground disturbing activities would generally be performed on previously disturbed area, construction activities could still result in potential biological impacts.

### 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR 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 ASR EIR/EA identified significant impacts related to potential disturbance of the Fort Ord Natural

Initial Study Checklist  
Water Treatment Facility Modification

Resource Management Area (NRMA) and potential loss of nest trees and disturbance or mortality of migratory birds. *Mitigation Measures BIO-1: Minimize or Prevent Disturbance to Adjacent NMRA and BIO-2: Remove Trees and Shrubs during the Nonbreeding Season for Most Birds (September 1 To February 15)* was identified and implemented to reduce impacts to a less than significant level. The ASR 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. *Mitigation Measures AR-1: Conduct Annual Survey Below River Mile 5.5 and Monitor River Flow in January-June Period, and 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* were identified in the ASR 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 ASR EIR/EA concluded that the ASR Project would be beneficial to steelhead and the California red-legged frog.

- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts to biological resources resulting from implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA identified a potentially significant impact during construction of the Hilby Pump Station related to impacts to Monterey spineflower, a federally threatened species. This impact could be reduced to less than significant levels with the implementation of *Mitigation Measure BT-1a: Implement Construction Best Management Practices* from the Pure Water Monterey Mitigation Monitoring and Reporting Plan.
- Addendum No. 3 to the ASR EIR/EA identified a potentially significant impact resulting from impacts to nesting birds during construction of the Monterey Pipeline. This impact could be mitigated to less than significant levels with the implementation of *Mitigation Measures BT-1a: Implement Construction Best Management Practices, BT-1k: Conduct Pre-Construction Surveys for Protected Avian Species, including, but not limited to, white-tailed kite and California horned lark, and, BT-1m: Minimize Effects of Nighttime Construction Lighting* from the Pure Water Monterey Mitigation Monitoring and Reporting Plan.
- Addendum No. 4 to the ASR EIR/EA did not identify any potentially significant impacts resulting from the construction of the backflush basin modification.

## DISCUSSION

**a) Less than Significant Impact:** Construction of the proposed project would not result in any vegetation removal. As noted above, the site was previously cleared in connection with the implementation of the Backflush Basin Expansion. As a result, no additional vegetation removal is warranted in connection with the proposed project. Some minor grading is, however, anticipated in connection with construction-related activities.

Construction of the proposed project has the potential to result in direct mortality or disturbance of California horned lizard. Although this species is known to occur on the former Fort Ord in small numbers (U.S. Army Corps of Engineers, 1992), it is common throughout the southern portion of the Central Coast Range and occurs in fair numbers throughout the rest of its range in California (Jennings and Hayes, 1994). Because the status of the California horned lizard in the region is relatively abundant, and given the

Initial Study Checklist  
Water Treatment Facility Modification

previously disturbed nature of the site and the species is unlikely to occur in significant numbers in this small area, this impact is considered less than significant.

The project could also result in potential impacts to avian species due to construction-related activities, although potential impacts would be minimal given that the site was previously cleared in connection with the Backflush Basin Expansion. As a result, potential impacts to avian species would generally be limited. For instance, the proposed project could result in potential impacts during construction if construction activities occur in close proximity to an occupied nest during the nesting period for migratory birds. This could result in nest abandonment and death of young or loss of reproductive potential at active nests located in the immediate vicinity of construction activities.

In order to avoid potential impacts to avian species, a pre-construction survey for active nests would be conducted by a qualified biologist prior to construction if construction commences between February 15 and September 1. A qualified biologist shall be retained by the project proponents to conduct pre-construction surveys for nesting raptors and other protected avian species where nesting habitat is identified and within a suitable buffer area if construction commences between February 15 and September 1. Pre-construction surveys shall be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys shall be determined by the qualified biologist based on review of the final construction plans. If active raptor or other protected avian species nests are identified during the preconstruction surveys, the qualified biologist shall notify the project proponents and an appropriate no-disturbance buffer shall be imposed within which no construction activities or disturbance shall take place until the young have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

**b) No Impact:** The project site was previously graded in connection with the Backflush Basin Expansion. No vegetation removal is proposed as part of this project. As a result, this project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.

**c) No Impact:** There are no federally protected wetlands within the Proposed Project site therefore there are no impacts to this sensitive habitat as a result of the construction of the proposed project.

**d) No Impact:** With the possible exception of nesting birds and raptors addressed in a) above, the project will not substantially interfere 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, f) Less than Significant Impact:** The proposed project would not conflict with local policies protecting biological resources. No tree removal would be associated with the Proposed Project. The Project site is located within the boundaries of the adopted HMP and is being constructed in compliance with the Conditions of the HMP. This is consistent with the Draft ASR EIR/EA.

Initial Study Checklist  
Water Treatment Facility Modification

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to biological resources.

## 5. Cultural Resources

### EXISTING SETTING

A records search at the Northwest Information Venter of the California Historical Resources Information System (CHRIS) was conducted in 2005 as part of the preparation of the ASR EIR/EA. A review of all of the archaeological sites and surveys within 0.5 mile of the site, historical maps, and the Historic Resources Index was performed. Additionally, historic maps for the site, the National Register of Historic Places, and the California Register of Historical Resources were consulted. The records search at CHRIS did not result in the identification of any previously recorded prehistoric or historic resources within 0.5 mile of the site. The closest prehistoric archaeological site, CA-MNT-699, is located in the coastal dunes.

### 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 pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA found a potentially significant impact due to the potential for discovery of buried unknown cultural deposits and human remains during construction activities; however, *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction Activities* and *CR-2: Stop Work If Human Remains are Encountered during Construction Activities*, were presented and adopted to reduce potential impacts to a less than significant level.
- Addendum No. 1 to the ASR/EA came to the same conclusion as the ASR EIR/EA. Potentially significant impacts could result from the potential for discovery of buried unknown cultural deposits and human remains during construction activities. These impacts could be reduced to less than significant with the implementation of *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction Activities* and *CR-2: Stop Work If Human Remains are Encountered during Construction Activities*.
- Addendum No. 2 to the ASR ER/EA also identified a potentially significant impact during construction of the Hilby Pump Station due to the potential for discovery of buried unknown cultural deposits and human remains during construction activities. These impacts could be reduced to less than significant with the implementation of *Mitigation Measures CR-1: Stop Work*

Initial Study Checklist  
Water Treatment Facility Modification

*If Buried Cultural Deposits are Encountered during Construction Activities and CR-2: Stop Work If Human Remains are Encountered during Construction Activities.*

- Addendum No. 3 to the ASR EIR/EA identified also identified a potentially significant impact during construction of the Monterey Pipeline Re-Alignment due to the potential for discovery of buried unknown cultural deposits and human remains during construction activities. These impacts could be reduced to less than significant with the implementation of *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction Activities and CR-2: Stop Work If Human Remains are Encountered during Construction Activities.*
- Addendum No. 4 to the ASR EIR/EA identified also identified a potentially significant impact during construction due to the potential for discovery of unknown archaeological resources and human remains during construction activities. These impacts could be reduced to less than significant with the implementation of *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction Activities and CR-2: Stop Work If Human Remains are Encountered during Construction Activities.*

## DISCUSSION

**a) No Impact:** The proposed modification would not impact historic resources; there are no documented historical resources on the Proposed Project site or in the vicinity.

**b) Less than Significant Impact with Mitigation:** Ground disturbing activities could potentially unearth unknown archaeological resources. However, the project site has previously been surveyed for nearby and adjacent projects, and there is a low possibility of archaeological resources to be present. Moreover, the site was also previously graded in connection with the Backflush Basin Expansion project. While previously unknown or buried archaeological resources are not anticipated to be encountered during project construction, the implementation of *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits Are Encountered during Construction* and *CR-2: Stop Work If Human Remains Are Encountered during Construction Activities*, previously adopted as part of the ASR EIR/EA and described below, would ensure that potential impacts due to the discovery of previously unknown archaeological resources would be less than significant. As a result, the proposed modification would not result in any new or substantially more severe significant impacts beyond those identified in the ASR EIR/EA. No additional mitigation would be necessary beyond those measures already identified and provided below.

**c) Less than Significant Impact with Mitigation:** Implementation of the proposed modification 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 Measures CR-1: Stop Work If Buried Cultural Deposits Are Encountered during Construction* and *CR-2: Stop Work If Human Remains Are Encountered during Construction Activities*, previously approved as part of the ASR EIR/EA and described below, would reduce the potential impact to a less than significant level, included in **Attachment 3**. The Proposed Project would not result in any new or more severe significant impacts than those identified in the ASR EIR/EA. No additional mitigation would be necessary beyond those identified.

## MITIGATION MEASURES

### **Mitigation Measure CR-1: Stop Work If Buried Cultural Deposits Are Encountered during Construction Activities.**

If buried cultural resources such as chipped stone or ground stone, 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 CalAm and the county coroner immediately. CalAm 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.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to cultural resources. Because the modification could potentially contribute to previously identified significant impacts to unknown cultural resources, *Mitigation Measures CR-1: Stop Work If Buried Cultural Deposits are Encountered during Construction* and *CR-2: Stop Work If Human Remains are Encountered during Construction Activities* from the previously approved ASR EIR/EA must be implemented.

Initial Study Checklist  
Water Treatment Facility Modification

## 6. Energy

### EXISTING SETTING

Gas and electric service in the region is provided by Pacific Gas and Electric Company (PG&E). PG&E operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to the users. The primary source is Dynegy Moss Landing Plant, which generates more than 1,060 megawatts (mw).

### CHECKLIST

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA did not specifically evaluate energy related effects as a separate CEQA topic because at the time the ASR EIR/EA was prepared the CEQA Guidelines had not been updated to require a separate evaluation of these resources. The ASR EIR/EA did, however, evaluate potential energy related impacts within the context of potential impacts to utilities and service systems, as well as within the context of potential significant irreversible environmental changes. The ASR EIR/EA concluded that the proposed ASR project would not result in the wasteful, uneconomical, and unnecessary use of energy. The ASR EIR/EA concluded that there is adequate capacity to accommodate the ASR project without affecting existing services.
- Similarly, Addenda No. 1 through No. 4 did not specifically consider energy related effects because at the time the addenda were prepared, the CEQA Guidelines had not been updated to require a separate evaluation of energy demand. Nevertheless, those addenda considered potential impacts within the context of potential impacts to utilities and services system, and did not identify any additional environmental effects beyond those identified in the ASR EIR/EA.

### DISCUSSION

**a, b) Less than Significant Impact:** The proposed water treatment facility would not result in a potential significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation of the project. Moreover, the project would also not result in a potential significant impact due to potential conflicts with state or local plans for renewable energy or energy efficiency. The proposed project consists of a modification to the ASR Project and is a critical component of water supply infrastructure serving the region. Accordingly, the project does not entail the wasteful or inefficient use of energy. Moreover, given the nature of the project it is also not anticipated to conflict with any goals related to renewable energy production or energy efficiency. The final design of

Initial Study Checklist  
Water Treatment Facility Modification

the proposed water treatment facility will take into consideration potential energy usage and will be designed to minimize energy demand where appropriate. This represents a less than significant impact.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to energy consumption.

## 7. Geology and Soils

### EXISTING SETTING

Pacific Crest Engineering, Inc. prepared a Geotechnical Investigation for the Santa Margarita site in 2009 in preparation for construction of the existing electrical building. In addition, Pacific Crest Engineering, Inc. prepared an updated analysis in February 2018 that evaluated the proposed backflush basin expansion project, which was evaluated in Addendum No. 4. The findings of the updated analysis were generally consistent with the findings of the prior investigations completed by Pacific Crest Engineering. Since those prior investigations generally described the existing geologic setting and included the area, the findings of those prior analyses are considered relevant and applicable for the purposes of this Addendum. Those prior analyses described the proposed site as consisting of older coastal dunes, which are described as weakly consolidated, poorly grading fine to medium grained sand deposits (Pueblo Water Resources, 2009).

### CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



Initial Study Checklist  
Water Treatment Facility Modification

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA found that all geologic, soils, and seismicity impacts of the ASR Project would be less than significant.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts related to geology and soils.
- Addendum No. 2 did not identify any significant impact related to geology and soils resulting from the construction or operation of the Hilby Pump Station.
- Addendum No. 3 did not identify any significant impact related to geology and soils resulting from the Monterey Pipeline Re-Alignment.
- Addendum No. 4 did not identify any significant impact related to geology and soils resulting from the Backflush Basin Expansion.

#### DISCUSSION

**a, b, c) Less than Significant Impact:** The proposed site is located in a seismically active region and therefore it is reasonable to expect that the proposed water treatment facility would be exposed to significant seismic shaking during the design lifetime of the facility. Since the nearest known active or potentially active fault is mapped approximately 3.6 miles from the site, the potential for ground surface fault rupture is low. Based on review done by Pacific Crest Engineers of regional liquefaction maps, the site is located in an area classified as having a low potential for liquefaction. In addition, groundwater was not encountered within the upper 36 feet of the site. The potential for liquefaction and lateral spreading is also considered low. There is also a low probability for seismically induced landsliding because the site is relatively flat. As a result, this is considered a less than significant impact. Moreover, the final design of the proposed water treatment facility will be required to comply with the recommendations of a design-level geotechnical analysis which will further ensure that all potential geologic related hazards will be less than significant.

**d, e, f) No Impact:** The proposed modification is not located on expansive soils and does not involve septic or alternative wastewater disposal systems. Moreover, based on lack of previously identified paleontological resources on the site or in the vicinity, there are no known paleontological resources that would be disturbed by implementation of the Proposed Project.

#### CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to geology and soils.

## 8. Greenhouse Gas Emissions

### EXISTING SETTING

Global temperatures are affected by naturally occurring and anthropogenic-generated atmospheric gases, such as water vapor, carbon dioxide, methane, and nitrous oxide (Intergovernmental Panel on Climate Change, 2007). Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). Solar radiation enters the earth's atmosphere from space, and a portion of the radiation is absorbed at the surface. The earth emits this radiation back toward space as infrared radiation. Greenhouse gases, which are mostly transparent to incoming solar radiation, are effective in absorbing infrared radiation and redirecting some of this back to the earth's surface. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This is known as the greenhouse effect. The greenhouse effect helps maintain a habitable climate. Emissions of GHGs from human activities, such as electricity production, motor vehicle use, and agriculture, are elevating the concentration of GHGs in the atmosphere, and are reported to have led to a trend of unnatural warming of the earth's natural climate, known as global warming or global climate change.

Climate change is a cumulative impact; a project contributes to this impact through its incremental contribution of GHG emissions combined with the cumulative increase of all other sources of GHGs. The MBARD's GHG threshold is defined in terms of carbon dioxide equivalent (CO<sub>2</sub>e), a metric that accounts for the emissions from various GHGs based on their global warming potential. If annual emissions of GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and must implement mitigation measures.

### CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA did not contain an analysis of GHG emissions and climate change, because at the time the ASR 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 ASR EIR/EA, air quality modeling was completed for temporary construction phase impacts. All potential air quality related effects associated with the ASR Project were considered less than significant due to the temporary nature of project emissions.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts related to the generation of GHGs resulting from the implementation of ASR Phase 2.

Initial Study Checklist  
Water Treatment Facility Modification

- Addendum No. 2 to the ASR EIR/EA did not identify any significant impacts related to the generation of GHGs during construction of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify a significant impact related to the generation of GHGs resulting from the Monterey Pipeline Re-Alignment.
- Addendum No. 4 to the ASR EIR/EA did not identify a significant impact related to the generation of GHGs resulting from the Backflush Basin Expansion.

## DISCUSSION

**a) Less Than Significant Impact:** The MBARD has determined that if a project emits less than 10,000 metric tons per year (MT/yr) CO<sub>2</sub>e that its impact will be less than significant. This calculation is made by combining the estimated greenhouse gas emissions generated by construction, amortized over a 30-year period, with the estimated annual GHG emissions resulting from operation of the project.

Construction of the proposed water treatment facility and related improvements would result in a one-time emission total of up to 131.71 MT/yr of CO<sub>2</sub>e during the seven to nine-month construction period; therefore, the annual amortized GHG emissions for the construction phase is 26.52 MT/year. The estimated annual greenhouse gas emissions generated by operation of the proposed project would be approximately 316.62 MT/year. Therefore, the estimated annual emissions for the entire project 448.32 MT/year. This falls well below the threshold of 10,000 MT/year and is therefore considered to be less than significant.

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

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to greenhouse gas emissions.

## 9. Hazards and Hazardous Materials

### EXISTING SETTING

A search of the California Department of Toxic Substances Control, EnviroStor database shows that the site is located on the former Fort Ord, which is an active superfund site pursuant to Government Code Section 65962.5. The Proposed Project site occupies land that was historically used for military training. Because of the former military use at the project site, munition response action was completed to remove Department of Defense (DoD) military munitions, many of which were determined upon evaluation by qualified personnel to be Munitions and Explosives of Concern (MEC). Even with completion of munitions response actions, there is potential for munitions to be encountered. The probability of encountering MEC at the Proposed Project site is considered low (Arcadis, Inc./Weston Solutions, Inc., 2018). No other contaminated cleanup sites are located within the vicinity of the Proposed Project Site (California Department of Toxic Substances Control, 2016). Seaside Middle School is located approximately 0.2 miles from the Proposed Project Site.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA evaluated hazardous materials impacts of the project and concluded there to be a potentially significant impact related to construction activities occurring on portions of the former Fort Ord associated with historic military use. *Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site* was identified to reduce the potential impact to a less than significant level. The ASR EIR/EA identified less than significant impacts associated with handling of associated materials and public exposure to contaminated drinking water.
- Addendum No. 1 to the ASR EIR/EA did not identify any potentially significant impacts related to hazards and hazardous materials.
- Addendum No. 2 to the ASR EIR/EA did not identify any potentially significant impacts related to hazards and hazardous materials from the construction or operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any potentially significant impacts related to hazards and hazardous materials from the implementation of the Monterey Pipeline Re-Alignment.

Initial Study Checklist  
Water Treatment Facility Modification

- Addendum No. 4 to the ASR EIR/EA identified potentially significant impacts due to the project site's being located within an area that formerly contained live-firing ranges for various weapons. *Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site* was identified to reduce the potential impact to a less than significant level.

## DISCUSSION

**a, b) Less than Significant Impact:** The proposed modification would entail the use of hazardous materials during construction and operation. The use of hazardous materials during construction and operation could create a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Moreover, the use of hazardous materials during construction and operation could create a potential hazard to the public through the accidental release of hazardous materials. While hazardous material usage would occur during construction and operation, these effects would be less than significant.

During construction, typical construction equipment fluids, including gasoline, diesel, and lubricants for maintaining equipment may be stored onsite. These materials would be handled and stored in compliance with all local, State, and Federal regulations pertaining to hazardous materials. The temporary usage of these materials during project construction would be reduced through standard construction best management practices and implementation of a Storm Water Pollution Prevention Plan. This would ensure that potential construction-related effects would remain less than significant.

Operation of the proposed water treatment facility would involve the storage and use of hazardous chemicals. The ASR EIR/EA previously considered potential operational impacts during operation of the ASR project. As identified in the ASR EIR/EA, the potential effects would be addressed through the implementation of an operation and maintenance and a chemical handling and emergency response plan. Moreover, these effects would be further reduced through the implementation of a hazardous materials management plan, as required by the County of Monterey. The implementation of these requirements identified in the ASR EIR/EA would ensure that impacts would remain less than significant.

**c) Less than Significant Impact:** The proposed modification is located approximately 0.2 miles from Seaside Middle School. However, construction and implementation of the proposed project would not result in exposure of the students or staff to hazardous materials, substances, or wastes. All applicable regulations and policies relevant to hazardous materials transportation and storage would be adhered to. This is a less than significant impact.

**d) Less than Significant Impact with Mitigation:** The project site is located within an area that formerly contained live-firing ranges for various weapons, therefore soil disturbance from excavating and grading activities could expose construction workers to hazards. This impact could be reduced to a less than significant level with the implementation of *Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site*.

**e) No Impact:** The proposed modification is not located within two miles of a municipal or private airport. Therefore, no impacts would result due to airport related safety hazards.

**f) Less than Significant Impact:** Implementation of the proposed modification would not interfere with evacuation plans because it involves no construction or operational activities that would fully block transportation pathways.

Initial Study Checklist  
Water Treatment Facility Modification

**g) Less than Significant Impact:** The project site is primarily surrounded by undeveloped lands. While there is potential for wildland fires in such a land use type, the Proposed Project would not increase the risk of wildfires to residents because construction of the Project would not involve any equipment or activities that present a severe fire risk. Implementation of the Proposed Project would not further expose people or structures to wildland fires.

#### MITIGATION MEASURE

**Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site.**

Because of the Proposed Project's location, the following safety precautions are required for onsite activities. The requirements may be modified upon completion of the Munitions Response Remedial Investigation/Feasibility Study (MR RI/FA) process for the munitions response sites.

- All personnel accessing the proposed site will be training in MEC recognition. This safety training is provided by the Army at no cost to the trainee.
- If an item is discovered that is or could be MEC, it shall not be disturbed. The item shall be reported immediately to the Presidio of Monterey Police Department at 831-242-7851 so that appropriate U.S. Military explosive ordinance disposal personnel can be dispatched to address such MEC as required under applicable law and regulations at the expense of the Army.
- Ground disturbing activities, including perimeter fence installation, will be coordinated with the U.S. Army Corps of Engineers Unexploded Ordinance Safety Specialist so that appropriate construction-related precautions may be provided.

#### CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to hazards and hazardous materials. Because the modification could potentially contribute to previously identified significant impacts to related to hazardous materials, the implementation of *Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site*, from the previously approved ASR EIR/EA must be implemented.

## 10. Hydrology and Water Quality

#### EXISTING SETTING

The proposed site is sloped with an elevation of approximately 331 feet above sea level at the northwest side of the site, and an elevation of approximately 360 feet above sea level on the northeast side of the site. The majority of the project site is pervious surface. Storm runoff from the site currently is directed into the existing backflush basin. The site does not contain any natural drainages or waterways.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosions or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA identified less than significant and beneficial hydrology and water quality impacts of the ASR project.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts related to hydrology and water quality resulting from the implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any significant impacts related to hydrology and water quality resulting from the construction or operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any significant impacts related to hydrology and water quality resulting from implementation of the Monterey Pipeline Re-Alignment.
- Addendum No. 4 to the ASR EIR/EA did not identify any significant impacts related to hydrology and water quality resulting from implementation of the Backflush Basin Expansion.

## DISCUSSION

**a) Less Than Significant Impact:** The proposed project may be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit and the Municipal Stormwater Permit requirements (including the preparation of a Stormwater Pollution Prevention Plan or SWPPP). MPWMD and their contractors will comply will all applicable water quality standards and waste discharge

Initial Study Checklist  
Water Treatment Facility Modification

requirements. As a result, the proposed modification would not violate any stormwater standards or waste discharge requirements.

**b) No Impact:** The proposed project would not deplete groundwater supplies nor would the project substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the underlying basin. The project is a component of an aquifer storage and recovery system. As a result, there would be no impact.

**c) Less than Significant Impact:** Implementation of the proposed modification would not substantially alter the existing drainage pattern in a manner that would 1) result in substantial erosion or siltation on- or off-site, 2) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, and 3) 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. The project would result in the introduction of new structures and related improvements, which could result in additional erosion through the introduction of impervious surfaces, but these changes would not substantially increase the amount of erosion or surface runoff in a manner which would result in flooding on- or off-site. The project would not exceed the capacity of existing or planned stormwater drainage systems because all water generated by the ASR wells would remain onsite. This represents a less-than-significant effect.

**d, e) No Impact:** The 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 (Monterey County, 2010b and 2010c). As a result, the project would not risk the release of pollutants due to project inundation. In addition, the project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The project consists of a modification to the existing ASR system and therefore represents a critical component of needed water supply infrastructure.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to hydrology and water quality.

## 11. Land Use and Planning

### EXISTING SETTING

The proposed project site is located on Monterey County Assessor Parcel Number (APN) 031-211-001-000 and is owned by FORA. The site is also designated as parcel E34 by the U.S. Army Corps of Engineers. It is designated as Low Density Single Family Residential (RLS) in the City of Seaside General Plan (City of Seaside, 2003) and is zoned as Single Family Residential (RS-8) in the City of Seaside Zoning District Map (City of Seaside, 2010).



Initial Study Checklist  
Water Treatment Facility Modification

## 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA identified less than significant impacts associated with land use compatibility.
- Addendum No. 1 to the ASR EIR/EA did not identify any additional significant impacts related to land use and planning resulting from implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any additional significant impacts related to land use and planning resulting from construction or operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any additional significant impacts related to land use and planning resulting from the implementation of the Monterey Pipeline Re-Alignment.
- Addendum No. 4 to the ASR EIR/EA did not identify any additional significant impacts related to land use and planning resulting from the implementation of the Backflush Basin Expansion.

## DISCUSSION

**a) No Impact:** Implementation of the proposed modification would not physically divide an established community. The existing facilities and proposed facilities will be contained within a single parcel along an existing roadway.

**b) Less than Significant Impact:** The proposed project site is designated by the City of Seaside General Plan as Low Density Single Family Residential and the installation of public utility infrastructure would be a compatible use. Moreover, the proposed infrastructure improvements are consistent with existing on-site facilities (i.e., the water treatment facility and related improvements are consistent with existing on-site uses). As a result, the proposed modification would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project and City of Seaside policies and ordinances would be adhered to. Construction activities would be temporary in nature and would not result in any additional impacts beyond those previously identified in connection with the ASR project.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to land use and planning.

## 12. Mineral Resources

## EXISTING SETTING

The proposed project site is not located in an area containing mineral resources, therefore a discussion of the existing setting is not included.

Initial Study Checklist  
Water Treatment Facility Modification

## 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- No potential impacts to mineral resources were identified in the ASR EIR/EA.
- No potential impacts to mineral resources were identified in Addendum No. 1 to the ASR EIR/EA resulting from the implementation of ASR Phase 2.
- No potential impacts to mineral resources were identified in Addendum No. 2 to the ASR EIR/EA resulting from construction or operation of the Hilby Pump Station.
- No potential impacts to mineral resources were identified in Addendum No. 3 to the ASR EIR/EA resulting from the implementation of the Monterey Pipeline Re-Alignment.
- No potential impacts to mineral resources were identified in Addendum No. 4 to the ASR EIR/EA resulting from the implementation of the Backflush Basin Expansion.

## DISCUSSION

**a, b) No Impact:** The proposed project site is not located in an area of potential mineral resources; the proposed water treatment facility and related improvements would not impact mineral resources.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to mineral resources.

## 13. Noise

## EXISTING SETTING

The Proposed Project site is located within an existing water infrastructure site, which is located adjacent to open space and a residential neighborhood. There are currently motors associated with the existing ASR wells currently in operation at the Santa Margarita site, which generate a minimal amount of noise. The nearest residences to the project site are located approximately 190 feet from the existing driveway.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airport 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR 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. The following mitigation measures were identified to reduce impacts to a less than significant level:
  - *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 System*
  - *Mitigation Measure NZ-2 – Design Pump Stations to Meet Local Noise Standards*
- Addendum No. 1 to the ASR EIR/EA identified a potentially significant impact resulting from implementation of ASR Phase 2 due to the exposure of noise-sensitive land used to construction noise in excess of applicable standards. This impact would be reduced to less than significant with the implementation of the following mitigation measures:
  - *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 System*
- Addendum No. 2 to the ASR EIR/EA identified potentially significant impacts to nearby residences to noise levels in excess of standards and a temporary increase in ambient noise levels during construction of the Hilby Pump Station. These impacts could be reduced to less than significant levels with the implementation of the following mitigation measures:

Initial Study Checklist  
Water Treatment Facility Modification

- *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*
- Addendum No. 3 to the ASR EIR/EA also identified potentially significant impacts to nearby residences to noise levels in excess of standards and a temporary increase in ambient noise levels during construction of the Monterey Pipeline Re-Alignment. These impacts could be reduced to less than significant levels with the implementation of Mitigation Measures NZ-1a, NZ-1b, and NZ-1c.
- Addendum No. 4 to the ASR EIR/EA identified that the proposed Backflush Basin Expansion would not result in any potentially significant noise related impacts warranting the implementation of mitigation measures.

## DISCUSSION

**a, b) Less Than Significant Impact:** Project construction would generate temporary increases in noise associated with the use of construction equipment. In addition, project construction would also result in temporary increases in groundborne vibration or groundborne noise levels in connection with construction-related activities. Temporary construction related noise and groundborne vibration could result in the exposure of nearby sensitive receptors to increased noise levels during construction. As noted above, the nearest sensitive receptor is approximately 190 feet from the site entrance. Potential construction-related effects would, however, be temporary in nature and would be minimized through the adherence to standard construction noise reduction measures to minimize potential impacts to adjacent noise sensitive uses. The implementation of standard construction best management practices would ensure that the proposed modification would not result in any additional environmental effects or increase the severity of a previously identified significant impact beyond those previously identified as part of the ASR EIR/EA and Addendum 4.

**c) No Impact:** The proposed project 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.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to noise.

## 14. Population and Housing

### EXISTING SETTING

The proposed project is located in the City of Seaside. The 2010 U.S. Census population of the City of Seaside was 33,025 persons, and the City's housing stock contains 10,872 occupied residential units, resulting in an average household size of 3.04 persons per household. The estimated population as of January 2014 was 33,534 persons. Based on Association of Monterey Bay Area Governments (AMBAG) projections, population is projected to increase in Seaside by approximately 3,095 people between 2010 and 2020. Based on the 2014 AMBAG Regional Housing Needs Allocation Plan, the total number of housing units which need to be planned in Seaside between 2014 and 2023 in order to meet Seaside's regional

Initial Study Checklist  
Water Treatment Facility Modification

housing need allocation was 393 new units, including 95 very low income, 62 low income, 72 moderate income, and 164 above moderate-income households.

### CHECKLIST

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- No potential impacts to population and housing were identified in the ASR EIR/EA
- No potential impacts to population and housing were identified in Addendum No. 1 to the ASR EIR/EA resulting from implementation of ASR Phase 2.
- No potential impacts to population and housing were identified in Addendum No. 2 to the ASR EIR/EA resulting from the construction and operation of the Hilby Pump Station.
- No potential impacts to population and housing were identified in Addendum No. 3 to the ASR EIR/EA resulting from implementation of the Monterey Pipeline Re-Alignment.
- No potential impacts to population and housing were identified in Addendum No. 4 to the ASR EIR/EA resulting from implementation of the Backflush Basin Expansion.

### DISCUSSION

**a, b) No Impact.** The proposed project would not induce substantial unplanned population growth or displace existing housing or people. The project is a necessary component of the ASR system that has been evaluated in previous environmental documents. Water generated by the ASR system serves to replace diversions from the Carmel River.

### CONCLUSION

The proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to population and housing.

## 15. Public Services

### EXISTING SETTING

The proposed project would not impact public services; therefore, a discussion of the existing setting is not included.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- No potential impacts to public services were identified in the ASR EIR/EA.
- No potential impacts to public services were identified in Addendum No. 1 to the ASR EIR/EA resulting from implementation of Phase 2.
- No potential impacts to public services were identified in Addendum No. 2 to the ASR EIR/EA resulting from construction or operation of the Hilby Pump Station.
- No potential impacts to public services were identified in Addendum No. 3 to the ASR EIR/EA resulting from implementation of the Monterey Pipeline Re-Alignment.
- No potential impacts to public services were identified in Addendum No. 4 to the ASR EIR/EA resulting from implementation of the Backflush Basin Expansion.

## DISCUSSION

**a) No Impact:** Implementation of the proposed project would not result in new significant impacts resulting from new or altered governmental facilities, due to the fact that it is a component of a water infrastructure project, and therefore would not increase the use of schools and parks or increase the need for fire and police protection.

## CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to public services.

Initial Study Checklist  
Water Treatment Facility Modification

## 16. Recreation

### EXISTING SETTING

The proposed project would not impact recreational resources; therefore, a discussion of the existing setting is not included.

### CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- No potential impacts to recreation facilities were identified in the ASR EIR/EA.
- No potential impacts to recreational facilities were identified in Addendum No. 1 to the ASR EIR/EA resulting from implementation of Phase 2.
- No potential impacts to recreational facilities were identified in Addendum No. 2 to the ASR EIR/EA resulting from construction or operation of the Hilby Pump Station.
- No potential impacts to recreational facilities were identified in Addendum No. 3 to the ASR EIR/EA resulting from implementation of the Monterey Pipeline Re-Alignment.
- No potential impacts to recreational facilities were identified in Addendum No. 4 to the ASR EIR/EA resulting from implementation of the Monterey Pipeline Re-Alignment.

### DISCUSSION

**a, b) No Impact:** The proposed project would not result in new significant impacts because there would be no direct or indirect increased use of parks or recreational facilities as part of the Proposed Project. No additional recreational facilities are included in the proposed Backflush Basin Expansion.

### CONCLUSION

The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to recreation resources.

**17. Transportation and Traffic****EXISTING SETTING**

The proposed project site is located off General Jim Moore Boulevard, near the intersection of Eucalyptus Road and General Jim Moore Boulevard in the City of Seaside. The surrounding area is open space and residential with normally light to medium traffic patterns, depending on the time of day. General Jim Moore Boulevard is a major street that is utilized by commuters in the Cities of Seaside, Del Rey Oaks, and Monterey. The closest highways that would potentially be used for materials transport and by construction workers in transit to the Proposed project site are Highway 1, Highway 218, and Highway 68.

**CHECKLIST**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS**

- The ASR EIR/EA found the ASR Project would have the following less than significant impacts to traffic and circulation:
  - 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.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts related to traffic and transportation related to implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any significant impacts related to traffic and transportation resulting from construction or operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA identified potentially significant impacts related to conflicts with plans and congestion management programs. In addition, the re-alignment of the Monterey Pipeline could potentially result in inadequate emergency access during construction. These impacts could be reduced to less than significant levels with the implementation of *Mitigation Measure TR-2: Traffic Control and Safety Assurance Plan* from the Pure Water Monterey Mitigation Monitoring and Reporting Plan.



Initial Study Checklist  
Water Treatment Facility Modification

- Addendum No. 4 to the ASR EIR/EA did not identify any significant impacts related to traffic and transportation related to implementation of the Backflush Basin Expansion.

## DISCUSSION

**a, b) Less than Significant Impact:** The proposed project would result in minimal temporary increases in traffic during construction. Construction worker traffic will result from the estimated average of two (2) workers onsite during the day which could result in up to four vehicle trips per day from workers (two AM trips and two PM trips). MPWMD estimates that peak on-site construction personnel will be approximately eight (8) to 10 personnel. As a result, peak construction traffic could result in an additional 20 vehicle trips per day (10 AM trips and 10 PM trips). This would not be considered a substantial increase in peak hour trips due to the low volumes and the short duration of the construction period.

Operation proposed water treatment facility and related improvements would not generate a substantial increase in operational traffic. As noted previously, the project site is improved with existing MPWMD facilities at the Santa Margarita site that require routine maintenance. It is anticipated that the proposed water treatment facility would be operated by existing staff. As a result, the proposed modification is not anticipated to result in a significant increase in operational traffic. This is considered a less than significant impact.

**c, d) No Impact:** The proposed project would not increase hazards based on a geometric design feature or result in emergency access concerns. The project site is also accessible via a second driveway on General Jim Moore Boulevard that provides additional point of access to the Santa Margarita site for emergency vehicles. During construction, access to the proposed project will be provided by an existing driveway off General Jim Moore Boulevard and construction workers will park onsite; therefore, there would be no significant parking or access impacts.

## CONCLUSION

The proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to transportation and traffic.

## 18. Tribal Cultural Resources

### EXISTING SETTING

No tribal cultural resources are known to occur on the project site. The project site is currently improved with a variety of water supply infrastructure. The project was previously cleared of vegetation as part of the Backflush Basin Expansion Project and no tribal cultural resources were uncovered during those actions. Due to the disturbed nature of the project site, tribal cultural resources are not anticipated to be present. See discussion above under **Section 5, Cultural Resources**.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA did not specifically evaluate tribal cultural resources as a separate CEQA topic because at the time the ASR EIR/EA was prepared the CEQA Guidelines had not been updated to require a separate evaluation of these resources. The ASR EIR/EA did, however, evaluate potential impacts to cultural resources, including potential Native American resources, in connection with the implementation of the ASR project, as more thoroughly described above.
- Similarly, Addenda No. 1 through No. 4 did not specifically consider tribal cultural resources because at the time the Addenda were prepared, the CEQA Guidelines had not been updated to require a separate evaluation of tribal cultural resources. Nevertheless, those addenda considered potential impacts to cultural resources, including Native American resources, and did not identify any additional environmental effects beyond those identified in the ASR EIR/EA.
- See summary above under **Section 4, Cultural Resources**.

## DISCUSSION

**a, b) Less than Significant Impact:** The proposed project would not result in a substantial adverse change in the significance of a tribal resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. No resources listed or eligible for listing in the California Register of Historical Resources are known to exist on-site. Moreover, the project is also not anticipated to adversely affect any tribal resources. As noted previously in **Section 4, Cultural Resources**, mitigation measures have been identified to ensure that potential impacts to a previously unknown resource would be reduced to a less-than-significant level. The implementation of these measures would further ensure that any potential construct-related impacts to any previously unknown tribal resource would be minimized to a less-than-significant level.

## CONCLUSION

The ASR EIR/EA previously evaluated potential impacts to cultural resources, including Native American resources, as part of the cultural resources section of the ASR EIR/EA. As a result, the proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to tribal resources.

## 19. Utilities and Service Systems

### EXISTING SETTING

The Monterey Regional Waste Management District manages the Monterey Peninsula's (including the proposed project site) solid waste collection, disposal, and recycling system. It also receives most of Monterey County's sewage sludge. The Waste Management District operates the Monterey Peninsula Landfill and a transfer station. Any solid waste generated by Proposed Project construction or operation would be disposed of at the landfill or diverted for recycling or reuse at the materials recovery facility.

### CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA identified a potentially significant impact related to the temporary disruption of existing underground utilities during construction. This impact could be reduced to a less than significant level with the implementation of *Mitigation Measure PS-2: Coordinate Relocation and Interruptions of Service with Utility Providers during Construction* and *PS-3: Project All Existing Utilities Slated to Remain*.
- Addendum No. 1 to the ASR EIR/EA did not identify any significant impacts to utilities and service systems resulting from ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any significant impacts to utilities and service systems resulting from the construction and operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA identified a potentially significant impact resulting from solid waste disposal and compliance with regulations related to solid waste during construction of the Monterey Pipeline Re-alignment. These impacts could be reduced to a less than significant level

Initial Study Checklist  
Water Treatment Facility Modification

with the implementation of *Mitigation Measure PS-3: Construction Waste Reduction and Recycling Plan* from the Pure Water Monterey Mitigation Monitoring and Reporting Plan.

