

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



AGENDA

**Regular Meeting**

**Board of Directors**

**Monterey Peninsula Water Management District**

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**Monday, July 18, 2016**

**Closed Session, 5:30 pm**

**Regular Meeting, 7:00 PM**

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 Friday, July 15, 2016.

The 7:00 PM Meeting will be televised on Comcast Channels 25 & 28. Refer to broadcast schedule on page 3.

**5:30 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 Cynthia Schmidlin  
Employee Organization: General Staff and Management Bargaining Units Represented by United Public Employees of California/LIUNA, Local 792  
Unrepresented Employees: Confidential Unit
- 4. Adjourn to 7 pm Session**

**7:00 PM – Regular Meeting**

**CALL TO ORDER/ROLL CALL**

**Board of Directors**

Jeanne Byrne, Chair – Division 4  
Robert S. Brower, Sr., Vice Chair – Division 5  
Brenda Lewis – Division 1  
Andrew Clarke - Division 2  
Molly Evans – Division 3  
David Pendergrass, Mayoral Representative  
David Potter, Monterey County Board of Supervisors Representative

**General Manager**

David J. Stoldt

This agenda was posted at the District office at 5 Harris Court, Bldg. G Monterey on Thursday, July 14, 2016. Staff reports regarding these agenda items will be available for public review on 7/15/2016, 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 <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 15, 2016 at 7 pm.

## **PLEDGE OF ALLEGIANCE**

**ADDITIONS AND CORRECTIONS TO AGENDA** - The Clerk of the Board will announce agenda corrections and proposed additions, which may be acted on by the Board as provided in Sections 54954.2 of the California Government Code.

**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.

1. Consider Adoption of Minutes of the June 20, 2016 Board Meeting
2. Receive Water Year 2015 Aquifer Storage and Recovery Project Summary of Operations Report
3. Consider Expenditure for FY 2016-17 Aquifer Storage and Recovery Planning and Operations
4. Consider Expenditure to Amend Contract with Pueblo Water Resources to Provide Hydrogeologic Review for Water Distribution System Permits
5. Consider Contract for District Public Outreach and Communications Services with Thomas Brand Consulting for Fiscal Year 2016-2017
6. Consider Contract for Pure Water Monterey Project Management, Public Outreach and Communication Services with Thomas Brand Consulting for Fiscal Year 2016-2017
7. Authorize Expenditure for Software Maintenance Agreements
8. Consider Approval of Change from Senior Water Resources Engineer to Water Resources Engineer on the District's Organization Chart
9. Consider Reclassification of Two Conservation Representative I/II Positions and Related Change to the District's Organization Chart
10. Consider Adoption of Resolution 2016-13 Update to Rule 24, Table 3, Capacity Fee History
11. Consider Approval of an Amendment to the Cost Sharing Agreement with the Monterey Regional Water Pollution Control Agency for the Groundwater Replenishment Project
12. Consider Adoption of Treasurer's Report for May 2016

## **PRESENTATIONS**

13. Recognize Suresh Prasad for Certificate of Achievement for Excellence in Financial Reporting Awarded to the MPWMD by the Government Financial Officers Association
14. Presentation to Joseph Oliver upon his Retirement after 31 Years of Service to the MPWMD

## **GENERAL MANAGER'S REPORT**

15. Status Report on California American Water Compliance with State Water Resources Control Board Order 2009-0060 and Seaside Groundwater Basin Adjudication Decision
16. Update on Development of Water Supply Projects
17. Report on Drought Response

## **ATTORNEY'S REPORT**

18. Report on 5:30 pm Closed Session of the Board

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

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

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

**20. Consider First Reading of Ordinance No. 172 – An Ordinance of the Monterey Peninsula Water Management Amending Regional Water Efficient Landscape Requirements in Compliance with the California Code of Regulations, Title 23, Division 2, Chapter 2.7, California Model Water Efficient Landscape Ordinance**

*Action: The Board will conduct a public hearing on the first reading of Ordinance No. 172, which would add the provisions of the State of California Model Water Efficient Landscape Ordinance to the Water Management District's Rules and Regulations and ensure consistency with regulations to be adopted by the County of Monterey.*

**ACTION ITEMS** – No Action Items were presented for consideration

**AA. Authorize Entering Into Contract with Consultant to Conduct Value Engineering Analysis of MPWSP Pipelines and Conveyance Facilities**

*Action: The Board will consider the staff recommendation to enter into a contract for preparation of a Value Engineering Study, conditional upon approval by the MPWSP Governance Committee at its meeting of July 20, 2016.*

**BB. Consider Approval of Amendment 2 to Amended and Restated Agreement to Form the Monterey Peninsula Water Supply Governance Committee**

*Action: The Board will consider adoption of the amendment to the agreement, conditional upon approval by the MPWSP Governance Committee at its meeting of July 20, 2016.*

**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.

21. Letters Received Supplemental Letter Packet
22. Committee Reports
23. Semi-Annual Financial Report on the CAWD/PBCSD Wastewater Reclamation Project
24. Monthly Allocation Report
25. Water Conservation Program Report
26. Quarterly Water Use Credit Transfer Status Report
27. Carmel River Fishery Report June 2016
28. Quarterly Carmel River Riparian Corridor Management Program Report
29. Monthly Water Supply and California American Water Production Report

**ADJOURNMENT**

**Board Meeting Broadcast Schedule – Comcast Channels 25 & 28**

**View Live Webcast at [Ampmedia.org](http://Ampmedia.org)**

Ch. 25, Sundays, 7 PM	Monterey
Ch. 25, Mondays, 7 PM	Monterey, Del Rey Oaks, Pacific Grove, 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

**Upcoming Board Meetings**

Monday, August 15, 2016	Regular Board Meeting	7:00 pm	District conference room
Monday, September 19, 2016	Regular Board Meeting	7:00 pm	District conference room
Monday, October 17, 2016	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 14, 2016. 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.

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**ITEM: CONSENT CALENDAR****1. CONSIDER ADOPTION OF MINUTES OF THE JUNE 20, 2016 REGULAR MEETING OF THE BOARD OF DIRECTORS**

<b>Meeting Date:</b>	<b>July 18, 2016</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: N/A**

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**SUMMARY:** Attached as **Exhibit 1-A** are draft minutes of the June 20, 2016 Regular meeting of the Board of Directors.

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

**EXHIBIT**

**1-A** Draft Minutes of the June 20, 2016 Regular Meeting of the Board of Directors

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## **EXHIBIT 1-A**

DRAFT MINUTES  
**Regular Meeting**  
**Board of Directors**  
**Monterey Peninsula Water Management District**  
*June 20, 2016*

The meeting was called to order at 7:00 pm in the MPWMD conference room.

### **CALL TO ORDER/ROLL CALL**

*Directors Present:*

Jeanne Byrne – Chair, Division 4  
 Robert S. Brower, Sr. – Vice Chair, Division 5  
 Molly Evans – Division 3  
 Andrew Clarke – Division 2  
 David Pendergrass – Mayoral Representative  
 David Potter – Monterey County Board of Supervisors

*Directors Absent:* Brenda Lewis – Division 1

*General Manager present:* David J. Stoldt

*District Counsel present:* David Laredo

The assembly recited the Pledge of Allegiance.

### **PLEDGE OF ALLEGIANCE**

On a motion by Potter and second of Brower, the agenda was approved as presented on a unanimous vote of 6 – 0 by Potter, Brower, Byrne, Clarke, Evans and Pendergrass. Lewis was absent.

### **ADDITIONS AND CORRECTIONS TO AGENDA**

During Oral Communications, George Riley, representing Public Water Now, addressed the Board. He stated that the State Water Resources Control Board (SWRCB) proposal to reduce pumping from the Carmel River from 8,310 AF to 7,990 has a risk to the ratepayer that has not been mentioned previously. He noted that a reduction in California American Water (Cal Am) sales could be considered under collection of rates. The difference between actual water sales and the previously anticipated sales would be passed on to the ratepayers. Cal-Am would not be responsible for this cost. He suggested this argument should be used to block adoption of the reduced pumping limit.

### **ORAL COMMUNICATIONS**

On a motion by Pendergrass and second of Evans, the Consent Calendar was adopted on a vote of 6 – 0 by Pendergrass, Evans, Brower, Byrne, Clarke and Potter. Lewis was absent. No comments were directed to the Board during the public comment period on this item.

### **CONSENT CALENDAR**

- |                                      |   |
|--------------------------------------|---|
| Adopted.                             | <b>1. Consider Adoption of Minutes of the May 16, 2016 Board Meeting</b>  |
| Approved.                            | <b>2. Consider Approval of 2016 Annual Memorandum of Agreement for Releases from Los Padres Reservoir among California American Water, California Department of Fish and Wildlife, and Monterey Peninsula Water Management District</b> |
| Received.                            | <b>3. Receive 2015 Monterey Peninsula Water Conservation Program Annual Report</b>  |
| Approved an expenditure of \$40,154. | <b>4. Consider Expenditure for Temporary Agency Employee to Assist with Data Migration in the Water Demand Division During FY 2016-17</b>   |
| Approved an expenditure of \$81,647. | <b>5. Consider Expenditure to Contract for Limited-term Field Positions during FY 2016-2017</b>   |
| Approved an expenditure of \$34,976. | <b>6. Consider Expenditure to Contract for a Limited-term Project Manager in the Planning and Engineering Division during FY 2016-2017</b>  |
| Approved an expenditure of \$13,500. | <b>7. Consider Renewal of Standard License Agreement With CoreLogic Information Solutions, Inc.</b>   |
| Approved an expenditure of \$60,000. | <b>8. Consider Continuance of Contract with Zone 24x7 for Water Demand Database Improvement and Maintenance</b>   |
| Adopted.                             | <b>9. Consider Adoption of Resolution 2016-11 Establishing Article XIII (B) Fiscal Year 2016-17 Appropriations Limit</b>  |
| Adopted.                             | <b>10. Consider Adoption of Treasurer's Report for April 2016</b>   |

**GENERAL MANAGER'S REPORT**

A summary of Stoldt's comments are on file at the Water Management District office and can be reviewed on the agency's website. Water production within the Carmel River Basin was 244 acre-feet below the target. Production within the Monterey Peninsula Water Resources System was 785 acre-feet below the target which equates to 10.9% below the target. Rainfall received in May was approximately one-half

- 11. Status Report on California American Water Compliance with State Water Resources Control Board Order 2009-0060 and Seaside Groundwater Basin Adjudication Decision**



of average, and unimpaired flow was approximately two-thirds of average.

Stoldt reported that on June 17, 2016, SWRCB staff released the preliminary revised Cease and Desist order. Public comment is due to the SWRCB on July 13, 2016 and a public hearing is scheduled for July 19, 2016. He noted that Cal Am, the Monterey Peninsula Regional Water Authority, City of Pacific Grove, Pebble Beach Company and the Water Management District will be developing a response to the SWRCB's proposed revisions. The local agencies would like the revised CDO to include: (a) the effective diversion limit (EDL) should remain at 8,310 and not be reduced to 7,990 as proposed; (b) Cal Am should retain the ability to carry over water credits to subsequent water year when its diversions are less than the EDL in a given year; and (c) Cal Am should be allowed to increase the EDL in any year in an amount equal to 50% of any water rights or instream flows acquired. The CPUC will conduct a public participation hearing on September 1, 2016 to provide preliminary results of the hydrologic modeling results for Cal Am's desalination project. In addition, comments will be taken on the Water Purchase agreement for the Pure Water Monterey Project. Stoldt anticipated that a preliminary decision on the agreement would be issued in August 2016 with the final decision in September 2016.

The State of California issued a new procedure that would allow Cal Am to self-certify the amount of water supplies it has assuming three additional dry years. Since water conservation in the 2014-2016 water year exceeded the required 8 percent, no additional reductions would be required. The new conservation target would be 0 percent; however, the community would continue to satisfy the CDO production limits.

Counsel reported that there was no discussion of items 3A and 3C. Also, no reportable action was taken on item 3B. However, it was reported that an all-party conference was scheduled for June 22, 2016 with the CPUC Commissioner assigned to that matter. Regarding item 4, staff presented background data and the Board provided general direction for staff to return to the bargaining table

## **12. Update on Development of Water Supply Projects**

## **13. Report on Drought Response**

### **ATTORNEY'S REPORT**

#### **14. Report on 5:30 pm Closed Session of the Board**

#### **3. Conference with Legal Counsel – Existing Litigation (Gov. Code 54956.9 (a))**

- A.** MPWMD v. SWRCB; Santa Clara 1-10-CV-163328 – CDO – (6<sup>th</sup> District Appellate Case #H039455)
- B.** Application of California American Water to CPUC Case No. A10-01-012 – Monterey Peninsula Water

Management District User Fee

- C. Application of California American Water to the CPUC (No. 12-04-019) – Monterey Peninsula Water Supply Project

- 4. Conference with Labor Negotiators (Gov. Code 54957.6)**  
 Agency Designated  
 Representatives: David Stoldt; Suresh Prasad and Cynthia Schmidlin  
 Employee Organization: General Staff and Management Bargaining Units Represented by United Public Employees of California/LIUNA, Local 792  
 Unrepresented Employees: Confidential Unit

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

No reports.

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

**PUBLIC HEARINGS**

- 16. Consider Approval of Amendment to California American Water Distribution System to Add Aquifer Storage and Recovery Facilities, including Phase 1 and Phase 2 Wells, the Proposed Hilby Avenue Pump Station and the Proposed Monterey Pipeline**

The following comments were directed to the Board during the Public Comment period on this item. (a) **George Riley**, representing Public Water Now, asked for clarification on the timing for approval of an alternative pipeline proposal that would be used for the Pure Water Monterey Project and Cal Am's desalination project. *Stoldt responded that a citizen-generated-pipeline alternative was proposed to cross through Monterra and Tehema. This alternative was under evaluation in the EIR for Cal Am's desalination project; however, Cal Am engineers determined that it was not a preferable alternative. That alternative was not evaluated in the certified EIR for the Pure Water Monterey project.* (b) **Tom Rowley**, representing the Monterey Peninsula Taxpayers Association, stated that one drawback of the alternative pipeline through Monterra and Tehama was the high cost of pumping water over the ridge. He expressed support for the Hilby Avenue Pump Station proposal and the Monterey Pipeline.

Potter offered a motion that was seconded by Pendergrass to approve the Addendum for the Hilby Avenue Pump Station; adopt the Mitigation Monitoring and Reporting Program; adopt Resolution No. 2016-12; and approve the Monterey Pipeline. The motion was approved on a vote of 6 – 0 by Potter, Pendergrass, Brower, Byrne, Clarke and Evans. Lewis was absent.

- A. Consider an Addendum for the Hilby Avenue Pump Station (Addendum to both the Aquifer Storage and Recovery Project Environmental Impact Report/Environmental Assessment and Pure Water Monterey/Groundwater**

**Replenishment Project  
Environmental Impact  
Report)**

On a motion by Potter and second of Brower, the Board approved Application #WDS-20160602CAW and authorized issuance of Water Distribution System Permit Amendment #M16-01-L3. The motion was approved on a vote of 6 – 0 by Potter, Brower, Byrne, Clarke, Evans and Pendergrass. Lewis was absent.

On a motion by Potter and second of Brower, the Board authorized staff to file a Notice of Determination with the Monterey County Clerk regarding the action to amend the California American water distribution system. The motion was approved on a vote of 6 – 0 by Potter, Brower, Byrne, Clarke, Evans and Pendergrass. Lewis was absent.

On a motion by Pendergrass and second of Brower, the July through September 2016 Quarterly Water Supply Strategy and Budget was approved on a vote of 6 – 0 by Pendergrass, Brower, Byrne, Clarke, Evans and Potter. Lewis was absent. No comments were directed to the Board during the public hearing on this item.

On a motion by Clarke and second of Potter, the FY 2016-2017 MPWMD Budget and Resolution 2016-10 were adopted on a vote of 6 – 0 by Clarke, Potter, Brower, Byrne, Evans and Pendergrass. Lewis was absent. No comments were directed to the Board during the public hearing on this item.

Brower offered a motion that was seconded by Potter to approve the proposed settlement, subject to Monterey County Water Resources Agency discretion to resolve the dry year bypass flow/Salinas River lagoon management issue. The motion was approved on a vote of 6 – 0 by Brower, Potter, Byrne, Clarke, Evans and Pendergrass. Lewis was absent. No comments were directed to the Board during the public comment period on this item.

On a motion by Potter and second of Brower, the Board authorized General Counsel to sign the Brine Discharge Settlement Agreement on behalf of the District and to join in the motion to the CPUC to approve the Brine Discharge Settlement Agreement, in both cases subject to non-substantive changes prior to filing. The motion was approved on a vote of 6 – 0 by Potter, Brower, Byrne, Clarke, Evans and Pendergrass. Lewis was absent. No comments were directed to the Board during the public comment period on this item.