- Addendum No. 4 to the ASR EIR/EA did not identify any significant impacts to utilities and service systems resulting from the implementation of the Backflush Basin Expansion.

## DISCUSSION

**a, b, c) No Impact:** The proposed project consists of the construction and operation of a water treatment facility and related infrastructure as a component of the ASR Project. The proposed project is a necessary component of existing water supply infrastructure. The proposed modification is not anticipated to 1) require or result in the construction of new or expanded water or wastewater treatment facilities or other related infrastructure, the construction of which could cause significant environmental effects, 2) have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years, or 3) 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. As noted above, the project is a component of the ASR project and is intended to improve water supply reliability for the region. Accordingly, the proposed project would not result in any additional adverse environmental impacts or increase the severity of a previously identified significant impact.

**d, e) Less than Significant Impact:** Construction of the proposed project would generate construction debris. Project construction is not, however, anticipated to generate a substantial amount of construction debris such that the proposed project would cause the Monterey Peninsula Landfill to exceed its permitted capacity. Moreover, all construction debris would be disposed of in accordance with all applicable regulatory requirements related to construction waste diversion and general practices to reduce the amount of construction waste. As a result, the proposed project would result in a less than significant impact in terms of solid waste generation consistent with the analysis in the ASR EIR/EA and its Addenda.

## CONCLUSION

The proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to utilities and service systems.

## 20. Wildfire

### EXISTING SETTING

The project site is not located in or near a state responsibility areas or lands classified as very high fire hazard severity zones.

Initial Study Checklist  
Water Treatment Facility Modification

## CHECKLIST

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA did not contain an analysis of potential wildfire hazards, because at the time the ASR EIR/EA was prepared, the CEQA Guidelines had not been updated to require an evaluation of wildfire hazards. Although an analysis of potential wildfire impacts was not completed as part of the ASR EIR/EA, the ASR EIR/EA did evaluate potential impacts to existing fire protection services in connection with the implementation of the ASR project. The EIR/EA determined that the ASR project would not increase demand for fire protection services due to the nature of the project.
- Similarly, Addenda No. 1 through No. 4 did not specifically consider wildfire hazards because at the time the Addenda were prepared, the CEQA Guidelines had not been updated to require a separate evaluation of wildfire hazards. Nevertheless, those addenda considered potential impacts to fire protection services and did not identify any additional environmental effects beyond those identified in the ASR EIR/EA.

## DISCUSSION

**a, b, c, d) No Impact:** The proposed project consists of the construction and operation of a water treatment facility and related infrastructure as a component of the ASR Project. The proposed project is a necessary component of existing water supply infrastructure. There are no adopted emergency response plans or emergency evacuation plans that are applicable to the project site. As a result, the proposed modification is not anticipated to substantially impair an adopted emergency response plan or emergency evacuation plan. Moreover, the project is located on a previously developed site and the construction of additional water supply infrastructure on the site would not exacerbate wildlife risks on-site – nor would the project expose project occupants to additional wildlife related hazards. The project does not entail the construction of any uses that would result in the permanent occupation of the site. In addition, the site, as an existing site developed with associated water supply infrastructure does not warrant the installation of additional infrastructure that could exacerbate fire risks. Finally, the proposed project would not expose people or structures to significant risks, including downslope or downstream

Initial Study Checklist  
Water Treatment Facility Modification

flooding or landslides, as a result of runoff, post-fire slope instability, or drainage sites. The project site is generally flat and consists of a previously disturbed site that is developed with water supply infrastructure. No potential wildfire hazards would be associated with the project.

## CONCLUSION

The proposed project would not result in any new significant impacts or cause an increase in severity of any significant impacts identified in the ASR EIR/EA related to utilities and service systems.

## 21. Mandatory Findings of Significance

### CHECKLIST

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially 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, substantially 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### SUMMARY OF IMPACTS IN PREVIOUS DOCUMENTS

- The ASR EIR/EA found that there would be less than significant cumulative impacts in all issue areas with the exception of NO<sub>x</sub> and PM<sub>10</sub> emissions, noise and vibration generated during construction. Both of these cumulative significant impacts would be reduced to less than significant with the implementation of *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*.
- Addendum No. 1 to the ASR EIR/EA did not identify any cumulatively considerable impacts related to implementation of ASR Phase 2.
- Addendum No. 2 to the ASR EIR/EA did not identify any cumulatively considerable impacts related to construction and operation of the Hilby Pump Station.
- Addendum No. 3 to the ASR EIR/EA did not identify any cumulatively considerable impacts related to implementation of the Monterey Pipeline Re-Alignment.

Initial Study Checklist  
Water Treatment Facility Modification

- Addendum No. 4 to the ASR EIR/EA did not identify any cumulatively considerable impacts related to implementation of the Backflush Basin Expansion.

## DISCUSSION

**a, b, c) Less than Significant Impact:** The proposed modification would not substantially degrade or reduce wildlife species or habitat or impact historic resources, as identified in this analysis. Potential cumulative impacts associated with the proposed modification would primarily occur in connection with temporary construction-related effects. As described above, a cumulative analysis for the ASR Project was performed in the ASR EIR/EA and its previous Addenda. Construction and operation of the proposed water treatment facility 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) previously identified in the ASR EIR/EA. The proposed modification would not result in any new significant impacts or cause an increase in severity of any significant impacts beyond those identified in the ASR EIR/EA and its Addenda.

## IV. REPORT PREPARATION AND REFERENCES

California Department of Toxic Substances Control, 2016. EnviroStor Database <http://www.envirostor.dtsc.ca.gov/public/>, accessed online on May 6, 2016.

City of Seaside, 2003. Seaside General Plan.

City of Seaside, 2010. 2007 Zoning District Map.

Denise Duffy and Associates, 2012. Addendum No. 1 to the Phase 1 ASR Environmental Impact Report/Environmental Assessment.

Denise Duffy and Associates, 2016. Addendum No. 2 to the Phase 1 ASR Environmental Impact Report/Environmental Assessment.

Denise Duffy and Associates, 2017. Addendum No. 3 to the Phase 1 ASR Environmental Impact Report/Environmental Assessment.

Denise Duffy and Associates, 2018. Addendum No. 4 to the Phase 1 ASR Environmental Impact Report/Environmental Assessment.

Denise Duffy and Associates, 2015. Pure Water Monterey Groundwater Replenishment Project Final Environmental Impact Report.

Federal Emergency Management Agency, 2009. Flood Insurance Rate Map for Monterey County, California, Panel 0327G.

IFC Jones and Stokes, 2006. Phase 1 Aquifer Storage and Recovery Project Final Environmental Impact Report/Environmental Assessment.

IFC Jones and Stokes, 2010. Monterey County General Plan Final Environmental Impact Report.

Intergovernmental Panel on Climate Change, 2007. Climate Change 2007 Mitigation of Climate Change.

Initial Study Checklist  
Water Treatment Facility Modification

Jennings and Hayes, 1994. *Amphibian and Reptile Species of Special Concern in California*.

Monterey Bay Air Resources District, 2016. Guidelines for Implementing the California Environmental Quality Act. [http://mbard.org/wp-content/uploads/2016/03/Attachment\\_Guidelines-for-Implementing-CEQA.pdf](http://mbard.org/wp-content/uploads/2016/03/Attachment_Guidelines-for-Implementing-CEQA.pdf), accessed online on May 6, 2016.

Monterey Bay Air Resources District, 2017. *2012-2015 Air Quality Management Plan*.

Monterey County, 2010a. 2010 Monterey County General Plan, Figure AWCP4, Williamson Act Lands.

Monterey County, 2010b. 2010 Monterey County General Plan, Figure 8b, Federal Emergency Management Agency 100 Year Flood.

Monterey County, 2010c. 2010 Monterey County General Plan, Figure 8d, Dam Inundation.

Pueblo Water Resources, 2009. *Geotechnical Investigation for New Electrical & Chemical Feed Building, Seaside, California*.

Stebbins, 2003. *A Field Guide to Western Reptiles and Amphibians*. Third Edition.

Zeiner et al., 1998. *California's Wildlife, Volume I, Amphibians and Reptiles*.

Zeiner et al., 1990a. *California's Wildlife, Volume II, Birds*.

Zeiner et al., 1990b. *California's Wildlife, Volume III, Mammals*.



Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

**ATTACHMENT 2**

*AIR QUALITY AND GHG CALCULATION SPREADSHEETS*

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

*This Page Is Intentionally Blank*

## ASR Expansion 2019 - Monterey County, Annual

## ASR Expansion 2019

### Monterey County, Annual

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	82.70	1000sqft	1.90	82,700.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

### 1.3 User Entered Comments & Non-Default Data

#### Project Characteristics -

Land Use - Consistent with the assumptions in Addendum #4, this analysis assumes that size of the site is 1.9 acres. The improvements covered in Addendum #5 would not increase the size of the site; all permanent and temporary impacts would occur within the existing footprint of the site. Similar to the analysis completed for Addendum #4, this acreage represents a worst-case scenario. The actual area of disturbance is expected to be much less.

Construction Phase - This analysis assumes that construction will begin on January, 2020 and will last 9 months. This duration of construction represents a worse-case scenario. It is anticipated that the duration of construction will be less.

Off-road Equipment - Defaults Used

Off-road Equipment - Defaults Used

Off-road Equipment - Defaults Used

Off-road Equipment - Defaults Used

## ASR Expansion 2019 - Monterey County, Annual

Grading - Consistent with the Analysis in Addendum #4, the total acres graded (1.9) represents a worse-case scenario. This is the total area of the Santa Margarita Site. The actual area of disturbance will be much less.

Demolition - NA

Trips and VMT - This analysis assumes that 2 workers (resulting in 4 total trips per day) will be required for construction for most of the time and that a maximum of 10 people (resulting in 20 total trips per day) would be onsite for part of the time. Because there is no net import/export, no hauling trips would result during the grading phase. Two vendor (large trucks) deliveries (resulting in 4 total trips) are assumed per day for each of the phases of construction.

On-road Fugitive Dust - The average assumed speed of vehicles onsite during construction is 15 MPH.

Architectural Coating - NA

Vehicle Trips - There will be no new additional employees onsite compared to existing conditions. Currently the site is checked by District staff approximately once per day, this will remain the same after the proposed project is complete.

Vehicle Emission Factors - Defaults Used

Vehicle Emission Factors - Defaults Used

Vehicle Emission Factors - Defaults Used

Road Dust - Defaults Used

Woodstoves - NA

Consumer Products - Defaults Used

Area Coating - NA

Landscape Equipment - The proposed project does not include any ongoing landscaping.

Energy Use - Defaults Used

Water And Wastewater - Operation of the project will not require the use of water for indoor use or for outdoor use.

Solid Waste - Operation of the project will not generate any solid waste.

Land Use Change - No addition areas will be cleared, removal of vegetation was covered in previous phases of the project (Addendum #4).

Sequestration - The proposed project does not include the planting of trees.

Construction Off-road Equipment Mitigation - No Mitigation

Mobile Land Use Mitigation - No Mitigation

## ASR Expansion 2019 - Monterey County, Annual

Mobile Commute Mitigation - No Mitigation  
Area Mitigation - No Mitigation

Energy Mitigation - No Mitigation

Water Mitigation - No Mitigation

Waste Mitigation - No Mitigation

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	96.00
tblConstructionPhase	NumDays	4.00	26.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	2.00	11.00
tblConstructionPhase	PhaseEndDate	11/11/2020	7/3/2020
tblConstructionPhase	PhaseEndDate	2/5/2020	2/20/2020
tblConstructionPhase	PhaseEndDate	11/25/2020	7/31/2020
tblConstructionPhase	PhaseEndDate	1/30/2020	1/15/2020
tblConstructionPhase	PhaseStartDate	2/6/2020	2/21/2020
tblConstructionPhase	PhaseStartDate	1/31/2020	1/16/2020
tblConstructionPhase	PhaseStartDate	11/12/2020	7/4/2020
tblConstructionPhase	PhaseStartDate	1/29/2020	1/1/2020
tblGrading	AcresOfGrading	9.75	1.90
tblGrading	AcresOfGrading	5.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblSolidWaste	SolidWasteGenerationRate	102.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

## ASR Expansion 2019 - Monterey County, Annual

tblTripsAndVMT	VendorTripNumber	14.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripNumber	35.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	19,124,375.00	0.00

## 2.0 Emissions Summary

---

### Greenhouse Gas Emissions Summary

The MBARD has determined that if a project emits less than 10,000 metric tons per year (MT/yr) CO<sub>2</sub>e that its impact will be less than significant. This calculation is made by combining the estimated greenhouse gas emissions generated by construction, amortized over a 30-year period, with the estimated annual GHG emissions resulting from operation of the project.

- One-time estimated construction GHG Emissions = 131.705 MT
- Estimated Construction GHG Emissions, amortized over 30 years = 26.518 MT/yr
- Annual estimated operational GHG emissions = 316.615 MT/yr
- Total annual GHG emissions = 448.320 MT/yr

448.320 MT/yr is under the threshold of 10,000 MT/yr, therefor this is a less than significant impact.

## ASR Expansion 2019 - Monterey County, Annual

## 2.1 Overall Construction

### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1351	1.1123	0.8703	1.5500e-003	0.0934	0.0565	0.1499	0.0496	0.0537	0.1033	0.0000	131.0015	131.0015	0.0282	0.0000	131.7052
Maximum Pounds per day	0.1351 0.740	1.1123 6.095	0.8703 4.769	1.5500e-003 0.008	0.0934 0.512	0.0565 0.310	0.1499 0.821	0.0496 0.272	0.0537 0.294	0.1033 0.566	0.0000 0.000	131.0015 791.234	131.0015 791.234	0.0282 0.170	0.0000 0.000	131.7052 795.514

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1351	1.1123	0.8703	1.5500e-003	0.0934	0.0565	0.1499	0.0496	0.0537	0.1033	0.0000	131.0013	131.0013	0.0282	0.0000	131.7050
Maximum	0.1351	1.1123	0.8703	1.5500e-003	0.0934	0.0565	0.1499	0.0496	0.0537	0.1033	0.0000	131.0013	131.0013	0.0282	0.0000	131.7050

[illegible]

## ASR Expansion 2019 - Monterey County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	0.5682	0.5682
2	4-1-2020	6-30-2020	0.5559	0.5559
3	7-1-2020	9-30-2020	0.1154	0.1154
		Highest	0.5682	0.5682

## 2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3806	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Energy	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	315.1421	315.1421	0.0112	3.9900e-003	316.6126
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.3923</b>	<b>0.1070</b>	<b>0.0909</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>315.1441</b>	<b>315.1441</b>	<b>0.0112</b>	<b>3.9900e-003</b>	<b>316.6147</b>
<b>Pounds per day</b>	<b>2.150</b>	<b>0.586</b>	<b>0.498</b>	<b>0.004</b>	<b>0.000</b>	<b>0.045</b>	<b>0.045</b>	<b>0.000</b>	<b>0.045</b>	<b>0.045</b>	<b>0.000</b>	<b>1903.488</b>	<b>1903.488</b>	<b>0.068</b>	<b>0.024</b>	<b>1912.370</b>



## ASR Expansion 2019 - Monterey County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3806	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Energy	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	315.1421	315.1421	0.0112	3.9900e-003	316.6126
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.3923</b>	<b>0.1070</b>	<b>0.0909</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>315.1441</b>	<b>315.1441</b>	<b>0.0112</b>	<b>3.9900e-003</b>	<b>316.6147</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## ASR Expansion 2019 - Monterey County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2020	1/15/2020	5	11	
2	Grading	Grading	1/16/2020	2/20/2020	5	26	
3	Building Construction	Building Construction	2/21/2020	7/3/2020	5	96	
4	Paving	Paving	7/4/2020	7/31/2020	5	20	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 1.9****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

## ASR Expansion 2019 - Monterey County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	20.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## ASR Expansion 2019 - Monterey County, Annual

**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0290	0.0000	0.0290	0.0159	0.0000	0.0159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9600e-003	0.1009	0.0424	9.0000e-005		4.5200e-003	4.5200e-003		4.1500e-003	4.1500e-003	0.0000	8.3196	8.3196	2.6900e-003	0.0000	8.3869
<b>Total</b>	<b>8.9600e-003</b>	<b>0.1009</b>	<b>0.0424</b>	<b>9.0000e-005</b>	<b>0.0290</b>	<b>4.5200e-003</b>	<b>0.0335</b>	<b>0.0159</b>	<b>4.1500e-003</b>	<b>0.0201</b>	<b>0.0000</b>	<b>8.3196</b>	<b>8.3196</b>	<b>2.6900e-003</b>	<b>0.0000</b>	<b>8.3869</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.3700e-003	3.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2982	0.2982	1.0000e-005	0.0000	0.2985
Worker	1.0000e-004	9.0000e-005	8.0000e-004	0.0000	1.7000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1663	0.1663	1.0000e-005	0.0000	0.1665
<b>Total</b>	<b>1.5000e-004</b>	<b>1.4600e-003</b>	<b>1.1700e-003</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>7.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.4645</b>	<b>0.4645</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4650</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.2 Site Preparation - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0290	0.0000	0.0290	0.0159	0.0000	0.0159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9600e-003	0.1009	0.0424	9.0000e-005		4.5200e-003	4.5200e-003		4.1500e-003	4.1500e-003	0.0000	8.3196	8.3196	2.6900e-003	0.0000	8.3868
<b>Total</b>	<b>8.9600e-003</b>	<b>0.1009</b>	<b>0.0424</b>	<b>9.0000e-005</b>	<b>0.0290</b>	<b>4.5200e-003</b>	<b>0.0335</b>	<b>0.0159</b>	<b>4.1500e-003</b>	<b>0.0201</b>	<b>0.0000</b>	<b>8.3196</b>	<b>8.3196</b>	<b>2.6900e-003</b>	<b>0.0000</b>	<b>8.3868</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.3700e-003	3.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2982	0.2982	1.0000e-005	0.0000	0.2985
Worker	1.0000e-004	9.0000e-005	8.0000e-004	0.0000	1.7000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1663	0.1663	1.0000e-005	0.0000	0.1665
<b>Total</b>	<b>1.5000e-004</b>	<b>1.4600e-003</b>	<b>1.1700e-003</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>7.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.4645</b>	<b>0.4645</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4650</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.3 Grading - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0597	0.0000	0.0597	0.0324	0.0000	0.0324	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1961	0.0839	1.8000e-004		8.9000e-003	8.9000e-003		8.1900e-003	8.1900e-003	0.0000	16.1065	16.1065	5.2100e-003	0.0000	16.2367
<b>Total</b>	<b>0.0176</b>	<b>0.1961</b>	<b>0.0839</b>	<b>1.8000e-004</b>	<b>0.0597</b>	<b>8.9000e-003</b>	<b>0.0686</b>	<b>0.0324</b>	<b>8.1900e-003</b>	<b>0.0406</b>	<b>0.0000</b>	<b>16.1065</b>	<b>16.1065</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>16.2367</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.2300e-003	8.8000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7048	0.7048	3.0000e-005	0.0000	0.7056
Worker	2.3000e-004	2.1000e-004	1.8900e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3930	0.3930	2.0000e-005	0.0000	0.3935
<b>Total</b>	<b>3.5000e-004</b>	<b>3.4400e-003</b>	<b>2.7700e-003</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>2.0000e-005</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>2.0000e-005</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.0978</b>	<b>1.0978</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0990</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.3 Grading - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0597	0.0000	0.0597	0.0324	0.0000	0.0324	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1961	0.0839	1.8000e-004		8.9000e-003	8.9000e-003		8.1900e-003	8.1900e-003	0.0000	16.1065	16.1065	5.2100e-003	0.0000	16.2367
<b>Total</b>	<b>0.0176</b>	<b>0.1961</b>	<b>0.0839</b>	<b>1.8000e-004</b>	<b>0.0597</b>	<b>8.9000e-003</b>	<b>0.0686</b>	<b>0.0324</b>	<b>8.1900e-003</b>	<b>0.0406</b>	<b>0.0000</b>	<b>16.1065</b>	<b>16.1065</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>16.2367</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.2300e-003	8.8000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7048	0.7048	3.0000e-005	0.0000	0.7056
Worker	2.3000e-004	2.1000e-004	1.8900e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3930	0.3930	2.0000e-005	0.0000	0.3935
<b>Total</b>	<b>3.5000e-004</b>	<b>3.4400e-003</b>	<b>2.7700e-003</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>2.0000e-005</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>2.0000e-005</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.0978</b>	<b>1.0978</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.0990</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.4 Building Construction - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0975	0.7098	0.6330	1.0600e-003		0.0382	0.0382		0.0369	0.0369	0.0000	87.1402	87.1402	0.0162	0.0000	87.5446
<b>Total</b>	<b>0.0975</b>	<b>0.7098</b>	<b>0.6330</b>	<b>1.0600e-003</b>		<b>0.0382</b>	<b>0.0382</b>		<b>0.0369</b>	<b>0.0369</b>	<b>0.0000</b>	<b>87.1402</b>	<b>87.1402</b>	<b>0.0162</b>	<b>0.0000</b>	<b>87.5446</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0119	3.2600e-003	3.0000e-005	6.3000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.4000e-004	0.0000	2.6022	2.6022	1.2000e-004	0.0000	2.6052
Worker	8.4000e-004	7.8000e-004	6.9900e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4512	1.4512	6.0000e-005	0.0000	1.4528
<b>Total</b>	<b>1.2700e-003</b>	<b>0.0127</b>	<b>0.0103</b>	<b>5.0000e-005</b>	<b>2.1600e-003</b>	<b>7.0000e-005</b>	<b>2.2400e-003</b>	<b>5.9000e-004</b>	<b>7.0000e-005</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>4.0534</b>	<b>4.0534</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>4.0580</b>



## ASR Expansion 2019 - Monterey County, Annual

**3.4 Building Construction - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0975	0.7098	0.6330	1.0600e-003		0.0382	0.0382		0.0369	0.0369	0.0000	87.1401	87.1401	0.0162	0.0000	87.5445
<b>Total</b>	<b>0.0975</b>	<b>0.7098</b>	<b>0.6330</b>	<b>1.0600e-003</b>		<b>0.0382</b>	<b>0.0382</b>		<b>0.0369</b>	<b>0.0369</b>	<b>0.0000</b>	<b>87.1401</b>	<b>87.1401</b>	<b>0.0162</b>	<b>0.0000</b>	<b>87.5445</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0119	3.2600e-003	3.0000e-005	6.3000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.4000e-004	0.0000	2.6022	2.6022	1.2000e-004	0.0000	2.6052
Worker	8.4000e-004	7.8000e-004	6.9900e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4512	1.4512	6.0000e-005	0.0000	1.4528
<b>Total</b>	<b>1.2700e-003</b>	<b>0.0127</b>	<b>0.0103</b>	<b>5.0000e-005</b>	<b>2.1600e-003</b>	<b>7.0000e-005</b>	<b>2.2400e-003</b>	<b>5.9000e-004</b>	<b>7.0000e-005</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>4.0534</b>	<b>4.0534</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>4.0580</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.5 Paving - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4000e-003	0.0845	0.0888	1.4000e-004		4.7000e-003	4.7000e-003		4.3300e-003	4.3300e-003	0.0000	11.7657	11.7657	3.7300e-003	0.0000	11.8589
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.4000e-003</b>	<b>0.0845</b>	<b>0.0888</b>	<b>1.4000e-004</b>		<b>4.7000e-003</b>	<b>4.7000e-003</b>		<b>4.3300e-003</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>11.7657</b>	<b>11.7657</b>	<b>3.7300e-003</b>	<b>0.0000</b>	<b>11.8589</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.4800e-003	6.8000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5421	0.5421	3.0000e-005	0.0000	0.5428
Worker	8.8000e-004	8.1000e-004	7.2800e-003	2.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.5117	1.5117	7.0000e-005	0.0000	1.5133
<b>Total</b>	<b>9.7000e-004</b>	<b>3.2900e-003</b>	<b>7.9600e-003</b>	<b>3.0000e-005</b>	<b>1.7200e-003</b>	<b>2.0000e-005</b>	<b>1.7500e-003</b>	<b>4.6000e-004</b>	<b>2.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>2.0538</b>	<b>2.0538</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.0561</b>

## ASR Expansion 2019 - Monterey County, Annual

**3.5 Paving - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4000e-003	0.0845	0.0888	1.4000e-004		4.7000e-003	4.7000e-003		4.3300e-003	4.3300e-003	0.0000	11.7657	11.7657	3.7300e-003	0.0000	11.8589
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.4000e-003</b>	<b>0.0845</b>	<b>0.0888</b>	<b>1.4000e-004</b>		<b>4.7000e-003</b>	<b>4.7000e-003</b>		<b>4.3300e-003</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>11.7657</b>	<b>11.7657</b>	<b>3.7300e-003</b>	<b>0.0000</b>	<b>11.8589</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.4800e-003	6.8000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5421	0.5421	3.0000e-005	0.0000	0.5428
Worker	8.8000e-004	8.1000e-004	7.2800e-003	2.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.5117	1.5117	7.0000e-005	0.0000	1.5133
<b>Total</b>	<b>9.7000e-004</b>	<b>3.2900e-003</b>	<b>7.9600e-003</b>	<b>3.0000e-005</b>	<b>1.7200e-003</b>	<b>2.0000e-005</b>	<b>1.7500e-003</b>	<b>4.6000e-004</b>	<b>2.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>2.0538</b>	<b>2.0538</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.0561</b>

**4.0 Operational Detail - Mobile**

## ASR Expansion 2019 - Monterey County, Annual

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.538832	0.029687	0.203987	0.136286	0.023350	0.005751	0.018582	0.026631	0.004153	0.002845	0.007802	0.001241	0.000853

## ASR Expansion 2019 - Monterey County, Annual

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	198.7222	198.7222	8.9900e-003	1.8600e-003	199.5009
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	198.7222	198.7222	8.9900e-003	1.8600e-003	199.5009
NaturalGas Mitigated	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	116.4199	116.4199	2.2300e-003	2.1300e-003	117.1117
NaturalGas Unmitigated	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	116.4199	116.4199	2.2300e-003	2.1300e-003	117.1117

## ASR Expansion 2019 - Monterey County, Annual

## 5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.18163e+006	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	116.4199	116.4199	2.2300e-003	2.1300e-003	117.1117
<b>Total</b>		<b>0.0118</b>	<b>0.1069</b>	<b>0.0898</b>	<b>6.4000e-004</b>		<b>8.1300e-003</b>	<b>8.1300e-003</b>		<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>116.4199</b>	<b>116.4199</b>	<b>2.2300e-003</b>	<b>2.1300e-003</b>	<b>117.1117</b>

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.18163e+006	0.0118	0.1069	0.0898	6.4000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	116.4199	116.4199	2.2300e-003	2.1300e-003	117.1117
<b>Total</b>		<b>0.0118</b>	<b>0.1069</b>	<b>0.0898</b>	<b>6.4000e-004</b>		<b>8.1300e-003</b>	<b>8.1300e-003</b>		<b>8.1300e-003</b>	<b>8.1300e-003</b>	<b>0.0000</b>	<b>116.4199</b>	<b>116.4199</b>	<b>2.2300e-003</b>	<b>2.1300e-003</b>	<b>117.1117</b>

## ASR Expansion 2019 - Monterey County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	683102	198.7222	8.9900e-003	1.8600e-003	199.5009
<b>Total</b>		<b>198.7222</b>	<b>8.9900e-003</b>	<b>1.8600e-003</b>	<b>199.5009</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	683102	198.7222	8.9900e-003	1.8600e-003	199.5009
<b>Total</b>		<b>198.7222</b>	<b>8.9900e-003</b>	<b>1.8600e-003</b>	<b>199.5009</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## ASR Expansion 2019 - Monterey County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3806	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Unmitigated	0.3806	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
<b>Total</b>	<b>0.3806</b>	<b>1.0000e-005</b>	<b>1.0600e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0500e-003</b>	<b>2.0500e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.1900e-003</b>



## ASR Expansion 2019 - Monterey County, Annual

## 6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
<b>Total</b>	<b>0.3806</b>	<b>1.0000e-005</b>	<b>1.0600e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0500e-003</b>	<b>2.0500e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.1900e-003</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

ASR Expansion 2019 - Monterey County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## ASR Expansion 2019 - Monterey County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## ASR Expansion 2019 - Monterey County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

## ASR Expansion 2019 - Monterey County, Annual

**10.0 Stationary Equipment**

---

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

---

*This Page Is Intentionally Blank*

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

**ATTACHMENT 3**

*APPROVED MMRP FOR THE AQUIFER STORAGE AND RECOVERY PROJECT*

Addendum No. 5 to the ASR EIR/EA  
Water Treatment Facility Modification

*This Page Is Intentionally Blank*



## Chapter 4

# Revised Mitigation Monitoring Plan

CEQA requires that when a lead agency makes findings of significant effects identified in an EIR, it must also adopt a program for reporting and monitoring mitigation measures that were adopted or made conditions of project approval. NEPA requires that the lead agency must include a monitoring and enforcement program for each mitigation measure identified in an EA or Environmental Impact Statement. The objectives of the monitoring are to:

- ensure that mitigation measures are properly implemented,
- provide feedback to agency staff and decision makers about the effectiveness of their actions,
- provide learning opportunities for improving mitigation measures on future projects, and
- identify the need for enforcement action before irreversible environmental damage occurs.

This Mitigation Monitoring Plan (MMP) is designed to ensure that the mitigation measures identified in the EIR/EA are fully implemented. The MMP contains each mitigation measure found in the EIR/EA and is organized by topic in the same order as the contents of the EIR/EA. The agency responsible for monitoring is identified for each measure. The MMP will be considered by the MPWMD in conjunction with project review.

## Vegetation and Wildlife

### **Mitigation Measure BIO-1: Minimize or Prevent Disturbance to Adjacent NRMA**

To prevent disturbance of the adjacent NRMA, management measures will be carried out during project construction and operation to minimize construction effects and the potential for introducing invasive nonnative species. The construction contractor will implement BMPs to prevent the spread outside the construction area of construction materials, oil and fuel, sidecast soil, dust, or water runoff. All invasive nonnative plants, such as iceplant or pampas grass, will be removed from the construction area prior to site disturbance to avoid the spread of plant fragments or seeds. A firebreak consistent with the requirements of the Presidio of Monterey Fire Department and acceptable to the City of

Seaside Fire Department will be located and maintained by MPWMD between the well site and the adjacent NRMA.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

**Mitigation Measure BIO-2: Remove Trees and Shrubs during the Nonbreeding Season for Most Birds (September 1 To February 15)**

Clearing of the site for inspection, maintenance and cleaning, and construction of the well and associated facilities and the pipeline, and subsequent inspection and maintenance and cleaning activities will result in the removal of trees and shrubs that provide suitable nesting habitat for migratory birds. To avoid the loss of active migratory bird nests, tree and shrub removal will be conducted only during the nonbreeding season for migratory birds (generally September 1 to February 15). Removing woody vegetation during the nonbreeding season will ensure that active nests will not be destroyed by removal of trees supporting or adjacent to active nests.

***Monitoring:** Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

## Aquatic Resources

**Mitigation Measure AR-1: Conduct Annual Survey Below River Mile 5.5 and Monitor River Flow in January–June Period.**

Even though the project impact is beneficial and no mitigation is required, the following mitigation is proposed to ensure adequate monitoring of the lower Carmel River. At the beginning of each diversion season and following each storm with a peak flow greater than 3,000 cfs, MPWMD shall conduct a survey of the river channel below RM 5.5 and identify five specific locations where low flows or the channel configuration could potentially block or impair upstream migration of adult steelhead.<sup>1</sup> During the period from December 1 through May 31 when water is being diverted from the Carmel River and injected into the Seaside Groundwater Basin, MPWMD shall monitor flow at the Highway One Bridge, and water currents, depths, and channel configuration at each of the five sites previously identified. If evidence of impairment or blockage is found, MPWMD shall cease diverting until flow increases or until the channel configuration is modified so as to alleviate the blockage or impairment. In the event that channel conditions improve or deteriorate for more than two seasons, the bypass flow criteria shall be reexamined and may be modified by among between NOAA Fisheries, CDFG, and the MPWMD.

---

<sup>1</sup> Potential impairment or blockage shall be monitored by measuring water depths at the shallowest points at 2-foot intervals along the crest of riffles. For the purpose of monitoring and assessing the need for channel modifications, the potential for impairment and/or blockage shall be based on the following criteria: **blockage**, if the width and depth of a continuous section is less than 5 feet wide and  $\geq 0.6$  feet deep; **impaired**, if the width and depth of a continuous section is five to ten feet wide and  $\geq 0.6$  feet deep, and **no impairment**, if the width and depth of a continuous section is  $\geq 10$  feet wide and  $\geq 0.6$  feet deep.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during project operation.*

**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**

To ensure the continued benefit of the Proposed Project to the Carmel River and dependent resources during future low-flow periods, MPWMD will encourage and work with Cal-Am, CDFG, and NOAA Fisheries to investigate and develop a project to improve summer flows and the quality of releases by maintaining, recovering, or increasing storage capacity in the existing Los Padres Reservoir. MPWMD will provide staff expertise and data, as requested. Cal-Am, as owner and operator of Los Padres Dam and Reservoir, is responsible for maintenance of the dam and compliance with existing regulations, including water right conditions. MPWMD will request that Cal-Am develop an updated elevation-capacity curve for Los Padres Reservoir that provides current estimates of the amount of storage capacity available at various elevations in the reservoir area.

In the meantime, MPWMD will continue funding and operation of its program to rescue and rear juvenile steelhead that are stranded downstream of the USGS gaging station at Robles del Rio (RM 14.4). This program is part of MPWMD's mitigation program that was adopted in 1990 when the MPWMD Board certified the MPWMD Water Allocation Program EIR. Without significant progress in maintaining storage capacity in Los Padres Reservoir, the rescue program will be needed in most years.-

***Monitoring:** Cal-Am is responsible for ensuring that this mitigation measure is implemented. Cal-Am will conduct on-site monitoring of Los Padres Reservoir during project operation. MPWMD will provide staff expertise and data, as requested, and continue funding and operation of its program to rescue and rear juvenile steelhead.*

## **Cultural Resources**

**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.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

**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 Native American Heritage Commission (pursuant to Section 7050.5 [c] of the California Health and Safety Code) and the County Coordinator of Indian Affairs. A qualified Jones & Stokes 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 of 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.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

# Surface and Groundwater Hydrology and Water Quality

## **Mitigation Measure GWH-1: Comply with Performance Standards in NPDES Permits**

All construction activities, vehicle storage, and discharges associated with project construction and operation, including well discharges, shall be accomplished in accordance with NPDES permits from the RWQCB to ensure no degradation of surface or groundwater quality. All performance standards contained in the permit will be met.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

## **Mitigation Measure GWH-2: Operate Project in Compliance with SWRCB and DHS Policies**

MPWMD shall operate the Proposed Project in compliance with the SWRCB's Anti-Degradation Policy (Resolution 68-16), and applicable DHS regulations regarding drinking water quality.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during project operation.*

## **Mitigation Measure GWH-3: Modify Project Operations as Required by Results of Monitoring**

Groundwater conditions shall be tracked via the MPWMD's existing monthly monitoring program. In the event that any adverse impacts to groundwater conditions occur, MPWMD shall halt operations and consult with the RWQCB to determine appropriate operational changes.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during project operation.*

## **Mitigation Measure GWH-4: Operate Project in Compliance With NOAA Fisheries Recommendations and to Reduce Unlawful Diversions**

MPWMD shall operate the Proposed Project in accordance with all of the bypass terms recommended by NOAA Fisheries in its 2002 report, *Instream Flow Needs for Steelhead in the Carmel River, Bypass Flow Recommendations for Water Supply Projects Using Carmel River Waters*. In addition, Cal-Am shall, to the maximum extent feasible, be required to utilize water that is available from the Seaside Basin due to the Proposed Project during the low-flow season from June 1 through November 30 to help reduce unlawful diversions from the Carmel River.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during project operation.*

## Noise

### **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 and unnecessary equipment during nighttime hours. The only equipment that will be allowed to operate during nighttime activities would be the drilling and well construction equipment; cleanup and other activities will occur only during daytime activities.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

### **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) 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.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

### **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 of Seaside staff before any noise-generating construction activity begins.

***Monitoring:** Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

### **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.

*Monitoring: Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

**Mitigation Measure NZ-2: Design Pump Stations to Meet Local Noise Standards.**

MPWMD will design the new pump station and chemical/electrical building so that noise levels do not exceed applicable City of Seaside noise standards and ordinances. Prior to field acceptance, MPWMD will retain an acoustical consultant to measure noise levels from the operating facility. If project-generated noise exceeds the noise ordinance performance standards, additional noise attenuation measures will be implemented to meet the standards. The proposed facility will not receive final acceptance until the required noise standards are met. This measure will be made a condition of the final design review.

*Monitoring: Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

## Hazards and Hazardous Materials

**Mitigation Measure HAZ-1: Implement MEC Safety Precautions during Grading and Construction Activities at the Project Site.**

Because of the proposed well site's location, the following safety precautions are required for on-site activities. The requirements may be modified upon completion of the Munitions Response Remedial Investigation/Feasibility Study (MR RI/FS) process for the munitions response sites.

- All personnel accessing the proposed well site will be trained in MEC recognition. This safety training is provided by the U.S. Army at no cost to the trainee. Training may be scheduled by contacting Fort Ord BRAC Office, Lyle Shurtleff at 831-242-7919.
- If an item is discovered that is or could be MEC, it shall not be disturbed. The item shall be reported immediately to the Presidio of Monterey Police Department at 831-242-7851 so that appropriate U.S. military explosive ordnance disposal personnel can be dispatched to address such MEC as required under applicable law and regulations at the expense of the army.

- Ground disturbing activities, including perimeter fence installation, will be coordinated with USACE Unexploded Ordnance Safety Specialist so that appropriate construction-related precautions may be provided (Fisbeck pers. comm.). The USACE Pamphlet EP 75-1-2 entitled *Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic and Radioactive Waste (HTRW) and Construction Activities*, dated August 1, 2004, which can be found at <http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep75-1-2/toc.htm> shall be followed by the USACE Safety Specialist to determine the type of construction oversight that will be needed based on the type of construction activities to be performed.
- Construction activities at the project site are subject to Monterey County Code, Ordinance 5012, Subsection 1 dated 2005, Title 16 “Environment,” Chapter 16.1 “Digging and Excavating on the Former Fort Ord,” which can be found at <http://municipalcodes.lexisnexis.com/codes/montereyco>. This ordinance prohibits excavation, digging, development, or ground disturbance unless an excavation permit is obtained and the permit requirements are followed.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

## Public Services and Utilities

### **Mitigation Measure PS-1: Coordinate Relocation and Interruptions of Service with Utility Providers during Construction**

The construction contractor will contact Underground Service Alert (800/642-2444) at least 48 hours before excavation work begins in order to verify the nature and location of underground utilities. In addition, the contractor will notify and coordinate with public and private utility providers at least 48 hours before the commencement of work adjacent to any utility, unless the excavation permit specifies otherwise. In addition, the service provider will be notified in advance of all service interruptions and will be given sufficient time to notify customers. The timing of interruptions will be coordinated with the providers to ensure that the frequency and duration of interruptions are minimized.