On a motion by Brower and second of Clarke, the Board authorized General Counsel to sign the Return Water Settlement Agreement on behalf of the District and to join in the motion to the CPUC to approve the Return Water Settlement Agreement, in both cases subject to non-

**B. Consider Application Submitted by California American Water to Amend its Water Distribution System**

17. **Consider Adoption of July through September 2016 Quarterly Water Supply Strategy and Budget**
18. **Consider Adoption of Proposed FY 2016-2017 MPWMD Budget and Resolution 2016-10**

**ACTION ITEMS**

19. **Consider Approval of Settlement Terms for Dismissal of Protests to Monterey County Water Resources Agency Water Rights Application for Pure Water Monterey**
20. **Consider Approval of Brine Discharge Settlement Agreement Under A.12-04-019**
21. **Consider Approval of Return Water Settlement Agreement Under A.12-04-019**

substantive changes prior to filing. The motion was approved on a vote of 5 – 1 by Brower, Clarke, Byrne, Pendergrass and Potter. Evans was opposed and Lewis was absent.

During the public comment period on this item, **George Riley** stated that Public Water Now issued a notice to the CPUC and other parties that it would oppose some provisions of the settlement agreement. The concern was that Cal-Am ratepayers would be responsible for the cost of the return water, but there was no protection in the agreement against ratepayer exposure to costs that could be higher than estimated.

On a motion by Potter and second of Evans, the General Manager’s contract was approved on a vote of 6 – 0 by Potter, Evans, Brower, Byrne, Clarke and Pendergrass. Lewis was absent.

There was no discussion of the Informational Items/Staff Reports.

The meeting was adjourned at 8:35 pm.

**22. Consider Approval of General Manager’s Contract**

**INFORMATIONAL ITEMS/STAFF REPORTS**

- 23. Letters Received**
- 24. Committee Report**
- 25. Monthly Allocation Report**
- 26. Water Conservation Program Report**
- 27. Carmel River Fishery Report for May 2016**
- 28. Monthly Water Supply and California American Water Production Report**

**ADJOURNMENT**

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Arlene M. Tavani, Deputy District Secretary

**ITEM: CONSENT CALENDAR****2. RECEIVE WATER YEAR 2015 AQUIFER STORAGE AND RECOVERY PROJECT SUMMARY OF OPERATIONS REPORT**

<b>Meeting Date:</b>	<b>July 18, 2016</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>Joe Oliver</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: N/A**

**SUMMARY:** A draft report documenting the summary of operations for Water Year 2015 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 draft report can be viewed on the Monterey Peninsula Water Management District (MPWMD or District) home webpage under "Water Supply" at <http://www.mpwmd.net/water-supply/aquifer-storage-recovery/technical-aspects/>. The report documents the ASR activities conducted cooperatively with California American Water (CAW) at the Phase 1 and 2 ASR sites during WY 2015, including: (a) summary of project status and injection well performance, (b) seasonal recharge operations, and (c) water-quality monitoring. During WY 2015, which was the fourth consecutive hydrologic "dry or critically dry year", injection operations were commensurately reduced from earlier years. A total volume of 215.2 acre-feet (AF) of Carmel River Basin source water was injected and stored in the Seaside Basin during the winter high-flow season. This contrasts with the over 1,100 AF that were injected during each of the WY 2010 and 2011 recharge seasons. 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.

**RECOMMENDATION:** The Board should receive the draft report documenting ASR activities at the ASR project sites during WY 2015. If this item is adopted along with the Consent Calendar, 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 permanent ASR facilities at this Phase 2 ASR site.

The draft WY 2015 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**

None

**ITEM: CONSENT CALENDAR****3. CONSIDER EXPENDITURE FOR FY 2016-17 AQUIFER STORAGE AND RECOVERY PLANNING AND OPERATIONS**

<b>Meeting Date:</b>	<b>July 18, 2016</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>1-2-1 A &amp; B</b>
<b>Prepared By:</b>	<b>Joe Oliver &amp; Jon Lear</b>	<b>Cost Estimate:</b>	<b>Operations \$184,748 (reimbursable) Engineering \$300,729 (not reimbursable)</b>

**General Counsel Review:** N/A

**Committee Recommendation:** The Administrative Committee reviewed this item on July 11, 2016 and recommended approval.

**CEQA Compliance:** N/A

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**SUMMARY:** Ongoing work associated with the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project is planned for Fiscal Year (FY) 2016-17. To facilitate this planned work, the Monterey Peninsula Water Management District (MPWMD or District) has requested proposals from the firm that has been providing assistance on the ASR project, Pueblo Water Resources (Pueblo). The first proposal is for Operations Support (**Exhibit 3-A**); the second proposal is for Engineering Support (**Exhibit 3-B**). These are separate proposals as the costs associated with Operations Support are subject to reimbursement under MPWMD's management and operations agreement with California American Water (CAW) for the ASR project, while costs associated with Engineering Support relate to planned facility improvements at the MPWMD ASR site and are not subject to reimbursement under this agreement. The Pueblo proposals describe the tasks necessary to accomplish this work in greater detail; key elements of each proposal are briefly described below.

**Operations Support** -- Operations support to MPWMD staff is proposed for preparation of required operations reporting, provision of technical assistance during the upcoming Water Year 2017 ASR season, implementation of scheduled well rehabilitation at the ASR-3 well, and completion of baseline injection testing at the ASR-4 well.

**Engineering Support** -- Engineering support to MPWMD staff is proposed for site expansion design/engineering, ASR well soundproof enclosure and turbidimeter designs, and backup well design/specifications. The District has been working to acquire the necessary approvals for a modest expansion of the Phase 1 Aquifer Storage and Recovery (ASR) site on General Jim Moore Boulevard in Seaside (a.k.a. Santa Margarita ASR site, Water Project 1). This site expansion is needed in order to accommodate the space for underground utility pipelines to the on-site facility building, to allow an increase in the size of the backflush basin, and to facilitate re-orientation of the driveway pattern at the reconfigured site for delivery vehicle access. The proposed site expansion from the existing 1.09 acres to 1.91 acres is shown in **Exhibit 3-C**.

**RECOMMENDATION:** District staff recommends authorization to amend the existing contract with PWR for technical services for: (A) Operations Support as described in **Exhibit 3-A**, for a not-to-exceed amount of \$184,748, and (B) Engineering Support as described in **Exhibit 3-B** for a not-to-exceed amount of \$300,729. If approved, staff will process contract amendments for these amounts in order to continue work on the ASR project without delay. The requested funding authorization includes a 10% contingency which would only be utilized based on written request and authorization by the District.

**IMPACT ON STAFF/RESOURCES:** Planning, design, construction and operation of the Phase 1 (Santa Margarita) and Phase 2 (Seaside Middle School) ASR project facilities are ongoing significant staff commitments, as reflected in the District's Strategic Plan. Funds for this work are included in the MPWMD FY 2016-17 budget under Line Items 1-2-1 A. 1 to 2, and B. 1 to 2 (adopted June 20, 2016). District staff will continue to coordinate with CAW on all work elements applicable for direct reimbursement.

**BACKGROUND:** When the Phase 1 ASR site was originally conceived in the 2001-2006 period, it was intended as a stand-alone project facility. Since then, the project designs have been modified in order to accommodate the added capacity needs of other existing and proposed ASR sites in the Seaside Basin. Specifically, expanded water treatment and well backflushing facilities are planned for the capacity needs of these other ASR sites, and this has necessitated an expansion of the site footprint. To enable full functioning of the site, the existing facility building must be connected to new underground raw and finished (i.e., treated) water delivery pipelines which currently have their terminal connection points outside the existing easement area adjacent to General Jim Moore Boulevard. Accordingly, over the last several years the District has been working with the Fort Ord Reuse Authority (FORA), which is the responsible agency for unexploded ordnance cleanup and property transfer of former Fort Ord lands, and the City of Seaside, which is slated to ultimately receive properties in this area of former Fort Ord, to acquire the additional strip of land needed to accommodate the pipeline placement and expanded backflush basin area. Assuming the expansion area will soon be authorized, the District plans to complete the design and construction of this infrastructure.

The proposed work described in this item represents a continuation of past efforts on the Phase 1 and 2 ASR facilities, with technical assistance from Pueblo. Given the current knowledge base and capabilities of the Pueblo staff, District staff believes that it is most prudent and efficient to extend the existing contract with Pueblo, to avoid delays and potential for duplicative work on the project. Pueblo is prepared and able to initiate this work in accordance with the current requested schedule, and has successfully accommodated other past short-notice schedule changes on both the Phase 1 and 2 ASR project work elements. By retaining Pueblo for this work, there is greater assurance that the District's and CAW's ASR project plans will be well coordinated and cost effective.

## **EXHIBITS**

- 3-A** Monterey Peninsula ASR Project, Proposal for FY 2016-17 Operational Support Services
- 3-B** Monterey Peninsula ASR Project, Proposal for FY 2016-17 Engineering Services
- 3-C** Proposed Expansion, Santa Margarita Well Site plan map



**EXHIBIT 3-A**

July 6, 2016  
Project No. 12-0046

Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, California 93940

Attention: Mr. Joe Oliver, Water Resources Manager  
Mr. Jon Lear, Senior Hydrogeologist

Subject: Monterey Peninsula ASR Project; Proposal for Fiscal Year 2016-2017 Operational Support Services

Dear Mr. Oliver and Mr. Lear:

In accordance with your request, Pueblo Water Resources, Inc. (PWR) is pleased to submit this proposal for the provision of operational support services for the Monterey Peninsula ASR Project. Presented in this proposal is a detailed scope of work, estimated costs, and schedule to provide ASR operational support tasks during Fiscal Year 2016-2017 (FY 2016-2017).

**PURPOSE AND SCOPE**

The purpose of the proposed work is to provide needed operational and maintenance services related to the Monterey Peninsula ASR Project during FY 2016-2017. It is noted that PWR currently has two previously authorized Contract Amendments (CAs), which include various ASR operations-related tasks that have not been completed for various reasons<sup>1</sup>, but are planned to be completed in FY 2016-2017. The tasks presented in this proposal are intended to supplement the existing CAs only as necessary to complete the work planned and budgeted by the District for FY 2016-2017, and include the following.

- Preparation of WY 2016 Summary of Operations Report
- Provision of WY 2017 as-needed / as-requested ASR system operational support
- Implementation of ASR-3 well rehabilitation
- Implementation of ASR-4 baseline injection testing
- Project management and meetings

<sup>1</sup> The primary reasons the previous CAs have not been completed include the relatively dry hydrologic conditions since WY 2012 and the corresponding limited injections seasons, as well as reallocations of existing operations task budgets to needed supplemental water-quality investigations.

## EXHIBIT 3-A

### **Scope of Services**

#### **Task 1 – Water Year 2016 Summary of Operations Report**

This task consists of preparing a Summary of Operations Report (SOR) documenting the recharge operations and analysis of well performance, water-quality and water-level data collected during WY 2016. The annual preparation and submittal of SORs is a requirement of the Central Coast RWQCB for the ASR Project, and the overall scope, content, and format of the WY 2016 SOR will be similar to previous annual SORs prepared by PWR. Conclusions and recommendations will also be made regarding the ongoing operation and maintenance of the ASR wells.

#### **Task 2 – Water Year 2017 Operational Support**

This task consists of providing operational support for the ASR Project during WY 2017. This includes providing assistance with the startup of WY 2017 ASR recharge season and the provision of field assistance on an as-needed/requested basis to address critical project needs as they arise. This task also includes providing routine monitoring and evaluation of ASR system performance. It is assumed that District staff will provide PWR with ASR operational, water-level and water-quality data collected during WY 2017 on a routine basis (approximate monthly basis) to facilitate our evaluations. PWR will process and evaluate the data on an ongoing basis and provide routine operational recommendations during the course of WY 2017 operations.

#### **Task 3 – ASR-3 Well Rehabilitation**

This task will involve the coordination and oversight of the downhole rehabilitation of the ASR-3 well located at the Seaside Middle School (SMS) ASR Facility. PWR will develop a project work plan, which will include identification of materials and methods to be utilized, logistical constraints, and schedule considerations. Technical specifications for the rehabilitation of the well will then be prepared. The technical specifications are intended to provide adequate detail for bidding by competent, licensed (C-57) well contractors. The specifications will include the following minimum items:

- Minimum Contractor Qualifications
- Contractor Equipment Requirements
- Traffic Control Requirements
- Materials Requirements
- Rehabilitation Technical Procedures
- NPDES Discharge Requirements and Limitations
- Site Restoration

Prior to contractor mobilization, PWR will coordinate a pre-construction meeting to introduce involved parties, establish chain-of-command and communications protocols, review

### EXHIBIT 3-A

the key work elements and safety procedures, and develop a schedule of the work to be performed. During the rehabilitation of the well, PWR will oversee and document contractor activities to ensure adherence to the project specifications. We will document materials and quantities of well rehabilitation chemicals, field water quality parameters, and production rates during airlifting and pumping. PWR will also monitor and document the handling and discharge of fluids produced from the well during rehabilitation. Following well rehabilitation and replacement of the permanent pump assembly, PWR will perform performance tests through which the success of the rehabilitation work can be evaluated. Upon completion, a brief technical memorandum will be prepared to summarize the well rehabilitation work.

While the work plan and associated costs have not been completed as of this writing, for budgetary purposes, we have allocated \$85,000 for direct contractor costs (\$97,750 including PWR markup). This budgetary estimate is based on the costs for performing similar rehabilitations of ASR-1 and ASR-2, as well as our more recent experience with other similar projects. For purposes of this proposal, it is assumed the PWR will retain the contractor on behalf of the District; however, as the work planning advances, although not required it may be determined to be in the District's best interest to retain the contractor via public procurement process, in which case this budget amount would then be reallocated from PWR to the District.

#### **Task 4 – ASR-4 Baseline Injection Testing**

This task consists of performing baseline injection testing of ASR-4 during WY 2017. The primary purpose of the testing is to establish the baseline injection well hydraulics and performance of the new well. Primary issues to be investigated include:

- Determination of injection well efficiency and specific capacity;
- Evaluation of injection well plugging rates (both active and residual);
- Determination of optimal rates, frequency, and duration of backflushing in order to maintain long-term injection capacity, and;
- Determination of long-term sustainable injection rates.

The baseline testing program is planned to include the following steps:

1. 8-hr variable rate injection testing (combined with downhole velocity surveys);
2. 24-hr constant rate injection test;
3. 7-day constant rate injection test;
4. Backflushing between each injection test, and;
5. Post-injection production performance testing.

At the conclusion of the baseline testing program, recommendations for the long-term injection operations during the remainder of the WY 2017 recharge season will be provided.

## EXHIBIT 3-A

### **Task 5 – Project Management and Meetings**

PWR will review existing conditions at the site and meet with District staff to discuss FY 2016-2017 program goals and scheduling for the ASR Project. In addition, it is anticipated that on-going “ASR Coordination” meetings between the District and CAW will be required during the FY 2016-2017 period. Consistent with past practice, it is assumed that meetings will be held on an approximate bi-monthly basis and will be attended by a PWR Principal Engineer and/or Hydrogeologist, depending on meeting agenda and project needs at the time. To the extent feasible, PWR attendance at meetings will be coordinated with other project tasks to minimize project costs.

### **Services Not Included**

Services which are (or may be) necessary for the completion of this project, which are not included in our proposal include the following:

- Water-level transducer / datalogger programming and monitoring (assumed District provided);
- Water-quality sampling and analyses (assumed District and/or CAW provided);
- Construction of site facilities (except as noted);
- Permit fees;
- Cost of water, electricity, or other utilities;
- Any others items not specifically included in PWR’s scope of services.

### **Estimated Fees and Schedule**

Based on the scope of services presented herein, we estimate the fees for our services will be approximately \$167,953, which will be billed on a time-plus-expenses basis in accordance with our current Fee Schedule (attached). An estimated fee summary worksheet is attached summarizing the estimated man-hours and costs per task/work item. A 10 percent contingency has been noted in the attached budget summary (total with contingency is \$184,748) in the event that unforeseen project complications or constraints arise. We recommend the contingency be held for authorization by District staff upon written justification by PWR.

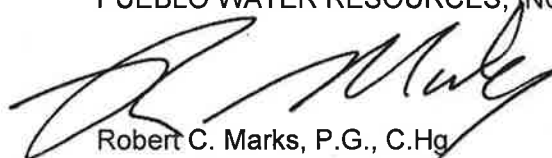
We understand that in order to authorize this work, your Board must first approve a formal contract amendment. Based on our current workload, we believe that we can commence work within two weeks of your authorization and that the work will be completed by the end of the fiscal year (June 30, 2017).

**EXHIBIT 3-A**

We appreciate the opportunity to provide ongoing assistance to the District on this important community water-supply project. If you require additional information regarding this or other matters, please contact me.

Sincerely,

PUEBLO WATER RESOURCES, INC.

A handwritten signature in black ink, appearing to read "R. Marks", written over the printed name and title.