*Monitoring: MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

### **Mitigation Measure PS-2: Protect All Existing Utilities Slated to Remain**

The construction contractor will be responsible for ensuring protection of all utilities slated to remain. All buried lines will be tape-coated in accordance with the requirements of American Water Works Association C214. All new water services, fire services, and water mains will be cathodically protected, in accordance with contract documents. In addition, the contractor will be required to comply with State Department of Health Services criteria for the separation of water mains and sanitary sewers, as set forth in Section 64630, Title 22, of the



California Administrative Code. MPWMD will ensure this measure is included in the contract specifications.

***Monitoring:** MPWMD is responsible for ensuring that this mitigation measure is implemented. MPWMD will conduct on-site monitoring during construction.*

## Visual Resources

### **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, 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 nonglare finishes.

***Monitoring:** Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

## Cumulative Impacts

### **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**

MPWMD will contact local agencies that have projects planned in the same area (i.e., project sites within 1 mile or projects that affect the same roadways) and that have construction schedules that overlap with construction of the Proposed

Project. MPWMD (or their contractor) will coordinate with local agencies responsible for said projects to develop a phased construction plan that includes the following components.

- Evaluate roadways affected by construction activities and minimize roadway and traffic disturbance (e.g., lane closures and detours) and the number of construction vehicles using the roadways. This may involve scheduling some construction activities simultaneously or phasing.
- Prepare compatible traffic control plans for construction projects. If one traffic control plan cannot be prepared, the construction contractor for the Proposed Project and the relevant local agencies (or their construction contractors) will ensure that the traffic control plans for projects affecting the same roadways are compatible. The traffic control plan can be modeled after that required for the Proposed Project in Chapter 2.
- Phase construction activities so  $\text{NO}_x$  and PM10 emissions remain below MPUAPCD thresholds. For medium and large projects (defined as projects that involve construction on a 1-acre site or larger because there is a reasonable likelihood it could contribute to exceeding the MBUAPCD  $\text{NO}_x$  and PM10 emissions thresholds) that will be constructed during the same timeframe, MPWMD and the agencies will develop a phased construction plan so the cumulative  $\text{NO}_x$  emissions remain below 137 pounds per day and the cumulative PM10 emissions remain below 82 pounds per day (or less than 2.2 acres per day is disturbed). The phased construction plan will identify planned construction activities and equipment, anticipated emissions, and a schedule that can be used to estimate daily emissions. The phased construction plan will be reviewed and approved by the MPUAPCD. It will likely be necessary for proponents of other projects to implement  $\text{NO}_x$ -reducing construction practices, as well as dust reduction measures, to ensure  $\text{NO}_x$  and PM10 emissions are at acceptable levels. The dust reduction measures should include all feasible measures contained in Table 8-2 of MBUAPCD's CEQA Air Quality Guidelines (Getchell pers. comm.), which include the following.
  - Limit grading to 8.1 acres per day and grading and excavation to 2.2 acres per day.
  - Water graded / excavated areas at least twice daily. Frequency should be based on the type of operations, soil and wind exposure.
  - Prohibit all grading activities during periods of high wind (over 15 mph).
  - Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
  - Apply nontoxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations, and hydro-seed area.
  - Haul trucks shall maintain at least 2'0" of freeboard.
  - Cover all trucks hauling dirt, sand, or loose materials.

- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads at construction sites.

*Monitoring: Prior to initiation of construction activities, MPWMD will ensure that this mitigation measure is implemented. MPWMD is responsible for ensuring compliance for the duration of the project.*

## Temporary Pipeline Analysis

**Mitigation Measure WLD-1. Comply with U.S. Fish and Wildlife Service Biological Opinion Terms and Conditions.** The U.S. Army will require that any contracts let to construct the proposed temporary pipeline include the U.S. Fish and Wildlife Service BO terms and conditions for Reasonable and Prudent Measures numbers 5, 6, and 7 (U.S. Fish and Wildlife Service 2005, pages 63–65).

*Monitoring: Prior to initiation of construction activities, Cal-Am will ensure that this mitigation measure is implemented. Cal-Am is responsible for ensuring compliance for the duration of the project.*

### **Mitigation Measure WLD-2: Remove Trees and Shrubs during the Nonbreeding Season for Most Birds (September 1 To February 15)**

The placement and removal of the temporary pipeline may result in the trimming of trees and shrubs that provide suitable nesting habitat for migratory birds. To avoid the loss of active migratory bird nests, tree and shrub removal, if necessary, will be conducted only during the nonbreeding season for migratory birds (generally September 1 to February 15). Removing woody vegetation during the nonbreeding season will ensure that active nests will not be destroyed by removal of trees supporting or adjacent to active nests.

If shrub and tree trimming cannot be accomplished before the breeding season, a qualified wildlife biologist will conduct focused nest surveys for active nests of migratory bird species. If active nests are found in the project area, and if construction activities must occur during the nesting period, an appropriate “no-disturbance” buffer around the nest sites will be implemented until the young have fledged (as determined by a qualified biologist).

*Monitoring: Prior to initiation of construction activities, Cal-Am will ensure that this mitigation measure is implemented. Cal-Am is responsible for ensuring compliance for the duration of the project.*

**Mitigation Measure CUL-1: Stop Work if Buried Cultural Deposits Are Encountered during Construction Activities**

If buried cultural resources such as chipped or ground stone, quantities of bone or shell material, or historic debris or building foundations are inadvertently discovered during ground-disturbing activities, work will be stopped within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find. If, after evaluation by a qualified archaeologist, an archaeological site or other find is identified as meeting the criteria for inclusion in the NRHP or the CRHR, Cal-Am will retain a qualified archaeologist to develop and implement an adequate program for investigation, avoidance if feasible, and data recovery for the site, with Native American consultation, if appropriate.

If human skeletal remains are inadvertently encountered during construction of the temporary pipeline, the contractor will contact the Monterey County Coroner immediately. If the county coroner determines that the remains are Native American, the coroner will contact the NAHC, as required by 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.

*Monitoring: Cal-Am is responsible for ensuring that this mitigation measure is implemented. Cal-Am will conduct on-site monitoring during construction.*

**Mitigation Measure HAZ-1: Provide MEC Training to Construction Workers.**

All construction workers that will enter the project site will receive training from qualified personnel on the identification and avoidance of MEC prior to beginning work.

*Monitoring: Cal-Am is responsible for ensuring that this mitigation measure is implemented. Cal-Am will conduct on-site monitoring during construction.*

**EXHIBIT 18-B****RESOLUTION NO. 2019-e11****RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
CERTIFYING ADDENDUM 5  
TO THE AQUIFER STORAGE AND RECOVERY EIR/EA**

WHEREAS, the Board of Directors of the Monterey Peninsula Water Management District (MPWMD) has directed that its staff pursue Aquifer Storage and Recovery (ASR) as a means to facilitate conjunctive use of local water resources for the benefit of the environment and the community; and

WHEREAS, MPWMD adopted Findings Related to the Certification of the MPWMD Phase 1 Aquifer Storage and Recovery Project EIR and Determining Compliance with the California Environmental Quality Act, adopted the Mitigation and Monitoring Plan, certified the Final Environmental Impact Report/Environmental Assessment (EIR/EA) for the Phase 1 ASR Project, and approved the Phase 1 ASR Project on August 21, 2006; and

WHEREAS, MPWMD approved and adopted the April 2012 Addendum to the Phase 1 ASR EIR/EA, adopted the April 2012 Mitigation Monitoring Plan, and approved the full implementation of ASR Water Project 2 on April 16, 2012; and

WHEREAS, MPWMD approved the Hilby Avenue Pump Station and adopted the June 2016 Hilby Avenue Pump Station Addendum as Addendum 2 to the Aquifer Storage and Recovery Project Environmental Impact Report/Environmental Assessment on June 20, 2016; and

WHEREAS, MPWMD approved a realignment of a segment of the Monterey Pipeline and adopted the February 2017 Monterey Pipeline Addendum as Addendum 3 to the ASR EIR/EA on February 22, 2017; and

WHEREAS, MPWMD approved an expansion to the backflush basin and adopted the July 2018 Backflush Basin Expansion Addendum as Addendum 4 to the ASR EIR/EA on July 16, 2018; and

WHEREAS, MPWMD has followed guidelines of the California Environmental Quality Act (CEQA) and prepared the Water Treatment Facility Modification Addendum to modify the approved ASR Phase 1 Project by allowing the construction of a new water treatment building and above-grade treatment works, as well as related water treatment piping and associated infrastructure; and

WHEREAS, MPWMD has prepared Findings of Environmental Review for the Backflush Basin Expansion Addendum to the ASR EIR/EA, attached hereto as **Attachment A** and hereby incorporated by reference.

NOW THEREFORE, BE IT RESOLVED:

We, the Board of Directors of the Monterey Peninsula Water Management District, certify the Water Treatment Facility Modification Addendum as a true and accurate statement of the environmental impacts of the construction of the Water Treatment Facility Project; and

Adopt the June 2019 Water Treatment Facility Modification Addendum as Addendum 5 to the ASR EIR/EA, which found that the proposed modifications to the approved ASR Phase 1 Project would not result in a measurable increase in environmental impacts over what was previously analyzed in the 2006 ASR EIR/EA, the 2012 ASR Phase 2 Addendum, the Hilby Avenue Pump Station Addendum, the Monterey Pipeline Addendum, and the Backflush Basin Expansion Addendum; and

Directs staff to post a Notice of Determination of this action in accordance with Section 15094 of the CEQA Guidelines.

On motion of Director \_\_\_\_\_ and second by Director the \_\_\_\_\_ foregoing resolution is duly adopted this 15<sup>th</sup> day of July 2019 by the following votes:

AYES:

NAYS:

ABSENT:

I, David J. Stoldt, Secretary to the Board of Directors on the Monterey Peninsula Water Management District, hereby certify that the foregoing is a resolution duly adopted on the 15<sup>th</sup> day of July 2019.

Witness my hand and seal of the Board of Directors this \_\_\_\_\_ day of July 2019.

\_\_\_\_\_  
David J. Stoldt, Secretary to the Board

**ATTACHMENT A**

**FINDINGS OF ENVIRONMENTAL REVIEW  
FOR THE  
BACKFLUSH BASIN EXPANSION ADDENDUM TO THE  
ASR EIR/EA**

- 1) **FINDING:** The Monterey Peninsula Water Management District (MPWMD) Board of Directors adopted the Findings Relating to Certification of the MPWMD Phase 1 Aquifer Storage and Recovery Project EIR and Determining Compliance with the California Environmental Quality Act, adopted the Mitigation Monitoring Plan, certified the Final Aquifer Storage and Recovery (ASR) Environmental Impact Report/Environmental Assessment (EIR/EA) for the Phase 1 ASR Project, and approved the Phase 1 ASR Project on August 21, 2006.

**EVIDENCE:** The ASR EIR/EA and related documents are on file in the MPWMD office.

- 2) **FINDING:** The MPWMD Board of Directors approved and adopted the April 2012 Addendum to the Phase 1 EIR/EA as Addendum 1 to the ASR EIR/EA, adopted the April 2012 Mitigation Monitoring Plan for ASR Water Project 2, and approved the full implementation of ASR Water Project 2 on April 16, 2012.

**EVIDENCE:** Addendum 1 and related documents are on file in the MPWMD office.

- 3) **FINDING:** The MPWMD Board of Directors approved the Hilby Avenue Pump Station and adopted the June 2016 Hilby Avenue Pump Station Addendum as Addendum 2 to the ASR EIR/EA on June 20, 2016

**EVIDENCE:** Addendum 2 and related documents are on file in the MPWMD office.

- 4) **FINDING:** The MPWMD Board of Directors approved a realignment of a segment of the Monterey Pipeline and adopted the February 2017 Monterey Pipeline Addendum as Addendum 3 to the ASR EIR/EA on February 22, 2017.

**EVIDENCE:** Addendum 3 and related documents are on file in the MPWMD office.

- 5) **FINDING:** The MPWMD Board of Directors approved an expansion to the backflush basin and adopted the July 2018 Backflush Basin Expansion Addendum as Addendum 4 to the ASR EIR/EA on July 16, 2018; and

**EVIDENCE:** Addendum 4 and related documents are on file in the MPWMD office.

- 6) **FINDING:** MPWMD followed the California Environmental Quality Act (CEQA) Guidelines Sections 15162 and 15164 to determine that an Addendum evaluating the environmental effect of the Water Treatment Facility Modification Project and related

improvements (together hereinafter referred to as Project) is appropriate based on the following:

- a. The Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and
- b. No changes in circumstances have occurred involving new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and
- c. No new information of substantial importance which was not known and could not have been known at the time of the previous EIR/EA and Addenda were found.

The MPWMD Board of Directors at their July 15, 2019 meeting reviewed the Water Treatment Facility Modification Addendum (Addendum 5).

**EVIDENCE:**

- a. Construction and operation environmental impacts and mitigation measures at the Phase 1 ASR Project site were previously considered with the ASR EIR/EA; and
- b. The proposed Project requires grading and the construction and operation of a water treatment facility and related infrastructure. The site was previously cleared as part of the backflush expansion project. The project's potential environmental effects are similar to impacts previously considered in the ASR EIR/EA and subsequent Addenda including impacts to air quality, noise, and sensitive species; and
- c. All appropriate measures to reduce impacts to less than significant described in the adopted ASR EIR/EA Mitigation and Monitoring Programs would apply to the Project; and
- d. The proposed Project would not result in any new significant environmental effects that cannot be mitigated with existing, previously identified mitigation measures in the ASR EIR/EA.
- e. The proposed Project would not substantially increase the severity of environmental effects identified in the ASR/EIR and its Addenda; and
- f. No new information of substantial importance has been identified or presented to MPWMD Board of Directors that the Project would result in significant environmental effects not identified in the ASR EIR/EA and its Addenda, more severe environmental effects than described in the ASR EIR/EA and its Addenda, or require mitigation measures which were previously determined not to be feasible or are considerably different from those recommended in the ASR EIR/EA and its Addenda; and
- g. The Agenda and supporting documents for the July 15, 2019 Board Meeting are on file in the District office.

- 7) **FINDING:** Addendum 5 reflects the independent judgement of the MPWMD Board, and each participating Director has reviewed and considered the information contained in the Addendum and related documents prior to making the decision on the Addendum.



**EVIDENCE:** Each Director on the Board received a copy of Addendum 5 and supporting documents as evidenced by the July 15, 2019 Board meeting packet.

- 8) **FINDING:** The MPWMD Board finds that the proposed modifications to the approved ASR Phase 1 Project would not result in a measurable increase in environmental impacts over what was previously analyzed in the August 21, 2006 ASR EIR/EA and subsequent Addenda.

**EVIDENCE:** The above stated facts.



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****19. REPORT ON ACTIVITY/PROGRESS ON CONTRACTS OVER \$25,000**

**Meeting Date:** July 15, 2019 **Budgeted:** N/A

**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:**

**Prepared By:** Suresh Prasad **Cost Estimate:** N/A

**General Counsel Review:** N/A

**Committee Recommendation:** The Administrative Committee reviewed this item on July 8, 2019.

**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

---

**SUMMARY:** Attached for review is **Exhibit 19-A**, monthly status report on contracts over \$25,000 for the period May 2019. This status report is provided for information only, no action is required.

**EXHIBIT**

**19-A** Status on District Open Contracts (over \$25k)



**Monterey Peninsula Water Management District  
Status on District Open Contracts (over \$25K)  
For The Period May 2019**

Contract	Description	Date Authorized	Contract Amount	Total Expended To Date	Current Period Spending	Total Expended To Date	Expected Completion	Current Period Activity	P.O. Number
4	Pueblo Water Resources, Inc.	Design water treatment facilities ASR Santa Margarita	2/21/2019	\$ 261,445.00	\$ -	\$ -			PO01912
5	De Lay & Laredo	Rule 19.8 Investment Banking Services	1/21/2019	\$ 27,000.00	\$ -	\$ -	9/30/2019		PO01930
6	De Lay & Laredo	Rule 19.8 Investor Owned Utility Consultant	1/21/2019	\$ 88,462.00	\$ 10,954.44	\$ 25,020.50	9/30/2019	Current period billing related to feasibility study	PO01929
7	De Lay & Laredo	Rule 19.8 Valuation & Cost of Service Consultant	1/21/2019	\$ 321,495.00	\$ 31,140.47	\$ 47,742.98	9/30/2019	Current period valuation services related to feasibility study	PO01928
8	Eminent Domain Legal Services	Rule 19.8 Eminent Domain Legal Services	12/17/2018	\$ 100,000.00	\$ 42,327.40	\$ 42,327.40	9/30/2019		PO01920
9	McC Campbell Analytical, Inc.	ASR Water Quality	11/19/2018	\$ 40,000.00	\$ 7,746.50	\$ 7,746.50	6/30/2019		PO01806
10	Whitson Engineers	Carmel River Thawleg Survey	9/19/2018	\$ 52,727.43	\$ 49,715.00	\$ 49,715.00			PO01076
11	Monterey Peninsula Engineering	ASR Backflush Basin Expansion	9/17/2018	\$ 444,765.00	\$ 418,726.75	\$ 22,038.25	\$ 440,765.00	Current period billing for ASR backflush expansion	PO01779
12	Pueblo Water Resources, Inc.	ASR Backflush Basin Expansion, CM services	7/16/2018	\$ 96,034.00	\$ 62,135.06	\$ 62,135.06			PO01778
13	Mercer-Fraser Company	Sleepy Hollow Intake upgrade project	7/16/2018	\$ 1,802,835.00	\$ 1,166,041.25	\$ 192,835.82	\$ 1,358,877.07	Current period billing for SH Intake project construction	PO01726
14	MBAS	ASR Water Quality	7/16/2018	\$ 60,000.00	\$ 17,628.75	\$ 17,628.75	6/30/2019		PO01716
15	Fort Ord Reuse Authority	ASR Backflush basin expansion project UXO support	7/16/2018	\$ 55,215.00	\$ 5,005.64	\$ 5,005.64			PO01686
16	Colantuono, Highsmith, & Whatley, PC	Legal Services for MCWD vs PUC Matter for FY 2018-2019	7/1/2018	\$ 50,000.00	\$ 47,449.06	\$ 683.74	\$ 48,132.80	Current period legal services for MCWD vs PUC matter	PO01874
17	The Maynard Group	Network cable installation for phone service	6/18/2018	\$ 25,120.10	\$ -	\$ 25,120.10	\$ 25,120.10	Current period project billing for network cable installation	PO01868
18	Zone24x7	Water Demand Database administration & maintenance services	6/18/2018	\$ 30,000.00	\$ 22,698.00	\$ 2,522.00	\$ 25,220.00	Current period retainer	PO01727
19	Lynx Technologies, Inc	Geographic Information Systems contractual services	6/18/2018	\$ 35,000.00	\$ 17,775.00		\$ 17,775.00		PO01703
20	Regional Government Services	Human Resources contractual services	6/18/2018	\$ 70,000.00	\$ 36,246.00	\$ 5,580.10	\$ 41,826.10	Current period hr services	PO01702
21	TBC Communications & Media	Public Outreach services retainer	6/18/2018	\$ 42,000.00	\$ 36,535.99	\$ 3,500.00	\$ 40,035.99	Current period retainer	PO01669
22	The Ferguson Group LLC	Federal lobbyist services agreement	6/18/2018	\$ 99,500.00	\$ 88,344.79	\$ 8,194.62	\$ 96,539.41	Current period retainer	PO01647
23	John Arriaga	State lobbyist services agreement	6/18/2018	\$ 35,000.00	\$ 25,000.00	\$ 2,500.00	\$ 27,500.00	Current period retainer	PO01646
24	CSC	Annual e-recording of deed restrictions.	6/18/2018	\$ 50,000.00	\$ 34,195.00	\$ 4,000.00	\$ 38,195.00	e-recording fee for the period	PO01540
25	Ecology Action of Santa Cruz	IRWM HEART Grant	4/16/2018	\$ 152,600.00	\$ 70,074.83	\$ 13,144.50	\$ 83,219.33	Current period billing for HEART grant program expenses	PO01824
26	Rural Community Assistance Corporation	IRWM DAC Needs Assessment	4/16/2018	\$ 100,000.00	\$ 819.96		\$ 819.96		PO01777
27	Denise Duffy & Assoc. Inc.	Consultant services - spawning gravel	4/16/2018	\$ 40,000.00	\$ 38,927.08		\$ 38,927.08		PO01728
28	Big Sur Land Trust	Update of the IRWMP Plan	4/16/2018	\$ 34,000.00	\$ 12,305.67		\$ 12,305.67		PO01620
29	Pueblo Water Resources, Inc.	ASR operations support	1/24/2018	\$ 70,000.00	\$ 45,151.03	\$ 23,501.53	\$ 68,652.56	Current period billing for operations support for ASR project	PO01645

**Monterey Peninsula Water Management District  
Status on District Open Contracts (over \$25K)  
For The Period May 2019**

Total										
Contract		Description	Date Authorized	Contract Amount	Expended To Date	Current Period Spending	Total Expended To Date	Expected Completion	Current Period Activity	P.O. Number
30	Pueblo Water Resources, Inc.	Seaside Groundwater Basin Geochemical Study	1/24/2018	\$ 68,679.00	\$ 11,300.00	\$ 1,600.00	\$ 12,900.00		Current period fee for Geochemical modeling study for the Seaside	PO01628
31	Normandeau Associates, Inc.	Assistance with IFIM Study	11/13/2017	\$ 35,000.00	\$ 23,042.50		\$ 23,042.50			PO01509
32	Accela Inc.	Acquisition of Water Demand Database System	11/13/2017	\$ 676,377.00	\$ 598,432.18		\$ 598,432.18	6/30/2019		PO01471
33	Pueblo Water Resources, Inc.	SSAP Water Quality Study	8/21/2017	\$ 94,437.70	\$ 22,553.20	\$ 1,755.00	\$ 24,308.20		Current period fee for SSAP water quality study	PO01510
34	Balance Hydrologics, Inc	Design Work for San Carlos Restoration Project	6/19/2017	\$ 51,360.00	\$ 50,894.32		\$ 50,894.32			PO01321
35	AECOM Technical Services, Inc.	Los Padres Dam Alternatives Study	1/25/2017	\$ 700,700.00	\$ 489,916.50	\$ 15,850.00	\$ 505,766.50		Current period billing for Los Padres Dam Alternative Study	PO01268
36	Denise Duffy & Assoc. Inc.	MMRP Services for Monterey Pipeline	1/25/2017	\$ 80,000.00	\$ 72,703.06		\$ 72,703.06			PO01202
37	Pueblo Water Resources, Inc.	Engineering Services Support - Contract #12-0045	7/18/2016	\$ 300,729.00	\$ 248,584.96	\$ 18,700.30	\$ 267,285.26		Current period billing for engineering support for ASR project	PO01099
38	Pueblo Water Resources, Inc.	Operations Services Support (Reimbursable) Amd #11	7/18/2016	\$ 182,361.74	\$ 166,005.67	\$ 16,356.07	\$ 182,361.74		Current period billing for operations support for ASR project	PO01098
39	Goodin,MacBride,Squeri,Day,Lamprey	User Fee PUC Proceedings Legal Fee	7/1/2016	\$ 50,000.00	\$ 33,411.85		\$ 33,411.85	6/30/2019		PO01100
40	HDR Engineering, Inc.	Los Padres Dam Fish Passage Study	4/18/2016	\$ 310,000.00	\$ 282,032.00		\$ 282,032.00			PO01072
41	Brown and Caldwell	Contract - No. Mo. Cnty Drought Contingency Plan	6/15/2015	\$ 435,818.00	\$ 435,791.52		\$ 435,791.52			PO01020
42	Sidley Austin LLP	Cal-Am Desal Structuring & Financing Order	4/20/2015	\$ 460,000.00	\$ 152,896.87		\$ 152,896.87			PO00594
43	KBA Docusys - Lease Payments	Copier machine leasing - 60 months	6/30/2014	\$ 46,863.68	\$ 44,969.24	\$ 947.22	\$ 45,916.46	6/30/2019	Monthly rental billing for copier machines	PO00687
44	HydroPoint Data Systems, Inc.	Flow Meters and related for MPUSD	3/17/2014	\$ 77,000.00	\$ 30,760.19		\$ 30,760.19			PO00219
45	Charles N. Atkins	Professional Fees for Contribution of Public Funds - CAW Desal Project	2/12/2014	\$ 75,000.00	\$ 15,000.00		\$ 15,000.00			PO00170
46	WaterWise Consulting, Inc.	Landscape audits	1/29/2014	\$ 75,000.00	\$ 31,660.00		\$ 31,660.00			PO00256
47	Michael Hutnak	GS Flow Modeling for Water Resouces Planning	8/19/2013	\$ 56,800.00	\$ 43,840.00		\$ 43,840.00			PO00123
48	Justin Huntington	GS Flow Modeling for Water Resouces Planning	8/19/2013	\$ 59,480.00	\$ 53,918.98		\$ 53,918.98			PO00122

**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****20. STATUS REPORT ON MEASURE J/RULE 19.8 SPENDING**

**Meeting Date:** July 15, 2019 **Budgeted:** N/A

**From:** David J. Stoldt, General Manager **Program/Line Item No.:** N/A

**Prepared By:** Suresh Prasad **Cost Estimate:** N/A

**General Counsel Review:** N/A

**Committee Recommendation:** The Administrative Committee reviewed this item on July 8, 2019.

**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

---

**SUMMARY:** Attached for review is **Exhibit 20-A**, monthly status report on Measure J/Rule 19.8 spending for the period May 2019. This status report is provided for information only, no action is required.

**EXHIBIT**

**20-A** Status on Measure J/Rule 19.8 Spending





**Monterey Peninsula Water Management District**  
**Status on Measure J/Rule 19.8 Spending**  
**For the Period May 2019**

	<b>Contract</b>	<b>Date Authorized</b>	<b>Contract Amount</b>	<b>Prior Period Spending</b>	<b>Current Period Spending</b>	<b>Total Expended To Date</b>	<b>Spending Remaining</b>	<b>Project No.</b>
1	Eminent Domain Legal Counsel	12/17/2018	\$ 100,000.00	\$ 42,327.70		\$ 42,327.70	\$ 57,672.30	PA00002-01
2	Investment Banking Services	2/21/2019	\$ 30,000.00	\$ -		\$ -	\$ 30,000.00	PA00002-02
3	Valuation & Cost of Service Study Consulta	2/21/2019	\$ 355,000.00	\$ 31,140.47	\$ 47,742.98	\$ 78,883.45	\$ 276,116.55	PA00002-03
4	Investor Owned Utility Consultant	2/21/2019	\$ 100,000.00	\$ 10,954.44	\$ 25,020.50	\$ 35,974.94	\$ 64,025.06	PA00002-04
5	District Legal Counsel		\$ 30,000.00	\$ 15,658.11	\$ 1,347.50	\$ 17,005.61	\$ 12,994.39	PA00002-05
6	Contingency/Miscellaneous		\$ 35,000.00	\$ 4,026.01	\$ 1,123.00	\$ 5,149.01	\$ 29,850.99	PA00002-10
	<b>Total</b>		<b>\$ 650,000.00</b>	<b>\$ 104,106.73</b>	<b>\$ 75,233.98</b>	<b>\$ 179,340.71</b>	<b>\$ 470,659.29</b>	



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****21. LETTERS RECEIVED****Meeting Date: July 15, 2019** **Budgeted: N/A****From: David J. Stoldt,  
General Manager** **Program/  
Line Item No.: N/A****Prepared By: Arlene Tavani** **Cost Estimate: N/A****General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

A list of letters submitted to the Board of Directors or General Manager and received between June 11, 2019 and July 9, 2019 is shown below. The purpose of including a list of these letters in the Board packet is to inform the Board and interested citizens. Copies of the letters are available for public review at the District office. If a member of the public would like to receive a copy of any letter listed, please contact the District office. Reproduction costs will be charged. The letters can also be downloaded from the District's web site at [www.mpwmd.net](http://www.mpwmd.net).

<b>Author</b>	<b>Addressee</b>	<b>Date</b>	<b>Topic</b>
Richard Svindland	David J. Stoldt	7/2/2019	Notice of Event of Default by MPWMD and Monterey One Water under Water Purchase Agreement for Pure Water Monterey Project
James M. Cullem, P.E.	David J. Stoldt	6/28/2019	Dissolution of Water authority TAC and Appreciation for Service
Melodie Chrislock	MPWMD Board	6/17/2019	Successful Water Buyouts



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****22. COMMITTEE REPORTS**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>N/A</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>N/A</b>
<b>Prepared By:</b>	<b>Arlene Tavani</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review: N/A****Committee Recommendation: N/A**

**CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

Attached for your review as **Exhibits 22-A thru 22-C**, respectively, are final minutes of the committee meetings listed below.

**EXHIBIT**

<b>22-A</b>	June 10, 2019 Administrative Committee Minutes
<b>22-B</b>	March 28, 2019 Water Supply Planning Committee Minutes
<b>22-C</b>	March 12, 2019 Public Outreach Committee Minutes





## **EXHIBIT 22-A**

### **FINAL MINUTES**

### **Monterey Peninsula Water Management District Administrative Committee *June 10, 2019***

#### **Call to Order**

The meeting was called to order at 4:05 PM in the District Conference Room.

Committee members present: George Riley – Chair  
Gary Hoffmann

Committee members absent: Molly Evans

Staff present: David J. Stoldt, General Manager  
Suresh Prasad, Administrative Services Manager/Chief Financial Officer  
Larry Hampson, Water Resources & Engineering Manager/District Engineer  
Stephanie Locke, Water Demand Manager  
Arlene Tavani, Executive Assistant

#### **Oral Communications**

None

#### **Items on Board Agenda for June 17, 2019**

1. **Consider Adoption of Minutes of May 20, 2019 Committee Meeting**  
On a motion by Hoffmann and second by Riley, the minutes of the May 20, 2019 meeting were approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.
2. **Consider Approval of Amendment No. 3 to Agreement with Regional Government Services Authority for Management and Administrative Services**  
On a motion by Hoffmann and second by Riley, the committee recommended approval with a correction to the staff note to specify the term of the agreement is through June 30, 2020. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.
3. **Consider Expenditure for Temporary Agency Employee to Assist with Document Scanning for All District Divisions During FY 2019-2020**  
On a motion by Hoffmann and second by Riley, the committee voted to recommend the Board approve an expenditure of \$50,000 to retain a temporary agency employee. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.
4. **Consider Approval of Agreement with Lynx Technologies for Geographic Information System (GIS) Services**  
On a motion by Hoffmann and second by Riley, the committee recommended the Board approve an agreement with Lynx Technologies for a not-to-exceed amount of \$35,000. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**5. Consider Expenditure of Funds With CoreLogic Information Solutions, Inc.**

On a motion by Hoffmann and second by Riley, the committee recommended the Board approve an expenditure of \$14,000 for Fiscal Year 2019-2020 to obtain CoreLogic's RealQuest Professional. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**6. Authorize Funds to Contract for Limited-Term Field Positions during FY 2019-2020**

On a motion by Hoffmann and second by Riley, the committee recommended the Board adopt Resolution 2019-05, authorizing an exception to the CalPERS 180-day wait period to hire Larry Hampson as a part-time, limited-term employee. The motion was approved on a vote of 3 – 0 by Evans, Hoffmann and Riley.

**7. Consider Approval of Six Temporary Field Staff Positions Funded through an Interagency Contract Between MPWMD and NMFS to Provide for Legally Mandated Cooperative Research and Monitoring Projects in FY 2019-2020**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize funding for six temporary field staff positions in an amount not-to-exceed \$99,320. The motion was approved on a vote of 2 – 0 by Riley and Hoffmann. Evans was absent.

**8. Consider Converting the Hydrogeologist Position to Water Resources Manager Position**

No action taken. The item was referred for Board consideration as an Action item on June 17, 2019.

**9. Consider Converting the Riparian Projects Coordinator Position to Environmental Resources Manager Position**

No action taken. The item was referred for Board consideration as an Action item on June 17, 2019.

**10. Approve Expenditure to Corporation Service Company - Recording Fees**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize an expenditure of \$30,000 to Corporation Service Company to pay recording fees. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent. Locke noted that the staff report incorrectly listed the amount of funding requested as \$15,000.

**11. Authorize Expenditure for Software Maintenance Agreements**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize \$114,600 to fund renewal of software maintenance agreements. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**12. Consider Expenditure to Amend Contract with Pueblo Water Resources to Provide Hydrogeologic Review for Water Distribution System Permits**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize an expenditure of \$2,000 to contract with Pueblo Water Resources. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**13. Consider Contract for District Public Outreach and Communications Services with Thomas Brand Consulting For Fiscal Year 2019-2020**



On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize a contract with Thomas Brand Consulting for Fiscal Year 2019-2020 in the amount of \$42,000. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**14. Consider Renewal of Contract with JEA & Associates for Legislative and Administrative Services**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize an expenditure of \$35,000 for renewal of the contract with JEA & Associates. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**15. Consider Renewal of Contract with the Ferguson Group for Legislative and Administrative Services**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize an expenditure of \$100,000 for renewal of the contract with the Ferguson Group. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent. Stoldt noted that the requested amount was incorrectly listed in the staff note as \$96,000 and should be modified to include \$3,500 in out-of-pocket expenses.

**16. Consider Approval of Additional Expenditure to HDR Engineering, Inc. for the Los Padres Dam Fish Passage Study**

On a motion by Hoffmann and second by Riley, the committee recommended the Board authorize an additional expenditure of \$10,000 to HDR Engineering, Inc. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**17. Consider Adoption of Resolution 2019-05 Certifying Compliance with State Law with Respect to the Levying of General and Special Taxes, Assessments, and Property-Related Fees and Charges**

On a motion by Hoffmann and second by Riley, the committee recommended the Board adopt Resolution No. 2019-05. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**18. Consider Adoption of Resolution 2019-07 Establishing Article XIII(B) Fiscal Year 2019-2020 Appropriations Limit**

On a motion by Hoffmann and second by Riley, the committee recommended the Board adopt Resolution No. 2019-17. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**19. Consider Adoption of Resolution 2019-08 Update to Rule 24, Table 3, Capacity Fee History**

On a motion by Hoffmann and second by Riley, the committee recommended the Board adopt Resolution No. 2019-08. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**20. Consider Adoption of Treasurer's Report for April 2019**

On a motion by Hoffmann and second by Riley, the committee recommended the Board adopt the April 2019 Treasurer's Report and financial statements, and ratification of the disbursements made during the month. The motion was approved on a vote of 2 – 0 by Hoffmann and Riley. Evans was absent.

**21. Report on Activity/Progress on Contracts Over \$25,000**

This item was presented as information to the committee. No action was required or taken by the committee.

**22. Status Report on Measure J/Rule 19.8 Spending**

This item was presented as information to the committee. No action was required or taken by the committee.

**Other Items**

**23. Review Draft May 20, 2019 Regular Board Meeting Agenda**

The committee reviewed the June 10, 2019 revision of the June 17, 2019 Board meeting agenda. Stoldt noted that items 7 and 8 would be removed from the Consent Calendar and placed under Action Items. The committee made no changes to the agenda.

**Adjournment**

The meeting was adjourned at 6:10 PM.

U:\staff\Boardpacket\2019\20190715\InfoItems\22\Item-22-Exh-A.docx



## **EXHIBIT 22-B**

### **FINAL MINUTES**

#### **Water Supply Planning Committee of the Monterey Peninsula Water Management District March 28, 2019**

**Call to Order:** The meeting was called to order at 3:00 pm.

**Committee members present:** Gary Hoffmann, P.E. - Committee Chair  
Jeanne Byrne  
George Riley

**Committee members absent:** None

**Staff members present:** David J. Stoldt, General Manager  
Larry Hampson, Water Resources & Engineering  
Manager/District Engineer  
Arlene Tavani, Executive Assistant  
Stephanie Locke, Water Demand Manager  
Beverly Chaney, Associate Fisheries Biologist  
Maureen Hamilton, Water Resources Engineer

**District Counsel present** David Laredo

**Comments from the Public:** No comments.

#### **Action Items**

1. **Consider Adoption of October 16, 2018 Committee Meeting Minutes**  
Director Byrne moved approval and stated that she had no objections to the minutes. Director Riley seconded the motion and they were adopted on a vote of 3 – 0 by Byrne, Riley and Hoffmann. No comments were directed to the committee during the public comment period on this item.
2. **Adopt 2019 Committee Meeting Schedule**  
On a motion by Director Riley and second of Director Byrne, the proposed meeting schedule was approved with a change to the meeting start times from 10:30 am to 10:00 am. The motion was approved on a vote of 3 – 0 by Riley, Byrne and Hoffmann.

#### **Discussion Items**

3. **Discuss Status of Ryan Ranch Unit of California American Water and Use of Emergency Intertie between the Bishop and Ryan Ranch Units**

Stephanie Locke briefly summarized information provided in the staff report. She explained that the District has given California American Water (Cal-Am) thirty days to rehabilitate its Ryan Ranch wells in order to meet adequate production levels to serve the Ryan Ranch system. If Cal-Am cannot meet that requirement, the District will recommend that the Bishop and Ryan Ranch systems be combined. District Counsel Laredo stated that if Cal-Am does not solve this situation, the issue will be brought to the Board of Directors to determine what action should be taken.

Alissa Kispersky, Project Engineer for Cal-Am, addressed the committee. She distributed a schedule for completion of the Ryan Ranch Well #7 rehabilitation project. Ms. Kispersky explained that rehabilitation of Well No. 7 should be completed within two weeks. In addition, the water treatment plant should be fully functional within two weeks. She expected that Well No. 7 could produce 100 gallons per minute; however, 71 gallons per minute would be sufficient to meet the maximum daily system demand. Well No. 11 would be rehabilitated if Well No. 7 does not have adequate capacity to meet system demand.

**4. Discus Hastings Reservation Ford Removal from Finch Creek**

Beverly Chaney summarized information provided in the staff note. She explained that nine of the twelve fish passage barriers identified by District staff were scheduled for removal. Staff proposed that the District should consider participation in funding the removal of the ford at U.C. Berkeley's Hastings Natural History Reservation on Finch Creek, although it is outside the District's boundaries.

A representative from the Hastings Natural History Reservation, Jennifer S. Hunter, Resident Director, addressed the committee. She stated that U.C. Berkeley does not have sufficient funds to complete ford removal and suggested that a cooperative funding arrangement might be developed between the California State Coastal Conservancy, the MPWMD and the university. Surveying and other design work might be undertaken by Berkeley students.

There was consensus among the committee members that staff should bring a proposal to the committee for review with a budget and confirmation of project partners.