Robert C. Marks, P.G., C.Hg  
Principal Hydrogeologist

RCM

Attachments: Cost Estimation Spreadsheet  
2016 Fee Schedule

EXHIBIT 3-A

**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
**Professional Services for Monterey Peninsula ASR Project - Operational Support**  
 Fiscal Year 2016-2017  
 PWR Project No.: 12-0046

**ESTIMATED FEE SUMMARY**

LABOR		Principal Professional	Senior Professional	Drafting	WP	Hours by Task	Estimated Task Cost
Hourly Fee		\$195	\$180	\$110	\$90		
Task No.	Task Description						
1	WY 2016 SOR	30	50	2	2	84	\$15,250
2	WY 2017 Operational Support	20	30	-	-	50	\$9,300
3	ASR-3 Rehabilitation	50	75	2	2	129	\$23,650
4	ASR-4 Baseline Injection Testing	20	40	-	-	60	\$11,100
5	PM and Meetings	25	-	-	-	25	\$4,875
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
<b>Hours by Labor Category:</b>		145	195	4	4		
<b>Costs by Labor Category:</b>		\$28,275	\$35,100	\$440	\$360		
						<b>Total Labor Hours:</b>	<b>348</b>
						<b>Total Labor Costs:</b>	<b>\$64,175</b>

OTHER DIRECT COSTS (ODC's)					
Task No.	Item	Units	Unit Price	No. of Units	Fee
	Vehicle	Daily	\$75	25	\$1,875
	Travel Per Diem	Daily	\$150	25	\$3,750
					\$0
					\$0
					\$0
<b>Subtotal ODCs:</b>					<b>\$5,625</b>

OUTSIDE SERVICES					
Task No.	Item	Units	Unit Price	No. of Units	Fee
1	SOR Reproduction	Lump Sum	\$350	1	\$350
3	Well Rehabilitation Contractor	Lump Sum	\$85,000	1	\$85,000
					\$0
					\$0
					\$0
<b>Subtotal Outside Services:</b>					<b>\$85,350</b>
<b>Subtotal Outside Services w/ Markup (15%):</b>					<b>\$98,153</b>

COST SUMMARY	
Labor	\$64,175
Other Direct Costs	\$5,625
Outside Services	\$98,153
<b>Subtotal:</b>	<b>\$167,953</b>
10 % Contingency	\$16,795
<b>TOTAL ESTIMATED PROJECT COST:</b>	<b>\$184,748</b>

EXHIBIT 3-A**PUEBLO WATER RESOURCES, INC  
2016 FEE SCHEDULE*****Professional Services***

Principal Professional.....	\$195/hr
Senior Professional.....	\$180/hr
Project Professional.....	\$165/hr
Staff Professional.....	\$135/hr
Technician.....	\$125/hr
Illustrator.....	\$110/hr
Word Processing.....	\$90/hr

***Other Direct Charges***

Subcontracted Services.....	Cost Plus 15%
Outside Reproduction.....	Cost Plus 15%
Travel Expenses.....	Cost Plus 15%
Per Diem*.....	\$150/day
Vehicle .....	\$75/day

***Equipment Charges***

Drilling Fluid Test Kit.....	\$100/day, \$400/week
Field Water Quality Meter (Hach DR890).....	\$75/day, \$275/week
Orion ORP/pH/Temp Probe.....	\$75/day, \$275/week
Water Level Probes (In-Situ Mini-Troll/Level Troll).....	\$100/day, \$300/week
Fuji Ultrasonic Flowmeter.....	\$200/day, \$750/week

\*Regionally and seasonally specific to project.

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**EXHIBIT 3-B**

July 6, 2016  
Project No. 12-0045

Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, California 93940

Attention: Mr. Joe Oliver, Water Resources Manager  
Mr. Jon Lear, Senior Hydrogeologist

Subject: Monterey Peninsula ASR Project, Proposal for Fiscal Year 2016-2017 Engineering Services

Dear Mr. Oliver and Mr. Lear:

In accordance with your request, Pueblo Water Resources, Inc. (PWR) is pleased to submit this proposal for the provision of ongoing engineering services for the Monterey Peninsula ASR Project. Presented in this proposal is a detailed scope of work, estimated costs, and schedule to provide ASR engineering-related tasks during Fiscal Year 2016-2017 (FY 2016-2017).

**PURPOSE AND SCOPE**

The purpose of the proposed work is to provide needed engineering services related to the Santa Margarita ASR Facility during FY 2016-2017. It is noted that PWR currently has two previously authorized Contract Amendments (CAs), which include various Santa Margarita Facility engineering-related tasks that have not been completed for various reasons<sup>1</sup>, but are planned to be completed in FY 2016-2017. The tasks presented in this proposal are intended to supplement the existing CAs only as necessary to complete the work planned and budgeted by the District for FY 2016-2017, and include the following.

- Site Expansion engineering
- ASR-1 and ASR-2 soundproof enclosure design
- ASR-1 Turbidimeter alarm design
- Backup ASR Well design and specifications

<sup>1</sup> The primary reasons the previous CAs have not been completed include delays in land acquisition and reallocations of engineering task budgets to needed supplemental water-quality investigations.

## EXHIBIT 3-B

### Scope of Services

#### Task 1 – Santa Margarita Site Expansion Engineering and Construction Management

This task includes engineering services for the completion of certain expanded Santa Margarita ASR site facilities. Specific work items in this task include the following:

**Task 1.1 – Expanded Site Engineering.** PWR will finalize engineering design and construction drawings to allow qualified Class A general contractors to construct site improvements for the property, including the following:

- Site grading, drainage, and paving for the expanded site area;
- Underground piping/utilities for CAW 30" and 16" ASR line extensions into the site;
- Grading/excavation for the expansion of the existing Backflush Pit;
- Chemical delivery truck offloading station for disinfectant supply;
- Underground piping and associated electrical/instrumentation conduits for chemical offloading facilities;
- Site landscaping and security fencing.

It is assumed that three meetings will be required to process and complete the approval of the plan set with the City and FORA, including a presentation to the Seaside City Council for the landscape and site improvements.

**Task 1.2 – Construction Support Activities.** PWR will provide assistance with construction oversight and construction monitoring for the facilities design prepared in Task 1.1 above. Services are envisioned to include the following general activities:

- Bidding support for Task 1.1 work, including an anticipated mandatory pre-bid meeting with prospective bidders, response to bidder questions and review of submitted bid proposals;
- Construction management assistance, including submittal reviews, response to contractor RFI's, change order requests, and progress billing review;
- Construction observation on a periodic basis for critical stages of construction work, including earthwork, underground work and concrete placement;
- Materials testing and documentation of construction testing activities, including soils testing, compaction testing, and concrete placement and strength testing;
- Compilation of Record Drawings for documentation of as-constructed features of the project.

## **EXHIBIT 3-B**

### **Task 2 – ASR-1 and ASR-2 Soundproof Enclosures**

This task consists of the design of sound attenuation enclosures for the ASR-1 and ASR-2 wells to reduce noise impacts to existing neighborhood residential areas. The design will address the following:

- Noise attenuation to areas north and west of the facility;
- Seismic stability of the structure(s);
- Structure disassembly/reassembly for well maintenance;
- Aesthetic compatibility with existing site features.

Engineering design and construction drawings/specifications will be prepared to allow bidding by Class A Contractors for the work. Bidding assistance and construction management services are not included in this proposal for this task, as these services are anticipated to be included in subsequent FY 2017-2018 contract work.

### **Task 3 – ASR-1 Turbidimeter Alarm**

This task includes the design of additional instrumentation for ASR-1 to include a Turbidimeter and alarm interlock function to prevent non-compliant waters from the well from entering the CAW distribution system. The design will be closely coordinated with CAW staff to ensure compatibility of the design and instruments with their standards. PWR will prepare a brief design and specification suitable for bid solicitation to CAW-approved vendors.

### **Task 4 – Backup ASR Well Design and Bid Specifications**

**Task 4.1 – Basis-of-Design.** PWR will prepare a basis-of-design technical memorandum for a backup ASR well based on the hydrogeologic conditions at the Santa Margarita site. The purpose of the memo is to establish the design features of the ASR well, and will include an evaluation of the hydrogeologic setting, a preliminary design for the well, and the materials and methods to be utilized. An Opinion of Probable Cost will also be provided. District staff and other interested parties (e.g., California American Water) will then have the opportunity to review and comment on the design. With concurrence of the District on the proposed design, preparation of the technical specifications and bid documents (Task 4.2) would immediately follow.

**Task 4.2 - Technical Specifications and Bid Documents.** Technical specifications for the drilling and construction of the backup ASR well will be prepared. The technical specifications are intended to provide adequate detail for bidding and well construction by competent, licensed (C-57) well drilling contractors. PWR will incorporate the well design and specifications for the well into a bid package using existing standard District format. It is assumed that the District will provide PWR with the District's "boiler plate" contract provisions, including general conditions and special insurance requirements, for incorporation into the final contract package.

### **EXHIBIT 3-B**

It is noted that bidding assistance and construction management services are not included in this proposal. These services are anticipated to be included in subsequent FY 2017-2018 contract work.

#### **Services Not Included**

Services which are (or may be) necessary for the completion of this project, which are not included in our proposal include the following:

- Planning/design services for Santa Margarita facility building water treatment facilities (currently anticipated in subsequent FY 2017-2018);
- Water-quality sampling and analyses (assumed District and/or CAW provided);
- Construction of any site facilities;
- Permit fees;
- Cost of water, electricity, or other utilities;
- Any others items not specifically included in PWR's scope of services.

#### **Estimated Fees and Schedule**

Based on the scope of services presented herein, we estimate the fees for our services will be \$273,390; which will be billed on a time-plus-expenses basis in accordance with our current Fee Schedule (attached). An estimated fee summary worksheet is attached summarizing the estimated man-hours and costs per task/work item. A 10 percent contingency has been noted in the attached budget summary (total with contingency is \$300,729) in the event that unforeseen project complications or constraints arise. We recommend the contingency be held for authorization by District staff upon written justification by PWR.

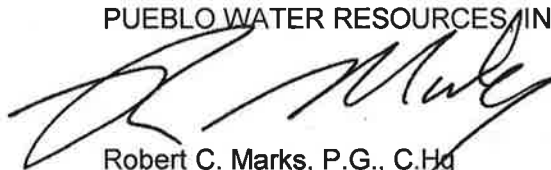
We understand that in order to authorize this work, your Board must first approve a formal contract amendment. Based on our current workload, we believe that we can commence work within two weeks of your authorization; we believe the work will be completed by the end of the fiscal year (June 30, 2017).

We appreciate the opportunity to provide assistance to the District on this important water supply project. If you require additional information regarding this or other matters, please call us.

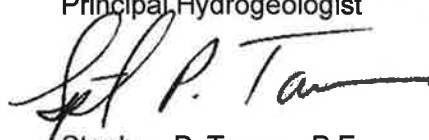
**EXHIBIT 3-B**

Sincerely,

PUEBLO WATER RESOURCES, INC.



Robert C. Marks, P.G., C.Hg  
Principal Hydrogeologist



Stephen P. Tanner, P.E.  
Principal Engineer

RCM:SPT

Attachments: Cost Estimation Spreadsheet  
2016 Fee Schedule

**EXHIBIT 3-B**

**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
**Professional Services for Monterey Peninsula ASR Project - Engineering**

Fiscal Year 2016-2017

PWR Project No.: 12-0045

**ESTIMATED FEE SUMMARY**

LABOR		Principal Professional	Senior Professional	Drafting	WP	Hours by Task	Estimated Task Cost
Hourly Fee		\$195	\$180	\$110	\$90		
Task No.	Task Description						
1	Site Expansion Engineering and Construction Mgmt	250	420	90	40	800	\$137,850
2	ASR-1 and ASR-2 Soundproof Enclosures	56	17	12	4	89	\$15,660
3	ASR-1 Turbidimeter and PLC Interlock	24	-	12	2	38	\$6,180
4	Backup ASR Well Design and Bid Specifications	20	55	5	5	85	\$14,800
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
		-	-	-	-		
<b>Hours by Labor Category:</b>		350	492	119	51		
<b>Costs by Labor Category:</b>		\$68,250	\$88,560	\$13,090	\$4,590		
						<b>Total Labor Hours:</b>	<b>1012</b>
						<b>Total Labor Costs:</b>	<b>\$174,490</b>

OTHER DIRECT COSTS (ODC's)					
Task No.	Item	Units	Unit Price	No. of Units	Fee
	Vehicle	Daily	\$75	18	\$1,350
	Travel Per Diem	Daily	\$150	14	\$2,100
					\$0
					\$0
					\$0
<b>Subtotal ODCs:</b>					<b>\$3,450</b>

OUTSIDE SERVICES					
Task No.	Item	Units	Unit Price	No. of Units	Fee
1.1	Geotechnical Engineering	LS	\$18,000	1	\$18,000
1.1	Landscape Design	LS	\$14,000	1	\$14,000
1.2	Soils Monitoring / Materials Testing	LS	\$31,000	1	\$31,000
2	Structural Engineering	LS	\$8,000	1	\$8,000
3	Electrical Engineering	LS	\$12,000	1	\$12,000
<b>Subtotal Outside Services:</b>					<b>\$83,000</b>
<b>Subtotal Outside Services w/ Markup (15%):</b>					<b>\$95,450</b>

COST SUMMARY	
Labor	\$174,490
Other Direct Costs	\$3,450
Outside Services	\$95,450
<b>Subtotal:</b>	<b>\$273,390</b>
10 % Contingency	\$27,339
<b>TOTAL ESTIMATED PROJECT COST:</b>	<b>\$300,729</b>

EXHIBIT 3-B**PUEBLO WATER RESOURCES, INC  
2016 FEE SCHEDULE*****Professional Services***

Principal Professional.....	\$195/hr
Senior Professional.....	\$180/hr
Project Professional.....	\$165/hr
Staff Professional.....	\$135/hr
Technician.....	\$125/hr
Illustrator.....	\$110/hr
Word Processing.....	\$90/hr

***Other Direct Charges***

Subcontracted Services.....	Cost Plus 15%
Outside Reproduction.....	Cost Plus 15%
Travel Expenses.....	Cost Plus 15%
Per Diem*.....	\$150/day
Vehicle .....	\$75/day

***Equipment Charges***

Drilling Fluid Test Kit.....	\$100/day, \$400/week
Field Water Quality Meter (Hach DR890).....	\$75/day, \$275/week
Orion ORP/pH/Temp Probe.....	\$75/day, \$275/week
Water Level Probes (In-Situ Mini-Troll/Level Troll).....	\$100/day, \$300/week
Fuji Ultrasonic Flowmeter.....	\$200/day, \$750/week

\*Regionally and seasonally specific to project.

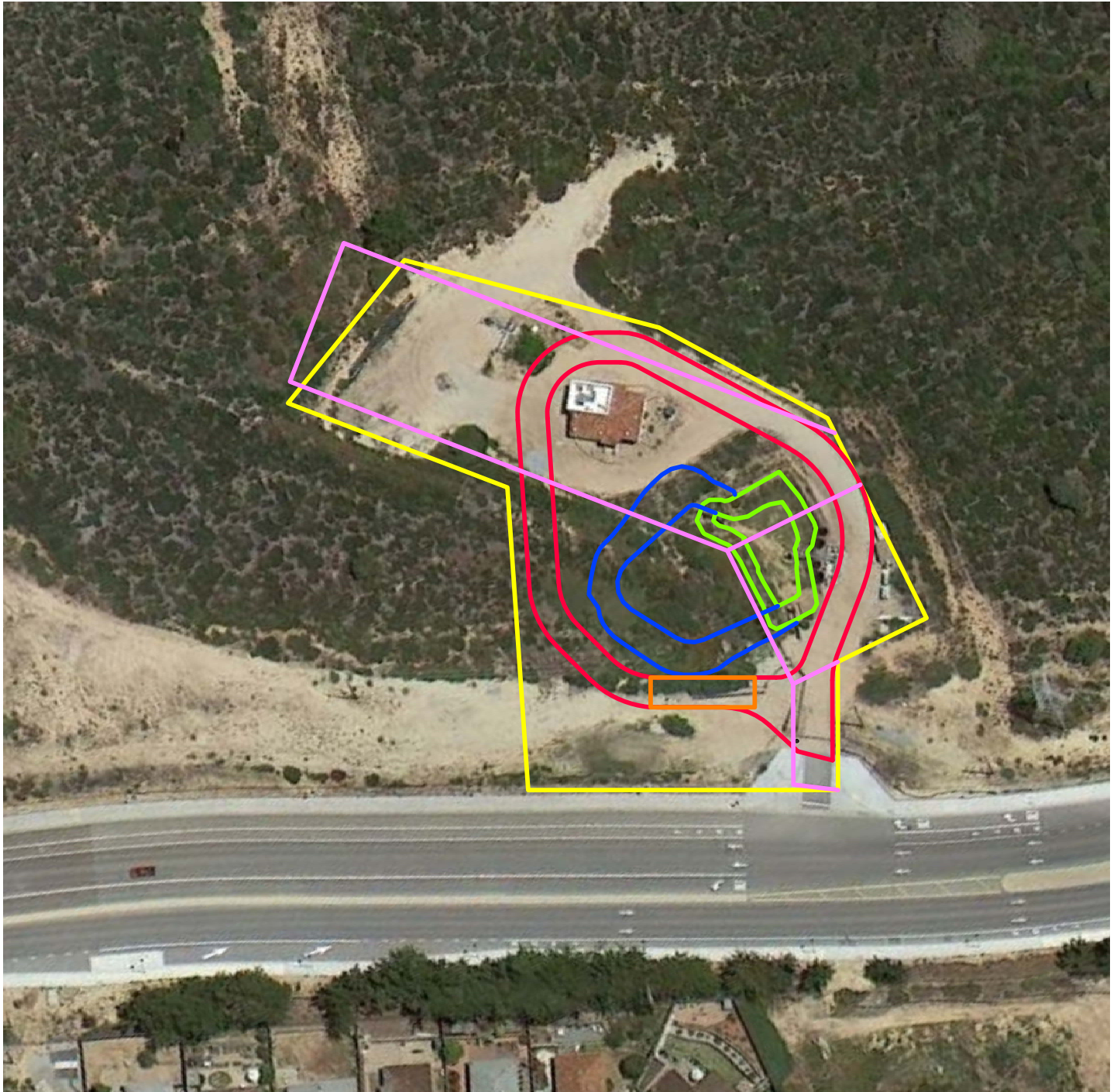
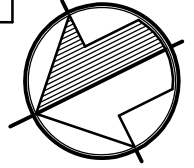
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# LEGEND