**5. Update on Los Padres Dam Alternatives Study**

Larry Hampson reviewed the current status of the Los Padres Dam Alternatives Study and reviewed the list of additional studies the National Marine Fisheries Service (NMFS) has proposed for completion at an estimated cost of approximately \$2 million. The NMFS would also like Cal-Am to complete other work regarding fish passage for a total of approximately \$5 million. Cal-Am could include funding for completion of these studies and fish passage work in its general rate case for 2021-2023. It is not yet clear if the District or Cal-Am would be responsible for completion of this work, if Cal-Am includes those costs in the rate case. Mr. Hampson noted that the State of California has not listed steelhead as endangered; however, the Federal government has and is therefore responsible for protection of the species.

**6. Update on ASR Construction**

Maureen Hamilton reported that expansion of the backflush basin at the Santa Margarita ASR site is complete. Design of the new water treatment facility is underway, and CEQA review for that project should be considered by the Board of Directors in July 2019.

**7. Update on Pure Water Monterey Project**

No report.

**8. Update on Pure Water Monterey Water Purchase Agreement Requirements**

Mr. Stoldt reminded the committee that the first 1,000 acre-feet of water produced by the project must be purchased by the District as an Operating Reserve at a cost of \$2 million.

**9. Water Supply Charge and User Fee – Citizen Oversight Panel Discussion**

Mr. Stoldt reported that the Ordinance 152 Oversight Panel has recommended the following: (a) the Water Supply Charge should not fund Measure J/Rule 19.8 activities; (b) sunset the water supply charge and/or the user fee; and (c) prioritize payment of the Rabobank loan.

**Adjournment:** The meeting was adjourned at 4:40 pm.

U:\staff\Boardpacket\2019\20190715\Info\Items\22\Item-22-Exh-B.docx





## **EXHIBIT 22-C**

### **FINAL MINUTES**

### **Monterey Peninsula Water Management District Public Outreach Committee March 12, 2019**

#### **Call to Order**

The meeting was called to order at 4:00 pm in the Water Management District conference room.

Committee members present: Jeanne Byrne - Chair  
Molly Evans  
Alvin Edwards

Committee members absent: None

District staff members present: David Stoldt, General Manager  
Stephanie Locke, Water Demand Manager  
Arlene Tavani, Executive Assistant

Others present: Steve Thomas, Thomas Brand Consulting

**Comments from the Public:** No comments were directed to the committee.

#### **Action Items**

**1. Consider Adoption of September 5, 2018 and October 10, 2018 Committee Meeting Minutes**

On a motion of Director Evans and second by Director Edwards, the minutes of September 5, 2018 and October 10, 2018 were approved as presented on a vote of 3 – 0 by Evans, Edwards and Byrne.

**2. Develop Recommendation to the Board Regarding Adoption of 2018 MPWMD Annual Report**

Director Edwards offered a motion that was seconded by Evans, to recommend that the Board adopt the 2018 MPWMD Annual Report as presented, with the addition of information on the passage of Measure J and implementation of Rule 19.8. The motion was approved on a vote of 3 – 0 by Edwards, Evans and Byrne.

The committee requested that staff provide an estimate of the cost to send a mailer out District wide.

**3. Review and Approve Committee Meeting Schedule for 2019**

On a motion by Director Evans and second by Director Edwards, the committee schedule was approved on a vote of 3 – 0 by Evans, Edwards and Byrne.

#### **Discussion Items**

**4. Review of District Branding Campaign and Schedule for 2019**

Mr. Thomas reviewed advertisements that had been published in 2018. He noted that

advertisements were also placed on radio, social media, and internet platforms. The committee expressed support for the advertising strategy, and interest in development of an e-newsletter. It was also suggested that the District should work with Access Monterey Peninsula on televising public interest programs that feature the MPWMD.

**Schedule Next Meeting Date – April 25, 2019**

**Adjournment** – The meeting was adjourned at 4:55 pm.

U:\staff\Boardpacket\2019\20190715\InfoItems\22\Item-22-Exh-C.docx



**ITEM: INFORMATIONAL ITEM/STAFF REPORTS****23. MONTHLY ALLOCATION REPORT****Meeting Date: July 15, 2019 Budgeted: N/A****From: David J. Stoldt, General Manager Program: N/A  
Line Item No.:****Prepared By: Gabriela Bravo Cost Estimate: N/A****General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California  
Environmental Quality Act Guidelines Section 15378.**

---

Due to the implementation of the Accela Database, the May and June 2019 Monthly Allocation Reports will be reported in August's board packet.



**ITEM: INFORMATIONAL ITEM/STAFF REPORTS****24. WATER CONSERVATION PROGRAM REPORT**

**Meeting Date:** July 15 2019 **Budgeted:** N/A

**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:**

**Prepared By:** Kyle Smith **Cost Estimate:** N/A

**Committee Recommendation:** N/A

**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

---

**I. MANDATORY WATER CONSERVATION RETROFIT PROGRAM**

District Regulation XIV requires the retrofit of water fixtures upon Change of Ownership or Use with High Efficiency Toilets (HET) (1.28 gallons-per-flush), 2.0 gallons-per-minute (gpm) Showerheads, 1.2 gpm Washbasin faucets, 1.8 gpm kitchen, utility and bar sink faucets, and Rain Sensors on all automatic Irrigation Systems. Property owners must certify the Site meets the District's water efficiency standards by submitting a Water Conservation Certification Form (WCC), and a Site inspection is often conducted to verify compliance.

**A. Changes of Ownership**

Information is obtained monthly from *Realquest.com* on properties transferring ownership within the District. The information is compared against the properties that have submitted WCCs. Details on **73** property transfers that occurred between June 1, 2019, and June 30, 2019, were added to the database.

**B. Certification**

Due to the Accela database project District staff is unable to report on the number of WCCs received from June 1, 2019, to June 30, 2019. This will continue until Accela develops a way to retrieve this data from the database.

**C. Verification**

From June 1, 2019, to June 30, 2019, **45** properties were verified compliant with Rule 144 (Retrofit Upon Change of Ownership or Use). Of the **45** verifications, **23** properties verified compliance by submitting certification forms and/or receipts. District staff completed **69** Site inspections. Of the **41** properties inspected, **22 (53%)** passed inspection. **None** of the properties that passed inspection involved more than one visit to verify compliance with all water efficiency standards.

**Savings Estimate**

Water savings from HET retrofits triggered by Rule 144 verified from June 1, 2019, to June 30, 2019, are estimated at **0.550** Acre-Feet Annually (AFA). Water savings from retrofits that exceeded the requirement (i.e., HETs to Ultra High Efficiency Toilets) is estimated at **0.130** AFA (13 toilets). Year-to-date estimated savings from toilet retrofits is **4.500** AFA

D. CII Compliance with Water Efficiency Standards

Effective January 1, 2014, all Non-Residential properties were required to meet Rule 143, Water Efficiency Standards for Existing Non-Residential Uses. To verify compliance with these requirements, property owners and businesses are being sent notification of the requirements and a date that inspectors will be on Site to check the property. In June, District inspectors performed **9** inspections. Of the **9** inspections certified, **8** were in compliance. **One** of the properties that passed inspection involved more than one visit to verify compliance with all water efficiency standards; the remainder complied without a reinspection.

MPWMD is forwarding its CII inspection findings to California American Water (Cal-Am) for their verification with the Rate Best Management Practices (Rate BMPs) that are used to determine the appropriate non-residential rate division. Compliance with MPWMD's Rule 143 achieves Rate BMPs for indoor water uses, however, properties with landscaping must also comply with Cal-Am's outdoor Rate BMPs to avoid Division 4 (Non-Rate BMP Compliant) rates. In addition to sharing information about indoor Rate BMP compliance, MPWMD notifies Cal-Am of properties with landscaping. Cal-Am then conducts an outdoor audit to verify compliance with the Rate BMPs. During March and April 2019, MPWMD referred **one** property to Cal-Am for verification of outdoor Rate BMPs.

E. Water Waste Enforcement

The District has a Water Waste Hotline 831-658-5653 or an online form to report Water Waster occurrences at [www.mpwmd.net](http://www.mpwmd.net) or [www.montereywaterinfo.org](http://www.montereywaterinfo.org). There were **three** Water Waste responses during the past month. There were **no** repeated incidents that resulted in a fine.

## II. WATER DEMAND MANAGEMENT

A. Permit Processing

Due to the Accela database project, District staff are unable to report on the numbers related to Water Permits issued from June 1, 2019, to June 30, 2019.

B. Permit Compliance

District staff completed **63** Water Permit final inspections during June 2019. **Sixteen** of the final inspections failed due to unpermitted fixtures. Of the **50** passing properties, **29** passed inspection on the first visit. In addition, **2** pre-inspections were conducted in response to Water Permit applications received by the District.

C. Deed Restrictions

District staff prepares deed restrictions that are recorded on the property title to provide notice of District Rules and Regulations, enforce Water Permit conditions, and provide notice of public access to water records. In April 2001, the District Board of Directors adopted a policy regarding the processing of deed restrictions. Staff is unable to report on the number of deed restriction as it relates to total number of Permits for May. District staff provided Notary services for **67** Water Permits with deed restrictions.

D. Rebates

Rebate data was unavailable for this month's report.

**ITEM: INFORMATIONAL ITESM/STAFF REPORTS****25. QUARTERLY WATER USE CREDIT TRANSFER STATUS REPORT****Meeting Date: July 15, 2019 Budgeted: N/A****From: David J. Stoldt, General Manager Program/Line Item No.: N/A****Prepared By: Gabriela Bravo Cost Estimate: N/A****General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

Information about Water Use Credit transfer applications will be reported as applications are received. There are no pending Water Use Credit transfer applications.



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****26. CARMEL RIVER FISHERY REPORT FOR JUNE 2019****Meeting Date: July 15, 2019 Budgeted: N/A****From: David J. Stoldt, General Manager Program/ Line Item No.: N/A****Prepared By: Beverly Chaney Cost Estimate: N/A****General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

**AQUATIC HABITAT AND FLOW CONDITIONS:** June's dry, but cool, weather brought a more typical pattern to the area causing a slow, steady decline in Carmel River flows and provided good conditions for migrating steelhead and excellent conditions for newly hatched steelhead fry and young-of-the-year (YOY) throughout much of the watershed.

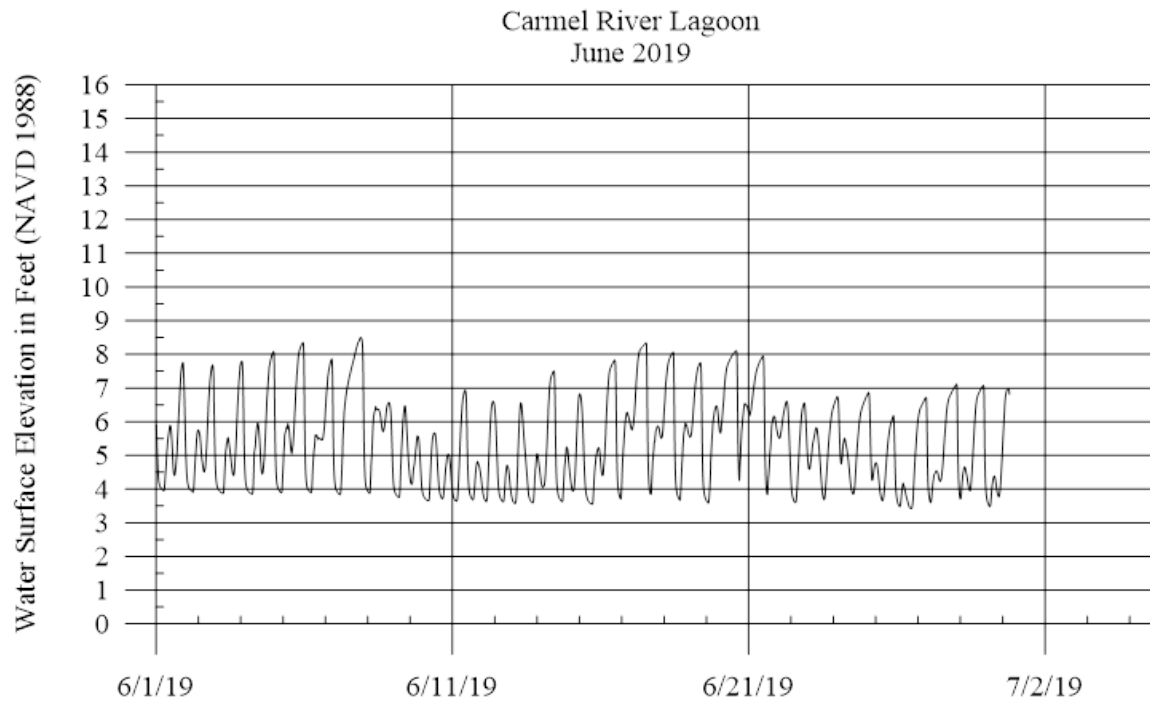
June's mean daily streamflow at the Sleepy Hollow Weir dropped from 74 to 38 cfs (monthly mean 52 cfs) resulting in 3,080 acre-feet (AF) of runoff. Mean daily streamflow at the Highway 1 gage dropped from 77 to 31 cfs (monthly mean 46 cfs) resulting in 2,270 acre-feet (AF) of runoff. Los Padres Dam was still spilling at 24 cfs as of June 30.

There were 0.00 inches of rainfall in June as recorded at the San Clemente gauge. The rainfall total for WY 2019 (which started on October 1, 2018) is 30.93 inches, or 147% of the long-term year-to-date average of 21.10 inches.

**CARMEL RIVER LAGOON:** The lagoon mouth opened for the season on January 6, 2019. In June, the lagoon remained open with the water surface elevation (WSE) ranging from approximately 3.6 to 8.5 feet due to changes in tidal and wave action (North American Vertical Datum of 1988; NAVD 88) (see graph below).

Water quality depth-profiles were conducted at five sites on June 21, 2019 while the lagoon mouth was open, the water surface elevation was ~1.5 feet, and river inflow was 38 cfs. Steelhead rearing and migration conditions were generally "good to fair" in the mainstem and south arm, but the north arm has been largely drained. Throughout the lagoon, salinity was variable (6 - 25 ppt), dissolved oxygen (DO) levels ranged from 8 - 11 mg/l, and water temperatures remained fairly steady, at 60 - 65 degrees F.

**TRIBUTARIES STEELHEAD RESCUES:** Staff began fish rescues in the lower tributaries in early May. As of June 30, 2019 a total of 3,526 fish have been rescued, including: 3,502 young-of-the-year (YOY), two age 1+ fish, and 22 mortalities (0.6%). The majority of the fish (3,114) have been rescued from Hitchcock Creek.





**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****27. QUARTERLY CARMEL RIVER RIPARIAN CORRIDOR MANAGEMENT PROGRAM REPORT**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>N/A</b>
<b>From:</b>	<b>Dave Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>N/A</b>
<b>Prepared By:</b>	<b>Thomas Christensen</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

---

**IRRIGATION OF RIPARIAN VEGETATION:** The supplemental watering of riparian restoration plantings has resumed for the summer season at six Monterey Peninsula Water Management District (District) riparian habitat restoration sites. The following irrigation systems were in use April through June: Sleepy Hollow, deDampierre, Trail and Saddle Club, Begonia, Schulte, and San Carlos.

**Water Use in Acre-Feet (AF)**  
(preliminary values subject to revision)

January - March 2019	0.00 AF
April - June 2019	<u>0.65</u>
Year-to-date	0.65 AF

**MONITORING OF RIPARIAN VEGETATION:** Starting in June 2019, staff recorded monthly observations of canopy vigor on target willow and cottonwood trees to provide an indication of plant water stress and corresponding soil moisture levels. Four locations (Rancho Cañada, San Carlos, Valley Hills, and Schulte) are monitored monthly for canopy ratings based on a scale from one to ten. This scale evaluates characteristics such as yellowing leaves and percentages of defoliation (see scale on **Exhibit 27-A**). A total of 12 willows and 12 cottonwoods at these locations provide a data set of established and planted sample trees that are representative of trees in the Carmel River riparian corridor. Combined with monthly readings from the District's array of monitoring wells and pumping records for large-capacity Carmel Valley wells in the California American Water service area, the District's monitoring provides insight into the status of soil moisture through the riparian corridor.

Current monitoring results for the 2019 monitoring season to date show that riparian vegetation is below threshold moisture stress levels. At present, the Carmel River is still flowing to the Lagoon and providing plenty of water for established plants along the riparian corridor. The graph in

**Exhibit 27-A** shows average canopy ratings for willows and cottonwoods in selected restoration sites in lower Carmel Valley. The graph in **Exhibit 27-B** shows impacts to water table elevations.

The types of monitoring measurements made during June 2019 are as follows:

### **Monitoring Measurement**

Canopy ratings	(See <b>Exhibit 27-A</b> for trends.)
Groundwater levels (monitoring wells)	(See <b>Exhibit 27-B</b> for trends.)
Groundwater pumping (production wells)	

### **OTHER TASKS PERFORMED SINCE THE APRIL 2019 QUARTERLY REPORT:**

1. **Carmel River Vegetation Management Project Notification:** On May 20, 2019, District staff notified the U.S. Army Corps of Engineers, NOAA Fisheries, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board of six sites that are scheduled for vegetation management activities this fall. The goal of the vegetation management activities is to reduce the risk of streambank erosion along riverfront properties where vegetation encroachment could potentially divert river flows into streambanks during high flow periods.
2. **Riparian Irrigation Tune-up:** District staff (Daniel Atkins and Eric Lumas) have been tuning up multiple irrigation systems along the Carmel River that are designed to water new mitigation plantings for Vegetation Management. Tune-ups include replacement of clogged emitters, leak repair, and trouble shooting well pumps and pressure tanks.

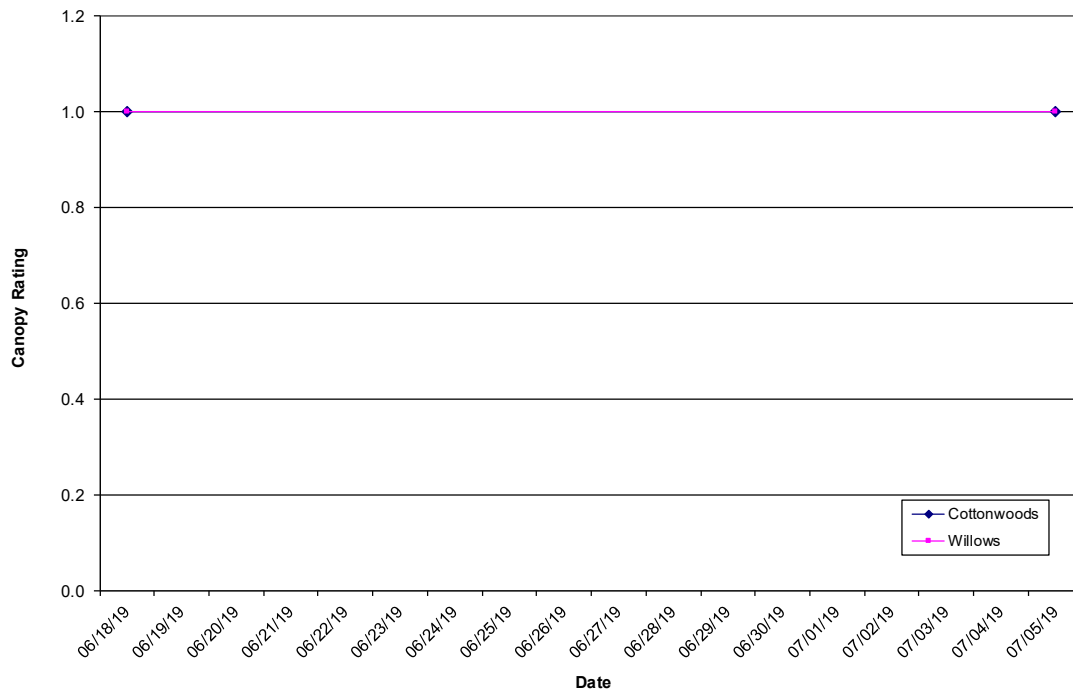
### **EXHIBITS**

**27-A** Average Willow and Cottonwood Canopy Rating

**27-B** Depth to Groundwater

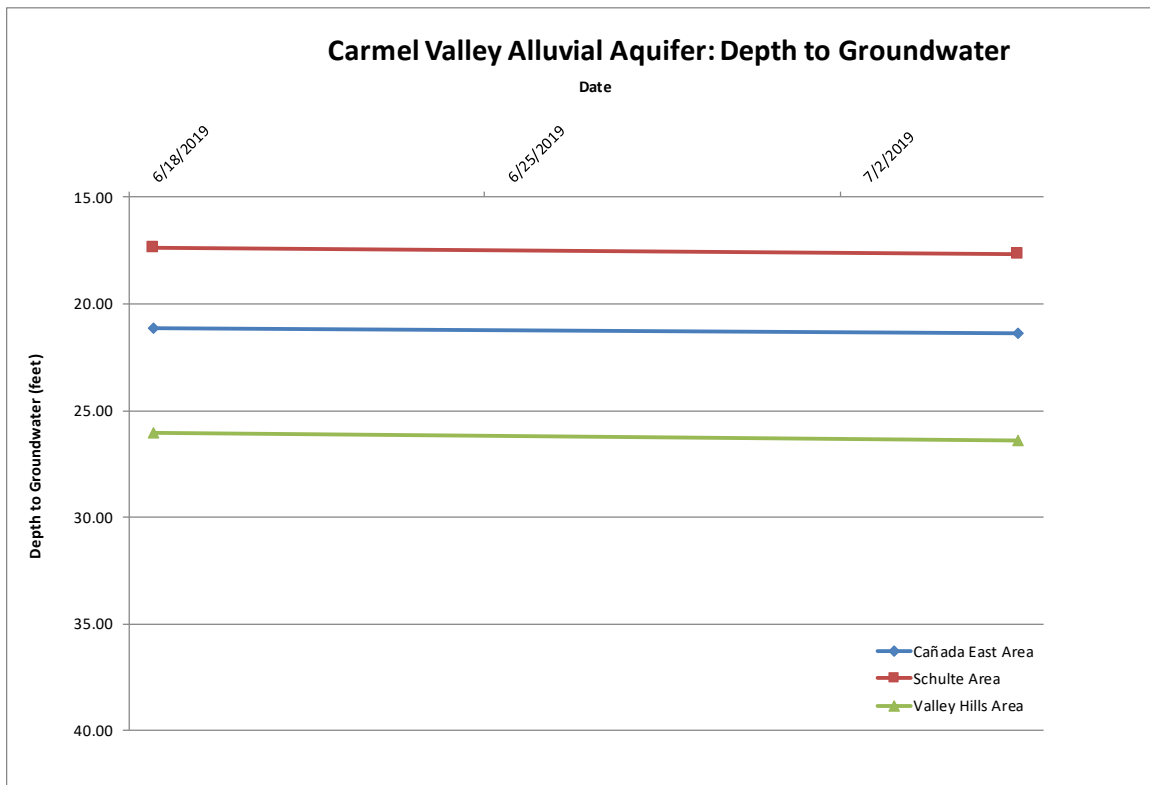
## EXHIBIT 27-A

**Carmel River Riparian Vegetation:  
Average Canopy Rating for Cottonwoods and Willows**



Canopy Rating Scale		Stress Level
1=	Green, obviously vigorous	none, no irrigation required
2=	Some visible yellowing	low, occasional irrigation required
3=	Leaves mostly yellowing	moderate, regular irrigation required
4=	< 10% Defoliated	moderate, regular irrigation required
5=	Defoliated 10% to 30%	moderate, regular irrigation required
6=	Defoliated 30% to 50%	moderate to high, additional measures required
7=	Defoliated 50% to 70%	high stress, risk of mortality or canopy dieback
8=	Defoliated 70% to 90%	high stress, risk of mortality or canopy dieback
9=	> 90% Defoliated	high stress, risk of mortality or canopy dieback
10=	Dead	consider replanting



**EXHIBIT 27-B**



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****28. SEMI-ANNUAL REPORT ON THE CAWD/PBCSD WASTEWATER RECLAMATION PROJECT****Meeting Date:** July 15, 2019 **Budgeted:** N/A**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:****Prepared By:** Suresh Prasad **Cost Estimate:** N/A**General Counsel Review:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 8, 2019 and recommended approval.**CEQA Compliance:** This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.

This report relates to the original CAWD/PBCSD Wastewater Reclamation Project (Phase I) only and does not contain any information related to the CAWD/PBCSD Recycled Water Expansion Project (Phase II). On December 10, 1992, the Monterey Peninsula Water Management District (MPWMD or District) sold \$33,900,000 worth of variable rate certificates of participation to finance the wastewater reclamation project in Pebble Beach. The tables below summarize the investment information on funds held for future use, disbursements, and interest rate trends on the outstanding certificates for the period January 1, 2019 through June 30, 2019. During the first reporting period in 2006, the Wastewater Reclamation Project's (Project) Operations and Maintenance Reserve and Renewal and Replacement Reserve accounts were transferred to the Carmel Area Wastewater District in accordance with the Project's Amended Construction and Operations Agreement dated December 15, 2004. The Project's Operations and Maintenance account (Bank of America) and Certificate of Participation accounts (U.S. Bank) remain under the control of the District and will continue to be reported on this report and future reports.

Par of 1992 Certificates \$33,900,000

Investments as of June 30, 2019:

<u>Description</u>	<u>Institution</u>	<u>Market Value</u>	<u>Rate/Yield</u>	<u>Term</u>
Interest Fund	U.S. Bank	\$334	0.00%	Daily
Certificate Payment Fund	U.S. Bank	\$808	0.00%	Daily
Acquisition/Rebate Funds	U.S. Bank	\$19	0.00%	Daily
Water Sales Revenue Acct.	Bank of America	\$17,386	0.038%	Daily

### Operation and Maintenance Disbursements:

MPWMD transferred advances in the amount of \$2,645,000 from the Water Sales Revenue Account to the Carmel Area Wastewater District during this reporting period. Advance payments are provided in accordance with the terms and conditions of Section 5.5 (a) of the Operation and Maintenance Agreement.

As provided in the Water Purchase Agreement, the obligation of the District to make disbursements is a special obligation of the District, payable solely from net operating revenues of the project, monies in the Revenue Fund, and other funds described in the Trust Agreement. In no event, will disbursements be payable out of any funds or properties of the District other than such sources.

### Principal and Interest on Certificates:

No principal payment was made by the Project during this reporting period. The outstanding balance on the Certificates is currently \$9,800,000.

The interest rate on the Series 1992 Certificates was set initially at 2.30 percent per annum until December 16, 1992. On that date and weekly thereafter, so long as the certificates are in the variable mode, the Remarketing Agent, Stone & Youngberg, determines the rate of interest. Interest rates for this reporting period fluctuated between 0.95% and 2.15%.

On June 7, 2000, the Reclamation Management Committee noted that the Capital Interest Fund, used for payment of monthly interest on the outstanding certificates, would soon be exhausted. The Committee discussed the use of water sales revenue to make future interest payments. On July 3, 2000, the Reclamation Technical Advisory Committee affirmed the use of water sales revenue for interest payments when excess funds are available.

Effective July 1, 2013, the Reclamation Project water rates have been delinked from the California American Water Company potable rates. The rates are now set based on revenue requirement for the Project.



**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****29. DRAFT WATER YEAR 2018 AQUIFER STORAGE AND RECOVERY PROJECT SUMMARY OF OPERATIONS REPORT**

<b>Meeting Date:</b>	<b>July 15, 2019</b>	<b>Budgeted:</b>	<b>N/A</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>1-2-1</b>
<b>Prepared By:</b>	<b>Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines Section 15378.**

**SUMMARY:** A draft report documenting the summary of operations for Water Year 2018 at the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project sites has been prepared by the District's technical consultant on the project, Pueblo Water Resources, Inc. The completion of this annual report is a requirement of the Central Coast Regional Water Quality Control Board (RWQCB) as part of their ongoing oversight of the ASR program in the Seaside Basin and is due July following the close of the past water year (WY 2018). The draft report with figures removed for brevity is provided as **Exhibit 29-A**. A full printout of the report is available for review at the MPWMD offices, or a PDF will be provided upon request. The report documents the ASR activities conducted cooperatively with California American Water (CAW) at the Phase 1 and 2 ASR sites during WY 2018, including: (a) summary of project status and injection well performance, (b) seasonal recharge operations, and (c) water-quality monitoring. During WY 2018, a volume of 530 acre-feet (AF) of Carmel River Basin source water was injected and stored in the Seaside Basin during the winter high-flow season.

**RECOMMENDATION:** The Board should receive the draft report documenting ASR activities at the ASR project sites during WY 2018. The report will be finalized and distributed, subject to inclusion of comments from the District, Cal-Am or other interested parties.

**BACKGROUND:** The District has been pursuing Aquifer Storage and Recovery (ASR) in the Seaside Basin since 1996. The project concept entails diverting excess winter flows from the Carmel River Basin approximately six miles through existing Cal-Am distribution system pipelines to the hydrologically-separate Seaside Basin, where the water is injected into specially-constructed ASR wells, for later recovery during dry periods. Prior to injection, the diverted water is treated at Cal-Am's Begonia Iron Removal Plant in Carmel Valley so that it meets potable drinking water standards. In 1998, the District constructed a pilot injection well, known as the Paso Robles Test Injection Well (PRTIW) in the northeastern portion of the City of Seaside. The 460-foot deep pilot well was screened in the Paso Robles Formation aquifer. Subsequent injection testing at the pilot well provided data that allowed the District to proceed with construction of a larger injection test well, SMTIW No. 1 (now referred to as ASR-1), for which construction was completed in 2002 on the former Fort Ord Military Reservation, approximately 300 feet east of

the PRTIW. This site is known as the Phase 1 or Santa Margarita ASR facility. ASR-1 is an 18 inch-diameter, 720 feet deep stainless steel well screened in the Santa Margarita Sandstone aquifer. The Santa Margarita aquifer has more favorable hydrogeologic characteristics, and is therefore more conducive to a full-scale ASR project in the basin. ASR-2 was drilled in 2007 and equipped with permanent pump and motor in 2008. ASR- 2 is larger and deeper, at 22 inches in diameter and 790 feet deep. In recent years, District staff has been working with the City of Seaside and the Fort Ord Reuse Authority in order to expand the Santa Margarita ASR site to incorporate needed space for pipelines, treatment equipment, and well backflushing capacity.

Also in 2008, the District began negotiations with the Monterey Peninsula Unified School District (MPUSD) for potential use of an unused portion of the Seaside Middle School property for a second phase of ASR expansion. This was followed by successful exploration work at the site in 2009 and an easement for the site was acquired by Cal-Am in 2011. The District has been working under contract with Cal-Am to complete construction of ASR wells 3 and 4 and the permanent ASR facilities at this Phase 2 ASR site.

The draft WY 2018 report has been provided to Cal-Am staff for their review and comment. The report, once finalized, will be posted and available on the District's website. The report will also be a useful reference document to support future operations and testing at the ASR Project sites.

**IMPACT ON STAFF/RESOURCES:** A significant staff effort has been expended planning, coordinating, and overseeing work on the District's ASR program in the Seaside Basin. It is planned to continue this level of effort during the remainder of this year and into the next recharge season.

## **EXHIBIT**

### **29-A 2018 Aquifer Storage and Recovery Project Summary of Operations Report**

*(A print out of the full report is available for review at the MPWMD office and can be provided upon request.)*



# **SUMMARY OF OPERATIONS**

## **MONTEREY PENINSULA ASR PROJECT**

### **WATER YEAR 2018**

Prepared for:



**JUNE 2019  
DRAFT**



June 28, 2019  
Project No. 18-0092

Monterey Peninsula Water Management District  
Post Office Box 85  
Monterey, California 93942-0085

Attention: Mr. Jonathan Lear, Senior Hydrogeologist

Subject: Monterey Peninsula ASR Project; Draft Water Year 2018 Summary of Operations Report

Dear Jon:

For your review and comments, we are transmitting one digital image (PDF) of the subject draft report documenting operations of the Monterey Peninsula ASR Project during Water Year 2018 (WY 2018). WY 2018 was classified as a "Dry" Water Year on the Monterey Peninsula, and as a result a limited volume of water totaling approximately 530 acre-feet (af) was able to be diverted from the Carmel River system for recharge in the Seaside Groundwater Basin (SGB) via the ASR-1 through ASR-4 wells. To date, a total volume of approximately 7,960 af of excess Carmel River system water has been successfully injected, stored, and recovered in the SGB since the ASR project was initiated in 2001.

We appreciate the opportunity to provide ongoing assistance to the District on this important community water-supply project. Please contact us with any questions.

Sincerely,

PUEBLO WATER RESOURCES, INC.

Robert C. Marks, P.G., C.Hg.  
Principal Hydrogeologist

Stephen P. Tanner, P.E.  
Principal Engineer

Copies submitted: 1 digital (PDF)



## TABLE OF CONTENTS

	Page
INTRODUCTION .....	1
GENERAL STATEMENT .....	1
BACKGROUND.....	1
PURPOSE AND SCOPE .....	2
FINDINGS.....	3
WY 2018 ASR OPERATIONS .....	3
General Recharge Procedures.....	3
Injection Operations Summary .....	4
Recovery Operations Summary .....	5
WELL PERFORMANCE .....	6
Injection Performance .....	6
Pumping Performance and Residual Plugging .....	11
AQUIFER RESPONSE TO INJECTION .....	12
WATER QUALITY .....	14
General.....	14
Injection Water Quality.....	14
Water Quality During Aquifer Storage .....	14
Water Quality at Off-Site Monitoring Wells .....	16
Additional Water Quality Observations.....	16
CONCLUSIONS.....	28
RECOMMENDATIONS.....	31
CLOSURE .....	33
REFERENCES .....	34

## TABLES

1	WY 2018 Injection Operations Summary .....	4
2	Injection Performance Summary - ASR-1 .....	6
3	Injection Performance Summary - ASR-2.....	9
4	Injection Performance Summary - ASR-3.....	10
5	Injection Performance Summary - ASR-4.....	10
6	Pumping Performance and Residual Plugging Summary .....	12
7	Aquifer Response Summary.....	13
8	Summary of WY 2018 Water-Quality Data - Injectate .....	20
9	Summary of WY 2018 Water-Quality Data - ASR-1 .....	21
10	Summary of WY 2018 Water-Quality Data - ASR-2 .....	22
11	Summary of WY 2018 Water-Quality Data - ASR-3 .....	23



### TABLE OF CONTENTS (Continued)

11	Summary of WY 2018 Water-Quality Data - ASR-4 .....	24
12	Summary of WY 2018 Water-Quality Data - SM MW-1 .....	25
13	Summary of WY 2018 Water-Quality Data – SMS Deep .....	26
14	Summary of WY 2018 Water-Quality Data - Off-Site MWs .....	27

### FIGURES

Site Location Map .....	1
ASR-1 As-Built Schematic .....	2
ASR-2 As-Built Schematic .....	3
ASR-3 As-Built Schematic .....	4
ASR-4 As-Built Schematic .....	5
Summary of ASR Operations (WY 2001 – WY 2018).....	6
ASR-1 Water-Level Data .....	7
ASR-2 Water-Level Data .....	8
ASR-3 Water-Level Data .....	9
ASR-4 Water-Level Data .....	10
SMS Water-Level Data .....	11
SM MW-1 Water-Level Data .....	12
Paralta Test Water-Level Data .....	13
Ord Terrace Water-Level Data .....	14
FO-7 Water Level-Data .....	15
FO-9 Water Level-Data .....	16
PCA-East Water-Level Data.....	17
FO-8 Water Level-Data .....	18
ASR-1 Disinfection By-Products Parameters .....	19
ASR-2 Disinfection By-Products Parameters .....	20
ASR-3 Disinfection By-Products Parameters .....	21
ASR-4 Disinfection By-Products Parameters .....	22
SM MW-1 Disinfection By-Products Parameters .....	23
SMS Deep Disinfection By-Products Parameters.....	24

### APPENDICES (NOT INCLUDED IN DRAFT)

Field Data .....	A
ASR-3 Rehabilitation Summary.....	B
Water Quality Laboratory Reports.....	C



## INTRODUCTION

### GENERAL STATEMENT

Presented in this report is a summary of operations of the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project during Water Year 2018 (WY 2018)<sup>1</sup>. During WY 2018, approximately 530 acre-feet (af) of excess flows were diverted from the Carmel River system for recharge, storage, and subsequent recovery in the Seaside Groundwater Basin (SGB). This report presents a summary of the project operations during WY 2018, an assessment of ASR well performance, aquifer response and water-quality data, and provides recommendations for ongoing operation of the project.

### BACKGROUND

The Monterey Peninsula ASR Project is cooperatively implemented by the Monterey Peninsula Water Management District (MPWMD or District) and California American Water (CAW) and involves the diversion of excess winter and spring time flows from the Carmel River system for recharge and storage in the Seaside Groundwater Basin (SGB). The excess water is captured by CAW wells in the Carmel Valley during periods when flows in the Carmel River exceed fisheries bypass flow requirements, treated to potable drinking water standards, and then conveyed through CAW's distribution system to ASR facilities in the SGB.

Aquifer recharge is accomplished via injection of these excess flows into specially designed ASR wells drilled in the SGB. The locations of the ASR wells and associated project monitoring wells in the SGB are shown on **Figure 1**. The recharged water is temporarily stored underground utilizing the available storage space within the aquifer system. During periods of high demand, other existing CAW production wells in the SGB and/or the ASR wells can be used to recover the previously recharged water, which in turn allows for reduced extractions from the Carmel River system during seasonal dry periods.

The District and CAW have been cooperatively developing an ASR project on the Monterey Peninsula since 1996. These efforts have evolved over time, from the performance of various technical feasibility investigations, leading to the construction and testing of pilot- and then full-scale ASR test wells to demonstrate the viability and operational parameters for ASR wells in the SGB. Based on the success of the ASR demonstration testing program, MPWMD and CAW are in the process of implementing a full-scale permanent ASR Project.

The Phase 1 ASR Project (a.k.a. Water Project 1) includes two ASR wells (ASR-1 and ASR-2) located at the Santa Margarita (SM) ASR Facility at 1910 General Jim Moore Blvd. in Seaside. The Phase 1 Project is capable of recharging up to the State Water Resources Control

---

<sup>1</sup> Water Year 2018 is the period of October 1, 2017 through September 30, 2018.



Board (SWRCB) water right<sup>2</sup> maximum annual diversion limit of 2,426 acre-feet per year (afy) at a combined permitted injection rate of approximately 3,000 gallons per minute ([gpm] maximum diversion rate of 6.7 cubic feet per second [cfs]), with an average annual yield of approximately 920 afy. ASR-1 is designed for an injection capacity of 1,000 gpm and ASR-2 is designed for an injection capacity of 1,500 gpm. As-built schematics of ASR-1 and ASR-2 are presented on **Figures 2 and 3**, respectively.

The Phase 2 ASR Project (a.k.a. Water Project 2) also includes two ASR wells (ASR-3 and ASR-4) located at the Seaside Middle School (SMS) ASR Facility at 2111 General Jim Moore Blvd. in Seaside. The Phase 2 Project is designed to be capable of recharging up to the SWRCB water right<sup>3</sup> maximum annual diversion limit of 2,900 afy at a combined permitted injection rate of approximately 3,600 gpm (maximum diversion rate of 8.0 cfs), with an average annual yield of approximately 1,000 afy. ASR-3 and ASR-4 are both designed for injection capacities of 1,500 gpm. As-built schematics of ASR-3 and ASR-4 are presented on **Figures 4 and 5**, respectively.

A graphical summary of historical ASR operations in the SGB is shown on **Figure 6**. Shown are the annual injection and recovery volumes since the inception of injection operations at the Santa Margarita ASR Facility in WY 2001 through the current period of WY 2018. Also presented is a delineation of the various phases of project implementation, starting with the Santa Margarita Test Injection Well (SMTIW) in 2001, which became ASR-1 as the project transitioned from a testing program to a permanent project in WY 2008 (Phase 1 ASR Project), through construction and operation of the second well (ASR-2) at the facility in 2010. As shown, having the Santa Margarita Facility in full operation with both ASR-1 and ASR-2 injecting simultaneously in WY 2010 and WY 2011 (combined with above normal rainfall and Carmel River flows during those years) resulted in significant increases in the annual volume injected. During WY 2012 through WY 2015, relatively low volumes were injected due to the extended drought conditions during that period. WY 2017 was the first year of above normal rainfall and Carmel River flows with all four ASR wells in full operation, and as shown on **Figure 6** over 2,300 af of excess river flows were captured and successfully injected into the SGB. This volume represents over twice the previous largest annual volumes injected (in WY 2010 and WY 2012), and approximately one quarter of the Monterey Peninsula's average annual water supply.

## PURPOSE AND SCOPE

The overall purpose of the ongoing ASR program is to recharge the SGB with excess treated Carmel River system water when it is available during wet periods for storage and later extraction (recovery) during dry periods. ASR benefits the resources of both systems by raising water levels in the SGB during the recharge and storage periods and reducing extractions from the Carmel River System during dry periods.

---

<sup>2</sup> SWRCB water right 20808A for the Phase 1 ASR Project is held jointly by MPWMD and CAW.

<sup>3</sup> The SWRCB water right 20808C for the Phase 2 ASR Project is held jointly by MPWMD and CAW.





The scope of the ongoing data collection, analysis, and reporting program for the ASR program can be categorized into issues generally associated with:

- 1) ASR well hydraulics and performance;
- 2) Aquifer response to injection, and;
- 3) Water-quality issues associated with geochemical interaction and mixing of injected and native groundwaters.

The ongoing data collection and reporting program is intended to monitor and track ASR well performance and aquifer response to injection (both hydraulic and water quality) and to comply with the requirements of the Central Coast Regional Water Quality Control Board (RWQCB) for submitting annual technical reports for the project pursuant to Section 13267 of the California Water Code<sup>4</sup> and the existing General Waiver for Specific Types of Discharges (Resolution R3-2014-0041).

## FINDINGS

### WY 2018 ASR OPERATIONS

#### General Recharge Procedures

Recharge of the SGB occurs via injection of diverted flows from the CAW distribution system into ASR wells during periods of available excess Carmel River system flows. The ASR recharge source water is potable (treated) water provided from the CAW distribution system. The water is currently diverted by various production well sources in Carmel Valley and (after treatment and disinfection to potable standards) then conveyed through the Segunda-Crest pipeline network to the ASR Pipeline in General Jim Moore Blvd and then to the Santa Margarita and Seaside Middle School ASR facilities.

Injection water is introduced into the ASR wells via the pump columns. Injection rates are controlled primarily by downhole flow control valves (FCV's) installed on the pump columns, and secondarily by modulating the automatic flow control valves (i.e., Cla-Vals) installed on the ASR wellhead piping. Injection flow rates and total injected volumes are measured with rate and totalizing meters at each of the wellheads. Positive gauge pressures are maintained at the wellheads during injection to prevent cascading of water into the wells (which can lead to air-binding). Continuous water-level data at each of the ASR wells are collected with submersible pressure transducer data loggers.

Injection generally occurs at each of the ASR wells on a continuous basis when flows are available, interrupted only for periodic backflushing, which typically occurs on an approximate weekly basis. Most sources of injection water contain trace amounts of solids that slowly

---

<sup>4</sup> Letter from Roger W. Briggs, Executive Officer of the Central Coast RWQCB, to Joseph Oliver, Water Resources Manager for MPWMD, dated April 29, 2009.



accumulate in the pore spaces in the well's gravel pack and adjacent aquifer materials, and the CAW source water is no exception. Periodic backflushing of the ASR wells is therefore necessary to maintain well performance by removing materials deposited/accumulated around the well bore during injection. The procedure is similar to backwashing a media filter to remove accumulated material deposited during filtration.

The trigger for backflushing is when the amount of water-level drawup during injection equals the available drawdown (as measured from the static water level to the top of the pump bowls) in the well for backflushing, or one week of continuous injection, whichever occurs first. This helps to avoid over-pressurization and compression of plugging materials, thereby maximizing the efficiency of backflushing and limiting the amount of residual plugging. This factor is the basis for the maximum recommended drawup levels referenced in the following section.

The general procedure consists of temporarily stopping injection and then pumping the wells at rates of approximately 2,000 to 3,000 gpm (i.e., at least twice the rate of injection) for a period of approximately 15 to 20 minutes and repeated as necessary to effectively remove particulates from the well screen / gravel pack / aquifer matrix. Backflush water is discharged to the Santa Margarita ASR Facility backflush pit, where it percolates back into the groundwater basin.

### Injection Operations Summary

A summary of injection operations at the four ASR wells is presented in **Table 1** below. Field data collected during injection operations are presented in **Appendix A** (not included in draft).

**Table 1. WY 2018 Injection Operations Summary**

Well	Injection Season		Active Days	Injection Rate (gpm)			Total Vol (af)
	Start	End		Min	Max	Avg	
ASR-1	--	--	0	--	--	--	0.00
ASR-2	3/7/18	4/18/18	40	422	1,940	1,347	233.97
ASR-3	3/2/18	4/18/18	45	1,050	1,650	1,442	281.23
ASR-4	3/2/18	4/3/18	8	450	1,000	620	15.29
<b>Total</b>							<b>530.49</b>

As shown in **Table 1**, recharge operations were performed during the period March 2 through April 18, 2018. WY 2018 was classified as a "Dry" Water Year<sup>5</sup> on the Carmel River with up to 45 days of active injection and a total volume of approximately 530 acre-feet (af) of water was available for diversion from the CAW system for recharge in the SGB. The recharge water was injected at three of the four ASR wells (ASR-1 was not operational during WY 2018) into the

<sup>5</sup> Based on 32,170 af of unimpaired Carmel River flow at the Sleepy Hollow Weir in WY 2018.



Santa Margarita Sandstone aquifer with per-well average injection rates ranging from approximately 420 to 1,940 gpm.

It is noted that the variability in injection rates at the ASR wells during the injection season is controlled by various factors, including the number of active sources to the CAW system, customer demands on the CAW system, and the ability of CAW's distribution system to maintain piping pressure at the ASR wellheads.

Water-level data collected at ASR-1 through ASR-4 during WY 2018 are presented in **Figures 7 through 10**, respectively, and briefly summarized below:

- ASR-1: The well was out of service during the WY 2018 injection season and no water-level transducer was installed in the well.
- ASR-2: The injection water-levels ranged between approximately 255 to 300 feet bgs and were maintained below the minimum recommended water level of 250 feet bgs at all times.
- ASR-3: The injection water-levels ranged between approximately 195 to 250 feet bgs and were maintained below the minimum recommended water level of 190 feet bgs at all times.
- ASR-4: During the limited period of injection at this well, the injection water-level only reached approximately 300 feet bgs, well below the below the minimum recommended water level of 160 feet bgs.

In summary, injection water levels at ASR-1 through ASR-4 were maintained below the respective maximum drawup levels at all times during WY 2018. The effects of these injection water levels on residual well plugging and well performance is discussed below.

### **Recovery Operations Summary**

When the injected water is recovered via delivery through the CAW system, the recovered water is offset by reduced pumping by CAW from the Carmel River system during the low-flow, high demand periods of the year. During WY 2017, both ASR-1 and other CAW production wells in the SGB were utilized for recovery of previously injected water. As shown on **Figure 6**, 561 and 649 af (1,210 af total) of recharged water was recovered into the CAW system. It is noted that of the total volume recovered during WY 2018, 680 af was carryover storage from WY 2017 (with 483 af remaining in aquifer storage from WY 2017 and carried over into WY 2019).

It is noted that ASR recovery in the SGB is essentially an accounting / allocation of CAW's various water rights and pumping from the basin, SGB and does not represent a "molecule-for-molecule" recovery of the injected water; rather, the volume recharged in any given year increases the operational yield of the SGB by a commensurate amount and can be "recovered" by any of CAW's wells in the SGB and / or the ASR wells themselves.



## WELL PERFORMANCE

Well performance is generally measured by specific capacity (pumping) and / or specific injectivity (injection), which is the ratio of flow rate (pumping or injection) to water-level change in the well (drawdown or drawup) over a specific elapsed time. The value is typically expressed as gallons per minute per foot of water level change (gpm/ft). The value normalizes well performance by taking into account differing static water levels and flow rates. As such, specific capacity / injectivity data are useful for comparing well performance over time and at differing flow rates. Decreases in specific capacity / injectivity are indicative of decreases in the hydraulic efficiency of a well due to the effects of plugging and/or particle rearrangement.

### Injection Performance

Injection performance has been tracked at ASR-1 since the inception of the ASR program in WY 2002 by measurement and comparison of 24-hour injection specific injectivities (a.k.a. injection specific capacity), and summaries of 24-hour specific injectivity for ASR-1 through ASR-4 through WY 2018 are presented in **Tables 2 through 5** below:

**Table 2. Injection Performance Summary - ASR-1**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY2002					
Beginning Period	1,570	81.7	19.2	-67%	FCV not installed yet in WY2002. No recovery pumping performed.
Ending Period	1,164	199.8	6.4		
WY2003					
Beginning Period	1,070	70.0	15.5	+31%	Recovery pumping performed following WY2003 Injection
Ending Period	1,007	49.7	20.3		
WY2004					
Beginning Period	1,383	183.4	7.5	+112%	Recovery pumping performed following WY2004 Injection
Ending Period	1,072	67.4	15.9		
WY2005					
Beginning Period	1,045	46.6	22.4	-54%	Injectate dechlorinated in WY2005. No recovery pumping performed.
Ending Period	976	94.1	10.4		
WY2006					
Beginning Period	1,039	71.5	15.0	+17%	Injection procedures consistent and performance stable in WY2006. No recovery pumping performed.
Ending Period	1,008	62.2	17.5		

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report **DRAFT**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY2007					
Beginning Period	1,098	92.4	11.9	--	Only one injection period in WY2007. No recovery pumping performed.
Ending Period	--	--	--		
WY2008					
Beginning Period	979	25.5	38.4	-17%	Formal rehabilitation performed prior to WY2008 injection
Ending Period	1,063	33.4	31.8		
WY 2009					
Beginning Period	1,119	56.1	19.9	+56%	Beginning period low specific injectivity due to high plugging rate during initial injection period. No recovery pumping performed.
Ending Period	1,069	34.3	31.1		
WY 2010					
Beginning Period	1,080	35.6	30.3	-19%	Observed decline in performance due to residual plugging.
Ending Period	1,326	54.0	24.6		
WY 2011					
Beginning Period	1,367	53.0	25.8	-10%	Observed slight decline in performance due to residual plugging.
Ending Period	1,454	63.7	22.8		
WY 2012					
Beginning Period	NA	NA	NA	NA	No injection at this well this year.
Ending Period	NA	NA	NA		
WY 2013					
Beginning Period	NA	NA	NA	NA	No injection at this well this year.
Ending Period	NA	NA	NA		
WY 2014					
Beginning Period	NA	NA	NA	NA	No injection at this well this year.
Ending Period	NA	NA	NA		
WY 2015					
Beginning Period	NA	NA	NA	NA	No beginning period due to datalogger malfunction.
Ending Period	1,018	40.7	25.0		
WY 2016					
Beginning Period	NA	NA	NA	NA	No beginning period due to datalogger malfunction.
Ending Period	460	14.4	31.9		

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report **DRAFT**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2017					
Beginning Period	970	39.5	24.6	-13%	Observed slight decline in performance due to residual plugging.
Ending Period	1,295	60.2	21.5		
WY 2018					
Beginning Period	NA	NA	NA	NA	See discussion below
Ending Period	NA	NA	NA		

**Table 3. Injection Performance Summary - ASR-2**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2010					
Beginning Period	1,017	156.5	6.5	-57%	Significant residual plugging.
Ending Period	237	85.0	2.8		
WY 2011					
Beginning Period	1,497	39.5	37.9	-0.5%	Significant improvement as a result of well rehabilitation. No residual plugging during year.
Ending Period	1,292	34.3	37.7		
WY 2012					
Beginning Period	1,830	56.1	32.6	-12%	Observed decline in performance due to residual plugging.
Ending Period	1,817	63.4	28.7		
WY 2013					
Beginning Period	1,087	32.7	33.2	+3%	No residual plugging during year.
Ending Period	1,508	44.2	34.1		
WY 2014					
Beginning Period	NA	NA	NA	NA	No injection at this well this year.
Ending Period	NA	NA	NA		
WY 2015					
Beginning Period	1,456	38.9	37.4	-14%	Observed decline in performance due to residual plugging.
Ending Period	1,574	49.1	32.1		
WY 2016					
Beginning Period	1,270	34.9	36.4	-30%	Observed significant decline in performance due to residual plugging.
Ending Period	1,620	63.9	25.4		
WY 2017					
Beginning Period	822	24.2	33.9	-13%	Observed decline in performance due to residual plugging.
Ending Period	907	30.7	29.5		
WY 2018					
Beginning Period	950	30.5	31.1	-8%	See discussion below
Ending Period	1,537	53.7	28.6		

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report **DRAFT****Table 4. Injection Performance Summary – ASR-3**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2013					
Beginning Period	1,044	87.0	12.0	-31%	See discussion below.
Ending Period	822	99.6	8.3		
WY 2014					
Beginning Period	NA	NA	NA	NA	No injection at this well this year.
Ending Period	NA	NA	NA		
WY 2015					
Beginning Period	NA	NA	NA	NA	No beginning period data.
Ending Period	892	90.3	9.9		
WY 2016					
Beginning Period	948	83.6	11.3	+7%	Slight increase observed.
Ending Period	897	74.1	12.1		
WY 2017					
Beginning Period	936	107.5	8.7	+8%	Slight increase observed.
Ending Period	986	105.2	9.4		
WY 2018					
Beginning Period	1,050	64.8	16.2	-23%	See discussion below.
Ending Period	1,440	115.4	12.5		

**Table 5. Injection Performance Summary – ASR-4**

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2017					
Beginning Period	1,506	91.3	16.5	+58%	Significant increase.
Ending Period	1,068	41.3	25.9		
WY 2018					
Beginning Period	920	38.1	24.1	NA	See discussion below.
Ending Period	NA	NA	NA		





**Injection Performance Summary.** As shown in **Table 2** and discussed previously, no injection occurred at ASR-1 during WY 2018.

As shown in **Table 3**, at ASR-2 the 24-hour specific injectivity at the beginning of WY 2018 was 31.1 gpm/ft and at the end was 28.6 gpm/ft, representing a slight decrease of approximately 8 percent.

ASR-3 underwent formal rehabilitation prior to the WY 2018 injection season (documented in **Appendix B**, not included in draft). As shown in **Table 4**, at the beginning of WY 2018 the specific injectivity was 16.2 gpm/ft, representing an approximate 72 percent improvement in performance compared to the end of WY 2017, but at the end was 12.5 gpm/ft, representing a significant decrease of approximately 23 percent compared to the beginning of the WY 2018 season.

Injection at ASR-4 occurred for only 7 days during WY 2018; therefore, there are insufficient data for comparison.

### **Pumping Performance and Residual Plugging**

Experience at injection well sites around the world shows that all injection wells are subject to some amount of plugging, because no water source is completely free of particulates, bionutrients, or oxidants, all of which can contribute to well plugging; the CAW source water is no exception. During injection, trace amounts of suspended solids are continually being deposited in the gravel pack and aquifer pore spaces, much as a media filter captures particulates in the filter bed. The effect of plugging is to impede the flow of water from the injection well into the aquifer, causing increased injection heads in the well to maintain a given injection rate, or reduced injection rates at a given head level. Well plugging reduces injection and extraction capacity and can result in decreased useful well life if not mitigated.

Relative measurements of the particulate matter in the injectate have historically been made at the Santa Margarita site through Silt Density Index (SDI) testing during the injection season. The SDI was originally developed to quantitatively assess particulate concentrations in reverse-osmosis feed waters. The SDI test involves pressure filtration of source water through a 0.45-micron membrane, and observation of the decrease in flow rate through the membrane over time; the resulting (dimensionless) value of SDI is used as a comparative value for tracking relative declines in well plugging rates associated with particulate plugging during an injection season (i.e., plugging rates tend to increase directly with SDI). During WY 2017 injection operations, SDI values were only measured at the very beginning of the injection season and ranged between 2.13 and 5.12.

Following routine backflushing operations and periods of water-level recovery, controlled 10-minute specific-capacity tests are typically performed to track well pumping performance, similar to the tracking of injection performance from 24-hour specific injectivity discussed above. Residual plugging is the plugging that remains following backflush pumping. Residual plugging increases drawdown during pumping and drawup during injection and is manifested as declining



specific capacity / injectivity. The presence of residual plugging is indicative of incomplete removal of plugging particulates during backflushing and has the cumulative effect of reducing well performance and capacity over time.

As discussed previously, routine 10-minute specific capacity tests were performed at the ASR wells as part of backflushing events during WY 2018. Presented in **Table 9** below is a summary of the residual plugging calculations for the ASR wells during WY 2018.

**Table 9. Pumping Performance and Residual Plugging Summary**

Well	Test	Pumping Rate (gpm)	10-min Drawdown (ft)	10-min Q/s <sup>1</sup> (gpm/ft)	Normaliz-ation Ratio <sup>2</sup>	Normalized Drawdown <sup>2</sup> (ft)	Residual Plugging (ft)
ASR-1	Pre-Injection	NA	NA	--	--	--	--
	Post-Injection	NA	NA	--	--	--	--
ASR-2	Pre-Injection	2,700	82.2	32.8	1.11	91.3	--
	Post-Injection	2,700	84.1	32.1	1.11	93.4	2.1
ASR-3	Pre-Injection	2,700	167.5	16.1	1.11	186.1	--
	Post-Injection	2,400	167.5	14.3	1.25	209.4	23.3
ASR-4	Pre-Injection	2,900	147.3	19.7	1.03	152.4	--
	Post-Injection	2,900	151.8	19.1	1.03	157.0	4.7

Notes:

1 - Specific Capacity. Ratio of pumping rate to drawdown.

2 - Normalized based on ratio of 3,000 gpm to actual test pumping rate.

As shown on **Figures 7 through 10**, injection water levels were maintained below the recommended maximum available drawup levels at all of the ASR wells during WY 2018; however, as shown in **Table 9**, only ASR-3 experienced significant residual plugging of approximately 23 feet. The residual plugging at ASR-3 was manifested as decline in both the injection and pumping performance of the well. These results indicate that injection water levels at all of the ASR wells should be maintained below the recommended minimum levels below ground surface during the injection season to avoid excessive drawup and over pressurization of plugging constituents. These results also indicate that the injection rate at ASR-3, which was as high as approximately 1,650 gpm during WY 2018, should be limited to a rate of approximately 1,000 gpm as recommended in the 2017 SOR in order to limit residual plugging and maintain long-term performance.

## AQUIFER RESPONSE TO INJECTION

The response of the regional aquifer system to injection has been monitored since the SMTIW project was initiated in WY 2002. Submersible water-level transducer/data logger units have been installed at seven offsite monitoring well locations in the SGB as well as three onsite monitoring wells. The locations of each offsite monitoring well are shown on **Figure 1**, and water-level hydrographs for the monitoring wells during WY 2018 are graphically presented on



**Figures 11 through 18.** A summary of the regional water-level observations during the WY 2018 injection season is presented in **Table 10** below.

**Table 10. Aquifer Response Summary**

Well ID	Distance from Nearest Active ASR Well (feet)	Aquifer Monitored	Fig. No.	Pre-Injection DTW (ft. bgs)	Shallowest Injection DTW (ft. bgs)	Maximum Drawup Response (ft.)
SMS (Shallow)	25 (ASR-3)	QTP	11	No Discernable Response		
SMS (Deep)		Tsm		366.6	298.8	<b>67.8</b>
SM MW-1	190 (ASR-2)	Tsm	12	NA	339.0	<b>NA</b>
Paralta Test	650 (ASR-2)	QTP & Tsm	13	NA	NA	<b>NA</b>
Ord Terrace (Shallow)	2,550 (ASR-2)	Tsm	14	NA	NA	<b>NA</b>
FO-7 (Shallow)	3,700 (ASR-3)	QTP	15	No Discernable Response		
FO-7 (Deep)		Tsm		492.2	480.3	<b>11.9</b>
FO-9 (Deep)	6,130 (ASR-3)	Tsm	16	142.2	130.7	<b>11.5</b>
PCA East (Shallow)	6,200 (ASR-3)	QTP	17	No Discernable Response		
PCA East (Deep)		Tsm		90.9	78.8	<b>12.1</b>
FO-8 (Deep)	6,450 (ASR-3)	Tsm	18	401.9	391.0	<b>10.9</b>

**Notes:**

QTP – Quaternary / Tertiary-age Paso Robles Formation aquifer  
 Tsm – Tertiary-age Santa Margarita Sandstone aquifer  
 DTW – Depth to Water

As shown, water levels in the Santa Margarita Sandstone (Tsm) aquifer at the start of the WY 2018 recharge season ranged between approximately 20 to 30 feet below sea level. Positive response to injection during WY 2018 was observed at all 5 of the monitored wells completed in the Tsm aquifer, with apparent water-level responses ranging between approximately 11 to 68 feet, generally decreasing with distance from the ASR wells, which is the typical and expected aquifer response to hydraulic stresses (i.e., injection or pumping).

The available water-level data also continue to show that at the majority of the offsite Tsm-only monitoring wells, water levels consistently remained below sea level throughout WY 2018, including during the injection season. In addition, the limited available data for wells completed in the Paso Robles Formation (QTP) also continue to show no discernible response to injection and water levels in the QTP aquifer remained higher than the water levels in the underlying Tsm aquifer during WY 2018. Under these overall basin water-level conditions, little to no flow from the Tsm aquifer to the ocean nor to the QTP aquifer would be expected to occur; as such, any “losses” associated with ASR project operations are likely very limited.



## **WATER QUALITY**

### **General**

Source water for injection is supplied from the CAW municipal water system, primarily from Carmel River system wells, which is treated at the CAW Begonia Iron Removal Plant (BIRP) for iron and manganese removal. The BIRP product water is also disinfected and maintains a free chlorine residual. A phosphate-based corrosion inhibitor (Zinc Orthophosphate) is also added to the filtered water before entering the CAW distribution system. The finished product water meets all California Department of Public Health (CDPH) Primary and Secondary water quality standards.

As in previous years, water quality was routinely monitored at the ASR well sites during WY 2018 injection and aquifer storage operations. Far-field water quality was also monitored at the PCE-East Deep monitoring well (PCA-E Deep)<sup>6</sup>. Summaries of the collected water-quality data during WY 2018 are presented in **Tables 11 through 18** below. Analytic laboratory reports are presented in **Appendix C** (not included in draft). A discussion of the water-quality data collected during WY 2018 is presented below.

### **Injection Water Quality**

Injection water quality from the CAW system during WY 2018 is presented in **Table 11** below, and the data show injection water quality was typical of recent years. Levels of Trihalomethanes (THM) and Haloacetic Acid (HAA) compounds, as well as bionutrients (dissolved oxygen, nitrogen, phosphorous, and organic carbon), were all present at levels similar to previous years.

### **Water Quality During Aquifer Storage**

**Tables 12 through 15** present summaries of water-quality data collected at the four ASR wells. **Tables 16 and 17** present similar data collected at the on-site monitoring wells SM MW-1 and SMS Deep, respectively; and **Table 18** presents the water-quality data collected at the off-site monitoring well PCA-E Deep. Data for the ASR wells include baseline water quality taken prior to WY 2018 injection (end of WY 2017 Storage) and stored water quality (WY 2018 Storage) collected periodically from the aquifer after WY 2018 injection operations were terminated.

Review of water-quality parameters gathered at the ASR wells, including major anions and cations, redox potential (ORP), and conductivity all showed very limited effects of dilution / intermixing of injected water with native groundwater (NGW) during aquifer storage compared to previous water years.

---

<sup>6</sup> Note: CAW's Paralta production well was non-operational during planned sampling periods during WY 2018 due to mechanical problems.



Disinfection Byproducts (DBPs) parameters for the on-site wells collected during the WY 2018 storage period are graphically presented on **Figures 23 through 28** and are summarized below:

- ASR-1: Three samples were collected from ASR-1 after the conclusion of the WY 2018 injection season, which showed limited ingrowth of THMs at after 89 days, and subsequent decline to 27 ug/L after 160 days of storage; it is noted however, that no injection occurred at ASR-1 during WY 2018; therefore, the results reflect the influence of water injected at ASR-2.
- ASR-2: Only one sample was collected from ASR-2 after 55 days of storage, which showed significant ingrowth of THMs at 90 ug/L, exceeding the MCL of 80 ug/L.
- ASR-3: Two samples were collected from ASR-3; one after 66 days and another after 160 days of storage. The initial sample at 66 days showed significant ingrowth exceeding the THM MCL with a level of 119 ug/L, declining to below the MCL at a level of 75 ug/L after 160 days of storage.
- ASR-4: Two samples were collected from ASR-4; one after 56 days and another after 160 days of storage. Both samples were below the THM MCL, with the initial sample at 56 days showed ingrowth to a level of 69 ug/L, declining to a level of 40 ug/L after 160 days of storage.
- SM MW-1: Four samples were collected at SM MW-1 on an approximate monthly basis during the storage period, which showed limited ingrowth of THMs over a period of 54 days reaching a level of 52 ug/L, followed by a significant decline after 159 days of storage to a level of only 1 ug/L.
- SMS Deep: Four samples were collected at SMS Deep on an approximate monthly basis during the storage period, which showed steady ingrowth exceeding the THM MCL over a period of 111 days and reaching a peak level of 106 ug/L, followed by a decline after 159 days of storage to below the MCL with a level of 71 ug/L.

Historically, THMs at the ASR wells typically show an initial and significant ingrowth during the storage period, which is a result of reactions between free chlorine and trace levels of organic compounds in the injected water and/or the aquifer matrix. THM ingrowth typically peaks in concentration approximately 60 to 80 days after the cessation of injection, followed by a gradual decline during the remainder of the storage period. After approximately 150 to 180 days of storage, THMs typically degrade to below the initial injection levels. (Note: evidence from MPWMD's historical ASR well operations as well as other ASR facilities suggests that the onset of THM degradation does not commence until anoxic/anaerobic redox conditions occur within the aquifer.)

As described above, the results during WY 2018 generally followed this historically observed pattern for the project ASR wells at ASR-1, ASR-2, ASR-4, and SM-MW-1, but THMs did not degrade below the initial injection levels at ASR-3 and SMS-Deep. In reviewing the overall water quality data from all wells, it is apparent that during this recharge season the injected volume of recharge water remained substantially intact, with little or no intermixing with



the surrounding native ground water (NGW). Because of this lack of intermixing and migration, the highly oxidized redox conditions within the recharge water volume remained intact for an extended period, and redox conditions did not decline as rapidly as in previous years. This could be due to the absence of pumping from the Paralta well, which was out of service due to mechanical problems (Paralta well production creates a significant localized gradient, which promotes recharge water migration and intermixing with NGW).

HAA levels at the wells (where sufficient data was collected) generally showed their typical pattern of limited (if any) ingrowth during the initial storage period, followed by complete to near-complete degradation by the end of the storage season. Unlike THM's, HAA compounds are known to degrade under aerobic redox conditions, which are already present in the oxygenated and chlorinated recharge water. In addition, HAA's are much less stable compounds than THM's; their auto-degradation is therefore unremarkable.

### **Water Quality at Off-Site Monitoring Wells**

Water-quality data were collected from only one of the off-site wells in WY 2018 (PCA-E Deep) and are presented in **Table 18**. As shown, at PCA-E Deep the absence of DBP's and the consistent and high level of chloride ion during the period suggest that this area is comprised of intact NGW, and the influence of recharge operations is negligible to date at this location. Paralta is the nearest CAW production well to the ASR wells and is typically sampled as part of the project Sampling and Analysis Plan; however, the well was non-operational (due to pump-related issues) during planned sampling periods during WY 2018.

### **Additional Water Quality Investigations**

As discussed in the WY 2015 Summary of Operations Report (SOR), at the commencement of WY 2013 recovery pumping of ASR-1, a sample collected by CAW<sup>7</sup> had a Mercury (Hg) concentration of 4 µg/L, exceeding the State MCL of 2 µg/L. Hg is a member of the family of elements known as Transition Metals, which also includes Iron (Fe), Zinc (Zn), Copper, (Cu), and Cadmium (Cd); the family of transition metals have similar chemical and reactive characteristics, and often react with one another under varying redox and geochemical conditions. Although the occurrence of Hg and other transition metals in surface water and groundwater has been documented elsewhere in the Monterey Bay region, the 2013 detection of Hg in SGB water was unusual. The initial Hg detection was followed up with additional sampling at ASR-1 to verify the presence of Hg, and the subsequent sampling identified sporadic, but detectable levels of Hg (as well as other transition metals), although below the MCL. The fact that detectable Hg was identified, and at levels above historical NGW and injectate concentrations, led to the development of an ongoing investigation of Hg occurrence at the 4 ASR wells.

---

<sup>7</sup> Collected on October 24, 2013.



As described in previous technical memoranda and reports regarding this issue, it has been hypothesized that the origin of the sporadic occurrences of Hg could be the result of one or more mechanisms, including the following:

- A. Soluble or insoluble Hg present in the Carmel River System source water that could have accumulated as particulate (insoluble) compounds in the well bore area, similar to the accumulation of other particulate matter originating from the treated Carmel River product water and the CAW conveyance system. Such accumulation would be released during routine backflushing operations and/or early stages of stored water recovery operations as insoluble/particulate Hg.
- B. Solubilization of naturally occurring Hg minerals present in the Tsm geologic matrix, which could result from geochemical interactions between the injection source water, NGW and aquifer minerals.
- C. Mobilization of insoluble (i.e., particulate) Hg from the Tsm matrix via the dissolution of cementitious materials and subsequent migration of particulate Hg compounds towards the well bore during recovery/pumping operations.
- D. Other anthropogenic sources of Hg in well components or other off-site sources.

A thorough assessment of well construction and operational records was performed in 2014/2015, which found no evidence of any Hg-containing materials in the well casings, screens, pumping equipment, lubricants, or other component materials: this, along with the sporadic detection of low level Hg in other wells, dissuaded further consideration of item (D) above as a realistic possibility.

During WY 2016, a Supplemental Sampling and Analysis Plan<sup>8</sup> (SSAP) was developed for additional investigation of the Hg occurrence. In addition to the collection of Hg samples utilizing a variety of EPA-approved laboratory methods and detections limits, the suite of analytes included transition metals as well as other constituents that are known to affect (or directly react with) Hg and/or Hg compounds. The sampling performed during WY 2016 resulted in the following preliminary findings:

- The ASR wells showed sporadic detections of Hg, predominantly at levels well below MCL's; however, there appeared to be a direct correlation between declining turbidity and decreasing Hg levels as the duration of pumping increased during well backflushing operations. Almost all Hg detections occurred from samples collected during or immediately after well backflushing events.
- Injection source waters from the Begonia Iron Removal Plant (BIRP) indicated detectable Hg levels in the raw well water plant influent and in the finished product water; however, the Hg levels were all far below MCL's, and even below the detection

---

<sup>8</sup> Dated September 4, 2015



limits of conventional EPA 200.8 analysis methods, with the Hg detections at sub-parts-per-trillion levels.

The data collected during WY 2016 suggested that there was a meaningful correlation between Hg content, Turbidity, and pumping time in the produced water from ASR-1 during well backflushing operations. The possible explanation for this phenomenon is that the trace-level Hg present in the Carmel River System injection source waters was accumulating in the near-well-bore area during injection operations, and then released when reverse flows associated with backflushing or recovery operations occurred (per hypothesis (A) above).

Because the occurrence of elevated Hg levels in ASR-1 appeared to be directly correlated to elevated turbidity levels in initial well flush waters, a revised protocol consisting of a new triple-surge well flushing procedure (refer to the WY 2016 SOR for details) was recommended for all regular and special operations in WY 2017. The addition of an on-line Turbidity analyzer at ASR-1 was also recommended to serve as a safeguard against the possible conveyance of turbid (and potentially Hg-noncompliant) waters into the distribution system during ASR recovery (i.e., production) operations.

**WY 2018 Investigation.** Assessment of the 2017 ASR operations and water-quality data resulted in several recommendations for the WY 2018 ASR program. Among those recommendations related to water quality, the following items were identified:

1. Continue investigations of Hg and Transition Metal occurrence to support or eliminate each of the 4 previously identified mechanisms of Hg occurrence.
2. Obtain cuttings from the Tsm aquifer minerals and analyze for Transition Metals
3. Continue to monitor well backflush waters and analyze backwash sludge residue if high Hg concentrations are detected
4. If sufficiently high concentrations of Hg in backwash sludge are detected, implement further analyses to determine the full speciation of any Hg-containing compounds.

Among the 4 issues cited above, the one issue that was able to be fully implemented was the collection and analysis of Tsm mineral cuttings from the recently constructed DIW-2 well as part of the Pure Water Monterey (PWM) groundwater replenishment program. The DIW-2 borehole penetrated the Tsm between the depths of 380 to 575 feet below ground surface (bgs) – a thickness of 195 feet. Cuttings were obtained at 5- to 10-foot intervals in order to precisely identify the presence and location of various mineral species occurring within the lithologic section. Of the 38 samples collected within the Tsm, 18 visually distinct samples were selected for analysis; of these 18 samples, only one was found to be absent of Hg (i.e., less than the 6 ppb detection limit of the method). The remaining 17 samples all showed detectable levels of naturally occurring Hg, ranging from 6 to 98 ppb (i.e., ug/kg) Hg on a dry weight basis. The average Hg concentration of all samples was 21 ppb.

This is a significant finding in that it substantially confirms the presence of naturally occurring Hg within the Tsm matrix. Additionally, the analyses indicate that the lowest Hg concentrations generally occurred in the coarse-grained sands of the Tsm, while the highest





concentrations occurred in the silty/clay horizons and especially those in the lower Tsm most proximate to the underlying Monterey Shale (Tm) formation. The sampling, selection, and analysis of cuttings was documented in a January 2019 Technical Memorandum.

The confirmed presence of Hg and other transition metals within the Tsm suggests that of the (above) 4 previously proposed mechanisms of Hg occurrence, Items B and C (solubilization and/or mobilization of naturally occurring Tsm Hg) are realistic possibilities.

**Next Steps.** Based on the additional data gathered during the WY 2018 program, it appears that there is sufficient evidence to continue the investigation of the potential mechanisms of Hg solubilization and/or mobilization within the Tsm aquifer mineralogy. Unfortunately, the occurrence of Hg has always been sporadic, and the pursuit of more data will be largely dependent on obtaining samples of water, backwash sludge, or cuttings that contain a sufficiently high concentration of Hg/transition metals to allow quantitative analysis by appropriate analytic laboratories. Because such analyses are costly (up to \$7,500/sample), it is recommended that all samples are pre-screened for elemental/bulk Hg content prior to quantitative speciation analysis. Once such speciation is confirmed, geochemical modeling can be leveraged to ascertain the specific reaction mechanism(s) resulting in mobilization. It is therefore prudent to continue with the ongoing sampling of backflushing waters and sludge during injection operations, and to collect and analyze stored water samples for Transition Metals and related parameters (ORP, DO, Cl, and pH) at all wells on a monthly basis.