- PROPOSED MPWMD PARCEL ———
- EXISTING MPWMD PARCEL ———
- ALT 5 ACCESS ROAD ———
- CHEMICAL LOADING RACK ———
- EXISTING POND ———
- NEW POND ———

NEW LAND ACQUIRED	0.88 ACRES
LAND DEEDED BACK TO CITY	0.06 ACRES



**Creegan+D'Angelo**  
 INFRASTRUCTURE  
 ENGINEERS

225 Cannery Row, Suite H  
 Monterey, CA 93940  
 Tel (831) 373-1333  
 Fax (831) 373-0733

[www.cdengineers.com](http://www.cdengineers.com)

**PROPOSED EXPANSION**

**SANTA MARGARITA WELL SITE**

DATE: 06-20-13  
 C+D JOB: 710005.00

SCALE: 1"=100'  
 SHEET 1 OF 1

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**ITEM: CONSENT CALENDAR****4. CONSIDER EXPENDITURE TO AMEND CONTRACT WITH PUEBLO WATER RESOURCES TO PROVIDE HYDROGEOLOGIC REVIEW FOR WATER DISTRIBUTION SYSTEM PERMITS**

<b>Meeting Date:</b>	<b>July 18, 2016</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>WDS Permitting 2-8-2</b>
<b>Prepared By:</b>	<b>Henrietta Stern</b>	<b>Cost Estimate:</b>	<b>\$2,000</b>

**General Counsel Review: N/A****Committee Recommendation: The Administrative Committee reviewed this item on July 11, 2016 and recommended approval.****CEQA Compliance: N/A**

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**SUMMARY:** The Board will consider authorizing the General Manager to amend an existing contract with Pueblo Water Resources, Inc. (Pueblo) to authorize a maximum of \$2,000 for Fiscal Year (FY) 2016-2017 (July 1, 2016 through June 30, 2017) to continue to help District staff carry out MPWMD Rules and Regulations governing Water Distribution Systems (WDS), specifically in regards to hydrogeologic review of well pumping test reports and related tasks. The \$2,000 limit would be tracked as follows:

Program 2-8-2, "Hydrologic Impact Review," with up to \$2,000 as 100% reimbursable from applicants.

**Exhibit 4-A** is the proposed scope of work and cost estimate from Pueblo for FY 2016-2017. The proposed \$2,000 total limit is lower than that budgeted in FY 2015-2016, based on actual work performed in FY 2015-2016. The hydrogeologic review will be primarily associated with Level 3 Permits under the current WDS rules. The applicant must show that a well (or other water source) will reliably meet the applicant's needs, and will not adversely affect the Monterey Peninsula Water Resource System or Sensitive Environmental Receptors as defined in District Rule 11.

**RECOMMENDATION:** Staff recommends that the Board authorize the General Manager to amend the current District professional services contract with Pueblo for a not-to-exceed amount of \$2,000 for FY 2016-2017, which was recently adopted by the Board as part of the FY 2016-2017 budget. If this item is adopted along with the Consent Calendar, staff will execute a contract amendment with Pueblo.

**BACKGROUND AND DISCUSSION:** Pueblo has been retained since June 2006 to assist staff with WDS Permit processing on an as-needed basis. All amounts are maximums; only actual hours of service are billed. Invoiced hours submitted by consultants for review of each application are reimbursed by the applicant before the applicant receives the signed WDS Permit.

Pueblo's rates are competitive with other consulting firms with experienced, registered hydrogeologists. Pueblo is very knowledgeable about local hydrogeology and MPWMD procedures, and is considered to be cost-efficient for this work. Pueblo also has contracts with the District for Aquifer Storage and Recovery tasks in the Seaside Groundwater Basin.

Continued WDS applications are expected due to restrictions on the availability of California American Water supply for new construction and remodels. Consultant assistance is essential to adequately process permit applications in compliance with the State Permit Streamlining Act and to help the Water Resources Division address technical questions relating to the WDS process.

**IMPACT TO DISTRICT RESOURCES:** Pueblo's technical work is directed by the MPWMD Water Resources Division Manager, with logistics to be managed in the future by Water Demand Division staff as they take on responsibility for processing WDS Permits (currently performed by the Planning & Engineering Division). Pueblo's work product is used as evidence in preparing WDS Permit documents, including the required Findings of Approval.

#### **EXHIBIT**

#### **4-A Pueblo Water Resources Scope of Work and Fee Schedule for FY 2016-2017**

EXHIBIT 4-A

July 1, 2016  
Project No. 15-0062

Monterey Peninsula Water Management District  
Post Office Box 85  
Monterey, California 93942

Attention: Ms. Henrietta Stern

Subject: Proposal for Continuing Professional Hydrogeologic Services; WDS Permitting Assistance, Fiscal Year 2016-2017

Dear Henrietta:

Pursuant to your request, Pueblo Water Resources, Inc. (PWR) is pleased to submit this proposal for continuing assistance with the processing of Water Distribution Systems (WDS) permit applications during Fiscal Year 2016-2017 (FY 2016-2017). It is our understanding that the District desires PWR to provide continued technical assistance with the review and evaluation of Well Source and Pumping Impact Assessments (assessments) for compliance with District Technical Procedures. Presented in this proposal is a scope of services and associated budget to provide the requested services.

#### SCOPE OF SERVICES

The following services are proposed to be provided during FY 2016-2017. Consistent with past practice, our work will be performed with direct oversight of the General Manager or his/her designee (e.g., the District Water Resources Manager) on an as-needed / as-directed basis.

**Task 1 – Assist with Assessment Reports.** This task consists of the review and evaluation of assessments submitted by applicants for compliance with District technical procedures, and providing written documentation summarizing our findings for each reviewed assessment. It is understood that these evaluations will be coordinated with the District Water Resources Manager. This task also includes providing assistance in the preparation of any hydrogeologic evaluations requested by the District related to the WDS program.

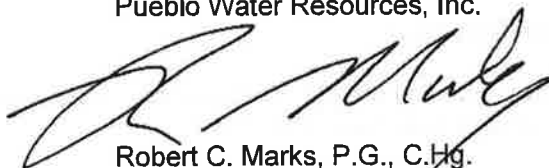
Our services will be billed on a time-plus expenses basis in accordance with our current Fee Schedule (attached) for a **not-to-exceed amount of \$2,000**. Consistent with past practice, we will track our costs associated with each WDS applicant separately to facilitate reimbursement by the applicants. In the event that the overall number or complexity of the assessments to be evaluated requires effort beyond the established budget, we will notify you in writing as soon as possible.

**EXHIBIT 4-A**

We appreciate the opportunity to provide assistance to the District, and look forward to the timely and successful performance of the work. As always, if you have any questions please call us.

Sincerely,

Pueblo Water Resources, Inc.

A handwritten signature in black ink, appearing to read "R. Marks", written in a cursive style.

Robert C. Marks, P.G., C.Hg.  
Principal Hydrogeologist

RCM

Attachments: 2016 Fee Schedule

EXHIBIT 4-A**PUEBLO WATER RESOURCES, INC  
2016 FEE SCHEDULE*****Professional Services***

Principal Professional.....	\$195/hr
Senior Professional.....	\$180/hr
Project Professional.....	\$165/hr
Staff Professional.....	\$135/hr
Technician.....	\$125/hr
Illustrator.....	\$110/hr
Word Processing.....	\$90/hr

***Other Direct Charges***

Subcontracted Services.....	Cost Plus 15%
Outside Reproduction.....	Cost Plus 15%
Travel Expenses.....	Cost Plus 15%
Per Diem*.....	\$150/day
Vehicle .....	\$75/day

***Equipment Charges***

Drilling Fluid Test Kit.....	\$100/day, \$400/week
Field Water Quality Meter (Hach DR890).....	\$75/day, \$275/week
Orion ORP/pH/Temp Probe.....	\$75/day, \$275/week
Water Level Probes (In-Situ Mini-Troll/Level Troll).....	\$100/day, \$300/week
Fuji Ultrasonic Flowmeter.....	\$200/day, \$750/week

\*Regionally and seasonally specific to project.

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**ITEM: CONSENT CALENDAR****5. CONSIDER CONTRACT FOR DISTRICT PUBLIC OUTREACH AND COMMUNICATIONS SERVICES WITH THOMAS BRAND CONSULTING FOR FISCAL YEAR 2016-2017**

<b>Meeting Date:</b>	<b>July 18, 2016</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>\$49,200</b>

**General Counsel Review: N/A****Committee Recommendation: The Administrative Committee reviewed this item on July 11, 2016 and recommended approval on a vote of 2-1.****CEQA Compliance: N/A**

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**SUMMARY:** Attached as **Exhibit 5-A** is a proposed Scope of Work for Public Outreach & Communication Services submitted by Thomas Brand Consulting (TBC). TBC has been providing services to the District since 2013. The contract is for work related to MPWMD outreach and communications.

TBC has proposed continuing a \$4,100 retainer for Fiscal Year (FY) 2016-2017 for a total budget of \$49,200. Funding for contractor assistance with public outreach and communication services was included in the District's budget. In addition to the retainer, funds were budgeted for design services for graphic and website design, printing, website upgrades, media buys, etc.

**RECOMMENDATION:** The Administrative Committee should recommend the Board approve a contract with TBC for outreach services for the current fiscal year.

**EXHIBIT****5-A Proposed Scope of Work**

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**Proposed Scope of Work  
For Public Outreach &  
Communication Services  
FY16-17**

**Prepared for:**

Monterey Peninsula Water Management District

**Submitted by:**

Thomas Brand Consulting, LLC

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

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

Over the past year, the Water Management District has continued to position itself as a true resource in the eyes of the public and the media. Facing a number of highly controversial and problematic issues including the drought, developing alternative water sources, impending CDO and misguided lawsuits, the district has laid the groundwork to continue this positive trend, but the momentum must be sustained for it to continue.

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, Thomas Brand Consulting 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. This list, will be also be presented with the associated "hard costs" of these activities for individual approval as needed.

- **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 oversee the creation of the MPWMD newsletter including 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: 15-16**
  - Conservation & Drought Outreach
    - a. Ongoing meetings with CAW regarding joint conservation efforts
    - b. Outreach to Hospitality Industry regarding best management practices
    - c. Postcard to non-CAW users regarding conservation
    - d. Public Outreach to CAW and non-CAW customers
    - e. Continued outreach to multi-family homes and developments
    - f. Email Blasts through Chambers and business associations
    - g. Continued Guest Commentary Series
    - h. Continued Speakers Bureau Series
  
  - Website
    - a. Content creation and updates for both websites
  
  - Ongoing Rebate Program
    - a. Commercial Customer:
    - b. Residential: Development of in-store rebate point of purchase display
    - c. Residential: additional outreach for rebates available to district residents

- **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

**Budget**

Per the above outlined Scope of Work, Thomas Brand Consulting, LLC proposes a contractual retainer for 12 months with a range of 30 to 32 hours per month. A \$4100 retainer is proposed for July 1, 2016 through June 30, 2017 totaling \$49,200. All out of scope work unless otherwise agreed upon in writing by both parties shall be billed at \$150 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:**

<i>David J. Stoldt or Suresh Prasad</i>	<i>Date</i>
<i>Monterey Peninsula Water Management District</i>	

<i>Stephen C. Thomas</i>	<i>Date</i>
<i>Thomas Brand Consulting, LLC</i>	

**Specific Deliverables: Please See Attached Sheet**



**ITEM: CONSENT CALENDAR****6. CONSIDER CONTRACT FOR PURE WATER MONTEREY PROJECT MANAGEMENT, PUBLIC OUTREACH AND COMMUNICATION SERVICES WITH THOMAS BRAND CONSULTING FOR FISCAL YEAR 2016-2017**

<b>Meeting Date:</b>	<b>July 18, 2016</b>	<b>Budgeted:</b>	<b>Yes</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>Pure Water Monterey 35-03-786010</b>
<b>Prepared By:</b>	<b>Stephanie Locke</b>	<b>Cost Estimate:</b>	<b>\$100,000</b>

**General Counsel Review: N/A****Committee Recommendation: The Administrative Committee reviewed this item on July 11, 2016 and recommended approval on a vote of 2-1.****CEQA Compliance: N/A**

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**SUMMARY:** Attached as **Exhibit 6-A** is a proposed Scope of Work for Public Outreach & Communication Services submitted by Thomas Brand Consulting (TBC). The contract is for work related to Pure Water Monterey (groundwater replenishment project) outreach and communications.

TBC has proposed a six-month budget of \$100,000, after which the costs would be covered by proceeds from the State Revolving Fund loan. Details of the project budget are found in the Scope of Work. Funding for contractor assistance with project management, public outreach and communication services was included in the District's recently adopted Fiscal Year 2016-2017 budget.

**RECOMMENDATION:** The Administrative Committee should recommend the Board approve a contract with TBC for project management, outreach and communication services for the current fiscal year.

**EXHIBIT****6-A Proposed Scope of Work**

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**Proposed Scope of Work  
For Project Management, Public Outreach,  
Advertising, Social Media and  
Communication Services for  
Pure Water Monterey  
(Monterey Peninsula Ground Water Replenishment Project)**

**Prepared for:**

Monterey Peninsula Water Management District

**Submitted by:**

Thomas Brand Consulting, LLC

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

## Introduction to the Proposed Scope of Work

Since 2013, TBC has been working under the direction of the MPWMD to assure that the District's Branding, Communication and Public Outreach needs are met with regards to Pure Water Monterey, a groundwater replenishment project. As of 1/28/14, the MPWMD assumed Project Lead Status and consequently will be assumed a much greater project responsibility from not only a managerial but also from a production standpoint.

With the project fully engaged in the local, state and federal agency approval process, additional public presence at levels is necessary coupled with an increase in local media and organizational outreach. This scope of work supports the previously approved Fiscal Year 2016-2017 July 16- Dec 16 Pure Water Monterey Outreach Budget.

Since the public outreach strategic plan will now include an increased effort to reach the Salinas Valley, and a continued effort to promote the project at the state and national level, additional opportunities as they become available and while not specifically listed, would be included in this scope on the approval of both parties.

## Previously Approved Pure Water Monterey Budget:

Pure Water Monterey  
Draft Budget  
FY 16-17 July-Dec Only

No.	Platform	Line Item	Cost	Notes
<b>1</b>	<b>Online Outreach</b>			
1a		Website Updates	\$2,500	Ongoing update to purewatermonterey.org to create a more user-friendly interactive informational source
1b		<u>E-Blast &amp; Data Capture</u>	<u>\$1,000</u>	Licence and Management of data capture modual and implementation of e-blasts
			\$3,500	
<b>2</b>	<b>Events</b>			
		OC Tours	\$0	Previously approved business & hospitality industry tours
2a		Promotional	\$3,000	Local Fairs, Home & Garden Shows, Water Centric Events
2b		Informational/Media	\$1,500	Media Receptions, Town Hall Meetings
2c		<u>Water Purification Summit</u>	<u>\$0</u>	Special Event for Local and OC IPW Electeds and Officials
			\$4,500	
<b>3</b>	<b>Collateral Development</b>			
3a		Collateral Design	\$5,000	Design of or updates to all collateral including brochures, Powerpoints, mailers, banners, advertisements, etc.
3b		Printing	\$10,000	Printing Costs for collateral items
3c		<u>Mailing</u>	<u>\$0</u>	Mailing costs to all ratepayers for various items
			\$15,000	
<b>4</b>	<b>Outreach Team</b>			
4a		Thomas Brand Consulting	\$36,000	Project Lead overseeing all Public Outreach activities related to the project
4b		Data Instincts	\$18,000	Providing strategic input and recommendations. Extensive experience with water supply projects
4c		<u>Outreach Coordinators</u>	<u>\$0</u>	<u>Boots on the ground individuals to staff and provide support at events and person to person outreach as needed</u>
			\$54,000	
<b>5</b>	<b>Promotional Items</b>			
5a		Tour & Event Giveaways	\$2,000	Branded giveaway items



## Scope of Work:

### Including but not limited to:

- **Project Management of the Pure Water Monterey Public Outreach Initiative**
- **Update and Execution of the Strategic Outreach Plan**
- **Continuation of rebranding the project to Pure Water Monterey**
- **Review, editing and final production of all items produced by Public Outreach team**
- **Formally initiate comprehensive outreach to all Salinas Valley Interests**
- **Increase Regional, State & Federal profile of the program**
- **Brand Management & Key Message Development**
  - Work with team to continue to create a comprehensive brand and key message
- **Media/Information Kit Development**
  - Creation of separate media kits in English and Spanish including
    - Standard
    - Educational/School Focused
    - Agricultural Interests
    - Pilot Plant Visitors
- **Media Relations**
  - Manage all media and press relations including interviews, FAM tours, inquiries, and updates to local, regional and national press
- **Community Relations/Relationship Building**
  - Manage locally based stakeholder outreach
- **Social Media**
  - Initiate and manage all social media platforms including Facebook, Twitter and others as needed
- **Advertising**
  - Management including research, creative direction and placement of all advertising associated with GWR project
- **Management and Facilitation of FAM Tours**
  - Facilitation and coordination of all FAM tours to Santa Clara or Orange County
- **Public Outreach/Education Campaign**
  - Manage Public Outreach and Education campaign with agency staff and other stakeholder group representatives
- **Event Management and Coordination**
  - Manage events for project including series of local Town Hall meetings including OC representatives
- **External Public Perception Audit**
  - Perform audit as directed by team
- **External Approval Agency Outreach as Needed**
  - Creation of outreach specific plan for implementation to support specific public meetings, forums and initiatives
- **Regular attendance at Project Meetings, BOD Meetings & Relevant Events**
- **General Strategic Counsel & Regular Meetings/Communication with MPWMD Board of Directors, Staff, Shareholders, and Project Partners**

## **Budget**

Per the above outlined Scope of Work on the GWR Project, Thomas Brand Consulting, LLC proposes a contractual agreement not to exceed a total of \$54,000 starting 7/1/16 and includes all necessary administrative, support, specialized outreach and sub-contracted staff needed for the continued execution of the scope of work. This agreement shall remain in effect during and following any future mid-year or fiscal year budget adjustment periods to be additionally funded as agreed upon by both parties. All out of scope work unless otherwise agreed upon in writing by both parties shall be billed at \$150 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 immediately and the initial payment will be due immediately. From that point forward, the client will be invoiced on the 1<sup>st</sup> of each month, payable within 30 days unless otherwise agreed to by both parties.

### **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.

**Summary**

Thomas Brand Consulting is uniquely positioned to serve as the public outreach agency/consultant, on behalf of the Monterey Peninsula Water Management District for the Pure Water Monterey Project. Thank you for the opportunity to submit our proposal, we truly look forward to assuring that the project is a viable piece of our water supply puzzle.

**Acceptance of Proposal:**

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

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

\_\_\_\_\_  
*Stephen C. Thomas*  
*Thomas Brand Consulting, LLC*

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



**ITEM:     CONSENT CALENDAR**

**7.     AUTHORIZE     EXPENDITURE     FOR     SOFTWARE     MAINTENANCE  
       AGREEMENTS**

<b>Meeting Date:</b>	July 18, 2016	<b>Budgeted:</b>	Yes
<b>From:</b>	David J. Stoldt, General Manager	<b>Program/ Line Item No.</b>	Services and Supplies Data Processing
<b>Prepared By:</b>	E. Sandoval	<b>Cost Estimate:</b>	\$61,075

**Administrative Services Division Manager/Chief Financial Officer Review: Yes**  
**Committee Recommendation: The Administrative Committee reviewed this item on July 11, 2016 and recommended approval.**  
**CEQA Compliance: N/A**

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**SUMMARY:** Staff seeks authorization to continue with our software maintenance agreements for Geographic Information Systems (GIS), IT Support, Financial Accounting, watershed analysis, ground & surface water modeling, and topographic data processing software. These software’s are for use at the District for various information technology (IT) and accounting functions and used by staff in their daily functions.

**RECOMMENDATION:** Staff recommends approval of expenditures not-to-exceed \$61,075 to purchase the items listed in the table below:

<b>Product</b>	<b>Price</b>
ESRI ArcGIS Standard concurrent	\$4400
ESRI ArcGIS Standard stand-alone	\$1650
ESRI Extensions	\$2500
Latitude Geographics GeoCortex	\$6000
ESRI EDN	\$1650
ArcGIS Server Two Core	\$1375
Server networking	\$3500
Backup, antivirus and MS office	\$11000
Docuware (Financial)	\$8000
Tyler Technologies (Financial)	\$21000
<b>TOTAL</b>	<b>\$61075</b>

**IMPACT TO STAFF/RESOURCES:** The FY 2016-17 Information Technology budget includes funds of \$61,075 in the District budget for these line item purchases.

**BACKGROUND:** The GIS platform serves many purposes for MPWMD data analysis needs that include: map production, spatial analysis in support of engineering, water resource management, fisheries, conservation, and rationing analysis. All of these functions require the

examination of geographic data, management, and dissemination of these data throughout the District. The effectiveness of the GIS to better serve the MPWMD staff and the public is dependent on the ability of staff to analyze geospatial data.

The IT and Accounting programs require various software applications to allow staff to complete their day-to-day duties and tasks as well as provide real-time financial information of the District.

These software platforms serve many purposes for MPWMD data analysis needs that include: map production, spatial analysis in support of engineering, water resource management, fisheries, conservation, and rationing analysis. In addition, it is a vital system for the District's ongoing surface and subsurface water modeling efforts. The effectiveness of District tasks to better serve the MPWMD staff and the public will be largely achieved through data management and analysis functions which are provided by the software.

## **EXHIBITS**

None

**ITEM: CONSENT CALENDAR****8. CONSIDER APPROVAL OF CHANGE FROM SENIOR WATER RESOURCES ENGINEER TO WATER RESOURCES ENGINEER ON THE DISTRICT'S ORGANIZATION CHART****Meeting Date:** July 18, 2016 **Budgeted:** N/A**From:** David J. Stoldt,  
General Manager **Program/** N/A  
**Line Item No.:****Prepared By:** Cynthia Schmidlin **Cost Estimate:** N/A**General Counsel Approval:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 11, 2016 and recommended approval.**CEQA Compliance:** N/A

**SUMMARY:** On March 21, 2016, the Board authorized the creation of an Assistant Water Resources Engineer Position, and approved recruitment for candidates within the Engineering Career Ladder. At that time, staff indicated that if a candidate were to be selected at the Assistant Water Resources Engineer or Water Resources Engineer level, the Board would be requested to authorize a change in the District Organization Chart to replace the current Senior Water Resources Engineer position.

After an extensive recruitment and interviews of five candidates, it was determined by the interview panel that the best qualified candidate was an individual who had applied at the Water Resources Engineer level. That person will be starting on August 1, 2016.

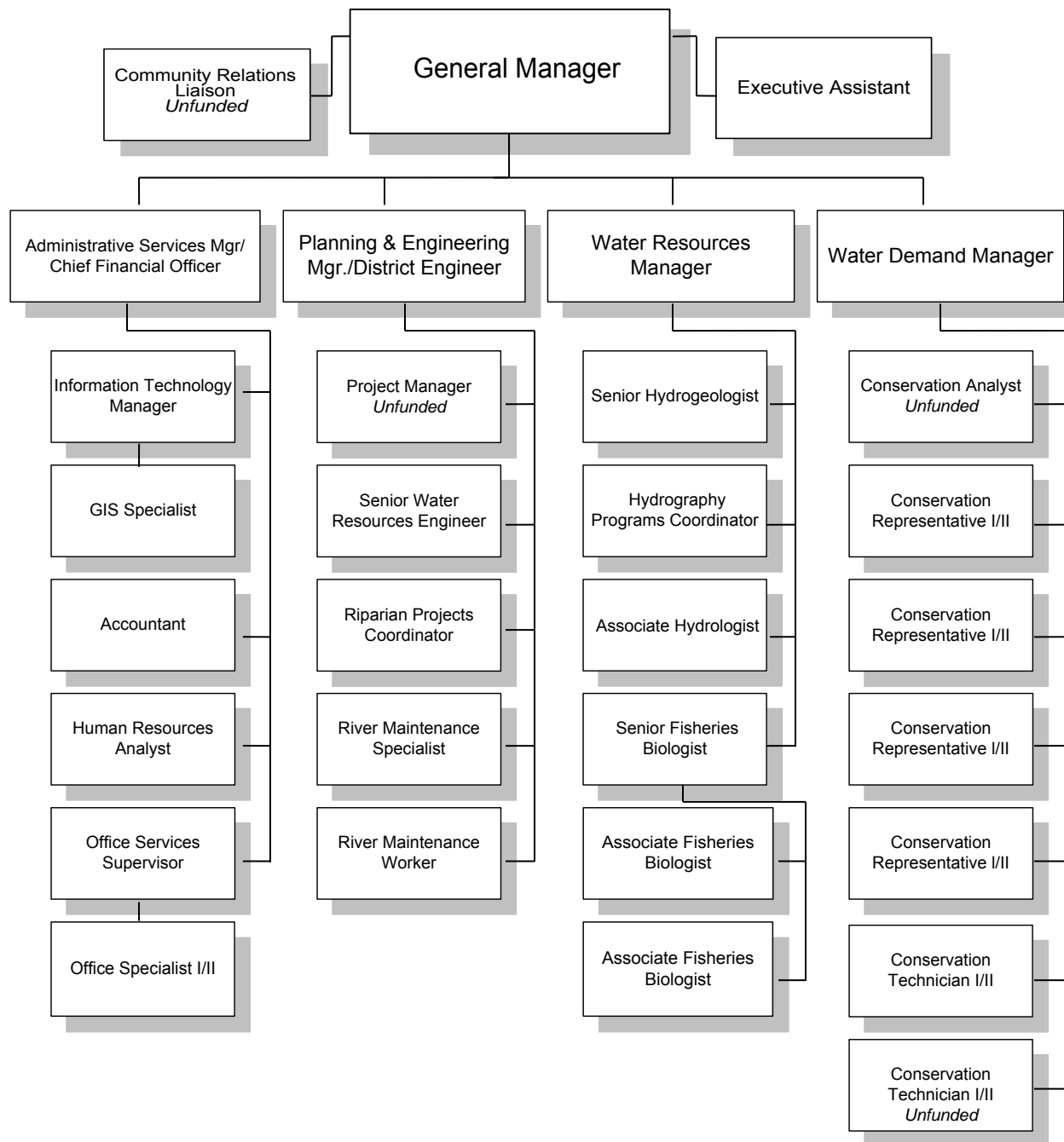
**RECOMMENDATION:** Authorize a change from the current District Organization Chart with a Senior Water Resources Engineer position (**Exhibit 8-A**) to the proposed Organization Chart with a Water Resources Engineer position (**Exhibit 8-B**).

**IMPACTS TO STAFF/RESOURCES:** None**EXHIBITS****8-A** Current Organization Chart**8-B** Proposed Organization Chart

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**EXHIBIT 8-A**

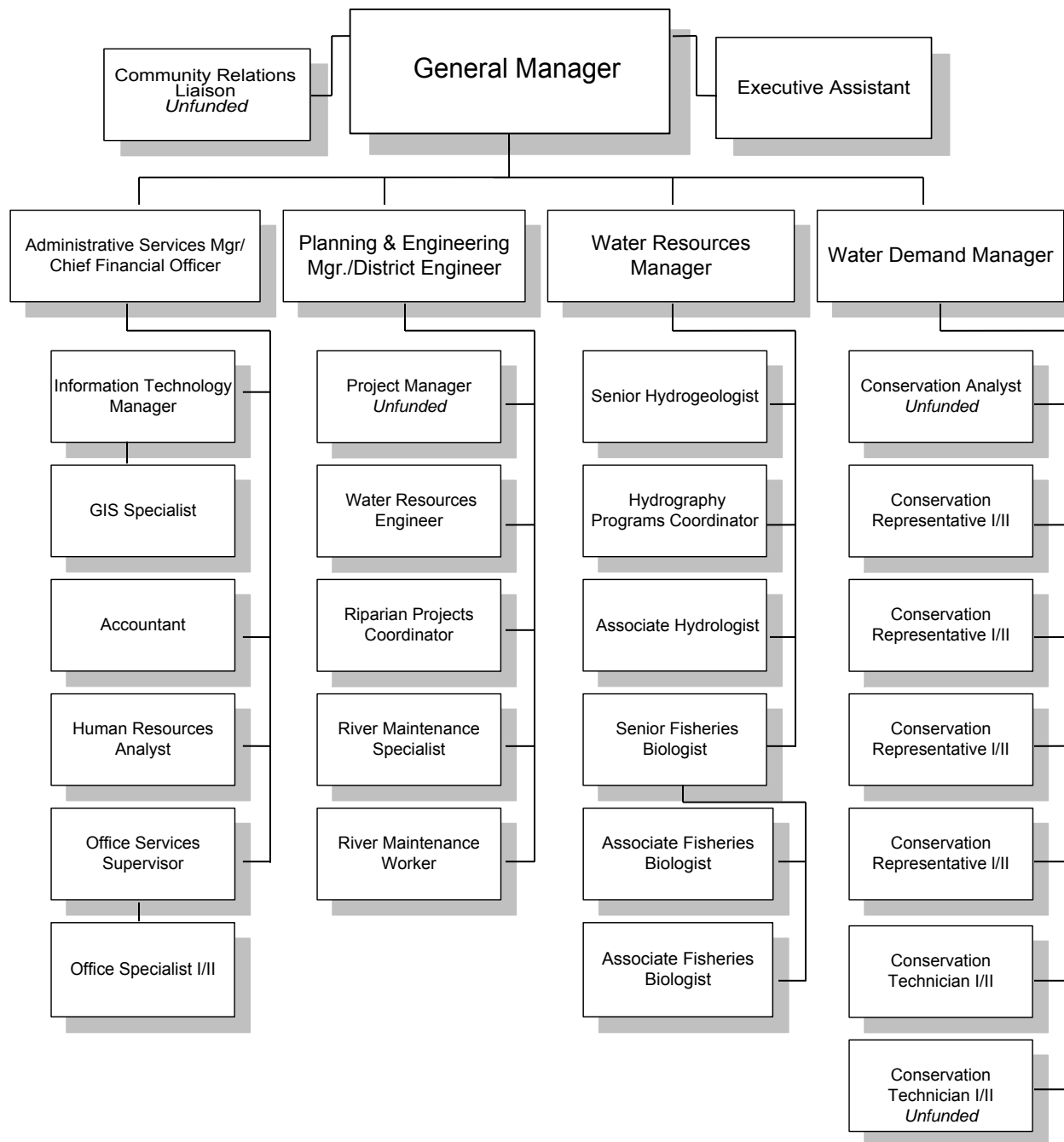
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
CURRENT ORGANIZATION CHART  
July 2016**



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**EXHIBIT 8-B**

**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
PROPOSED ORGANIZATION CHART  
(Planning and Engineering Division Change)  
July 2016**



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**ITEM: CONSENT CALENDAR****9. CONSIDER RECLASSIFICATION OF TWO CONSERVATION REPRESENTATIVE I/II POSITIONS AND RELATED CHANGE TO THE DISTRICT'S ORGANIZATION CHART**

<b>Meeting Date:</b>	<b>July 18, 2016</b>	<b>Budgeted:</b>	<b>No</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program:</b>	<b>N/A</b>
		<b>Line Item No.:</b>	<b>N/A</b>
<b>Prepared By:</b>	<b>Cynthia Schmidlin</b>	<b>Cost Estimate:</b>	<b>\$14,000</b>

**General Counsel Approval:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 11, 2016, and recommended approval.**CEQA Compliance:** N/A

**SUMMARY:** On February 29, 2016, Conservation Representative II's, Gabriela Ayala and Stephanie Kister sent the General Manager a request for reclassification review of their Conservation Representative I/II developmental positions in the Water Demand Division.

The General Manager determined that there was merit to the request. A reclassification analysis was performed, involving the General Manager, Water Demand Manager and Human Resources Analyst. This analysis determined that there have been numerous changes in the duties the two employees perform, resulting in a significant increase in the level of skill and responsibility associated with their job functions. It supported reclassification of the two Conservation Representative I/II positions to Conservation Analyst. The unfunded Conservation Analyst position that appears on the current organization chart would be funded, along with an additional Conservation Analyst position. Two of the four Conservation Representative I/II positions would be eliminated.

**RECOMMENDATION:** Authorize reclassification of two Conservation Representative I/II positions (**Exhibit 9-A**), Range 20/24 of the District's Salary Chart, to Conservation Analyst (**Exhibit 9-B**) positions, placed at Range 30 of the District's Salary Chart. Authorize a change to the District's current Organization Chart (**Exhibit 9-C**) to reflect these changes (**Exhibit 9-D**).

**IMPACTS TO STAFF/RESOURCES:** Reclassification of two Conservation Representative II's to Conservation Analysts and placement of the incumbents in Range 30 would be effective August 1, 2016, in accordance with the provisions of the Memorandums of Understanding. It would cost approximately \$14,000 for the remainder of FY 2016-2017. This amount would be addressed in the mid-year budget adjustment.