Table 11. Summary of WY 2018 Water Quality Data – Injectate

Parameter	Unit	PQL	MCL	Results	
				CAW Injectate	
				3/2/18	4/17/18
Sample Description				Injectate	
Major Cations					
Calcium	mg/L	0.5		48	
Magnesium	mg/L	0.5		16	
Potassium	mg/L	0.5		3.36	
Sodium	mg/L	0.5		52	
Major Anions					
Alkalinity, Total (as CaCO3)	mg/L	2		144	
Chloride	mg/L	1	250	32	
Sulfate	mg/L	1	250	92	
Nitrate (as N)	mg/L	1	10	ND	
General Physical					
pH	Std Units			7.7	
Specific Conductance (EC)	uS	1	900	541	
Total Dissolved Solids	mg/L	10	500	349	
Metals					
Arsenic (Total)	ug/L	1	10	ND	
Barium (Total)	ug/L	10	1000	71	
Iron (Dissolved)	ug/L	10		16	
Iron (Total)	ug/L	10	300	56	
Lithium	ug/L	1		5	
Manganese (Dissolved)	ug/L	10		ND	
Manganese (Total)	ug/L	10	50	ND	
Mercury	ug/L	0.5	2	ND	
Molybdenum	ug/L	1	1000	2	
Nickel	ug/L	10	100	3	
Selenium	ug/L	2	50	2	
Strontium (Total)	ug/L	5		245	
Uranium (by ICP/MS)	ug/L	1	30	ND	
Vanadium (Total)	ug/L	1	1000	ND	
Zinc (Total)	ug/L	10	5000	250	
Miscellaneous					
Ammonia-N	mg/L	0.05		ND	
Boron	mg/L	0.05		ND	
Chloramines	mg/L	0.05		0.07	0.10
Gross Alpha	pCi/L		15	0.847±0.983	
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	
Methane	ug/L	0.1		1.50	
o-Phosphate-P	mg/L	0.05		0.35	
Phosphorous (Total)	mg/L	0.03		0.45	
Radium 226	pCi/L		3	0.000±0.044	
Organic Analyses					
Haloacetic Acids (Total)	ug/L	1.0	60.0	24.0	10.0
Organic Carbon (Dissolved)	mg/L	0.2		1.8	
Organic Carbon (Total)	mg/L	0.2		1.8	
Trihalomethanes (Total)	ug/L	1.0	80.0	60.0	24.0
Field Parameters					
Temperature	° C	0.1		14.8	19.6
Specific Conductance (EC)	uS	1.0	900	470	446
pH	Std Units	0.1	6.5 - 8.5	7.5	7.0
ORP	mV	1.0		492	680
Free Chlorine Residual	mg/L	0.1	2 - 5	0.9	2.1
Dissolved Oxygen	mg/L	0.01		4.3	3.4
Silt Density Index	Std Units	0.1		?	?
H <sub>2</sub> S	mg/L	0.1		ND	ND

**Notes:**Constituents exceeding MCLs denoted in **BOLD** type

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report DRAFT



Table 12. Summary of WY 2018 Water-Quality Data – ASR-1

Parameter	Unit	PQL	MCL	SM ASR-1				
				3/21/01	11/29/17	6/12/18	7/16/18	9/25/18
ASR Operational Phase				NGW	WY 2017 Storage	WY 2018 Storage		
Elapsed Storage Time	Days			--	183	55	89	160
Major Cations								
Calcium	mg/L	0.5		85	44			47
Magnesium	mg/L	0.5		19	14			14
Potassium	mg/L	0.5		5.3	3.0			3.3
Sodium	mg/L	0.5		88	48			53
Major Anions								
Alkalinity, Total (as CaCO3)	mg/L	2		224	137			146
Chloride	mg/L	1	250	120	29			40
Sulfate	mg/L	1	250	95	71			78
Nitrate (as N)	mg/L	1	10	ND	0.3			0.2
General Physical								
pH	Std Units			7.1	7.5			7.4
Specific Conductance (EC)	uS	1	900	1015	503			558
Total Dissolved Solids	mg/L	10	500	618	300			343
Metals								
Arsenic (Total)	ug/L	1	10	ND	4			ND
Barium (Total)	ug/L	10	1000	52	55			39.6
Iron (Dissolved)	ug/L	10			< 10			ND
Iron (Total)	ug/L	10	300	120	18			ND
Lithium	ug/L	1			7			9
Manganese (Dissolved)	ug/L	10			< 10			ND
Manganese (Total)	ug/L	10	50	40	< 10			2
Mercury	ug/L	0.5	2		< 0	ND		ND
Molybdenum	ug/L	1	1000		5			5.8
Nickel	ug/L	10	100		2			1.6
Selenium	ug/L	2	50	ND	4			8
Strontium (Total)	ug/L	5			244			102
Uranium (by ICP/MS)	ug/L	1	30		0.8			1.3
Vanadium (Total)	ug/L	1	1000		< 2			1.6
Zinc (Total)	ug/L	10	5000	10	166			93
Miscellaneous								
Ammonia-N	mg/L	0.05		0.33	0.1			ND
Boron	mg/L	0.05		0.14	0.05			ND
Chloramines	mg/L	0.05			ND	ND	ND	ND
Gross Alpha	pCi/L		15		2.13 ± 1.27			3.22±2.16
Kjehldahl Nitrogen (Total)	mg/L	0.5			ND			ND
Methane	ug/L	0.1			0.42			0.85
o-Phosphate-P	mg/L	0.05		0.46	ND			0.1
Phosphorous (Total)	mg/L	0.03						0.15
Radium 226	pCi/L		3		0.000 ± 0.088			0.465±0.219
Organic Analyses								
Haloacetic Acids (Total)	ug/L	1.0	60.0		ND	ND	ND	ND
Organic Carbon (Dissolved)	mg/L	0.2			2.2			1.3
Organic Carbon (Total)	mg/L	0.2		6.3	1.5			1.7
Trihalomethanes (Total)	ug/L	1.0	80.0		67	44	46	27
Field Parameters								
Temperature	° C	0.1			16.5	17.4	17.1	17.4
Specific Conductance (EC)	uS	1.0	900	1015	459	439	434	508
pH	Std Units	0.1	6.5 - 8.5	7.1	7.28	7.17	7.2	6.9
ORP	mV	1.0			74	128	51	159
Free Chlorine Residual	mg/L	0.1	2 - 5		0.43	0.37	0.25	0.2
Dissolved Oxygen	mg/L	0.01			2.19	2.08	NA	1.45
Silt Density Index	Std Units	0.1			NA	NA		
H <sub>2</sub> S	mg/L	0.1		1.5	ND	ND	ND	ND

**Notes:**Constituents exceeding MCLs denoted in **BOLD** type

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report DRAFT



Table 13. Summary of WY 2018 Water Quality Data – ASR-2

Parameter	Unit	PQL	MCL	Results		
				SM ASR-2		
				10/4/17	1/11/18	6/12/18
ASR Operational Phase				WY 2017 Storage		WY 2018 Storage
Elapsed Storage Time	Days			127	226	55
Major Cations						
Calcium	mg/L	0.5		38	41	
Magnesium	mg/L	0.5		14	14	
Potassium	mg/L	0.5		2.8	3.1	
Sodium	mg/L	0.5		43	46	
Major Anions						
Alkalinity, Total (as CaCO3)	mg/L	2		134	138	
Chloride	mg/L	1	250	28	28	
Sulfate	mg/L	1	250	70	70	
Nitrate (as N)	mg/L	1	10	0.2	0.2	
General Physical						
pH	Std Units			7.4	7.5	
Specific Conductance (EC)	uS	1	900	495	493	
Total Dissolved Solids	mg/L	10	500	297	311	
Metals						
Arsenic (Total)	ug/L	1	10	< 1	ND	
Barium (Total)	ug/L	10	1000	62	62	
Iron (Dissolved)	ug/L	10		11	27	
Iron (Total)	ug/L	10	300	66	1220	
Lithium	ug/L	1		7	8	
Manganese (Dissolved)	ug/L	10		ND	< 20	
Manganese (Total)	ug/L	10	50	< 10	40	
Mercury	ug/L	0.5	2	< 0	1	ND
Molybdenum	ug/L	1	1000	6	6	
Nickel	ug/L	10	100	2	6	
Selenium	ug/L	2	50	3	3	
Strontium (Total)	ug/L	5		208	258	
Uranium (by ICP/MS)	ug/L	1	30	2.4	1.6	
Vanadium (Total)	ug/L	1	1000	< 2	ND	
Zinc (Total)	ug/L	10	5000	209	298	
Miscellaneous						
Ammonia-N	mg/L	0.05		ND	ND	
Boron	mg/L	0.05		< 0.05	< 0.05	
Chloramines	mg/L	0.05		N.D.		ND
Gross Alpha	pCi/L		15	2.04 ± 1.15	2.09 ± 1.29	
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND	
Methane	ug/L	0.1		0.70	0.49	
o-Phosphate-P	mg/L	0.05		0.26	< 0.02	
Phosphorous (Total)	mg/L	0.03		0.30	0.30	
Radium 226	pCi/L		3	0.090 ± 0.124	0.045 ± 0.089	
Organic Analyses						
Haloacetic Acids (Total)	ug/L	1.0	60.0	4	ND	10
Organic Carbon (Dissolved)	mg/L	0.2		1.9	1.6	
Organic Carbon (Total)	mg/L	0.2		1.4	1.6	
Trihalomethanes (Total)	ug/L	1.0	80.0	87	63	90
Field Parameters						
Temperature	° C	0.1		19.4	16.4	16.8
Specific Conductance (EC)	uS	1.0	900	428	386	443.0
pH	Std Units	0.1	6.5 - 8.5	7.1	7.4	6.7
ORP	mV	1.0			86	155
Free Chlorine Residual	mg/L	0.1	2 - 5		0.31	-0.09
Dissolved Oxygen	mg/L	0.01		2.03	1.89	3.21
Silt Density Index	Std Units	0.1				
H <sub>2</sub> S	mg/L	0.1			ND	ND

**Notes:**Constituents exceeding MCLs denoted in **BOLD** type

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report DRAFT



Table 14. Summary of WY 2018 Water Quality Data – ASR-3

Parameter	Unit	PQL	MCL	Results			
				SMS ASR-3			
				10/22/10	1/11/18	6/13/18	9/25/18
ASR Operational Phase				NGW	WY 2017 Storage	WY 2018 Storage	
Elapsed Storage Time	Days				226	56	160
Major Cations							
Calcium	mg/L	0.5		76	43		42
Magnesium	mg/L	0.5		18	13		14
Potassium	mg/L	0.5		5	3.6		3.1
Sodium	mg/L	0.5		102	46		44
Major Anions							
Alkalinity, Total (as CaCO3)	mg/L	2		304	128		137
Chloride	mg/L	1	250	107	41		31
Sulfate	mg/L	1	250	56	70		74
Nitrate (as N)	mg/L	1	10	1	0.2		0.1
General Physical							
pH	Std Units			7.7	7.2		7.4
Specific Conductance (EC)	uS	1	900	954	529		504
Total Dissolved Solids	mg/L	10	500	575	331		306
Metals							
Arsenic (Total)	ug/L	1	10	4	10		5.3
Barium (Total)	ug/L	10	1000	50	52		55.9
Iron (Dissolved)	ug/L	10		21	792		61
Iron (Total)	ug/L	10	300	21	1530		106
Lithium	ug/L	1		36	14		6
Manganese (Dissolved)	ug/L	10		27	56		12
Manganese (Total)	ug/L	10	50	27	63		14
Mercury	ug/L	0.5	2		ND	ND	ND
Molybdenum	ug/L	1	1000	--	79		62.1
Nickel	ug/L	10	100	ND	4		2.9
Selenium	ug/L	2	50	ND	5		37
Strontium (Total)	ug/L	5		403	262		101
Uranium (by ICP/MS)	ug/L	1	30	--	3.8		1.5
Vanadium (Total)	ug/L	1	1000	--	ND		1.4
Zinc (Total)	ug/L	10	5000	--	270		223
Miscellaneous							
Ammonia-N	mg/L	0.05		249	ND		ND
Boron	mg/L	0.05		ND	< 0.05		ND
Chloramines	mg/L	0.05		0.08		ND	ND
Gross Alpha	pCi/L		15	--	3.95±1.57		1.82±1.67
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND		ND
Methane	ug/L	0.1		ND	1.30		0.94
o-Phosphate-P	mg/L	0.05		ND	0.17		0.3
Phosphorous (Total)	mg/L	0.03		0.03	1.42		0.38
Radium 226	pCi/L		3	--	0.498±0.217		0.000±0.116
Organic Analyses							
Haloacetic Acids (Total)	ug/L	1.0	60.0	ND	2	25	7
Organic Carbon (Dissolved)	mg/L	0.2		0.71	3.0		1.5
Organic Carbon (Total)	mg/L	0.2		0.70	3.0		1.4
Trihalomethanes (Total)	ug/L	1.0	80.0	ND	68	119	75
Field Parameters							
Temperature	°C	0.1		26.2	16.6	17.0	17.6
Specific Conductance (EC)	uS	1.0	900	991	446	459	466
pH	Std Units	0.1	6.5 - 8.5	7.0	6.97	6.72	6.5
ORP	mV	1.0		-82	-42.0	33	10
Free Chlorine Residual	mg/L	0.1	2 - 5	ND	0.32	0.29	0.14
Dissolved Oxygen	mg/L	0.01		--	2.8	2.69	1.78
Silt Density Index	Std Units	0.1		--			
H <sub>2</sub> S	mg/L	0.1		0.60	ND	ND	ND

**Notes:**Constituents exceeding MCLs denoted in **BOLD** type

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report DRAFT



Table 15. Summary of WY 2018 Water Quality Data – ASR-4

Parameter	Unit	PQL	MCL	Results			
				ASR-4			
				10/4/17	1/11/18	6/13/18	9/25/18
ASR Operational Phase				WY 2017 Storage		WY 2018 Storage	
Elapsed Storage Time	Days			127	226	56	160
Major Cations							
Calcium	mg/L	0.5		36	41		43
Magnesium	mg/L	0.5		13	13		14
Potassium	mg/L	0.5		2.7	3.1		3.4
Sodium	mg/L	0.5		39	45		49
Major Anions							
Alkalinity, Total (as CaCO3)	mg/L	2		134	139		137
Chloride	mg/L	1	250	27	32		36
Sulfate	mg/L	1	250	70	67		67
Nitrate (as N)	mg/L	1	10	0.2	0.2		0.2
General Physical							
pH	Std Units			7.5	7.6		7.5
Specific Conductance (EC)	uS	1	900	487	509		511
Total Dissolved Solids	mg/L	10	500	297	323		323
Metals							
Arsenic (Total)	ug/L	1	10	8	6		4.4
Barium (Total)	ug/L	10	1000	60	59		53.4
Iron (Dissolved)	ug/L	10		18	29		9
Iron (Total)	ug/L	10	300	201	319		136
Lithium	ug/L	1		7	11		9
Manganese (Dissolved)	ug/L	10		13	< 20		ND
Manganese (Total)	ug/L	10	50	14	22		2
Mercury	ug/L	0.5	2	< 0	4	ND	ND
Molybdenum	ug/L	1	1000	55	77		12.2
Nickel	ug/L	10	100	23	11		17.1
Selenium	ug/L	2	50	10	5		28
Strontium (Total)	ug/L	5		206	276		120
Uranium (by ICP/MS)	ug/L	1	30	1.7	1.8		1.4
Vanadium (Total)	ug/L	1	1000	< 2	ND		1.7
Zinc (Total)	ug/L	10	5000	104	123		110
Miscellaneous							
Ammonia-N	mg/L	0.05		ND	ND		ND
Boron	mg/L	0.05		< 0.05	0.05		ND
Chloramines	mg/L	0.05		N.D.		ND	ND
Gross Alpha	pCi/L		15	2.02 ± 1.14	3.84 ± 1.50		3.10±2.10
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND		ND
Methane	ug/L	0.1		0.98	0.87		0.63
o-Phosphate-P	mg/L	0.05		0.16	0.21		0.1
Phosphorous (Total)	mg/L	0.03		0.17	0.14		0.16
Radium 226	pCi/L		3	0.000 ± 0.088	0.204 ± 0.147		0.000±0.102
Organic Analyses							
Haloacetic Acids (Total)	ug/L	1.0	60.0	2	ND	ND	ND
Organic Carbon (Dissolved)	mg/L	0.2		1.7	1.7		1.1
Organic Carbon (Total)	mg/L	0.2		1.3	1.7		1.3
Trihalomethanes (Total)	ug/L	1.0	80.0	59	39	69	40
Field Parameters							
Temperature	° C	0.1		18.5	18.2	19.0	19.3
Specific Conductance (EC)	uS	1.0	900	415	481	444	459
pH	Std Units	0.1	6.5 - 8.5	6.43	7.32	7.52	7.08
ORP	mV	1.0		31	37	49	12
Free Chlorine Residual	mg/L	0.1	2 - 5	0.51	0.33	0.34	0.14
Dissolved Oxygen	mg/L	0.01		1.87	1.74	2.41	1.61
Silt Density Index	Std Units	0.1					
H <sub>2</sub> S	mg/L	0.1		ND	ND	ND	ND

**Notes:**Constituents exceeding MCLs denoted in **BOLD** type

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report DRAFT



Table 16. Summary of WY 2018 Water Quality Data – SM MW-1

Parameter	Unit	PQL	MCL	Results						
				SM MW-1						
				10/2/17	3/12/18	3/30/18	5/7/18	6/11/18	7/9/18	9/24/18
Sample Description			WY 2017 Storage	WY 2018 Injection		WY 2018 Storage				
Elapsed Storage Time	Days			125	0	0	19	54	82	159
Major Cations										
Calcium	mg/L	0.5		48	45		46			
Magnesium	mg/L	0.5		13	11		14			
Potassium	mg/L	0.5		3.2	2.8		3.0			
Sodium	mg/L	0.5		48	44		48			
Major Anions										
Alkalinity, Total (as CaCO3)	mg/L	2		137	137		137			
Chloride	mg/L	1	250	28	29		32		31	37
Sulfate	mg/L	1	250	69	70		75			
Nitrate (as N)	mg/L	1	10	0.3	0.2		ND			
General Physical										
pH	Std Units			7.5	7.6		7.5			
Specific Conductance (EC)	uS	1	900	491	501		507			
Total Dissolved Solids	mg/L	10	500	326	311		317			
Metals										
Arsenic (Total)	ug/L	1	10	2	2		ND			
Barium (Total)	ug/L	10	1000	26	22		30			
Iron (Dissolved)	ug/L	10		14	ND		ND			
Iron (Total)	ug/L	10	300	ND	ND		ND			
Lithium	ug/L	1		4	7		6			
Manganese (Dissolved)	ug/L	10		ND	ND		ND			
Manganese (Total)	ug/L	10	50	ND	ND		ND			
Mercury	ug/L	0.5	2	ND	ND		0	ND	ND	ND
Molybdenum	ug/L	1	1000	5	4		3			
Nickel	ug/L	10	100	ND	1		5			
Selenium	ug/L	2	50	3	3		6			
Strontium (Total)	ug/L	5		213	251		226			
Uranium (by ICP/MS)	ug/L	1	30	1.0	1.7		1.5			
Vanadium (Total)	ug/L	1	1000	ND	ND		ND			
Zinc (Total)	ug/L	10	5000	40	ND		ND			
Miscellaneous										
Ammonia-N	mg/L	0.05		ND	ND		ND			
Boron	mg/L	0.05		ND	ND		ND			
Chloramines	mg/L	0.05		N.D.	ND	0.05	ND	ND	ND	ND
Gross Alpha	pCi/L		15	2.88 ± 1.29	4.00± 1.62		2.28 ± 1.90			
Kjehldahl Nitrogen (Total)	mg/L	0.5		0.8	ND		ND			
Methane	ug/L	0.1		ND	0.23		0.61			
o-Phosphate-P	mg/L	0.05		ND	ND		ND			
Phosphorous (Total)	mg/L	0.03		0.07	0.06		ND			
Radium 226	pCi/L		3	0.050 ± 0.120	0.316 ± 0.154		0.392 ± 0.160			
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	60.0	ND	1	12	ND	2	ND	ND
Organic Carbon (Dissolved)	mg/L	0.2		1.8	3.8		1.1			
Organic Carbon (Total)	mg/L	0.2		1.2	3.8		1.2			
Trihalomethanes (Total)	ug/L	1.0	80.0	71	52	55	48	52	32	1.0
Field Parameters										
Temperature	° C	0.1		19.5	17.9	18.5	17.8	18.0	17.8	17.9
Specific Conductance (EC)	uS	1.0	900	475	462	470	442	436	500	497
pH	Std Units	0.1	6.5 - 8.5	7.08	7.01	5.15	6.65	7.27	7.1	6.9
ORP	mV	1.0			118	535	231	60	56	79
Free Chlorine Residual	mg/L	0.1	2 - 5		0.4	0.5	0.46	0.40	0.35	0.38
Dissolved Oxygen	mg/L	0.01		2.03	2.58	3.34	2.96	3.72	3.34	0.46
Silt Density Index	Std Units	0.1								
H <sub>2</sub> S	mg/L	0.1			ND	ND	ND	ND	ND	ND

Notes:

Constituents exceeding MCLs denoted in **BOLD** type

June 2019  
 Project No. 18-0092  
 WY 2018 Summary of Operations Report **DRAFT**



**Table 17. Summary of WY 2018 Water Quality Data – SMS Deep**

Parameter	Unit	PQL	MCL	Results SMS Deep						
				10/2/17	1/12/18	3/27/18	5/7/18	6/11/18	7/9/18	9/24/18
Sample Description				WY 2017 Storage		WY 2018 Injection	WY 2018 Storage			
Elapsed Storage Time	Days			125	227	-22	19	54	82	159
Major Cations										
Calcium	mg/L	0.5		48	46		49			
Magnesium	mg/L	0.5		14	12		14			
Potassium	mg/L	0.5		3.2	3.05		3.1			
Sodium	mg/L	0.5		48	46		46			
Major Anions										
Alkalinity, Total (as CaCO3)	mg/L	2		143	147		145			
Chloride	mg/L	1	250	29	34		30		29	30
Sulfate	mg/L	1	250	70	68		72			
Nitrate (as N)	mg/L	1	10	0.3	0.2		ND			
General Physical										
pH	Std Units			7.7	7.6		7.5			
Specific Conductance (EC)	uS	1	900	505	551		507			
Total Dissolved Solids	mg/L	10	500	308	328		323			
Metals										
Arsenic (Total)	ug/L	1	10	6	6		ND			
Barium (Total)	ug/L	10	1000	56	48		58			
Iron (Dissolved)	ug/L	10		ND	65		ND			
Iron (Total)	ug/L	10	300	ND	71		ND			
Lithium	ug/L	1		4	8		6			
Manganese (Dissolved)	ug/L	10		ND	< 20		ND			
Manganese (Total)	ug/L	10	50	ND	< 20		ND			
Mercury	ug/L	0.5	2	ND	< 0		ND	ND	ND	ND
Molybdenum	ug/L	1	1000	25	16		8			
Nickel	ug/L	10	100	ND	3		4			
Selenium	ug/L	2	50	4	8		5			
Strontium (Total)	ug/L	5		250	262		261			
Uranium (by ICP/MS)	ug/L	1	30	1.0	5.3		1.1			
Vanadium (Total)	ug/L	1	1000	ND	< 2		ND			
Zinc (Total)	ug/L	10	5000	61	73		101			
Miscellaneous										
Ammonia-N	mg/L	0.05		ND	ND		ND			
Boron	mg/L	0.05		ND	< 0.05		ND			
Chloramines	mg/L	0.05		N.D.	ND	0.16	0.10	ND	ND	ND
Gross Alpha	pCi/L		15	1.80 ± 1.09	6.00 ± 1.87		1.51 ± 1.61			
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND		ND			
Methane	ug/L	0.1		0.39	1.10		1.70			
o-Phosphate-P	mg/L	0.05		ND	0.15		0.25			
Phosphorous (Total)	mg/L	0.03		0.09	0.30		0.11			
Radium 226	pCi/L		3	0.149 ± 0.154	0.158 ± 0.133		0.486 ± 0.177			
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	60.0	6	2	9	6	17	11	ND
Organic Carbon (Dissolved)	mg/L	0.2		1.7	2.4		1.3			
Organic Carbon (Total)	mg/L	0.2		1.3	2.0		1.3			
Trihalomethanes (Total)	ug/L	1.0	80.0	86	65	26	84	106	98	71
Field Parameters										
Temperature	° C	0.1		18.1	18.0	17.9	17.9	18.1	18.1	17.4
Specific Conductance (EC)	uS	1.0	900	444	478	480	452	463	423	448
pH	Std Units	0.1	6.5 - 8.5	7.11	7.49	6.85	6.99	7.21	7.38	6.68
ORP	mV	1.0		148	-14	642	527	83	134	108
Free Chlorine Residual	mg/L	0.1	2 - 5	0.41	0.49	1.48	0.45	0.27	0.27	0.36
Dissolved Oxygen	mg/L	0.01		3.48	2.78	3.86	3.30	3.21	6.91	2.45
Silt Density Index	Std Units	0.1								
H <sub>2</sub> S	mg/L	0.1		ND	ND	ND	ND	ND	ND	ND
Notes:										
Constituents exceeding MCLs denoted in <b>BOLD</b> type										





**Table 18. Summary of WY 2018 Water Quality Data – Off-Site Monitoring Wells**

Parameter	Unit	PQL	MCL	Results	
				PCA-E Deep	
				9/11/17	7/3/18
ASR Operational Phase				WY 2017 Storage	WY 2018 Storage
Major Cations					
Calcium	mg/L	0.5		57	57
Magnesium	mg/L	0.5		12	12
Potassium	mg/L	0.5		4.4	4.2
Sodium	mg/L	0.5		101	101
Major Anions					
Alkalinity, Total (as CaCO3)	mg/L	2		195	199
Chloride	mg/L	1	250	113	116
Sulfate	mg/L	1	250	33	42
Nitrate (as N)	mg/L	1	10	ND	0.7
General Physical					
pH	Std Units			7.4	7.4
Specific Conductance (EC)	uS	1	900	806	797
Total Dissolved Solids	mg/L	10	500	460	509
Metals					
Arsenic (Total)	ug/L	1	10		6.0
Barium (Total)	ug/L	10	1000	98	92.9
Iron (Dissolved)	ug/L	10		34	40
Iron (Total)	ug/L	10	300	33	40
Lithium	ug/L	1			35
Manganese (Dissolved)	ug/L	10		159	155
Manganese (Total)	ug/L	10	50	149	157
Mercury	ug/L	0.5	2		ND
Molybdenum	ug/L	1	1000		9.7
Nickel	ug/L	10	100		3.2
Selenium	ug/L	2	50		2
Strontium (Total)	ug/L	5			309
Uranium (by ICP/MS)	ug/L	1	30		ND
Vanadium (Total)	ug/L	1	1000		ND
Zinc (Total)	ug/L	10	5000		ND
Miscellaneous					
Ammonia-N	mg/L	0.05		ND	ND
Boron	mg/L	0.05		0.10	0.11
Chloramines	mg/L	0.05			ND
Gross Alpha	pCi/L		15		2.14 ± 2.10
Kjehldahl Nitrogen (Total)	mg/L	0.5			ND
Methane	ug/L	0.1			2.20
o-Phosphate-P	mg/L	0.05		ND	ND
Phosphorous (Total)	mg/L	0.03			ND
Radium 226	pCi/L		3		0.142±0.139
Organic Analyses					
Haloacetic Acids (Total)	ug/L	1.0	60.0		ND
Organic Carbon (Dissolved)	mg/L	0.2			0.5
Organic Carbon (Total)	mg/L	0.2		0.6	0.5
Trihalomethanes (Total)	ug/L	1.0	80.0		ND
Field Parameters					
Temperature	° C	0.1		28.8	26.7
Specific Conductance (EC)	uS	1.0	900	660	682
pH	Std Units	0.1	6.5 - 8.5	7.38	7.65
ORP	mV	1.0		-64	-79
Free Chlorine Residual	mg/L	0.1	2 - 5	ND	0.43??
Dissolved Oxygen	mg/L	0.01		0.55	0.43
Silt Density Index	Std Units	0.1			
H <sub>2</sub> S	mg/L	0.1		ND	ND

**Notes:**

Constituents exceeding MCLs denoted in **BOLD** type



## CONCLUSIONS

Based on the findings developed from operation of Monterey Peninsula ASR Project during WY 2018, we conclude the following:

### WY 2018 Recharge Operations

WY 2018 was classified as a Dry Water Year on the Monterey Peninsula and a total volume of 530 af of water was recharged into the Seaside Groundwater Basin at the Santa Margarita and Seaside Middle Schools ASR Facilities during the WY 2018 injection season.

### ASR Well Performance

**ASR-1.** ASR-1 was not operational during WY 2018 due to mechanical issues with the pump assembly.

**ASR-2.** Pertinent well performance conclusions for ASR-2 during WY 2018 are summarized below:

- Injection Rates: Ranged between approximately 420 to 1,940 gpm, averaging approximately 1,350 gpm.
- Water Levels: Consistently more than 250 ft. bgs prior to backflushing and below the recommended maximum drawup level of 130 f at all times.
- Specific Injectivity: Ranged between approximately 29 to 31 gpm/ft with slight negative trend in 24-hr specific injectivity.
- Residual Plugging: A minimal level of approximately 2 ft of residual plugging occurred.
- General Conclusions: ASR-2 performed well during WY 2018 and experienced a limited level residual plugging. The well's performance suggests the injection rate at this well should be maintained at or below the design rate of 1,500 gpm in WY 2019.

**ASR-3.** Pertinent well performance conclusions for ASR-3 during WY 2018 are summarized below:

- Injection Rates: Ranged between approximately 1,050 to 1,650 gpm, averaging approximately 1,440 gpm.
- Water Levels: Ranged between approximately 195 to 250 feet bgs and were maintained below the minimum recommended water level of 190 feet bgs at all times.
- Specific Injectivity: Ranged between approximately 12.5 to 16.3 gpm/ft and a significantly negative trend in 24-hr specific injectivity.



- Residual Plugging: Approximately 23 feet of residual plugging occurred.
- General Conclusions: ASR-3 underwent formal rehabilitation prior to the WY 2018 injection season and an approximate 70 percent improvement in performance was achieved; however, ASR-3 performance subsequently declined significantly during WY 2018 with injection rates up to approximately 1,650 gpm, although water levels were maintained below the recommended maximum drawup level. These results suggest the injection rate should be reduced during WY 2019 to maintain performance.

**ASR-4.** Pertinent well performance conclusions for ASR-4 during WY 2018 are summarized below:

- Injection Rates: Ranged between approximately 450 to 1,000 gpm, averaging approximately 620 gpm.
- Water Levels: During the limited period of injection at this well, the injection water-level only reached approximately 300 feet bgs, well below the minimum recommended water level of 160 feet bgs.
- Specific Injectivity: The 24-hr specific injectivity was 24.1 gpm/ft; there, was insufficient injection during WY 2018 to establish a trend.
- Residual Plugging: Approximately 4.7 feet of residual plugging occurred.
- General Conclusions: Based on the limited performance data available during WY 2018, the performance was generally consistent with the performance observed during the WY 2017 baseline injection testing program.

## Water Quality

Significant conclusions regarding the water-quality investigation during WY 2018 include the following:

- Consistent with previous observations, no significant ion exchange, acid-base, or precipitation reactions were observed at the ASR sites.
- THMs during WY 2018 generally followed this historically observed pattern for the project ASR wells at ASR-1, ASR-2, ASR-4, and SM-MW-1, but THMs did not degrade below the initial injection levels at ASR-3 and SMS-Deep. Due to a lack of intermixing and migration, the highly oxidized redox conditions within the recharge water volume remained intact for an extended period, and redox conditions did not decline as rapidly as in previous years.

June 2019

Project No. 18-0092

WY 2018 Summary of Operations Report **DRAFT**

- HAAs at the wells with sufficient data generally showed their typical pattern of limited (if any) ingrowth during the initial storage period, followed by complete to near-complete degradation by the end of the storage season.
- Collection and analysis of Tsm mineral cuttings from the recently constructed DIW-2 well as part of the PWM groundwater replenishment program confirmed the presence of naturally occurring Hg within the Tsm matrix. Additionally, the analyses indicate that the lowest Hg concentrations generally occurred in the coarse-grained sands of the Tsm, while the highest concentrations occurred in the silty/clay horizons and especially those in the lower Tsm most proximate to the underlying Monterey Shale (Tm) formation. The confirmed presence of Hg and other transition metals within the Tsm suggests that, of the four previously proposed mechanisms of Hg occurrence, solubilization and/or mobilization of naturally occurring Tsm Hg are the likely mechanism(s) responsible.



## RECOMMENDATIONS

Based on the WY 2017 ASR program results and our experience with similar ASR projects, we offer the following recommendations for continued and future operations of the Monterey Peninsula ASR Project wells:

### ASR-1 Well Operational Parameters

- Injection Rate: No injection occurred at this well during WY 2018, therefore, the recommendations presented in the WY 2017 SOR are still applicable, with the injection limited to approximately **1,500 gpm or less** in order to limit residual plugging and maintain long-term performance.
- Water-Level Drawup: Under the present local water-level conditions, the amount of water-level drawup should be limited to approximately 100 feet and injection water levels should be maintained **greater than 260 feet bgs** at all times.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches a depth to water level of approximately **260 feet bgs**, whichever occurs first. Backflushing should consist of the triple-flush procedure initiated in WY 2017.

### ASR-2 Well Operational Parameters

- Injection Rate: Based on the limited amount of residual plugging that occurred during WY 2018, we recommend the injection rate be maintained at the design rate of approximately **1,500 gpm or less** in order to limit residual plugging and maintain long-term performance.
- Water-Level Drawup: The amount of water-level drawup should be limited to approximately 130 feet and injection water levels should be maintained **greater than 250 feet bgs** at all times.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches a depth to water level of approximately **250 feet bgs**, whichever occurs first. Backflushing should consist of the triple-flush procedure initiated in WY 2017.

### ASR-3 Well Operational Parameters

- Injection Rate: Based on the significant amount of residual plugging that occurred during WY 2018 with the well injecting up to 1,650 gpm, we recommend the injection rate be limited to **1,250 gpm** in order to limit residual plugging and maintain long-term performance.



- Water-Level Drawup: The amount of water-level drawup should be limited to approximately 170 feet and injection water levels should be maintained **greater than 190 feet bgs** at all times.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches a depth to water level of approximately **190 feet bgs**, whichever occurs first. Backflushing should consist of the triple-flush procedure initiated in WY 2017.

#### **ASR-4 Well Operational Parameters**

- Injection Rate: Based on the limited performance data during WY 2018 and the baseline injection testing performed during WY 2017, we recommend the injection rate be limited to the design rate of approximately **1,500 gpm or less** in order to limit residual plugging and maintain long-term performance.
- Water-Level Drawup: The amount of water-level drawup should be limited to approximately 200 feet and injection water levels should be maintained **greater than 160 feet bgs** at all times.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches a depth to water level of approximately **160 feet bgs**, whichever occurs first. Backflushing should consist of the triple-flush procedure initiated in WY 2017.

#### **Supplemental Water Quality Investigations**

Based on the additional data gathered during the WY 2018 program, it appears that there is sufficient evidence to continue the investigation of the potential mechanisms of Hg solubilization and/or mobilization within the Tsm aquifer mineralogy. It is therefore prudent to continue with the ongoing sampling of backflushing waters and sludge during injection operations, and to collect and analyze stored water samples for Transition Metals and related parameters (ORP, DO, Cl, and pH) at all wells on a monthly basis. It is recommended that all such samples collected during WY 2019 be pre-screened for elemental/bulk Hg content to determine those that contain a sufficiently high concentration of Hg/transition metals to allow quantitative speciation analysis. Once such speciation is confirmed, geochemical modeling can then be leveraged to ascertain the specific reaction mechanism(s) resulting in mobilization.



### **CLOSURE**

This report has been prepared exclusively for the Monterey Peninsula Water Management District for the specific application to the ASR Project on the Monterey Peninsula. The findings and conclusions presented herein were prepared in accordance with generally accepted hydrogeologic and engineering practices. No other warranty, express or implied, is made.



## REFERENCES

- Clark, J.C., Dupré, W.R., and Rosenberg, L.I. (1997), *Geologic Map of the Monterey and Seaside 7.5-Minute Quadrangles, Monterey County, California: a Digital Database*, U.S. Geological Survey Open-File Report 97-30.
- Driscoll, Fletcher, G., (1986), *Groundwater and Wells, Second Edition*, published by Johnson Screens.
- Fugro West, Inc. (1997), *Hydrogeologic Assessment, Seaside Coastal Groundwater Subareas, Phase III Update, Monterey County, California*, prepared for Monterey Peninsula Water Management District.
- Fugro West, Inc. (1997), *Reconnaissance-Level Feasibility Study for Seaside Basin Injection/Recovery Project*, prepared for Monterey Peninsula Water Management District.
- Huisman, L., and Olsthoorn, T.N. (1983), *Artificial Groundwater Recharge*, Delft University of Technology, Pitman Advanced Publishing Program.
- Nicholson, B.C., Dillon, P.J., and Pavelic, P. (2002), *Fate of Disinfection By-Products During Aquifer Storage and Recovery*, American Water Works Association Research Project No. 2618.
- Padre Associates, Inc. (2001), *Summary of Operations, Well Construction and Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2002), *Summary of Operations, Water Year 2002 Injection Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2004), *Summary of Operations, Water Year 2003 Injection Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2005), *Summary of Operations, Water Year 2004 Injection Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2006), *Summary of Operations, Water Year 2005 Injection Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2007), *Summary of Operations, Water Year 2006 Injection Testing, Santa Margarita Test Injection Well*, prepared for Monterey Peninsula Water Management District.





- Pueblo Water Resources, Inc. (2008), *Summary of Operations, Well Construction and Testing, Santa Margarita Test Injection Well No. 2*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2009), *Summary of Operations, Phase 1 ASR Project, Water Year 2007*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2009), *Summary of Operations, Phase 1 ASR Project, Water Year 2008*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2010), *Summary of Operations, Phase 1 ASR Project, Water Year 2009*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2011), *Summary of Operations, Phase 1 ASR Project, Water Year 2010*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2012), *Summary of Operations, Well Construction and Testing, Seaside Middle School Test Well*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2012), *Summary of Operations, Phase 1 ASR Project, Water Year 2011*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2013), *Summary of Operations, Monterey Peninsula ASR Project, Water Year 2012*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2014), *Summary of Operations, Monterey Peninsula ASR Project, Water Year 2013*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2018), *Summary of Operations, Monterey Peninsula ASR Project, Water Year 2015*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2018), *Summary of Operations, Monterey Peninsula ASR Project, Water Year 2016*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2019), *Summary of Operations, Monterey Peninsula ASR Project, Water Year 2017*, prepared for Monterey Peninsula Water Management District.
- Pyne, R.D. (1994), *Ground Water Recharge and Wells*, Boca Raton, Florida, CRC Press.
- Raines, Melton & Carella, Inc. (2002), *Plan B Project Report*, prepared for the Water Division of the California Public Utilities Commission.
- Theis, C.V. (1935), *Relationship Between Lowering of Piezometer Surface on the Fate and Duration of Discharge of a Well Using Ground Water Storage*, Transactions of the Geophysical Union, vol. 16, pp. 519-524.



**ITEM: INFORMATIONAL ITEMS/STAFF REPORT****30. MONTHLY WATER SUPPLY AND CALIFORNIA AMERICAN WATER PRODUCTION REPORT**

**Meeting Date:** July 15, 2019                      **Budgeted:** N/A

**From:** David J. Stoldt,                      **Program/** N/A  
              General Manager                      **Line Item No.:**

**Prepared By:** Jonathan Lear                      **Cost Estimate:** N/A

**General Counsel Review:** N/A

**Committee Recommendation:** N/A

**CEQA Compliance:** Exempt from environmental review per SWRCB Order Nos. 95-10 and 2016-0016, and the Seaside Basin Groundwater Basin adjudication decision, as amended and Section 15268 of the California Environmental Quality Act (CEQA) Guidelines, as a ministerial project; Exempt from Section 15307, Actions by Regulatory Agencies for Protection of Natural Resources.

---

**Exhibit 30-A** shows the water supply status for the Monterey Peninsula Water Resources System (MPWRS) as of **July 1, 2019**. This system includes the surface water resources in the Carmel River Basin, the groundwater resources in the Carmel Valley Alluvial Aquifer and the Seaside Groundwater Basin. **Exhibit 30-A** is for Water Year (WY) 2019 and focuses on four factors: rainfall, runoff, and storage. The rainfall and Streamflow values are based on measurements in the upper Carmel River Basin at Sleepy Hollow Weir.