**BACKGROUND:** The following summarizes the basis for the recommended reclassifications:

Gabriela Ayala and Stephanie Kister are performing duties at a higher level than those described at the Conservation Representative II level in the current Conservation Representative I/II job classification.

New duties that are beyond the scope and complexity of those performed by a Conservation Representative II, are listed below:

- 1) Extensive Deed Restriction review and determination. Since 2013, all water permits applications are subject to at least one deed restriction.
- 2) Application and interpretation of the Model Water Efficient Landscape Ordinance (MWELo), with changes incorporated in 2015. This involves processing of all applications for new and refurbished landscapes subject to MWELo, conducting inspections and receiving certifications related to the permits. Certification as a Landscape Irrigation Auditor is required.
- 3) Development and implementation of new Water Conservation Programs for residential and commercial customers, requiring certification as a Water Conservation Practitioner. This includes conducting the most technical water conservation audits, estimating water savings for large complex properties, and assessing technical engineering reports from third party agencies.
- 4) Expanded Public Outreach activities, working on the design, writing and coordination of production and distribution of publications regarding District-hosted workshops. Work on the planning and organization of community outreach events and updates of the Districts website and Facebook page have become regular responsibilities.
- 5) Management of the overall water allocation program for the District, including tracking of the use of water, available supply and permit activity. Responsibilities also cover the management of the Entitlements for the Pebble Beach Company, City of Sand City and newly created entitlements such as the Malpas Water Company.
- 6) Assumption of the Water Distribution Systems Permits Confirmation of Exemption Process from the Planning and Engineering Department. This requires analysis of technical memorandums, Monterey County Environmental Health Bureau Well Reports, Department of Water Resources Well Completion Reports, and Hydrogeologic Assessment Reports. Duties include interpretation of Articles of Incorporation, Operating Agreements for Limited Liability Companies, Deeds of Trust, Grant Deeds and other legal documents to determine ownership of a property with limitations of use.
- 7) General knowledge and use of the California Environmental Quality Act (CEQA) and its applications in the preparation of Notices of Preparation, Initial Study, Notices of Determination, Notices of Exemption, and responses to Environmental Impact Reports.
- 8) Daily supervision and training of lower level staff in the Water Demand Department.

These increased responsibilities, as well as other complex tasks involving analytical work and policy interpretation, are required for the efficient functioning of the Water Demand Division in its current role. A higher-level position in the Conservation career ladder has been anticipated for

some time. The position of Conservation Analyst was created in 2009, but never filled, due to prior emphasis on the collection and analysis of consumption data that has never been acquired. However, it has remained on the District's Organization Chart in an unfunded status. With the addition of new duties that reflect the needs of the District in 2016, this position is appropriate for the reclassification of the Conservation Representative II's who have been required to work far beyond the level of their current position.

#### **EXHIBITS**

- 9-A** Conservation Representative I/II Job Description
- 9-B** Conservation Analyst Job Description
- 9-C** Current District Organization Chart
- 9-D** Proposed District Organization Chart

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**EXHIBIT 9-A****MONTEREY PENINSULA WATER MANAGEMENT DISTRICT****CONSERVATION REPRESENTATIVE I  
CONSERVATION REPRESENTATIVE II**

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

**DEFINITION**

To provide information and educate the public on the need for water conservation and water demand management; to assist other agencies and the general public in understanding conservation and permit requirements and ensure that District conservation rules are carried out; to review permit applications; to perform inspections on properties to ensure compliance with water conservation standards, rules and regulations and with water permit specifications; and to assist in research, analysis, and reporting on water demand management and conservation programs.

**DISTINGUISHING CHARACTERISTICS**

**Conservation Representative I**--This is the entry level class in the Conservation Representative series. This class is distinguished from the Conservation Representative II by the performance of the more routine tasks and duties assigned to positions within the series including data input of property transfers and inspection reports, update of Cal-Am accounts, generation of enforcement letters and preparation of notices of compliance. Since this class is typically used as a training class, employees may have only limited or no directly related work experience. Positions in this class are expected to learn the full scope of duties and responsibilities and demonstrate proficiency over time.

**Conservation Representative II**--This is the full journey level class within the Conservation Representative series. Employees within this class are distinguished from the Conservation Representative I by the performance of the full range of duties as assigned including interpreting and applying water conservation rules to specific projects. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Employees at this level may provide general direction and information to lower level staff in the division, attend Board meetings, and prepare and present staff notes related to assigned projects. Positions in this class are flexibly staffed and are normally filled by advancement from the I level, or when filled from the outside, have prior experience.

**SUPERVISION RECEIVED AND EXERCISED****Conservation Representative I**

Receives immediate supervision from the Water Demand Manager.

**Conservation Representative II**

Receives general supervision from the Water Demand Manager.

**ESSENTIAL AND MARGINAL FUNCTION STATEMENTS**

*The following duties are typical for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here:*

**Essential Functions:**

1. Inspect property for compliance with water conservation standards, rules and regulations, and with permit specifications; document water use on site and complete inspection report forms for entry into database.
2. Compile statistics on inspections performed and make estimate of water savings; use spreadsheet software to organize and present data; prepare monthly narrative conservation report for the Board.
3. Analyze water use, including but not limited to on site use, as it relates to permit applications and make recommendations to property owners as to actions to take to save water and conform to permit requirements.
4. Investigate water waste complaints and issue notices of violation, where appropriate; recommend legal action to be taken by District where compliance has not been achieved.
5. Review architectural blueprints and other information to analyze potential water use expansion and determine compliance with District rules and regulations.
6. Interpret application rules to specific projects and calculate connection charges and water allocation required for project.
7. Enter permit information into computer, collect payment, stamp plans and issue receipts; issue permits as necessary.
8. Send letters regarding permit violations and enforcement action to be taken by the District.
9. Assist the public, in person and over the phone in understanding District rules and regulations related to permit requirements; provide information on how to meet conservation requirements on specific properties.
10. Advise architects, realtors and project planners on permit procedures; assist in interpretation of ordinance and how they apply to specific types of projects.
11. Respond to questions from city planners and other representatives from the jurisdiction regarding the interpretation of District permit rules and how they apply to specific projects.
12. Plan and facilitate distribution of water conservation books, videos and software to libraries throughout the county.
13. Represent the District on various committees, as assigned; meet with businesses and other agencies regarding the need for water conservation; explain conservation rules and encourage an on-going conservation effort; conduct speaking engagements as needed.
14. Write press releases and articles on water conservation programs; prepare public service announcements as required.
15. Research water conservation programs and devices; collect and analyze water use data; contact manufacturers to learn specific information on conservation devices.
16. Research other water conservation programs promoted by state and local agencies.
17. Perform related duties and responsibilities as required.

**QUALIFICATIONS**

**Conservation Representative I**

**Knowledge of:**

Basic water conservation methods and devices.  
Word processing, database and spreadsheet software.  
Customer service techniques.  
Principles and practices of public relations.  
Basic accounting principles and practices.  
Record keeping methods and techniques.  
Modern office procedures, methods and computer equipment.  
Principles of mathematics.  
Techniques used in dealing with delinquent accounts.

**Ability to:**

Conduct field inspections and identify non-compliance with District requirements.  
Perform research, analyze and evaluate data.  
Read and interpret water conservation ordinances and rules.  
Maintain tactfulness and courtesy in high stress situations.  
Perform mathematical calculations accurately and quickly.  
Operate a computer and modern office equipment.  
Utilize maps to locate properties.  
Prepare clear and concise reports and correspondence.  
Learn to interpret and explain District policies and procedures.  
Learn and enforce pertinent Federal, State and local laws, codes and ordinances.  
Communicate clearly and concisely, both orally and in writing.  
Establish and maintain cooperative working relationships with those contacted in the course of work.  
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

**Experience and Training Guidelines** —- *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

**Experience:**

One year of water conservation service experience is desirable.

**Training:**

Equivalent to completion of twelfth grade supplemented by college level course work in public administration, business administration, public relations or a related field.

**License or Certificate**

Possession of, or ability to obtain, an appropriate, valid driver's license.

**Conservation Representative II**

In addition to the qualifications for Conservation Representative I:

**Knowledge of:**

Advanced water conservation methods, devices and ordinances.  
Public speaking and motivational techniques.  
Advanced water conservation research practices.

Pertinent Federal, State, and local laws, codes and regulations.

**Ability to:**

Make measurements and apply complex mathematical equations.  
Interpret complex rules and specific applications.  
Handle the more difficult public inquiries and situations.

**Experience and Training Guidelines** — *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

**Experience:**

Two years of increasingly responsible water conservation experience.

**Training:**

Equivalent to the completion of the twelfth grade supplemented by major course work in public administration, business administration, public relations or a related field.

**License or Certificate**

Possession of, or ability to obtain, an appropriate, valid driver's license.

**WORKING CONDITIONS**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environmental Conditions:**

Office and field environment; exposure to computer screens, work closely with others and work alone; exposure to dust, atmospheric conditions and slippery and uneven conditions.

**Physical Conditions:**

Essential and marginal functions may require maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time; light to moderate lifting and carrying; use of both hands, fingers, arms and legs.

**Vision:**

See in the normal visual range with or without correction; vision sufficient to conduct inspections; specific vision abilities required by this job include close and distant vision and depth perception.

**Hearing:**

Hear in the normal audio range with or without correction.



**EXHIBIT 9- B****MONTEREY PENINSULA WATER MANAGEMENT DISTRICT****CONSERVATION ANALYST**

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

**DEFINITION**

To assist the Water Demand Manager by leading, overseeing, and participating in the more complex and difficult work designed to comply with the District's water permitting process and encourage water conservation. To receive and process water permit applications, review plans, and issue water permits. To conduct surveys, compiling, interpreting and analyzing data related to water use and demand for large projects. To review environmental documents prepared by other agencies for potential impact on the District's water supply and assist in the formulation of water management plans in the areas of demand forecasting, historical trends in water use, water conditions and water savings. To assist other agencies and the general public in understanding conservation and water demand management.

**DISTINGUISHING CHARACTERISTICS**

This is the advanced journey level class in the Conservation series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Employees perform the most difficult and responsible types of duties assigned to classes within this series and function with minimal supervision and guidance. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

**SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from the Water Demand Manager.

Exercises day-to-day technical and functional supervision over lower level Water Demand Division staff.

**ESSENTIAL AND MARGINAL FUNCTION STATEMENTS** — *Essential and other important responsibilities and duties may include, but are not limited to, the following:*

**Essential Functions:**

1. Receives and processes water permit applications, reviewing plans, and issuing water permits.
2. Stays abreast of Federal, State and local environmental laws and review processes, identifying specific District actions, evaluations, and products required for compliance.
3. Reviews architectural construction plans to analyze potential water use expansion and determine compliance with District, State and Federal regulations.
4. Interprets application rules to specific projects and calculates water demand required for the project.
5. Assists the public, in person, over the phone, and in writing on the interpretation of District rules and regulations related to permit requirements; provides information on how to meet water efficiency standards on specific properties.
6. Advises architects, realtors, and project planners and representatives from other agencies regarding permit procedures and interpretation of ordinances.
7. Analyzes water use on site, as it relates to permit applications and makes recommendations to property owners on actions to save water and conform to permit requirements.

8. Processes applications for Confirmation of Exemption for Water Distribution Systems and Water Distribution Systems permits.
9. Stays abreast of District and State laws related to the application requirements for water supply systems; advises applicants of the legal mandates and coordinates with applicants, District staff and other agencies to ensure that application forms are completed properly, CEQA review is sufficient, and public notice periods are adhered to properly.
10. Prepares Confirmation of Exemption for Water Distribution Systems for General Manager and District engineering staff; tracks staff effort and bills applicant for time expended.
11. Analyzes technical memorandums and reports; interprets legal documents to determine ownership of properties with limitations of use. Performs extensive deed restriction review and determination.
12. Processes applications for new and refurbished landscapes subject to the District's Model Water Efficient Landscape Ordinance. Interprets ordinance provisions to applicants, conducts inspections, receives certifications and evaluates estimated water savings for accuracy.
13. Develops and implements new water conservation programs for residential and commercial customers. Conducts the most technical water conservation audits, estimating water savings for large complex properties and accessing engineering reports from third party agencies.
14. Plans and directs development and communication of information designed to keep the public informed of the District's Water Conservation Programs, projects, accomplishments, and District positions on relevant issues.
15. Plans and organizes, and participates in community outreach events, including training workshops; updates the District website and Facebook page.
16. Works on management of the overall Water Allocation Program for the District, including tracking of water use, available supply, and permit activity. This includes management of Water Entitlements.
17. Compiles statistics on permits issued and makes estimates of water demand; prepares monthly water allocation report for the Board.
18. Gathers, analyzes, and interprets data and information related to water use, billing, rates, and demand; develops information resources on water management programs and water conservation.
19. Develops and maintains database to track water use by demand source and produces reports of activity in each jurisdiction.
20. Responds to the public and other public agency requests for information and water management programs; works to inform and educate the public regarding water supply and demand and water management issues.
21. Provides day-to-day supervision to Conservation Representatives and Conservation Technician. Provides assistance and training in inspections, water efficiency standards, and procedures. Reviews work for accuracy, proper work methods and compliance with laws and regulations.
22. Provides assistance to the Water Demand Manager in the development of new ordinances and preparation of annual mitigation program reports, in conjunction with other District staff.
23. Represents the District in meetings and on committees, as assigned.
24. Perform related duties and responsibilities as required.

## **QUALIFICATIONS**

### **Knowledge of:**

Operations, services, and activities of a water conservation program.  
The principles and practices applied to the planning and management of water supply  
Advanced water conservation methods, devices and ordinances.  
Advanced water conservation research practices.  
General principles of supervision.  
The principles and practices of statistical analysis  
Accounting principles and practices.  
Word processing, database and spreadsheet software.  
Record keeping methods and techniques.  
Modern office procedures, methods and computer equipment.  
Principles of mathematics.  
Pertinent Federal, State, and local laws, codes and regulations related to water conservation  
Applicable laws and regulations related to water resource planning such as the federal and state  
Endangered Species Acts, the California Environmental Quality Act, and the National Environmental  
Policy Act.

### **Ability to:**

Perform research, collect, analyze, compile, and evaluate economic, technical, and statistical data  
Interpret policies and procedures; maintain program records, cost estimates, and financial  
transactions, and make recommendations pertaining to water conservation programs.  
Read and interpret complex water conservation rules and specific applications.  
Perform day-to-day supervision of staff.  
Perform mathematical calculations accurately and quickly.  
Operate a computer and modern office equipment.  
Prepare clear and concise reports and correspondence.  
Manage and analyze large data sets.  
Work independently in the absence of supervision.  
Communicate clearly and concisely, both orally and in writing.  
Establish and maintain cooperative working relationships with those contacted in the course of work.  
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

**Experience and Training Guidelines** — *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

### **Experience**

Three years of increasing responsible experience in water conservation and landscape management, performing customer consultation, water usage investigation and analysis and program implementation for residential and commercial customers.

### **Training**

Equivalent to a Bachelor's degree from an accredited college or university with major course work in environmental science, urban planning, public administration or a related field.

**License or Certificate:**

Possession of, or ability to obtain, an appropriate, valid driver's license.

Possession of, or ability to obtain, Certification as a Landscape Irrigation Auditor within one year of hire.

Possession of or ability to obtain, Certification as a Water Conservation Practitioner within one year of hire.

**WORKING CONDITIONS**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environmental Conditions:**

Office and field environment; exposure to computer screens, work closely with others and work alone; exposure to dust, atmospheric conditions and slippery and uneven conditions.

**Physical Conditions:**

Essential and marginal functions may require maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time; light to moderate lifting and carrying; use of both hands, fingers, arms and legs.

**Vision:**

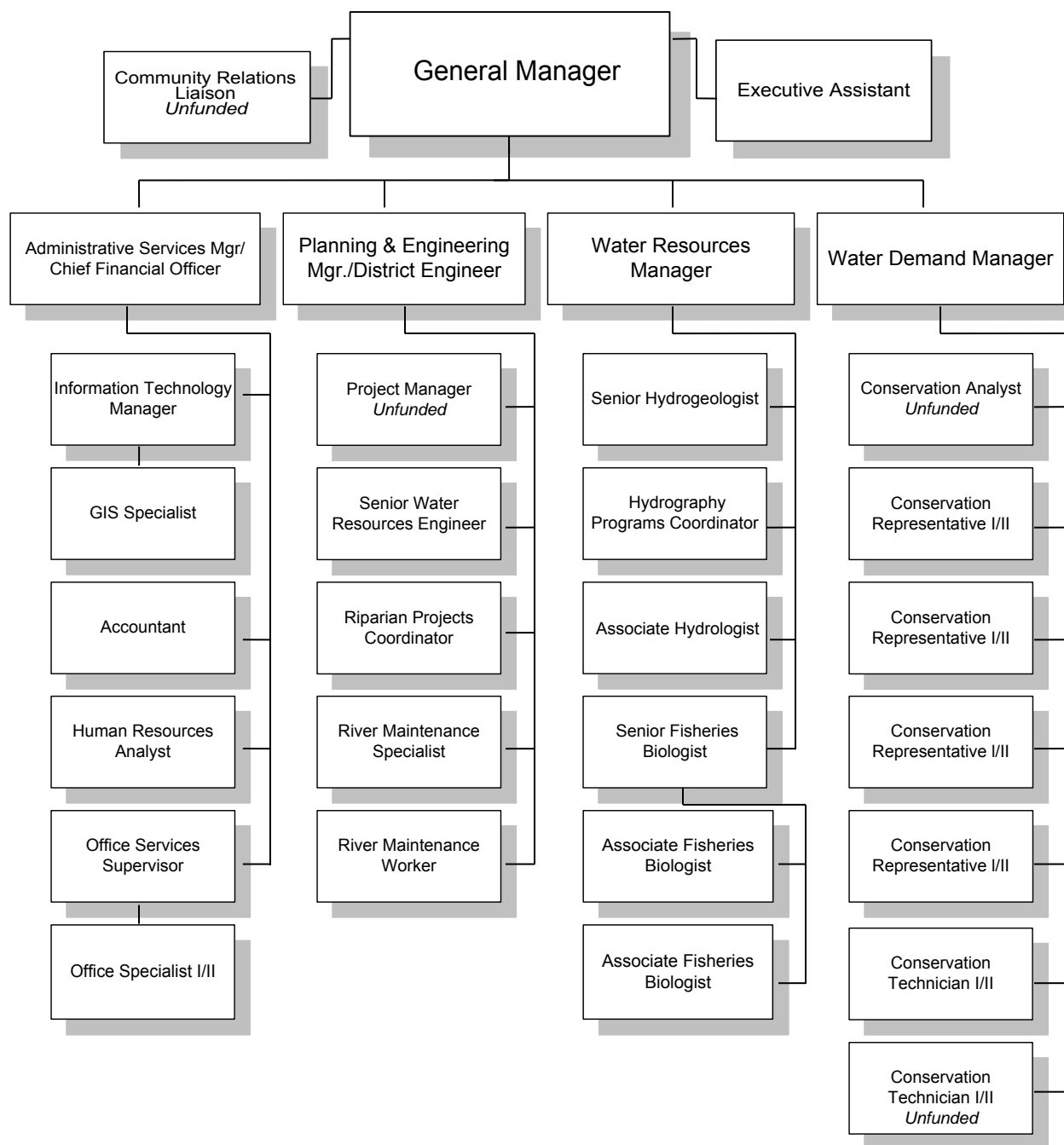
See in the normal visual range with or without correction; vision sufficient to conduct inspections; specific vision abilities required by this job include close and distant vision and depth perception.

**Hearing:**

Hear in the normal audio range with or without correction.

**EXHIBIT 9-C**

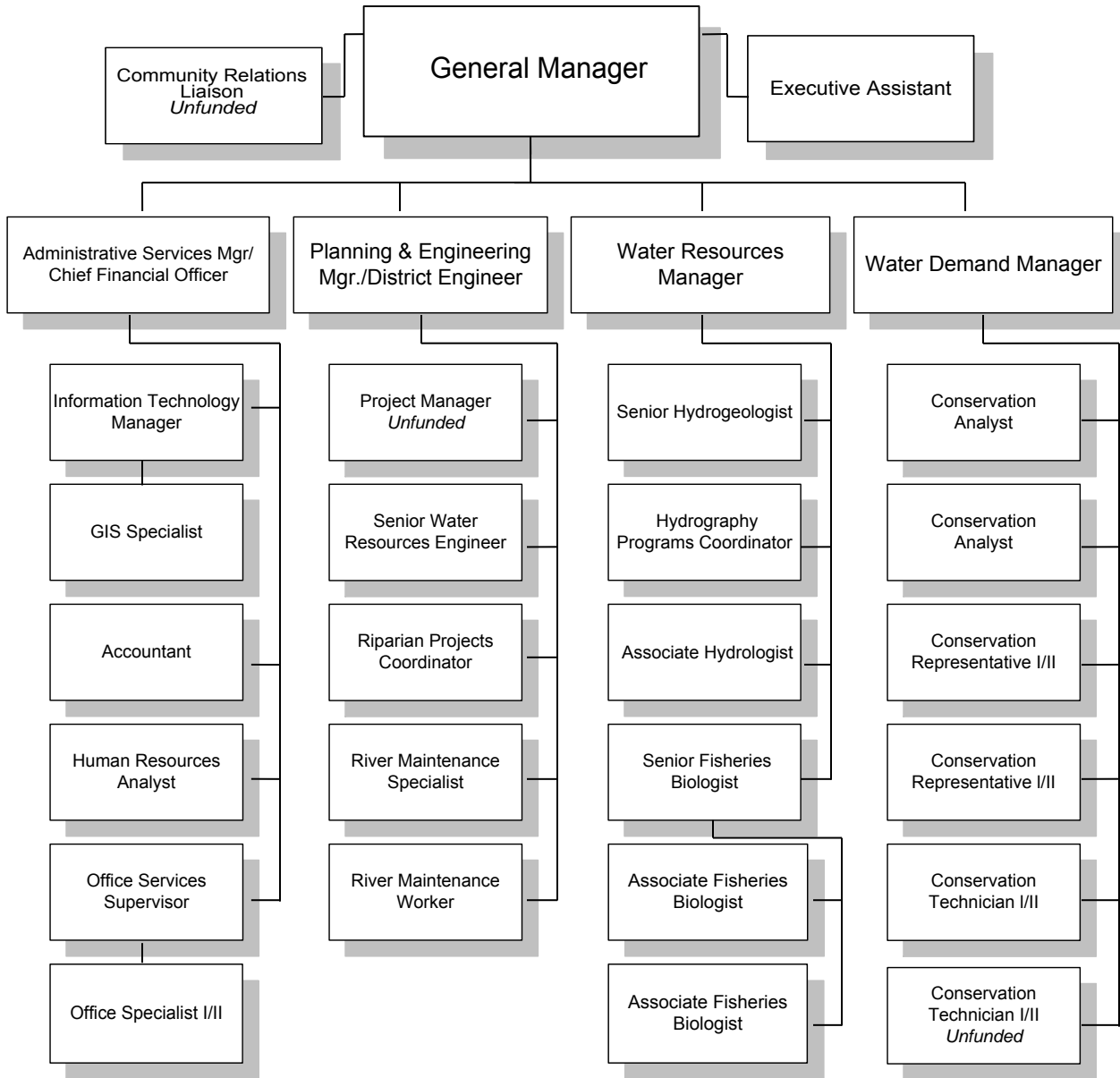
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
CURRENT ORGANIZATION CHART  
July 2016**



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**EXHIBIT 9-D**

**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
PROPOSED ORGANIZATION CHART  
(Water Demand Division Changes)  
July 2016**



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**ITEM: CONSENT CALENDAR****10. CONSIDER ADOPTION OF RESOLUTION 2016-13 UPDATE TO RULE 24, TABLE 3, CAPACITY FEE HISTORY**

<b>Meeting Date:</b>	<b>July 18, 2016</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>Gabriela Ayala</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review:** N/A**Committee Recommendation:** The Administrative Committee reviewed this item on July 11, 2016 and recommended approval.**CEQA Compliance:** N/A

**SUMMARY:** District Rule 24 requires that the Capacity Fee History Table shall be updated annually by Resolution of the Board to reflect the current year's Capacity Fee. Resolution 2016-13 (**Exhibit 10-A**) updates Rule 24, Table 3: Capacity Fee History, to reflect current's year capacity fee of the District. A marked up version of the proposed table is found as **Exhibit 10-B**.

**RECOMMENDATION:** District staff recommends that the Board adopt Resolution 2016-13, A Resolution of the Board of Directors of the Monterey Peninsula Water Management District Update to Rule 24, Table 3, Capacity Fee History.

**BACKGROUND:** District's Rule 24, allows changes to the Capacity Fee History Table by resolution rather than by ordinance. The Capacity Fee History Table was last updated on November 16, 2015, by adoption by resolution.

**EXHIBIT****10-A** Resolution No. 2016-13**10-B** Table 3: Capacity Fee History

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**EXHIBIT 10-A**

**RESOLUTION NO. 2016-13**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
UPDATE RULE 24, TABLE 3: CAPACITY FEE HISTORY**

**WHEREAS**, Capacity Fee charges of the Monterey Peninsula Water Management District (MPWMD) are set forth in the MPWMD Rules and Regulations; and

**WHEREAS**, Rule 24 (C) of the District stipulates that the Capacity Fee History Table shall be updated annually by Resolution of the Board to reflect the current year's Capacity Fee;

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors of Monterey Peninsula Water Management District hereby shall update the Capacity Fee Table as set forth in **Attachment 1** to this Resolution; and that these changes shall become effective immediately.

On motion of Director \_\_\_\_\_, and second by Director \_\_\_\_\_, the foregoing resolution is duly adopted this 18<sup>th</sup> day of July, 2016, by the following votes:

AYES:

NAYES:

ABSENT:

I, David J. Stoldt, Secretary of the Board of Directors of the Monterey Peninsula Water Management District, hereby certify that the foregoing is a full, true and correct copy of a resolution duly adopted on the 18<sup>th</sup> day of July 2016.

Witness my hand and seal of the Board of Directors, this \_\_\_\_ day of July, 2016.

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

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**EXHIBIT 10-B****TABLE 3: CAPACITY FEE HISTORY**

YEAR	CAPACITY FEE
1985	\$10,623.20
1985-86	\$11,133.00
1986-87	\$11,433.59
1987-88	\$11,890.93
1988-89	\$12,295.22
1989-90	\$12,983.75
1990-91	\$13,529.07
1991-92	\$14,056.70
1992-93	\$14,661.00
1993-94	\$15,202.00
1994-95	\$15,325.00
1995-96	\$15,692.00
1996-97	\$15,960.00
1997-98	\$16,551.00
1998-99	\$17,048.00
1999-00	\$17,832.00
2000-01	\$18,492.00
2001-02	\$19,565.00
2002-03	\$19,976.00
2003-04	\$20,415.00
2004-05	\$20,517.00
2005-06	\$20,948.00
2006-07	\$21,618.00
2007-08	\$22,331.00
2008-09	\$22,979.00
2009-10	\$23,163.00
2010-11	\$23,567.00
2011-12	\$24,227.00
2012-13	\$24,735.00
2013-14	\$25,328.00
2014-15	\$26,037.00
2015-16	\$26,661.00
<b>2016-2017</b>	<b>\$27,380.00</b>

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**RECOMMENDATION:** The Board should approve Amendment 1 to the Cost Sharing Agreement with MRWPCA for the Groundwater Replenishment Project (**Exhibit 11-B**).

**FISCAL IMPACT:** The District adopted Fiscal Year 2016-17 Six-month GWR budget assumed that the District would be reimbursing the MRWPCA for the three additional positions, along with the line of credit. Hence, the approximately \$148,000 in salary and benefit costs; and an estimated \$9,400 related to the line of credit are in the \$1,576,500 approved by the District Board at its June meeting.

**EXHIBITS**

**11-A** MRWPCA-MPWMD GWR Project Cost-Sharing Agreement

**11-B** Amendment 1 – MRWPCA-MPWMD GWR Project Cost Sharing Agreement



**EXHIBIT 11-A**

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**MRWPCA-MPWMD  
GROUNDWATER REPLENISHMENT PROJECT****COST SHARING AGREEMENT**

This Cost Sharing Agreement is entered into as of May 20, 2013, by and between the Monterey Regional Water Pollution Control Agency, a joint powers authority ("MRWPCA") and the Monterey Peninsula Water Management District, a California special act district ("MPWMD"), collectively the "Parties", based upon the following facts, intentions and understandings of the Parties.

**I.  
BACKGROUND**

A. The Agency was formed as a Joint Powers Agency by a Joint Exercise of Powers Agreement for the Monterey Regional Water Pollution Control Agency, effective as of June 29, 1979. Member entities formed the Agency in order to seek joint solutions to their wastewater treatment needs. The Agency owns and operates the Regional Treatment Plant ("RTP"), 25 wastewater pump stations, a land and ocean outfall. From the RTP, MRWPCA produces tertiary treated wastewater for agriculture irrigation. MRWPCA could treat waste waters through advanced treatment to provide for additional reuse.

B. MPWMD was created by the California Legislature in 1977 for the purposes of "conserving and augmenting the supplies by integrated management of ground and surface water supplies, for control and conservation of storm and wastewater, and for the promotion of the reuse and reclamation of water." The MPWMD's specific functions are "management and regulation of the use, reuse, reclamation, conservation of water and bond financing of public works projects." It is authorized to issue bonds, assess charges for groundwater enhancement facilities, levy assessments on real property and improvements, and "fix, revise, and collect rates and charges for the services, facilities, or water furnished by it".

C. The parties believe that an additional increment of water supply should be generated for the benefit of Cal Am's Monterey District customers, many of whom are within the service areas of MPWMD and MRWPCA, by conveying advanced treated wastewater from the MRWPCA to the Seaside Basin, where it could be injected for storage and subsequent recovery ("GWR Project").

D. The Parties and California American Water Company jointly entered into a Groundwater Replenishment Project Planning Term Sheet And Memorandum of Understanding To Negotiate In Good Faith ("GWR MOU") on April 20, 2012 to, among other things, enable planning and environmental evaluation of a groundwater replenishment project by the following:

- to commit themselves to evaluate the ways in which a groundwater replenishment project could be effectively accomplished;

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- to commit themselves to negotiate in good faith to reach agreement on such a project, should it be deemed viable;
- for MRWPCA to commit to act as lead agency to achieve California Environmental Quality Act ("CEQA") compliance for such a project, should it be deemed viable;
- for MPWMD to assist MRWPCA in providing the necessary financial support for the foregoing planning and CEQA compliance activities; and
- to identify non-binding preliminary terms of a GWR project agreement, which will assist in focusing the development of a GWR project responsive to the Parties' capabilities and needs.

E. Since 2005, MRWPCA has incurred costs of about \$2,698,265 for conceptual planning for a Groundwater Replenishment Project.

## **II. AGREEMENT**

NOW, THEREFORE, in consideration of the foregoing facts recited and the mutual goals and objectives contained herein, the Parties agree as follows:

### **A. Finance**

#### **1. Planning and Development Costs Defined**

This Agreement is by its terms limited to sharing of costs of planning and development of the GWR Project, incurred beginning April 1, 2012. Examples of those costs include:

- a. CEQA
- b. Feasibility Review
- c. Facilities Planning
- d. Monitoring Well Construction and Testing
- e. Pilot Treatment and Pilot Injection
- f. Public Outreach

#### **2. Financing of GWR Project Planning and Development Costs**

The Parties estimate that the costs described in Section 1., immediately above, will total \$6,957,352 as shown in the budget in Appendix A. Beginning FY2013-14, MPWMD shall pay seventy-five percent (75%) of such costs, and MRWPCA shall pay twenty-five percent (25%) of such costs. Seventy-five percent (75%) of full employee costs (salary and benefits) incurred by MRWPCA for up to two (2) of its employees' allocable time committed to tasks falling within the components described in Section 1., immediately above, shall be paid (reimbursed) by MPWMD. Prior to FY2013-14, such costs are shared fifty percent (50%) by each Party. Other employee costs incurred by either Party and allocable to the GWR Project will be reimbursed from the proceeds of the permanent financing pursuant to any reimbursement resolution adopted by MPWMD or MRWPCA.

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**3. Grants and Loans**

MRWPCA or MPWMD may each pursue and receive grants, state revolving fund loans, or other forms of reimbursement from local, state, or federal sources. All such receipts will be delivered to MRWPCA and credit the GWR Project ledger as received. Such receipts will be deemed to offset project costs.

**4. Reimbursement**

MRWPCA shall invoice MPWMD and MPWMD shall pay, subject to the conditions described in Section 10.

**5. Limited Obligation**

MPWMD's financial obligations are limited obligations payable from its Water Supply Charge. MPWMD will provide a quarterly report to MRWPCA indicating the status of available funds.

**B. Ownership****6. System Ownership**

MRWPCA shall hold title to all GWR Project facilities to be constructed under this Agreement.

**C. Governance of Agreement****7. Scope of Work**

MRWPCA shall be the lead Party for performance and completion of work under this Agreement. However, the Parties will endeavor to meet regularly to monitor the progress of work under this Agreement.

**8. GWR Project Budgets**

The Boards of MRWPCA and MPWMD shall approve a joint budget each fiscal year for phases of the GWR Project ("GWR Project Budgets".) To the extent that additional funds are required to complete work authorized by this Agreement the Parties will meet to discuss appropriate modifications to the GWR Project Budget, and neither Party shall unreasonably refuse to modify the GWR Project Budget as necessary to complete work authorized by this Agreement. MRWPCA shall meet at least quarterly to review the budget and provide MPWMD updates and modifications to the budget on a timely basis.