**Water Supply Status:** Rainfall through **June** 2019 totaled **0 inches** and brings the cumulative rainfall total for WY 2019 to **30.93 inches**, which is **147%** of the long-term average through **June**. Estimated unimpaired runoff through **June** totaled **3,102 acre-feet (AF)** and brings the cumulative runoff total for WY 2019 to **142,850 AF**, which is **215%** of the long-term average through **June**. Usable storage for the MRWPRS was **31,220 acre-feet**, which is **101%** of average through **June**, and equates to **83%** percent of system capacity

**Production Compliance:** Under State Water Resources Control Board (SWRCB) Cease and Desist Order No. 2016-0016 (CDO), California American Water (Cal-Am) is allowed to produce no more than 8,310 AF of water from the Carmel River in WY 2019. Through **June**, using the CDO accounting method, Cal-Am has produced **5,539 AF** from the Carmel River (including ASR capped at 600 AF, Table 13, and Mal Paso.) In addition, under the Seaside Basin Decision, Cal-Am is allowed to produce 1,820 AF of water from the Coastal Subareas and 0 AF from the Laguna Seca Subarea of the Seaside Basin in WY 2019. Through **June**, Cal-Am has produced **1,775 AF** from the Seaside Groundwater Basin. Through **May**, **1,335 AF** of Carmel River Basin groundwater have been diverted for Seaside Basin injection; **0 AF** have been recovered for customer use, and **471 AF** have been diverted under Table 13 water rights. Cal-Am has produced **6,822 AF** for customer use from all sources through **June**. **Exhibit 30-C** shows production by source. Some of the values in this report may be revised in the future as Cal-Am finalizes their production values and monitoring data. The 12 month moving average of production for customer service is **9,719 AF**, which is below the rationing trigger of **10,130 AF** for WY 2019.

**EXHIBITS**

**30-A** Water Supply Status: **July 1, 2019**

**30-B** Monthly Cal-Am Diversions from Carmel River and Seaside Groundwater Basins: WY 2019

**30-C** Monthly Cal-Am production by source: WY 2019



**EXHIBIT 30-A**

**Monterey Peninsula Water Management District  
Water Supply Status  
July 1, 2019**

<b>Factor</b>	<b>Oct to Jun 2019</b>	<b>Average To Date</b>	<b>Percent of Average</b>	<b>Oct to Jun 2018</b>
<b>Rainfall</b> (Inches)	30.93	21.10	147%	13.52
<b>Runoff</b> (Acre-Feet)	142,850	66,289	215%	31,376
<b>Storage</b> <sup>5</sup> (Acre-Feet)	31,220	30,830	101%	30,130

**Notes:**

1. Rainfall and runoff estimates are based on measurements at San Clemente Dam. Annual rainfall and runoff at Sleepy Hollow Weir average 21.1 inches and 67,246 acre-feet, respectively. Annual values are based on the water year that runs from October 1 to September 30 of the following calendar year. The rainfall and runoff averages at the Sleepy Hollow Weir site are based on records for the 1922-2018 and 1902-2018 periods respectively.
2. The rainfall and runoff totals are based on measurements through the dates referenced in the table.
3. Storage estimates refer to usable storage in the Monterey Peninsula Water Resources System (MPWRS) that includes surface water in Los Padres and San Clemente Reservoirs and ground water in the Carmel Valley Alluvial Aquifer and in the Coastal Subareas of the Seaside Groundwater Basin. The storage averages are end-of-month values and are based on records for the 1989-2018 period. The storage estimates are end-of-month values for the dates referenced in the table.
4. The maximum storage capacity for the MPWRS is currently 37,639 acre-feet.



## Production vs. CDO and Adjudication to Date: WY 2019

(All values in Acre-Feet)

Year-to-Date Values	MPWRS					Water Projects and Rights			
	Carmel River Basin <sup>2, 6</sup>	Seaside Groundwater Basin		MPWRS Total		ASR Recovery	Table 13 <sup>7</sup>	Sand City <sup>3</sup>	Water Projects and Rights Total
		Coastal	Laguna Seca						
Target	6,330	1,100	0	1,100	<b>7,430</b>	200	227	225	<b>652</b>
Actual <sup>4</sup>	5,539	1,581	194	1,775	<b>7,314</b>	0	471	108	<b>579</b>
Difference	791	-481	-194	-675	<b>116</b>	200	-244	117	<b>73</b>
WY 2018 Actual	5,298	1,926	204	2,130	<b>7,428</b>	43	153	140	<b>336</b>

1. This table is current through the date of this report.
2. For CDO compliance, ASR, Mal Paso, and Table 13 diversions are included in River production per State Board.
3. Sand City Desal, Table 13, and ASR recovery are also tracked as water resources projects.
4. To date, 1335 AF and 471 AF have been produced from the River for ASR and Table 13 respectively.
5. All values are rounded to the nearest Acre-Foot.
6. For CDO Tracking Purposes, ASR production for injection is capped at 600 AFY.
7. Table 13 diversions are reported under water rights but counted as production from the River for CDO tracking.

## Monthly Production from all Sources for Customer Service: WY 2019

(All values in Acre-Feet)

	Carmel River Basin	Seaside Basin	ASR Recovery	Table 13	Sand City	Mal Paso	Total
Oct-18	491	369	0	0	16	8	884
Nov-18	456	304	0	0	21	8	790
Dec-18	468	180	0	0	11	8	667
Jan-19	395	161	0	81	19	8	664
Feb-19	363	147	0	91	7	8	616
Mar-19	411	161	0	101	0	8	682
Apr-19	504	156	0	98	0	7	765
May-19	587	143	0	101	11	7	849
Jun-19	721	154	0	0	24	7	905
Jul-19							
Aug-19							
Sep-19							
<b>Total</b>	<b>4,398</b>	<b>1,775</b>	<b>0</b>	<b>471</b>	<b>108</b>	<b>70</b>	<b>6,822</b>
<b>WY 2018</b>	<b>4,551</b>	<b>2,130</b>	<b>43</b>	<b>153</b>	<b>140</b>	<b>42</b>	<b>7,059</b>

1. This table is produced as a proxy for customer demand.
2. Numbers are provisional and are subject to correction.

## Rationing Trigger: WY 2019

12 Month Moving Average <sup>1</sup>	9,719	10,130	Rule 160 Production Limit
--------------------------------------	-------	--------	---------------------------

1. Average includes production from Carmel River, Seaside Basin, Sand City Desal, and ASR recovery produced for Customer Service.





## California American Water Production by Source: Water Year 2019

	Carmel Valley Wells <sup>1</sup>						Seaside Wells <sup>2</sup>						Total Wells			Sand City Desal		
	Actual		Anticipated <sup>3</sup>		Compared to Target		Actual		Anticipated		Compared to Target		Actual	Anticipated	Compared to Target	Actual	Anticipated	Compared to Target
	Upper	Lower	Upper	Lower	Upper	Lower	Coastal	LagunaSeca	Coastal	LagunaSeca	Coastal	LagunaSeca	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
Oct-18	0	491	0	550	0	59	341	28	350	0	9	-28	860	900	40	16	25	9
Nov-18	0	456	0	383	0	-73	280	25	350	0	70	-25	761	733	-28	21	25	4
Dec-18	0	468	0	559	0	91	162	18	100	0	-62	-18	648	659	11	11	25	14
Jan-19	232	515	100	573	-132	58	146	15	100	0	-46	-15	907	773	-134	19	25	6
Feb-19	216	545	100	459	-116	-86	133	14	100	0	-33	-14	908	659	-249	7	25	19
Mar-19	261	623	100	616	-161	-7	145	17	100	0	-45	-17	1046	816	-230	0	25	25
Apr-19	258	626	0	626	-258	0	137	19	100	0	-37	-19	1040	726	-313	0	25	25
May-19	232	560	0	967	-232	407	116	27	100	0	-16	-27	935	1,067	132	11	25	14
Jun-19	201	520	0	773	-201	253	122	32	100	0	-22	-32	875	873	-2	24	25	1
Jul-19																		
Aug-19																		
Sep-19																		
To Date	1,399	4,805	300	5,506	-1,099	701	1,581	194	1,400	0	-181	-194	7,979	7,206	-773	108	225	117

## Total Production: Water Year 2019

	Actual	Anticipated	Acre-Feet Compared to Target
Oct-18	876	925	49
Nov-18	782	758	-24
Dec-18	659	684	25
Jan-19	926	798	-128
Feb-19	914	684	-230
Mar-19	1,046	841	-205
Apr-19	1,040	751	-288
May-19	946	1,092	146
Jun-19	899	898	-1
Jul-19			
Aug-19			
Sep-19			
To Date	8,087	7,431	-656

1. Carmel Valley Wells include upper and lower valley wells. Anticipate production from this source includes monthly production volumes associated with SBO 2009-60, 20808A, and 20808C water rights. Under these water rights, water produced from the Carmel Valley wells is delivered to customers or injected into the Seaside Groundwater Basin for storage.
2. Seaside wells anticipated production is associated with pumping native Seaside Groundwater (which is regulated by the Seaside Groundwater Basin Adjudication Decision) and recovery of stored ASR water (which is prescribed in a MOA between MPWMD, Cal-Am, California Department of Fish and Game, National Marine Fisheries Service, and as regulated by 20808C water right.
3. Negative values for Acre-Feet under target indicates production over targeted value.



# Supplement to 7/15/2019 MPWMD Board Packet

Attached are copies of letters received between June 11, 2019 through July 9, 2019. These letters are listed in the July 15, 2019 Board packet under Letters Received.

Author	Addressee	Date	Topic
Richard Svindland	David J. Stoldt	7/2/2019	Notice of Event of Default by MPWMD and Monterey One Water under Water Purchase Agreement for Pure Water Monterey Project
James M. Cullem, P.E.	David J. Stoldt	6/28/2019	Dissolution of Water authority TAC and Appreciation for Service
Melodie Chrislock	MPWMD Board	6/17/2019	Successful Water Buyouts

U:\staff\Boardpacket\2019\20190715\LtrsRecd\LettersReceived.docx



# RECEIVED

JUL 03 2019

## MPWMD

Richard Svindland  
President  
California American Water  
655 W. Broadway, Suite 1410  
San Diego, CA 92101  
[www.calamwater.com](http://www.calamwater.com)

P 619-448-4761  
F 619-230-1098

July 2, 2019

**VIA UPS OVERNIGHT DELIVERY AND ELECTRONIC MAIL**

David Stoldt, General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

Paul Sciuto, General Manager  
Monterey One Water (formerly Monterey Regional Water Pollution Control Agency)  
5 Harris Court, Building D  
Monterey, CA 93940

**RE: Notice of Event of Default by Monterey Peninsula Water Management District and Monterey One Water under Water Purchase Agreement for Pure Water Monterey Project**

Dear Messrs. Stoldt and Sciuto:

This letter concerns the Water Purchase Agreement for Pure Water Monterey Project, dated September 19, 2016 (the "WPA"),<sup>1</sup> by and among Monterey Peninsula Water Management District ("District"), Monterey Regional Water Pollution Control Agency, now known as Monterey One Water ("M1W"), and California-American Water Company ("Cal Am"). In accordance with Section 20(c) of the WPA, Cal Am hereby provides notice that an Event of Default by the District and M1W has occurred.

As stated in Section 20(c) of the WPA, failure of the Delivery Start Date to occur on or before July 1, 2019 constitutes an Event of Default. The Delivery Start Date is the date that the District commences delivery of advanced treated recycled water produced by the Project ("AWT Water") to any of the metered points of delivery identified in the WPA. Cal Am, the District and M1W have had several discussions in recent weeks at which time the District and M1W (together, the "Public Agencies") have informed Cal Am that the Public Agencies would not be able to meet their obligations under the WPA with respect to

<sup>1</sup> Terms not otherwise defined in this letter have the meaning given in the WPA.

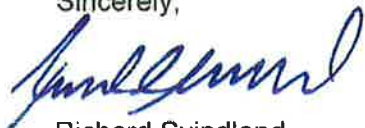
commencing delivery of AWT Water by July 1, 2019. As of the date of this letter, and to the best of Cal Am's knowledge, the Public Agencies have, in fact, not commenced delivery of AWT Water to the metered points of delivery.

The purpose of the WPA is to provide for the sale of advanced treated recycled water from M1W to the District and from the District to Cal Am derived from the Pure Water Monterey groundwater replenishment project owned and operated by M1W (the "Project"), and to serve Cal Am's customers within its service area. While it is disappointing that the Public Agencies were not able to meet their contractual obligations, the Project remains an essential component of the Monterey Peninsula Water Supply Project's water supply portfolio. The 3,500 acre-feet of AWT Water that is to be provided by the Project offers many benefits to Cal Am's customers, including increased diversification of water supply sources and more efficient use of our limited resources.

Under Section 20(d) of the WPA, upon the occurrence of an Event of Default by the District and M1W, Cal Am may terminate the WPA immediately upon written notice to the other parties. To be clear, the WPA affords Cal Am the right, but not the obligation, to terminate the WPA due to occurrence of an Event of Default by the District and M1W. Although an Event of Default has occurred, Cal Am has elected not to exercise its right to terminate the WPA at this time. Instead, Cal Am will continue to monitor the Project's progress as the Public Agencies continue their efforts to achieve the Delivery Start Date. It is important to note that, consistent with Section 29 of the WPA, Cal Am's decision not to terminate the WPA at this time shall in no way constitute a waiver by Cal Am of its ability to exercise its right to terminate the WPA as a result of the Event of Default at any time, and Cal Am hereby expressly reserves its right to do so until such time as the Delivery Start Date has occurred.

Cal Am requests that within 14 days following your receipt of this letter that the Public Agencies provide a written response detailing your plan and proposed timing to achieve the occurrence of the Delivery Start Date. Cal Am looks forward to receiving your written response.

Sincerely,



Richard Svindland  
President  
California-American Water Company

cc (by electronic mail only):

David Laredo, General Counsel, Monterey Peninsula Water Management District  
Rob Wellington, General Counsel, Monterey One Water  
Sarah Leeper, General Counsel, California-American Water Company

## MONTEREY PENINSULA REGIONAL WATER AUTHORITY



RECEIVED

JUL 05 2019

MPWMD

June 28, 2019

Dave Stoldt, Committee Member  
 Technical Advisory Committee  
 Monterey Peninsula Regional Water Authority  
 c/o Monterey Peninsula Water Management District  
 5 Harris Court, #G  
 Monterey, CA 93940  
 and by email: dstoldt@mpwmd.net

Directors:  
 Clyde Roberson, President  
 Bill Peake, Vice President  
 Ian Oglesby, Treasurer  
 Mary Ann Carbone, Secretary  
 Dave Potter, Director  
 Alison Kerr, Director

Executive Director:  
 Jim Cullem, P.E.

**Re: Dissolution of Water Authority TAC and Appreciation for Service**

Dear Dave Stoldt:

Due to fiscal constraints on the Monterey Peninsula Water Authority budget in the new fiscal year, as well as the current legal delays in the review of new water supplies for the Monterey Peninsula, the board of the Water Authority voted on June 27, 2019 to terminate the Technical Advisory Committee (TAC) as a standing committee effective July 1, 2019.

The Authority board would like to extend its sincere appreciation for your service on the TAC over the years. Your input to TAC deliberations and considerations have been invaluable in forming well-considered advice to the board. You can take just pride in having contributed in large measure to the success we have achieved to this point in finally getting one or more new water supplies for our community.

Should technical advice be needed in the future, the Water Authority board retains the option to form a short duration committee effort on an ad-hoc basis. Hopefully you will continue to be available to participate should your input be requested at a later date.

Please note that the Federal Fair Political Practices Commission (FPPC) requires you to complete a "Leaving Office" Form 700 since the TAC is being dissolved. The Water Authority Clerk of the Board, Clementine Bonner Klein, will contact you with details on how to file this required form.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jim Cullem", is written over the typed name and title.

James M. Cullem P.E.  
 Executive Director  
 Monterey Peninsula Regional Water Authority

**From:** MWChrislock  
**To:** Arlene Tavani  
**Subject:** Add to the record  
**Date:** Monday, June 17, 2019 6:50:28 AM  
**Attachments:** [Municipalizations-extract-2016-09-15.xlsx](#)  
**Importance:** High

---

Good Morning Arlene,

Would you please add this to tonight's packet for the Board.  
I'm not sure you can print the Excel doc. I'll bring a printed copy for the record.

Thanks, Melodie

June 17, 2019

MPWMD Board and staff:

During the Measure J Campaign, Cal Am attorneys, Joe Conner and George Soneff, wrote the article below. At the time I was curious about their statement, "In the end, the vast majority of cases do not result in a government takeover, leaving taxpayers holding the bag to pay for litigation expenses that are entirely avoidable."

I contacted Food & Water Watch for some background on this claim. Mary Grant does water research at Food & Water Watch. She sent me the **attached list of over 400 successful public water buyouts** over the last 25 years. Her note is below.

If you have not seen this, I thought it would be of interest.

Melodie Chrislock  
Managing Director  
831 624-2282  
**PUBLIC WATER NOW**  
<http://www.publicwaternow.org>

On 7/2/18, 9:30 AM, "Mary Grant" <[mgrant@fwwatch.org](mailto:mgrant@fwwatch.org)> wrote:

Hi Melodie,

While many eminent domain suits are settled out of court, these settlements result in the public sector buying their water system from the private company. Condemnation is usually used as a stick to force companies to the bargaining table, but then both sides negotiate a final purchase to the public sector.

I can think of only one or two cases where the courts ruled against a public sector on the right to buy -- e.g., Claremont. See the attached article about Claremont. It was notable because it is rare for a city to lose. "In the vast majority of cases, when a public agency exercises eminent domain, the only issue in dispute is the amount of just compensation the agency must pay for the property being acquired. Even in situations where a property owner challenges the agency's right to take, it is typically for procedural reasons that can ultimately be corrected."

I've attached a list of 409 successful purchases by local governments of privately owned water systems. A more recent one is Ojai, California.

Best,  
Mary

**Mary Grant**

Public Water For All Campaign Director

Food & Water Watch

[foodandwaterwatch.org](http://foodandwaterwatch.org)

O (410) 394-7653

[mgrant@fwwatch.org](mailto:mgrant@fwwatch.org)

Fighting for a livable planet for *all* — powered by people like *you*. **Donate.**

MONTEREY HERALD • June 27, 2018

***The long and winding road***

By Joe Conner and George Soneff

This November, Monterey Peninsula voters will have a chance to vote on whether a study should be done to condemn the local water system, and if the study says it is feasible, to move forward on a contested government takeover of a system that is not for sale.

Between the two of us, we have decades of experience working on just such issues. We think voters are well served by a better understanding of the process and the costs involved.

Should voters approve the measure in November, the Monterey Peninsula Water Management District would then have nine months to conduct a feasibility study. That would take us to August or September of 2019. If the study concludes it is feasible, MPWMD would then pass a resolution of necessity, and file an eminent domain lawsuit against the local water company, Cal Am. The first significant event in the lawsuit would be a lengthy trial about whether the public interest is better served by a government takeover of the Cal Am water system. This is referred to as the “right to take” portion of the case, which is Phase One. That first phase would likely take two or three years, meaning it probably would not be resolved until 2022 or 2023.

Should the government agency not prevail in the “right to take” phase of the trial, it would be obligated to pay all of the utility’s litigation expenses, in addition to its own, from its general fund. If MPWMD does prevail, there would then be another trial to determine the value of the water system. This would likely include litigation over the value and necessity of all improvements made between the fall of 2018 and the trial, which in Monterey will likely be in the \$350 million range – with the addition of the desal plant – on top of the existing water system value. The valuation trial preparation and trial would probably take two or more years after the conclusion of Phase One, meaning that the trial court process would be concluded sometime between 2024 and 2026, and possibly even later.

After a jury sets the value of the system and determined other amounts owed for the taking, such as severance damages, if either side is unhappy with that number (which is likely), the appeals process would



then begin. The appeals process will take anywhere from two to five years, depending on how far up the appellate chain the case goes; if the California Supreme Court ultimately decides to consider the case, then a five year long appeals process is a fair time estimate. All the while, both MPWMD and the utility will be paying legal expenses.

In recent attempted government takeovers, the results of this process have not been good for citizens. In the city of Claremont, the city lost in Phase One of the trial. The case took over two years; the city spent \$6.3 million, and was then ordered to pay all of the water utility's litigation expenses, which amounted to \$7.6 million. So, the city's total liability for the failed eminent domain effort was about \$14 million, not counting the thousands of hours of staff time — a staggering loss for the residents of Claremont. The words of Claremont Councilman Sam Pedroza are instructive: "We did everything that we could. A lot of lessons learned — a lot of expensive lessons — but today's decision ends this chapter."

Our collective experience is that proponents of a government takeover low ball the price, sometimes by a factor of 500 percent or so, and also underestimate the time the process takes in order to sway public opinion to support doing a "feasibility" study and starting the condemnation ball rolling. *In the end, the vast majority of cases do not result in a government takeover, leaving taxpayers holding the bag to pay for litigation expenses that are entirely avoidable.*

While this long drawn out process may be good for the lawyers, it isn't very good for taxpayers. We hope the residents of the Monterey Peninsula will keep this timeline and process in mind as they learn about this issue in the coming months.

*Conner and Soneff are lawyers who focus on defending private business and utility owners in condemnation actions. Conner is an attorney with Baker Donelson. George is an attorney with the law firm Manatt, Phelps & Phillips.*

# **Successful Public Water Buyouts (409) 1990 to 2015**

**Food & Water Watch Research**

Government Entity (Buyer)	Government Unit	System Municipality	System County	State	Year	Type	Private Company (Seller)	Service	System Name
Montana Economic Revitalization Development Institute	Butte	Butte	Butte	MT	1990	Private-to-Public	Washington Company's Butte Water Co.	Drinking Water	HIGH WOOD WATER COMPANY
Mashpee Water District	District	Mashpee	Barnstable County	MA	1991	Private-to-Public	Highwood Water Company	Drinking Water	Adena Village
Kanawha Falls Public Service District	District	Fayette County	Fayette County	WV	1991	Private-to-Public	Adena Utilities, Inc.	Wastewater	CAPE GIRARDEAU
Cape Girardeau	City	Cape Girardeau	Cape Girardeau and MO	MO	1992	Private-to-Public	Union Electric	Drinking Water	Island Creek (LOGAN CO PSD - ISLAND CREEK) and Justice/Phico (LOGAN CO PSD - JUSTICE/PHICO) Water Systems; Sunset Court Water
Logan County Public Service District	District	Logan County	Logan County	WV	1992	Private-to-Public	JC Evans Utilities, Inc.	Drinking Water	PINE PLAINS WATER IMPROVEMENT AREA
Pine Plains	Town	Pine Plains	Dutchess County	NY	1992	Private-to-Public	Pine Plains Water Company, Inc	Drinking Water	Kingsley Service Company
Clay County	County	Clay County	Clay County	FL	1992	Private-to-Public	Kingsley Service Company	Drinking Water and Wastewater	Scott's Beach
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	1992	Private-to-Public	Scott's Beach Club Inc	Drinking Water	Spring Hill Subdivision
Perryville	City	Perryville	Boyle County	KY	1992	Private-to-Public	Spring Hill Subdivision	Drinking Water	Surfside Water Company, Inc
Suffolk County Water Authority	Authority	Southampton	Suffolk County	NY	1992	Private-to-Public	Surfside Water Company, Inc	Drinking Water	MONARCH MILL W/S
Union	City	Union	Union County	SC	1993	Private-to-Public	Lockhart Power Company	Drinking Water and Wastewater	HICKORY HILLS MH S/D
Kinston	City	Kinston	Lenoir County	NC	1993	Private-to-Public	Hickory Hills Service Co., Inc	Drinking Water	Black Horse Run S/D
Lancaster County Water and Sewer	District	Alleen	Lancaster County	SC	1993	Private-to-Public	Caroline Water Service, Inc.	Drinking Water	AIKEN-VALE SVC C CITY OF (0250009)
Alleen	City	Alleen	Alleen County	SC	1993	Private-to-Public	Vale Water Company, Inc	Drinking Water	GRAUSTRAK
West Columbia	City	West Columbia	Lexington County	SC	1993	Private-to-Public	Piney Grove Utilities, Inc	Drinking Water	WALLKILL HEIGHTS
Walkill	Town	Walkill	Orange County	NY	1993	Private-to-Public	Walkill Developers, Inc	Drinking Water	BROOKE CO SUBURBAN WATER
Wellsburg	City	Wellsburg	Brooke County	WV	1993	Private-to-Public	Brooke County Suburban Water Co	Drinking Water	Shorewood Water Company
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	1993	Private-to-Public	Shorewood Water Company	Drinking Water	Squirrel Hills Water System
Walkill	Town	Walkill	Orange County	NY	1993	Private-to-Public	Squirrel Hills Water System	Drinking Water	5: CHINOOK ESTATES; ALDERWOOD ESTATES; WINCHESTER HEIGHTS; ELDOORADO ESTATES; VALLEY WATER SYSTEM
Valley Water District	District	Pierce County	Pierce County	WA	1994	Private-to-Public	Alderton-McMillan Water Supply Jr	Drinking Water	Sangre de Cristo Water Company
Santa Fe	City	Santa Fe	Santa Fe County	NM	1995	Private-to-Public	Public Service Company of New Mexico	Drinking Water	18 separate systems
Modesto	City	Modesto	Stanislaus County	CA	1995	Private-to-Public	Del Este Water Company	Drinking Water	HUBER HEIGHTS PUBLIC WATER SYSTEM
Huber Heights	City	Huber Heights	Montgomery County	OH	1995	Private-to-Public	American Water	Drinking Water and Wastewater	HILTON HEAD PLANTATION U
Hilton Head No. 1 Public Service District	District	Hilton Head	Beaufort County	SC	1995	Private-to-Public	Hilton Head Plantation Utilities Inc;	Drinking Water and Wastewater	SEABROOK ISLAND TOWN OF (1010009)
Seabrook Island	Town	Seabrook Island	Charleston County	SC	1995	Private-to-Public	Minnesota Power and Light Company	Drinking Water and Wastewater	GREAT SALT BAY SANITARY DIST Damariscotta-Newcastle Water System
Great Salt Bay Sanitary District	District	Damariscotta	Lincoln County	ME	1995	Private-to-Public	Consumers Maine Water Co.	Drinking Water	NEW HERITAGE CAROLINA CO
York County	County	York County	York County	SC	1995	Private-to-Public	Malaysian United Industries' New	Drinking Water and Wastewater	COASTAL UTILITIES
Hilton Head No. 1 Public Service District	District	Hilton Head	Beaufort County	SC	1995	Private-to-Public	Coastal Utilities Inc	Drinking Water and Wastewater	MALLARD CROSSING S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1995	Private-to-Public	Utilities Inc	Drinking Water	JONSEN WATER
Raleigh County Public Service District	District	Raleigh County	WV	1995	Private-to-Public	Green Drafton	Drinking Water	WELLS LAMSON WATER CO	
Barre	Town	Barre	Washington County	VT	1995	Private-to-Public	Rock of Ages Quarries, Inc.	Drinking Water	
Hilton Head No. 1 Public Service District	District	Hilton Head	Beaufort County	SC	1995	Private-to-Public	Hilton Head Utilities Inc	Drinking Water	Spring Mills
Berkeley County Public Service Sewer District	District	Berkeley County	WV	1995	Private-to-Public	Spring Mills Public Service, Inc.	Wastewater	Hidden Hills and Farmwood	
Charlotte	City	Charlotte	Mecklenburg County	NC	1995	Private-to-Public	Utilities Inc	Drinking Water	Jamaica Water Supply Company
New York City	City	New York City	Queens County	NY	1996	Private-to-Public	Emcor Group Inc.	Drinking Water	Jamaica Water Supply Company
Water Authority of Western Nassau	Authority	Nassau County	Nassau County	NY	1996	Private-to-Public	Emcor Group Inc.	Drinking Water	Rio Rancho Utilities Corp.
Rio Rancho	City	Rio Rancho	Sandoval County	NM	1996	Private-to-Public	United Water New Mexico	Drinking Water and Wastewater	TOWN OF RIVER BEND
River Bend	Town	River Bend	Craven County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water and Wastewater	2: FARMWOOD SECT B; chesney glen
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	LOCKHART TOWN OF (4420010)
Lockhart	Town	Lockhart	Union County	SC	1996	Private-to-Public	Lockhart Power Company	Drinking Water	LITTLE SWITZERLAND
East Fishkill	Town	East Fishkill	Dutchess County	NY	1996	Private-to-Public	Little Switzerland Water Corporation	Drinking Water	COURTNEY S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	IDLEWOOD S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	HABERSHAM S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	PROVIDENCE WEST S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	Davis Park, Leja Beach and Ocean Ridge on Fire Island
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	1996	Private-to-Public	Davis Park Water Works Company,	Drinking Water	STOWE LOWER VILLAGE
Stowe Fire District No. 3	District	Stowe	Lamoille County	VT	1996	Private-to-Public	Stowe Lower Village Water System	Drinking Water	STOWE LOWER VILLAGE
Rock Hill	City	Rock Hill	York County	SC	1996	Private-to-Public	Randolph Yarns, Inc	Drinking Water and Wastewater	DUNDOLPH YARNS
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	1996	Private-to-Public	Swan Lake Water Corporation and S	Drinking Water	Swan Lake Water Corporation and Sunhill Water Corporation
Charlotte	City	Charlotte	Mecklenburg County	NC	1996	Private-to-Public	Utilities Inc	Drinking Water	Wood Hollow and Brandywine at Matthews SD (Forest Hills)
Mount Desert Water District	District	Mount Desert	Hancock County	ME	1997	Private-to-Public	Northeast Harbor Water Company	Drinking Water	MOUNT DESERT WATER DIST NORTH
Perry Village	Village	Perry Village	Lake County	OH	1997	Private-to-Public	Aqua America	Drinking Water	CONSUMERS OHIO WATER - PERRY
Mount Desert Water District	District	Mount Desert	Hancock County	ME	1997	Private-to-Public	Seal Harbor Water Company	Drinking Water	MOUNT DESERT WATER DIST - SEAL
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	LAWYERS STATION
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	FARMWOOD SECT A
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water and Wastewater	FARMWOOD SECT 15-21
Ruidoso Downs	Village	Ruidoso Downs	Lincoln County	NM	1997	Private-to-Public	Agua Fria Water Company, Inc	Drinking Water	AGUA FRIA WATER COMPANY
Duxbury-Moretown Fire District No.	District	Duxbury	Washington County	VT	1997	Private-to-Public	Duxbury Water Company, Inc	Drinking Water	DUXBURY WATER WORKS
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	TARAWOODS S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	SADDLEBROOK S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	BRANDON WOOD S/D
Champion	Town	Champion	Jefferson County	NY	1997	Private-to-Public	Champion Hill Development Corp.	Drinking Water	Champion Hill subdivision
Sunrise	City	Sunrise	Broward County	FL	1997	Private-to-Public	Clay Utilities Co.	Drinking Water and Wastewater	South Broward Utility Inc
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	Southwoods S/D
Charlotte	City	Charlotte	Mecklenburg County	NC	1997	Private-to-Public	Utilities Inc	Drinking Water	Suburban Woods S/D
Olmsted Falls	City	Olmsted Falls	Cuyahoga County	OH	1997	Private-to-Public	Western Ohio Utility Co., Inc	Wastewater	Western Ohio Utility Co., Inc
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	1998	Private-to-Public	Dune Realty Water Works	Drinking Water	DUNE REALTY CORP
Hudson	Town	Hudson	Hillsborough County	NH	1998	Private-to-Public	Consumers New Hampshire Water	Drinking Water	HUDSON WATER DEPT
Tallulah	City	Tallulah	Madison Parish	LA	1998	Private-to-Public	People's Water Service Company	Drinking Water	TALLULAH WATER SYSTEM
North Kootenai Water District	District	Kootenai County	Kootenai County	ID	1998	Private-to-Public	Allied Water Company Inc's Hayden	Drinking Water	9: TWIN LAKES SERVICE AREA; HILLSIDE SERVICE AREA; RIMROCK SERVICE AREA; CHILCO SERVICE AREA; OHIO MATCH ESTATES; ATLAS
Angel Fire	Village	Angel Fire	Colfax County	NM	1998	Private-to-Public	Angel Fire Services Corporation	Drinking Water and Wastewater	ANGEL FIRE SERVICES - VILLAGE OF ANGEL F
Flowood	City	Flowood	Rardin County	MS	1998	Private-to-Public	Costawoods Land Development's R	Drinking Water and Wastewater	CITY OF FLOWOOD-CASTLEWOOD DIV
Jupiter Island	Town	Jupiter	Martin County	FL	1998	Private-to-Public	Hobe Sound Water Company	Drinking Water	HOBE SOUND WATER COMPANY
Charlotte	City	Charlotte	Mecklenburg County	NC	1998	Private-to-Public	Utilities Inc	Drinking Water and Wastewater	PARK FARM S/D
Mount Blue Standard Water District	District	Phillips	Franklin County	ME	1998	Private-to-Public	Phillips Water Company	Drinking Water	MT BLUE STANDARD WATER DISTRICT
Fayetteville	City	Fayetteville	Cumberland County	NC	1998	Private-to-Public	Birchwood Water Corporation	Drinking Water	BIRCHWOOD WATER CO-CYPRESS LK
Public Water Supply District No. 3	District	Johnston County	MO	1998	Private-to-Public	Village Water and Sewer Company	Drinking Water	VILLAGE AT WHITEMAN	
Charlotte	City	Charlotte	Mecklenburg County	NC	1998	Private-to-Public	Utilities Inc	Drinking Water	PROVIDENCE RIDGE
Charlotte	City	Charlotte	Mecklenburg County	NC	1998	Private-to-Public	Utilities Inc	Drinking Water	BAINBRIDGE S/D
Fayetteville	City	Fayetteville	Cumberland County	NC	1998	Private-to-Public	Baywood Water Inc	Drinking Water	BAYWOOD S/D
Eagle	Town	Eagle	Wyoming	NY	1998	Private-to-Public	Bliss Water Supply Company	Drinking Water	BLISS WATER SUPPLY

Jefferson County Public Service Dist District		Jefferson County WV	1998 Private-to-Public	Keyes Ferry Acres, Inc	Drinking Water	KEYES FERRY ACRES - CENTRAL SECTION; KEYES FERRY ACRES-NORTH SECTION
Charlotte City	Charlotte	Mecklenburg County NC	1998 Private-to-Public	Willowbrook Utility Co, Inc	Drinking Water	WILLOWBROOK S/D
Waywayanda Town	Waywayanda	Orange County NY	1998 Private-to-Public	Denton Hills Water Company	Drinking Water	DENTON HILLS WATER DISTRICT
Charlotte City	Charlotte	Mecklenburg County NC	1998 Private-to-Public	Utilities Inc	Drinking Water	WILLIAMS STATION
Greene County County		Greene County OH	1998 Private-to-Public	Country Club Utilities, Inc	Drinking Water	GREENE COUNTY - COUNTRY
Fairfax Fire District No. 1 District	Fairfax	Franklin County VT	1998 Private-to-Public	Windrop Waterworks, Inc	Drinking Water	FAIRFAX FIRE DISTRICT 1
Morgantown City	Morgantown	Monongalia County WV	1998 Private-to-Public	Chest Progressive Venture	Wastewater	Cheat Lake area
Beekman Town	Beekman	Dutchess County NY	1998 Private-to-Public	Doveridge Water Company, Inc.	Drinking Water	
Jupiter Island Town	Jupiter	Martin County FL	1998 Private-to-Public	Hydratech Utilities	Drinking Water and Wastewater	HYDRATECH
Martin County County		Martin County FL	1998 Private-to-Public	IBSCO Inc	Drinking Water and Wastewater	IBSCO Inc
JEA Authority		Duval County FL	1998 Private-to-Public	Ortega Utility Company	Drinking Water and Wastewater	Ortega Utility Company
Florida Governmental Utility Author Authority		Sarasota County FL	1999 Private-to-Public	Avatar	Drinking Water and Wastewater	Sarasota Utility System
Florida Governmental Utility Author Authority		Brevard County FL	1999 Private-to-Public	Avatar	Drinking Water and Wastewater	Barefoot Bay Utilities
Wilmington City	Wilmington	New Hanover County NC	1999 Private-to-Public	Cape Fear Utilities Inc and Quality	Drinking Water	200 subdivisions; CAPE FEAR UTILITIES INC,
Florida Governmental Utility Author Authority		Collier County FL	1999 Private-to-Public	Avatar	Drinking Water and Wastewater	Golden Gate Utilities
Fishkill Town	Fishkill	Dutchess County NY	1999 Private-to-Public	Hudson View Water Works, Inc	Drinking Water	ROMBOUT WATER DISTRICT
Virgil Town	Virgil	Cortland County NY	1999 Private-to-Public	Greek Peak Waterworks Corp.	Drinking Water	VIRGIL W.D. #1 - GREEK PEAK WATERWORKS
Waldoboro Town	Waldoboro	Uncon County ME	1999 Private-to-Public	Waldoboro Water Company	Drinking Water	WALDOBORO WATER DEPT
Roxbury Town	Roxbury	Delaware County NY	1999 Private-to-Public	Dever Water Corporation	Drinking Water	DENVER WATER DISTRICT
Waywayanda Town	Waywayanda	Orange County NY	1999 Private-to-Public	Ridgebury Lake Water Company	Drinking Water	RIDGEBURY LAKE ACRES
LaGrange Town	LaGrange	Dutchess County NY	1999 Private-to-Public	Hampton Mews Development Corp	Drinking Water	HAMPTON MEWS
Westfield Fire District No. 1 District	Westfield	Orleans County VT	1999 Private-to-Public	Westfield Water System Company	Drinking Water	WESTFIELD FIRE DISTRICT 1
Columbia City	Columbia	Richland County SC	1999 Private-to-Public	AAA Utilities, Inc	Drinking Water	AAA/FAIRLAWN S/D
Lee County County		Lee County FL	1999 Private-to-Public	Avatar	Drinking Water and Wastewater	Florida Cities Water Company - North/South Ft. Myers
Florida Governmental Utility Author Authority		Osceola and Polk Cou FL	1999 Private-to-Public	Avatar	Drinking Water and Wastewater	Poinciana Utility System
Martin County County		Martin County NC	1999 Private-to-Public	Fisherman's Cove Utilities	Drinking Water and Wastewater	Fisherman's Cove Utilities
Cary Town	Cary	Wake County NC	1999 Private-to-Public	Heater Utilities, Inc	Drinking Water	Glenmilt Stone subdivision
JEA Authority		St. Johns County FL	1999 Private-to-Public	Jullington Creek Plantation (JCP) Util	Drinking Water and Wastewater	Jullington Creek Plantation (JCP) Utilities
Charlotte City	Charlotte	Mecklenburg County NC	1999 Private-to-Public	Utilities Inc	Wastewater	Heberham, Windsor Chase, Matthews Commons and Williams Crossing
Castaic Lake Water Agency Authority		Santa Clara County CA	1999 Private-to-Public	Santa Clara Water Company	Drinking Water and Wastewater	Santa Teresa Services Company
Sunland Park City	Sunland Park	Dona Ana County NM	2000 Private-to-Public	Santa Teresa Services Company	Drinking Water	SUPERIOR TOWN OF
Superior Town	Superior	Mineral County MT	2000 Private-to-Public	Mountain Water Company	Drinking Water	CUMBERLAND MILLS WATER SYSTEM
Fayetteville City	Fayetteville	Cumberland County NC	2000 Private-to-Public	Heater Utilities, Inc	Drinking Water	Country system - COUNTRY/ELDERADO WATER SYSTEM
Valley Water District District		Pierce County WA	2000 Private-to-Public	American Water Resources	Drinking Water and Wastewater	SANITARY ASSOCIATES
Charles Town City	Charles Town	Jefferson County WV	2000 Private-to-Public	Sanitary Associates	Drinking Water	GREENBRIAR WATER CORPORATION
Follansbee City	Follansbee	Brooke County WV	2000 Private-to-Public	Greenbrier Water Company	Drinking Water	MONTGOMERY VILLAGE WATER WORKS
Montgomery Town	Montgomery	Franklin County VT	2000 Private-to-Public	Arthur St. Onge	Drinking Water	ARLUCK WATER DISTRICT
Waywayanda Town	Waywayanda	Orange County NY	2000 Private-to-Public	Waywayanda Development Corp.	Drinking Water	TUXACHANIE ESTATES #1
D'iberville City	D'iberville	Harrison County MS	2000 Private-to-Public	Tuxachanie Water Company	Drinking Water	LANGDON PINE PARK
Coats Town	Coats	Harnett County NC	2000 Private-to-Public	Heater Utilities, Inc	Drinking Water	SPENCER'S GATE S/D
Franklin County County		Franklin County NC	2000 Private-to-Public	Heater Utilities, Inc	Drinking Water	Kimberly Heights and Falling Waters MH Estates
Berkeley County Public Service Dist District		Berkeley County WV	2000 Private-to-Public	Falling Waters Sewer Service, Inc	Wastewater	Pinelake Village
Martin County County		Martin County FL	2000 Private-to-Public	Pinelake Village	Drinking Water and Wastewater	Blairton community
Berkeley County Public Service Dist District		Martin County WV	2000 Private-to-Public	Rhertown Corporation	Drinking Water	Sierra Pacific Power Company
Truckee Meadows Water Authority Authority		Washoe County NV	2001 Private-to-Public	Sierra Pacific Power Company	Drinking Water	United Water Florida System
JEA Authority		Duval, Nassau and St FL	2001 Private-to-Public	Suez's United Water	Drinking Water and Wastewater	Rotonda Utility System
Charlotte County County		Charlotte County FL	2001 Private-to-Public	AquaSource	Drinking Water and Wastewater	REGENCY UTILITIES WTP (JEA)
JEA Authority		Duval County FL	2001 Private-to-Public	Regency Utilities Inc	Drinking Water and Wastewater	TOWN OF BAR HARBOR - WATER DIVISION
Bar Harbor Town	Bar Harbor	Hancock County ME	2001 Private-to-Public	Bar Harbor Water Company	Drinking Water	Valley Meadows Water and Sewer System
River Rock Water and Sewer District District		Gallatin County MT	2001 Private-to-Public	Valley Meadows LLC	Drinking Water and Wastewater	JOHNSBURG NO.2
Johnsburg Village	Johnsburg	McHenry County IL	2001 Private-to-Public	Eastwood Manor Water Company, I	Drinking Water	ALFRED WATER DISTRICT
Alfred Water District District		York County ME	2001 Private-to-Public	Anson Water Company	Drinking Water	2: SUBURBAN MEADOWS S/D, Southwood
Hickory City	Hickory	Catawba County NC	2001 Private-to-Public	Hart Water Systems, Inc	Drinking Water	FARMINGTON FALLS STD WATER DIST
Farmington Falls Standard Water District District		Franklin County ME	2001 Private-to-Public	Farmington Falls Water Company	Drinking Water	WYNDHAM OAK S/D
Charlotte City	Charlotte	Mecklenburg County NC	2001 Private-to-Public	Heater Utilities, Inc	Drinking Water	FARMINGTON S/D
Charlotte City	Charlotte	Mecklenburg County NC	2001 Private-to-Public	Utilities Inc	Drinking Water	Decca Utilities
Marion County County		Marion County FL	2001 Private-to-Public	Decca Utilities	Drinking Water and Wastewater	Hilview Sewerage System Plant 1, hillview sewer plant 2, hillview sewer plant 3
Bullitts County Sanitation District District		Bullitt County KY	2001 Private-to-Public	Hillview Sewer Plant #1 to 3, Inc	Wastewater	Pea Ridge area
Pea Ridge Public Service District District		Cabell County WV	2001 Private-to-Public	J. H. Richmond Sewer System, Inc.	Wastewater	Guyan Estates
Pea Ridge Public Service District District		Cabell County WV	2001 Private-to-Public	Mason Utility Company, Inc.	Wastewater	United Water New Rochelle's Baylis System in the Town of Mount Pleasant
Briardiff Manor Village Village	Briardiff Manor	Westchester County NY	2001 Private-to-Public	Suez's United Water	Drinking Water	Matthews Commons
Charlotte City	Charlotte	Mecklenburg County NC	2001 Private-to-Public	Utilities Inc	Drinking Water	Sequola Place
Winston-Salem City	Winston-Salem	Forsyth County NC	2001 Private-to-Public	Utilities Inc	Wastewater	Indianapolis Water Company
Indianapolis City	Indianapolis	Marion County IN	2002 Private-to-Public	NISource Inc	Drinking Water	ANDERSON REGIONAL WTR SYS (0420011)
Anderson County Joint Municipal Authority Authority		Anderson County SC	2002 Private-to-Public	Duke Energy Corporation	Wholesale Drinking Water	ELECTRIC CITY UTILITIES (0410012)
Anderson City	Anderson	Anderson County SC	2002 Private-to-Public	Duke Energy Corporation	Drinking Water	ASHTABULA COUNTY WATER SYSTEM
Ashtabula County County		Ashtabula County OH	2002 Private-to-Public	Aqua America	Drinking Water	NORTH BAINBRIDGE WATER CO
Kitsap County Public Utility District District		Kitsap County WA	2002 Private-to-Public	North Bainbridge Water Company	Drinking Water	JUNIPER UTILITIES AND MOUNTAIN HIGH WATER SYSTEM
Bend City	Bend	Deschutes County OR	2002 Private-to-Public	Juniper Utility Co.	Drinking Water, Wastewater, Irriga	CHARLES TOWN-TUSCAWILLA-LOCUST HILLS
Charles Town City	Charles Town	Jefferson County WV	2002 Private-to-Public	Tusawilla Utilities, Inc	Drinking Water and Wastewater	VIEW ROYAL WATER SYSTEM
Valley Water District District		Pierce County WA	2002 Private-to-Public	American Water Resources	Drinking Water	LAKE SANTEE RWWWD
Lake Santee Regional Waste and W District District		Decatur County IN	2002 Private-to-Public	Santee Utilities	Drinking Water and Wastewater	Hunter Village
Hunter Village	Hunter	Greene County NY	2002 Private-to-Public	Hunter Water Supply Corporation	Drinking Water	Mechanik Water Company and Anderson Brothers Farms, Inc. - COPPER MOUNTAIN RANCH CFD
Copper Mountain Ranch Community District District		Pinal County AZ	2002 Private-to-Public	Mr. James Utile	Drinking Water	FARMWOOD NORTH - STONE MOUNTAIN AT FARMWOOD NO
Charlotte City	Charlotte	Mecklenburg County NC	2002 Private-to-Public	Heater Utilities, Inc	Drinking Water	QUAIL RUN WATER/CITY OF OZARK
Ozark City	Ozark	Christian County MO	2002 Private-to-Public	Quail Run Water and Land Company	Drinking Water	HOLLY SPRINGS LAKE ESTATES-E
Holly Springs City	Holly Springs	Marshall County MS	2002 Private-to-Public	Holly Springs Water Company	Drinking Water	SCWS/SOUTH CONGAREE
Cayce City	Cayce	Lexington County SC	2002 Private-to-Public	South Carolina Water and Sewer L	Drinking Water	CHERRY HILL ESTATES
Bedford County Public Service Authr Authority		Bedford County VA	2002 Private-to-Public	DQE's AquaSource	Drinking Water	BRANDON FIRE DISTRICT 2
Brandon Fire District No. 2 District	Brandon	Rutland County VT	2002 Private-to-Public	Forrestbrook Water Corporation	Drinking Water	NORTH ALPINE IMPROVEMENT & SERVICE DIST L
North Alpine Improvement and Serv District District		Lincoln County WY	2002 Private-to-Public	Anne B. Clinger Public Utility - Rees	Drinking Water	FORESTBROOK S/D
Charlotte City	Charlotte	Mecklenburg County NC	2002 Private-to-Public	Heater Utilities, Inc	Drinking Water	Tara Plantation Subdivision; TARA PLANTATION
York County County		York County SC	2002 Private-to-Public	Mid-South Water Systems, Inc	Drinking Water and Wastewater	

15

Goshen	Town	Goshen	Orange County	NY	2006 Private-to-Public	Airmont Construction Corp.	Drinking Water	SCOTCHTOWN PARK
Canaan Fire District No. 1	District	Stewartstown	Coos County	NH, VT	2006 Private-to-Public	Riverside Water Works Inc	Drinking Water	RIVERSIDE WATER WORKS
Hunter	Village	Hunter	Greene County	NY	2006 Private-to-Public	Four Seasons Land Corporation's Va	Drinking Water	VALLEY WATER WORKS
Dorchester County	County		Dorchester County	SC	2006 Private-to-Public	Utilities Inc	Drinking Water and Wastewater	Kings Grant, Plantation Ridge and Teal on the Ashley S/d
Suffolk	City	Suffolk	Independent City	VA	2006 Private-to-Public	Aqua America	Drinking Water	BERWYN WAY SUBDIVISION
Cayce	City	Cayce	Lexington County	SC	2006 Private-to-Public	Midiands Utility, Inc	Wastewater	Bellemeade SO, PITT Stop & Maggle Mays Restaurant, Charwood SO, Sawgrass Hilltons, Rockflower Place SO, Parkwood SO, Timberland SO
St. Johns County	County		St. Johns County	FL	2006 Private-to-Public	St. Johns Service Company	Drinking Water and Wastewater	St. Johns Service Company
Winfield	Town	Winfield	Lake County	IN	2006 Private-to-Public	Town & Country Utilities	Wastewater	Winfield Utilities Inc
Alien	City	Alien	Alken County	SC	2006 Private-to-Public	Utilities Inc	Wastewater	Gem Lakes Subdivision
Lancaster County Water and Sewer	District		Lancaster County	SC	2006 Private-to-Public	Utilities Services of South Carolina,	Drinking Water	USSC/PLEASANT HILL
Bellflower	City	Bellflower	Los Angeles County	CA	2007 Private-to-Public	Peerless Water Company		Peerless Water Company - BELLFLOWER MUNICIPAL WATER SYSTEM
Southaven	City	Southaven	Desoto County	MS	2007 Private-to-Public	North Mississippi Utility Company	Drinking Water and Wastewater	NORTH MS UTILITY - BRIGHTS; Legend Subdivision
Cave Creek	Town	Cave Creek	Maricopa County	AZ	2007 Private-to-Public	Desert Hills Water Company	Drinking Water	DESERT HILLS WATER
Henrico County	County		Henrico	VA	2007 Private-to-Public	Aqua America	Drinking Water	16: BILTMORE COLONIAL COURT COURTNEY SUBDIVISION GINTER GARDENS KILDARE MAYFIELD SUBDIVISION MECHANICSVILLE GARC
Townsend	Town	Townsend	Middlesex County	MA	2007 Private-to-Public	Witch's Brook Water Company	Drinking Water	WITCHES BROOK WATER COMPANY
Suffolk County Water Authority	Authority	Brookhaven	Suffolk County	NY	2007 Private-to-Public	Ocean Bay Park Water Corporation	Drinking Water	OCEAN BAY PARK WATER CORP
Berkeley County Water and Sewer	Authority		Berkeley County	SC	2007 Private-to-Public	A. D. Hare Waterworks, Inc	Drinking Water	BCWSA/AD HARE WATER SYSTEM (0820006)
Upper Deerfield Township	Township		Upper Deerfield Town	NJ	2007 Private-to-Public	Seabrook Water Co.	Drinking Water	Seabrook Water Co.
Ocean Springs	City		Jackson County	MS	2007 Private-to-Public	Coast Water Works, Inc	Drinking Water	COAST WATER WORKS-GULF HILLS
McDowell County Public Service Dist	District		McDowell County	WV	2007 Private-to-Public	McDowell Musser Companies - Elk	Drinking Water	5: MCDOWELL COUNTY PSD ELKHORN; MCDOWELL COUNTY PSD GREENBRIER; MCDOWELL COUNTY PSD MAYBEURY; MCDOWELL COU
Freeland Water & Sewer District	District	Freeland	Island County	WA	2007 Private-to-Public	Harbor Hills Water System, Inc	Drinking Water	HARBOR HILLS COMMUNITY WATER SYSTEM
McDowell County Public Service Dist	District		McDowell County	WV	2007 Private-to-Public	McDowell Musser Companies - Kim	Drinking Water	3: MCDOWELL COUNTY PSD ECKMAN; MCDOWELL COUNTY PSD KIMBALL; MCDOWELL COUNTY PSD TIDEWATER
Binghamton	Town	Binghamton	Broome County	NY	2007 Private-to-Public	Estate of Helen Blinder	Drinking Water	LILLIAN DRIVE WD
Columbia	City	Columbia	Richland County	SC	2007 Private-to-Public	Ashley Oaks Water System, Inc	Drinking Water	Ashley Oaks Water System
Jefferson County Public Sewer Dist	District		Jefferson County	MO	2007 Private-to-Public	Central Jefferson County Utilities In	Wastewater	Raintree Plantation Subdivision
St. Johns County	County		St. Johns County	FL	2007 Private-to-Public	Intercoastal Utilities Inc	Drinking Water and Wastewater	Intercoastal Utilities Inc
Clemson	City		Pickens and Anderson	SC	2007 Private-to-Public	Madera Utilities, Inc	Wastewater	Heatherwood Subdivision
West Columbia	City	West Columbia	Lexington County	SC	2007 Private-to-Public	Qual Hollow Utilities Inc	Wastewater	Qual Hollow Subdivision
Florida Governmental Utility Author	Authority		Pasco County	FL	2008 Private-to-Public	Aloha Utilities, Inc	Drinking Water and Wastewater	Aloha System - Aloha Gardens and Seven Springs
South Central Connecticut Regional	Authority		New Haven County	CT	2008 Private-to-Public	BNW Limited	Drinking Water	REGIONAL WATER AUTHORITY-ANSONIA
Brick Township Municipal Utilities	Authority	Howell Township	Monmouth County	NJ	2008 Private-to-Public	Parkway Water Company	Drinking Water	Parkway Water Company
San Lorenzo Valley Water District	District	Felton	Santa Cruz County	CA	2008 Private-to-Public	American Water	Drinking Water	Felton Water System
Charleston	City	Charleston	Tallahatchie County	MS	2008 Private-to-Public	Charleston Utilities Inc	Drinking Water	CHARLESTON UTILITIES
Tindall Hammock Irrigation and Soil	District		Broward County	FL	2008 Private-to-Public	Fern Crest Utilities Inc	Drinking Water and Wastewater	FERN CREST UTILITIES, INC.
Willard	City	Willard	Greene County	MO	2008 Private-to-Public	North Suburban Public Utility Comp	Drinking Water and Wastewater	WILLARD MEADOWS WATER COMPANY
Western Virginia Water Authority	Authority		Franklin County	VA	2008 Private-to-Public	Waterfront Water Works, Inc	Drinking Water	THE WATERS EDGE; WATERFRONT SECTION 2-9; WATERFRONT SECTION 1&X
Alto Lakes Water and Sanitation Dis	District	Alto Lakes	Lincoln County	NM	2008 Private-to-Public	Alto Lakes Water Corporation	Drinking Water and Wastewater	ALTO LAKES WATER AND SANITATION DISTRICT
Northern Ohio Rural Water	Authority		Huron County	OH	2008 Private-to-Public	Utilities Inc	Drinking Water	NORW - HOLIDAY LAKES DISTRICT
Frankfort Public Service District	District		Mineral County	WV	2008 Private-to-Public	Wiley Ford Water Company, Inc.	Drinking Water	FRANKFORT PSD WILEY FORD
Trout Gulch Mutual Water Company	Nonprofit associati		Santa Cruz County	CA	2008 Private-to-Public	Mar Vista Water Company	Drinking Water	Trout Gulch Mutual Water Company
Basin City Water and Sewer District	District	Basin	Franklin County	WA	2008 Private-to-Public	Basin City Water Company	Drinking Water	BASIN CITY MOBILE HOME COURT
Martin County	County		Martin County	IN	2008 Private-to-Public	Largier Enterprises of America	Drinking Water and Wastewater	BEACON 21
Nampa	City	Nampa	Canyon County	VA	2008 Private-to-Public	Suez's United Water	Drinking Water	3: UWI CONVENTRY PLACE; M AND M MOUNTAIN VIEW SUBD EM2; Belmont Heights Water System
Western Virginia Water Authority	Authority		Franklin County	VA	2008 Private-to-Public	Willford Construction of Roanoke Va	Drinking Water	THE BOARDWALK
Prestonburg	City		Floyd County	KY	2008 Private-to-Public	Auxier Water Company Inc	Drinking Water	AUXIER WATER COMPANY
Public Water Supply District No. 1 or	District		Lincoln County	MO	2008 Private-to-Public	Lincoln County Utilities Co.	Wastewater	Old Monroe/Mary Knoll area
Schuylkill County Municipal Authori	Authority	West Brunswick Tow	Schuylkill County	PA	2008 Private-to-Public	Pinebrook II LP	Drinking Water and Wastewater	Pinebrook II development
Sanibel	City	Sanibel	Lee County	FL	2008 Private-to-Public	Sanibel Bayour Utility Corporation	Wastewater	Sanibel Bayous Subdivision
Louisville and Jefferson County Met	District		Jefferson County	KY	2008 Private-to-Public	Shadownwood Waste Environmental	Wastewater	Shadownwood
East Allen Township Municipal Auth	Authority	East Allen Township	Northampton County	PA	2008 Private-to-Public	Shady Lane Water Company, Inc.	Drinking Water	Shady Lane Subdivision
Crab Orchard-MacArthur Public Serv	District		Raleigh County	WV	2008 Private-to-Public	Slab Fork Community Utility Founda	Wastewater	Slab Fork
Pocahontas County Public Service Di	District		Pocahontas County	WV	2008 Private-to-Public	Snowshoe Water & Sewer, Inc.	Wastewater	Snowshoe Mountain Resort
Onslow Water & Sewer Authority	Authority		Onslow County	NC	2008 Private-to-Public	Viking Utilities Corporation, Inc	Wastewater	Hunter's Creek Subdivision
Albuquerque Bernalillo County Water	Authority	Rio Rancho	Bernalillo County	NM	2009 Private-to-Public	Southwest Water	Drinking Water and Wastewater	New Mexico Utilities, Inc.
Mequon	City	Mequon	Ozaukee County	WI	2009 Private-to-Public	Wisconsin Gas	Drinking Water	MEQUON WATER UTILITY
Florida Governmental Utility Author	Authority		Pasco County	FL	2009 Private-to-Public	Pasco Utilities, Inc.	Drinking Water	5 systems - colonial manor, Virginia City, Dixie Groves, Holiday and Pasco Utilities Inc utility systems: Angus Valley, Virginia City, Colonial
Metropolitan Domestic Water Impr	District		Pima County	AZ	2009 Private-to-Public	Robin Thim	Drinking Water	Thim Utility Co's E & T and Lazy B systems, and Diablo Village Water Company; METROPOLITAN DWID - E&T SYSTEM; METROPOLITAN
Martin County	County		Martin County	FL	2009 Private-to-Public	boIMC's Utilities Inc	Drinking Water and Wastewater	Miles Grant System and Hutchinson Island System
Clarendon County	County		Clarendon County	SC	2009 Private-to-Public	Wyboo Plantation Utilities Inc	Drinking Water and Wastewater	CLARENDON CO WATER & SEWER (1450010)
Joint Municipal Water & Sewer Carr	Authority		Lexington County	SC	2009 Private-to-Public	AAA Utilities, Inc	Drinking Water	4: Mill Pond, Huntington Park, Ironstone and Southern Pines
Palatine	Village	Palatine	Cook County	IL	2009 Private-to-Public	Utilities Inc	Drinking Water	Util Inc-County Line Water Company
Enumdaw	City	Enumdaw	King County	WA	2009 Private-to-Public	Bliss Industries, Inc.	Drinking Water	Y BAR S WATER COMPANY INC
Tonto Hills Domestic Water Improve	District		Maricopa County	AZ	2009 Private-to-Public	Tonto Hills Utility Company	Drinking Water	TONTO HILLS UTILITY COMPANY
Richfield	Village	Richfield	Summit County	OH	2009 Private-to-Public	Water and Sewer LLC	Drinking Water	WATER AND SEWER LLC PWS
Bennor Estates Phase I Improver	District		Campbell County	WY	2009 Private-to-Public	Bennor Water, LLC	Drinking Water	BENNOR ESTATE & IMP. SERVICE DISTRICT
Southlake	City	Southlake	Denton County	TX	2009 Private-to-Public	Aqua America	Drinking Water	Lakewood Ridge and Indian Creek Estates subdivisions
Florida Keys Aqueduct Authority	District		Monroe County	FL	2009 Private-to-Public	Key Haven Utility Corporation	Wastewater	Key Haven
Berkeley County Public Service Dist	District		Berkeley County	WV	2009 Private-to-Public	Leisure Living Estates, LLC	Wastewater	Leisure Living Estates
Jenner Township	Township	Jenner Township	Somerset County	PA	2009 Private-to-Public	Ligonier Mountain Land Company	Drinking Water and Wastewater	Laurel Mountain Village
North Sumter County Utility Depend	District		Sumter County	FL	2010 Private-to-Public	The Villages of Lake-Sumter, Inc's A	Drinking Water and Wastewater	NORTH SUMTER UTILITY
Manchester Township	Township	Manchester Townshi	Ocean County	NJ	2010 Private-to-Public	Crestwood Village Water and Sewe	Drinking Water and Wastewater	MANCHESTER TWP DIV OF UTILITIES-WESTERN Crestwood Village Water and Sewer Co.
Florida Governmental Utility Author	Authority		Pasco County	FL	2010 Private-to-Public	Lindrick Service Corporation	Drinking Water and Wastewater	Undrick System - Gulf Harbors
Flowood	City	Flowood	Rankin County	MS	2010 Private-to-Public	Noranco Utilities, Inc	Drinking Water and Wastewater	NORANCO UTILITIES
Cedar Lake	Town	Cedar Lake	Lake County	IN	2010 Private-to-Public	Utilities Inc	Drinking Water	CEDAR LAKE WATER WORKS
Florida Governmental Utility Author	Authority		Lee County	FL	2010 Private-to-Public	The Old Bridge Park Corp.	Drinking Water and Wastewater	North Fort Myers Utility System - LAKE FAIRWAYS MOBILE HOME PARK
Valley Public Service Authority	District		Alken County	SC	2010 Private-to-Public	Avondale Mills, Inc.	Drinking Water and Wastewater	AVONDALE MILLS INC (0240002)
Alron	City	Alron	Summit County	OH	2010 Private-to-Public	Copley Square Water Company and	Drinking Water and Wastewater	COPLEY SQUARE WATER CO.
Cumberland	Town	Cumberland	Marion and Hancock	IN	2010 Private-to-Public	Gem Utilities	Drinking Water and Wastewater	TOWN OF CUMBERLAND - GEM WATER
Avondale	City	Avondale	Maricopa County	AZ	2010 Private-to-Public	First National Management Inc.	Drinking Water	CITY OF AVONDALE - RIGBY
Pasco County	County		Pasco County	FL	2010 Private-to-Public	C. S. Water Company, Inc.,	Drinking Water	PCUD-CRYSTAL SPRINGS WATER SYSTEM
East Fishkill	Town	East Fishkill	Dutchess County	NY	2010 Private-to-Public	Rand Water Corporation	Drinking Water	DOGWOOD KNOLLS
Haines	Borough	Haines Borough	Haines County	AK	2010	Crystal Cathedrals Water and	Drinking Water	CRYSTAL CATHEDRALS WATER
					Private-to-Public	Sewer System, Inc	Drinking Water and Wastewater	

Charlotte	City	Charlotte	Mecklenburg County	NC	2010 Private-to-Public	Utilities Inc	Drinking Water and Wastewater	EMERALD POINT CONDOMINIUMS
Western Virginia Water Authority	Authority		Franklin County	VA	2010 Private-to-Public	Contentment Island LLC	Drinking Water	CONTENTMENT ISLAND
Clarendon County	County		Garendon County	SC	2010 Private-to-Public	Quail Ridge Water System	Drinking Water	CLARENDON CO W&SA-QUAIL RIDGE
Ocean Springs	City	Ocean Springs	Jackson County	MS	2010 Private-to-Public	Pine Grove Water Systems Inc	Drinking Water	PINE GROVE WATER SYSTEM INC
Isle of Wight County	County		Isle of Wight County	VA	2010 Private-to-Public	C&P Isle of Wight Water Company	Drinking Water	QUEEN ANNES COURT
Culpeper County	County		Culpeper County	VA	2010 Private-to-Public	PulseGroup, Inc's Clevengers Village	Drinking Water and Wastewater	SOUTH WALES
Oviedo	City	Oviedo	Seminole County	FL	2010 Private-to-Public	bdMC's Utilities Inc	Wastewater	Alafaya Utilities Inc
Avon Park	City	Avon Park	Highlands County	FL	2010 Private-to-Public	C & H Utilities	Wastewater	Valencia Acres Subdivision
Lake Placid	Town	Lake Placid	Highlands County	FL	2010 Private-to-Public	Highlands Utility Corporation	Wastewater	Highlands Utility Corp ww system
Bullitt County Sanitation District	District		Bullitt County	KY	2010 Private-to-Public	Pioneer Village Sewerage System P	Wastewater	Pioneer Village Sewerage System Plan 1, Inc
Tucson	City	Tucson	Pima County	AZ	2010 Private-to-Public	Rincon Ranch Estates Water Comp	Drinking Water	TUCSON WATER - RINCON RANCH ESTATES
Lake Charles	City	Lake Charles	Calcasieu Parish	LA	2010 Private-to-Public	South Louisiana Electric Cooperative	Wastewater	Timberly Terrace Subdivision
St. Tammany Parish	Parish		St. Tammany Parish	LA	2010 Private-to-Public	Southeast Louisiana Water & Se	Drinking Water and Wastewater	19 drinking water systems, 40 ww
Yocoming County Water and Sewer Authority	Authority	Fairfield Township	Lycoming County	PA	2010 Private-to-Public	Village Water Company, Inc.	Drinking Water	Village Water Company, Inc.
Jones Township Municipal Authority	Authority	Jones Township	Elk County	PA	2010 Private-to-Public	Wilcox Water Company Inc	Drinking Water	Wilcox
Currituck County	County		Currituck County	NC	2011 Private-to-Public	bdMC's Utilities Inc	Drinking Water	3 systems: Monterey Shores, Corolla Light and Currituck Club
Oxford	City	Oxford	Lafayette County	MS	2011 Private-to-Public	Bell Utilities	Drinking Water and Wastewater	COLLEGE HILL HEIGHTS W/SYS LAFAYETTE CIVIC CENTER W/S LAKEWAY GARDENS WATER SYS QUAIL CREEK WATER SYSTEM THACKER
Show Low	City	Show Low	Navajo County	AZ	2011 Private-to-Public	Pineview Water Company	Drinking Water	CITY OF SHOWLOW SOUTH
Dunnellon	City	Dunnellon	Marion County	FL	2011 Private-to-Public	Rainbow Springs Utilities LC	Drinking Water and Wastewater	RAINBOW SPRINGS CC ESTATES
Conroe	City	Conroe	Montgomery County	TX	2011 Private-to-Public	Aqua America	Drinking Water and Wastewater	2: Crighton Woods and Crighton Ridge
Dona Ana Mutual Domestic Water District	District	Reidum Springs	Dona Ana County	NM	2011 Private-to-Public	Fort Seldon Water Company	Drinking Water	FORT SELDEN WATER COMPANY
Isle of Wight County	County		Isle of Wight County	VA	2011 Private-to-Public	C&P Isle of Wight Water Company	Drinking Water	9: ASHBY SUBDIVISION; Corollon Forest; BREWERS CREEK; Cedar Grove; Quail Meadows; Ballard Creek; Smithneck; Poplar Harbor; RU
Charlotte	City	Charlotte	Mecklenburg County	NC	2011 Private-to-Public	Aqua America	Drinking Water and Wastewater	7 systems: Brantley Oaks, McCarran, Stone Mountain, Timberlands, Willows Creek, Reedy Creek Plantation and Statterwythe Place/Ale
Western Virginia Water Authority	Authority		Franklin County	VA	2011 Private-to-Public	Westlake Water Company, Inc.	Drinking Water	WESTLAKE WATER COMPANY
Why Domestic Water Improvement District	District	Why	Pima County	AZ	2011 Private-to-Public	Why Utility Company, Inc.	Drinking Water	WHY DWID
East Fishkill	Town	East Fishkill	Dutchess County	NY	2011 Private-to-Public	Four Corners Water Works Corporat	Drinking Water	FOUR CORNERS WATER COMPANY
Silverdale Water District	District	Silverdale	Kitsap County	WA	2011 Private-to-Public	Apex Water Supply, Inc.	Drinking Water	APEX WATER SUPPLY INC
Pine Grove Township Authority	Authority		Schuykill County	PA	2011 Private-to-Public	Aldrick Associates Inc	Drinking Water	Swatara Village and Swatara Creek
Reading Area Water Authority	Authority		North Heidelberg Township	PA	2011 Private-to-Public	North Heidelberg Water Company	Drinking Water	North Heidelberg Township Co
Guernsey County	County		Guernsey County	OH	2011 Private-to-Public	Utility Operators Corporation	Wastewater	Rollin Hills WWP
Nashua	City	Nashua	Hillsborough County	NH	2012 Private-to-Public	Pennichuck Water Company	Drinking Water	PENNICHUCK WATER WORKS PITTSFIELD AQUEDUCT PEU/AVERY ESTATES PEU/BEAVER HOLLOW PEU/BIRCH HILL EAST PEU/BROOK P
Florida Governmental Utility Authority	Authority		Pasco County	FL	2012 Private-to-Public	Mad Hatter Utility, Inc. and Paradise	Drinking Water and Wastewater	Mad Hatter/Paradise Lake Utility System
Lexington	City	Lexington	Lafayette County	MO	2012 Private-to-Public	US Water Company	Drinking Water	US Water Company
Charlotte	City	Charlotte	Mecklenburg County	NC	2012 Private-to-Public	bdMC's Utilities Inc	Drinking Water and Wastewater	Cabamun Woods System - 5 systems - Carabarrus Woods/Steeplechase, Windsor Chase, Forest Ridge, Lamplighter Village east, Britley
Waynesville	City	Waynesville	Pulaski County	MO	2012 Private-to-Public	Highway H Utilities Inc	Drinking Water	HIGHWAY H DEVELOPMENT
Lake Catherine Waterworks and Sewer Authority	Authority		Garland County	AR	2012 Private-to-Public	Rivers Utilities of Arkansas Inc	Drinking Water and Wastewater	Rivers Utilities
Jefferson County Public Utility District	District		Jefferson County	WA	2012 Private-to-Public	Kala Point Utility Company	Drinking Water	KALA POINT
Star Valley	Town	Star Valley	Gila County	AZ	2012 Private-to-Public	Brooks Utilities	Drinking Water	TOWN OF STAR VALLEY WATER DEPARTMENT
Lafayette Parish Waterworks District	District		Lafayette County	LA	2012 Private-to-Public	South Louisiana Electric Cooperative	Drinking Water	6: Country Square Subdivision, Hackberry Subdivision, Lakeview Subdivision, Royalton Park Subdivision, Shenandoah Subdivision, and You
Franklin County	County		Franklin County	OH	2012 Private-to-Public	Cordell Regional Utilities Inc	Drinking Water and Wastewater	TIMBERLAKE WATER SYSTEM
Valley Water District	District	Orting	Pierce County	WA	2012 Private-to-Public	Orting Valley Water Co., LLC	Drinking Water	THE BUTTES (The Buttes end Diamondhead.)
Clarendon County	County		Clarendon County	SC	2012 Private-to-Public	Timothy P Oliver	Drinking Water	2: Wybo Water Dept Inc, Lake Marion Shores/E&RPA
Callaway	City	Callaway	Bay County	FL	2012 Private-to-Public	bdMC's Utilities Inc	Drinking Water and Wastewater	Sandy Creek Systems
Panama	City	Panama	Bay County	FL	2012 Private-to-Public	bdMC's Utilities Inc	Drinking Water and Wastewater	Bayside Systems
Isle of Wight County	County		Isle of Wight County	VA	2012 Private-to-Public	Central Water Systems, Inc.	Drinking Water	CANNON ACRES
Western Virginia Water Authority	Authority		Franklin County	VA	2012 Private-to-Public	Bowwood Green Home Owners Assc	Drinking Water	BOXWOOD GREEN
Danbury	City	Danbury	Fairfield County	CT	2012 Private-to-Public	Hawthorne Terrace Association Inc	Drinking Water	HAWTHORNE TERRACE ASSOC
Red Sulphur Public Service District	District		Monroe County	WV	2012 Private-to-Public	Greenville Water Company	Drinking Water	GREENVILLE WATER CO
Seabring	City	Seabring	Highlands County	FL	2012 Private-to-Public	C & H Utilities	Drinking Water	HICKORY RIDGE SUBDIVISION
Show Low	City	Show Low	Navajo County	AZ	2012 Private-to-Public	Park Valley Water Company and Fox	Drinking Water	CITY OF SHOW LOW - FOOLS HOLLOW; Park Valley Water Company and Fools Hollow Water Company
North Beckley Public Service District	District		Releigh County	WV	2012 Private-to-Public	Stanford Acres Sewerage Systems	Wastewater	Stanford Acres
Vernon Municipal Utility Authority	Authority	Vernon Township	Sussex County	NJ	2012 Private-to-Public	Suez's United Water	Wastewater	United Water Nernon Sewage Inc and United Water Great Gorge Inc
Charlotte	City	Charlotte	Mecklenburg County	NC	2012 Private-to-Public	Utilities Inc	Drinking Water and Wastewater	Bradfield Farms Water Company's Woodbury System
Florida Governmental Utility Authority	Authority		Multiple	FL	2013 Private-to-Public	Aqua America	Drinking Water and Wastewater	56 water systems, 22 wastewater systems
Sarasota County	County		Sarasota County	FL	2013 Private-to-Public	Aqua America	Drinking Water and Wastewater	Dolomite-KENSINGTON PARK UTILITIES
South Shore	City	South Shore	Greenup County	KY	2013 Private-to-Public	South Shore Water Works Co.	Drinking Water	CITY OF SOUTH SHORE WATER WORKS
Bunnell	City	Bunnell	Flagler County	FL	2013 Private-to-Public	Plantation Bay Utility Co.	Drinking Water and Wastewater	PLANTATION BAY WTP
Rockwall	City	Rockwall	Rockwall County	TX	2013 Private-to-Public	Aqua America	Drinking Water and Wastewater	Lake Rockwall Estates
Sellersburg	Town	Sellersburg	Clark County	IN	2013 Private-to-Public	Riverside Water Company, Inc.	Drinking Water	RIVERSIDE WATER COMPANY
Dona Ana Mutual Domestic Water District	District		Dona Ana County	NM	2013 Private-to-Public	Picacho Hills Utility Company	Drinking Water and Wastewater	PICACHO HILLS UTILITY CO
Desoto County	County		Desoto County	GA	2013 Private-to-Public	Aqua America	Drinking Water and Wastewater	Lake Suzy Subdivision
Big Plains Water and Sewer Special District	District	Apple Valley	Washington County	UT	2013 Private-to-Public	Cedar Point Water Company	Drinking Water	2: APPLE VALLEY BIG PLAINS; CEDAR POINT BIG PLAINS
Tahoe City Public Utility District	District	Tahoe City	Placer County	CA	2013 Private-to-Public	Lake Forest Water Company	Drinking Water	TAHOE PARK WATER COMPANY
Delta	City	Delta	Millard County	UT	2013 Private-to-Public	Shenwood Water Company	Drinking Water	SHERWOOD WATER COMPANY
Claywood Park Public Service District	District		Wirt County	WV	2013 Private-to-Public	Little Kanawha Service Company	Drinking Water	LITTLE KANAWHA SERVICE COMPANY
Schuyler Falls	Town	Schuyler Falls	Clinton County	NY	2013 Private-to-Public	Garrow Water Works Company, Inc	Drinking Water	GARROW WATER WORKS
Georgetown	City	Georgetown	Scott County	KY	2013 Private-to-Public	Mallard Point Disposal Systems Inc	Wastewater	Mallard Point, Harbor Village, Cedar Hills, and West Woods S/D
Livingston Parish Sewerage District	District	Livingston Parish	Livingston Parish	LA	2013 Private-to-Public	Mo-Qad Utilities Inc	Wastewater	18 systems
Paintsville Utilities Commission	City	Paintsville	Denham Springs	LA	2013 Private-to-Public	River Road Disposal Systems	Wastewater	River Road Disposal Systems
Livingston Parish Sewerage District	District	Livingston Parish	Denham Springs	LA	2013 Private-to-Public	South Louisiana Electric Cooperative	Wastewater	Audubon Village Subdivision
Livingston Parish Sewerage District	District	Livingston Parish	Denham Springs	LA	2013 Private-to-Public	South Louisiana Electric Cooperative	Wastewater	Oak Hills Estates Subdivision
Charles Town	City	Charles Town	Jefferson County	WV	2013 Private-to-Public	Willow Spring Public Service Corpor	Wastewater	Willow Spring
Tega Cay	City	Tega Cay	York County	SC	2014 Private-to-Public	bdMC's Utilities Inc	Drinking Water and Wastewater	UUC - TEGA CAY WATER SERVICE INC
Eastern Wyoming Public Service District	District		Wyoming County	VA	2014 Private-to-Public	Alpoa Water Works, Inc	Drinking Water	ALPOCA WATER WORKS INC
Western Virginia Water Authority	Authority		Franklin County	VA	2014 Private-to-Public	Royal estates Water Corporation	Drinking Water	ROYAL ESTATES
Beaufort Jasper Water & Sewer Authority	Authority	Bluffton	Beaufort County	SC	2014 Private-to-Public	May River Water Company	Drinking Water	MAY RIVER PLANTATION (0750005)
Kokomo	City	Kokomo	Tipton County	IN	2014 Private-to-Public	Prairie Utilities Inc.	Wastewater	AQUA INDIANA - ABOITE; AQUA INDIANA - NORTH END WATER SUPPLY
Fort Wayne	City	Fort Wayne	Allen County	IN	2015 Private-to-Public	Aqua America	Drinking Water and Wastewater	BLUE MOUND
Blue Mound	City	Blue Mound	Tarrant County	TX	2015 Private-to-Public	JPMorgan's Southwest Water	Drinking Water and Wastewater	