**D. MRWPCA's Obligations****9. Day-to-Day Management**

MRWPCA shall provide day-to-day management of the work authorized by this Agreement, subject to applicable terms and conditions herein. MRWPCA shall serve as the contracting authority for the Parties for the GWR Project and, with MPWMD's concurrence, contract directly with all professionals, firms, and outside contractors.

**EXHIBIT 11-A**

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**10. Payment**

MRWPCA shall pay for consultants, contractors, and other GWR Project-related costs in accordance with the terms of this Agreement. MRWPCA shall submit monthly invoices to MPWMD which will include back-up documentation substantiating the GWR Project-related costs incurred by MRWPCA.

**11. Purified Water Sales Agreement**

Before final design and construction proceeds, MRWPCA shall work jointly with MPWMD to develop a Recycled Water Sales Agreement under which MRWPCA will deliver recycled water to MPWMD for storage in the Seaside Groundwater Basin. Such agreement will address quantity delivered, cost, quality, Watermaster storage and recovery agreement, metering and measurement of flows, invoicing, and other matters.

**E. MPWMD's Obligations****12. Payment of Invoices**

MPWMD shall have the right to review and confirm that the invoices submitted by the MRWPCA are in conformance with the terms of this Agreement. Payments will be made within 30 days of receipt of invoice. If during the review of invoice MPWMD disputes any payments as not being in accordance with this Agreement, the MPWMD will notify the MRWPCA within the 30 days to resolve any disputes.

**13. Wholesale Water Purchase Agreement**

Before final design and construction proceeds, MPWMD shall work jointly with California American Water Company to develop a Wholesale Water Purchase Agreement under which MPWMD will deliver potable water to California American from storage in the Seaside Groundwater Basin. Such agreement will address quantity delivered, cost, minimum annual purchase amounts, water quality, metering and measurement of flows, invoicing, and other matters.

**F. Term and Termination****14. Term**

This Agreement shall remain in force and effect for five years. Before final design and construction proceeds, and in no case later than within thirty (30) days after the fourth anniversary of the date of adoption of this Agreement, the Parties shall meet to decide whether to extend this Agreement. Any extension of this Agreement shall be in writing and on mutually acceptable terms and conditions.

**G. Events of Default; Dispute Resolution****15. Event of Default**

The failure of a Party to comply with any provision of this Agreement that has a material and adverse effect on the other Party, except to the extent caused by a breach of this Agreement by the other Party, shall constitute an Event of Default under this Agreement;

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provided, however, that the defaulting Party shall first have a period of thirty (30) days following receipt of notice from the other Party of such failure to comply to cure such failure, or if such cure cannot be effected within such thirty (30) day period, such period shall extend for a total of one hundred eighty (180) days, so long as the defaulting Party is diligently trying to cure such failure throughout such period.

**16. Dispute Resolution**

Staffs of both Parties shall meet and use their best efforts to settle any dispute, claim, question or disagreement (a "Dispute") arising from or relating to this Agreement. To that end, staffs of both Parties shall consult and negotiate with each other in good faith and, recognizing their mutual interests, attempt to reach a just and equitable solution satisfactory to both Parties. If the Parties do not reach such a solution within a period of thirty (30) days after the first meeting of the staff regarding a Dispute, then the Parties shall pursue non-binding mediation to be completed within sixty (60) days after the first meeting of the Parties regarding the Dispute. If the Parties do not settle the Dispute within the sixty (60) day period, either Party may pursue any and all available legal and equitable remedies.

**H. Miscellaneous.****17. Force Majeure**

Neither Party shall be deemed to be in default where failure or delay in performance of any of its obligations (other than payment obligations) under this Agreement is caused by floods, earthquakes, other Acts of God, fires, wars, riots or similar hostilities, actions of legislative, judicial, executive or regulatory government bodies or other cause, without fault and beyond the reasonable control of such Party. If any such events shall occur, the time for performance by either Party of any of its obligations hereunder shall be extended by the Parties for the period of time that such events prevented such performance. Upon the occurrence of an event of Force Majeure, the affected Party shall: (i) promptly notify the other Party of such Force Majeure event, (ii) provide reasonable details relating to such Force Majeure event and (iii) implement mitigation measures to the extent commercially reasonable.

**18. Indemnities**

- a. **MPWMD Indemnity.** MPWMD shall fully indemnify MRWPCA and its respective directors, , employees and agents against, and hold completely free and harmless from, any cost, expense, claim, demand, judgment, loss, injury and/or liability of any kind or nature, including personal or bodily injury, death or property damage ("Losses"), that may arise from (i) any grossly negligent act or omission of MPWMD related to construction of the GWR Project or (ii) any claim made by a MPWMD employee specifically retained to provide services with respect to the facilities.
- b. **MRWPCA Indemnity.** MRWPCA shall fully indemnify MPWMD and its respective directors, employees and agents against, and hold completely free and harmless from, any Losses, that may arise from (i) any grossly negligent act or omission of MRWPCA related to the GWR Project construction, management,

**EXHIBIT 11-A**

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operation, maintenance or repair, except for costs, expenses, claims, demands, judgments, losses, injuries and/or liability arising from any grossly negligent act or omission of MPWMD related to construction of the GWR Project or (ii) any claim made by a MRWPCA employee specifically retained to provide services with respect to the GWR Project.

**19. Insurance/Self Insurance**

The Parties are either insured or self-insured as to any requirements under this Agreement. No policies or bonds are required of either party as to any provisions of this Agreement.

**20. Notices**

All notices to MPWMD required or permitted under this Agreement shall be in writing and shall be deemed delivered (i) when delivered in person, (ii) on the third day after mailing, if mailed, postage prepaid, by registered or certified mail (return receipt requested); (iii) on the day after mailing if sent by a nationally recognized overnight delivery service which maintains records of the time, place, and recipient of delivery; (iv) upon receipt of a confirmed transmission, if sent by telex, telecopy or facsimile transmission; or (v) via electronic mail provided the sender's system is capable of creating a written record of such notice and its receipt in each case to the parties at the following addresses or to other such addresses as may be furnished in writing by one party to the other:

Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940  
Attention: General Manager

All notices to MRWPCA required or permitted under this Agreement shall be in writing and shall be deemed delivered (i) when delivered in person, (ii) on the third day after mailing, if mailed, postage prepaid, by registered or certified mail (return receipt requested); (iii) on the day after mailing if sent by a nationally recognized overnight delivery service which maintains records of the time, place, and recipient of delivery; (iv) upon receipt of a confirmed transmission, if sent by telex, telecopy or facsimile transmission; or (v) via electronic mail provided the sender's system is capable of creating a written record of such notice and its receipt in each case to the parties at the following addresses or to other such addresses as may be furnished in writing by one party to the other:

Monterey Regional Water Pollution Control Agency  
5 Harris Court, Building D  
Monterey, CA 93940  
Attention: General Manager

**21. Successors And Assigns**

The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the Parties hereto and their respective heirs, representatives, successors and permitted assigns.

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**22. Further Acts and Assurances**

The Parties agree to execute, acknowledge and deliver any and all additional papers, documents and other assurances, and shall perform any and all acts and things reasonably necessary, in connection with the performance of the obligations hereunder and to carry out the intent of the Parties.

**23. Captions**

The captions in this Agreement are inserted only as a matter of convenience and reference and in no way define, limit or describe the scope or intent of this Agreement nor in any way affects this Agreement. Words of any gender in this Agreement shall be held to include any other gender and words in the singular number shall be held to include the plural when the sense so requires.

**24. Severability**

Should it be found that any part of this Agreement is illegal or unenforceable, such part or parts of this Agreement shall be of no force nor effect and this Agreement shall be treated as if such part or parts had not been inserted.

**25. Entire Agreement**

All previous negotiations had between the Parties hereto and/or their agents or representatives with respect to this Agreement are merged herein and this Agreement alone fully and completely expresses the Parties' rights and obligations.

**26. Modifications In Writing**

This Agreement shall not be modified in any manner except by an instrument in writing executed by the Parties or their respective successors in interest.

**27. Interpretation**

Each of the Parties hereby waives any provisions of law to the effect that an ambiguity in a contract or agreement should be interpreted against the Party that drafted the contract, agreement or instrument.

**28. Governing Law**

This Contract shall be governed by and construed according to the laws of California.

**29. No Third-Party Beneficiaries**

Nothing in this Agreement is intended to create any third-party beneficiaries to the Agreement, and no person or entity other than the Parties, and the permitted successors and assigns of either of them, shall be authorized to enforce the provisions of this Agreement.

**30. Assignment**

Neither Party may assign its interest in this Agreement without the prior written consent of the other Party.

**EXHIBIT 11-A**

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**31. Representation and Warranties**

No representations or warranties are made or have been relied upon by either Party other than those expressly set forth herein, if any.

**WHEREFORE**, this Cost Sharing Agreement was executed by the parties on the date first above written.

MRWPCA

MONTEREY REGIONAL WATER POLLUTION  
CONTROL AGENCY,By: 

Dennis Allion, Board Chair  
MRWPCA Board of Directors

MPWMD

MONTEREY PENINSULA WATER MANAGEMENT  
DISTRICT,By: 

David Pendergrass, Chair  
MPWMD Board of Directors



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**APPENDIX A.****Project Planning and Development Budget**

<b>Period</b>	<b>Budget</b>	<b>Less Grants</b>	<b>MPWMD Share</b>	<b>MRWPCA Share</b>
April 1, 2012 – June 30, 2012	\$332,352	\$0	\$166,176	\$166,176
FY 2012-13	\$775,000	\$75,000	\$350,000	\$350,000
FY 2013-14	\$3,800,000	\$150,000	\$2,737,500	\$912,500
FY 2014-15	\$2,050,000	\$0	\$1,537,500	\$512,500
<b>Total</b>	<b>\$6,957,352</b>	<b>\$225,000</b>	<b>\$4,791,176</b>	<b>\$1,941,176</b>

Note: Prior to April 1, 2012 MRWPCA incurred costs of \$1,948,238 for GWR conceptual planning activities.

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**AMENDMENT 1**  
**to**  
**MRWPCA-MPWMD**  
**GROUNDWATER REPLENISHMENT PROJECT**

**COST SHARING AGREEMENT**

This Amendment is entered into as of July \_\_, 2016 (**Effective Date**), by and between the Monterey Regional Water Pollution Control Agency, a joint powers authority (“MRWPCA”) and the Monterey Peninsula Water Management District, a California special act district (“MPWMD”), collectively the “Parties”, based upon the following facts, intentions and understandings of the Parties.

Section II. A. 2. Is amended to read as follows:

**1. Planning, Development, and Financing Costs Defined**

This agreement is by its terms limited to sharing of costs of planning, development, and financing of the GWR project, incurred beginning April 1, 2012. Examples of those costs include:

- a. CEQA
- b. Feasibility Review
- c. Facilities Planning
- d. Monitoring Well Construction and Testing
- e. Pilot Treatment and Pilot Injection
- f. Public Outreach
- g. Line of Credit Issuance Costs, Interest, and Related Fees

**2. Financing of GWR Project Planning, Development, and Financing Costs**

The Parties estimate that the costs described in Section 1., immediately above, will total \$6,957,352 as shown in the budget in Appendix A. Beginning FY2013-14, MPWMD shall pay seventy-five percent (75%) of such costs, and MRWPCA shall pay twenty-five percent (25%) of such costs. Seventy-five percent (75%) of full employee costs (salary and benefits) incurred by MRWPCA for up to five (5) of its employees’ allocable time committed to tasks falling within the components described in Section 1., immediately above, shall be paid (reimbursed) by MPWMD. Prior to FY2013-14, such costs are shared fifty percent (50%) by each Party. Other employee costs incurred by either Party and allocable to the GWR Project will be reimbursed from the proceeds of the permanent financing pursuant to any reimbursement resolution adopted by MPWMD or MRWPCA.

**WHEREFORE**, this Amendment 1 to the Cost Sharing Agreement was executed by the parties on the date first above written.

MRWPCA

MONTEREY REGIONAL WATER POLLUTION  
CONTROL AGENCY,

By: \_\_\_\_\_  
Gloria De La Rosa, Board Chair  
MRWPCA Board of Directors

MPWMD

MONTEREY PENINSULA WATER MANAGEMENT  
DISTRICT,

By: \_\_\_\_\_  
Jeanne Byrne, Chair  
MPWMD Board of Directors

**ITEM: CONSENT CALENDAR****12. CONSIDER ADOPTION OF TREASURER'S REPORT FOR MAY 2016**

<b>Meeting Date:</b>	<b>July 18, 2016</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 11, 2016 and recommended approval.**CEQA Compliance:** N/A

**SUMMARY:** Exhibit 12-A comprises the Treasurer's Report for May 2016. Exhibit 12-B, Exhibit 12-C and Exhibit 12-D are listings of check disbursements for the period May 1-31, 2016. Check Nos. 25715 through 26072, the direct deposits of employee's paychecks, payroll tax deposits, and bank charges resulted in total disbursements for the period in the amount of \$487,271.16. That amount included \$60,464.81 for conservation rebates. Exhibit 12-E reflects the unaudited version of the financial statements for the month ending May 31, 2016.

**RECOMMENDATION:** District staff recommends adoption of the May 2016 Treasurer's Report and financial statements, and ratification of the disbursements made during the month. The Administrative Committee reviewed this item at its July 11, 2016 meeting and voted 3 to 0 to recommend approval.

**EXHIBITS**

- 12-A** Treasurer's Report
- 12-B** Listing of Cash Disbursements-Regular
- 12-C** Listing of Cash Disbursements-Payroll
- 12-D** Listing of Other Bank Items
- 12-E** Financial Statements

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**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
TREASURER'S REPORT FOR MAY 2016**

<u>Description</u>	<u>Checking</u>	<u>MPWMD</u>		<u>Wells Fargo</u>	<u>MPWMD</u>	<u>PB</u>
		<u>Money Market</u>	<u>L.A.I.F.</u>			<u>Investments</u>
						<u>Money Market</u>
Beginning Balance	\$319,318.80	\$2,470,045.62	\$1,499,050.78	\$1,500,000.00	5,788,415.20	\$11,644.36
Transfer to/from LAIF		(700,000.00)	700,000.00		0.00	
Fee Deposits		104,629.72			104,629.72	318,590.19
Interest		76.04	-	-	76.04	2.12
Transfer-Money Market to Checking	\$200,000.00	(200,000.00)			0.00	
Transfer-Money Market to W/Fargo					0.00	
Transfer-W/Fargo to Money Market					0.00	
W/Fargo-Investment Purchase					0.00	
Transfer Ckg to MPWMD M/Mrkt					0.00	
MoCo Tax & WS Chg Installment Pymt					0.00	
Transfer to CAWD					0.00	(320,000.00)
Voided Cks					0.00	
Bank Corrections/Reversals/Errors		(105.00)			(105.00)	0.03
Bank Charges/Rtn'd Deposits/Other	(\$287.87)	(53.85)			(341.72)	(30.00)
Payroll Tax Deposits	-				0.00	
Payroll Checks/Direct Deposits	(123,001.03)				(123,001.03)	
General Checks	(337,685.54)				(337,685.54)	
Bank Draft Payments	(26,296.72)				(26,296.72)	
<b>Ending Balance</b>	<b>\$32,047.64</b>	<b>\$1,674,592.53</b>	<b>\$2,199,050.78</b>	<b>\$1,500,000.00</b>	<b>\$5,405,690.95</b>	<b>\$10,206.70</b>

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**Check Report**

By Check Number

Date Range: 05/01/2016 - 05/31/2016



Monterey Peninsula Water Management Dist

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
<b>Bank Code: APBNK</b>	<b>-Bank of America Checking</b>					
00166	Rickly Hydrological Co.	05/24/2016	Regular	0.00	-819.40	24938
00755	Peninsula Welding Supply, Inc.	05/10/2016	Regular	0.00	-54.00	25130
00254	MoCo Recorder	05/04/2016	Regular	0.00	61.00	25715
00254	MoCo Recorder	05/04/2016	Regular	0.00	35.00	25716
00254	MoCo Recorder	05/04/2016	Regular	0.00	61.00	25717
00254	MoCo Recorder	05/04/2016	Regular	0.00	29.00	25718
00254	MoCo Recorder	05/04/2016	Regular	0.00	35.00	25719
00249	A.G. Davi, LTD	05/06/2016	Regular	0.00	395.00	25764
00767	AFLAC	05/06/2016	Regular	0.00	1,289.16	25765
00253	AT&T	05/06/2016	Regular	0.00	132.04	25766
00253	AT&T	05/06/2016	Regular	0.00	860.35	25767
00236	AT&T Long Distance	05/06/2016	Regular	0.00	1.25	25768
09127	Ben Meadows	05/06/2016	Regular	0.00	317.84	25769
04042	Cabelas Government Outfitters	05/06/2016	Regular	0.00	222.92	25770
00252	Cal-Am Water	05/06/2016	Regular	0.00	87.03	25771
00252	Cal-Am Water	05/06/2016	Regular	0.00	179.38	25772
00252	Cal-Am Water	05/06/2016	Regular	0.00	96.72	25773
00243	CalPers Long Term Care Program	05/06/2016	Regular	0.00	40.56	25774
06003	Carmel Valley Chamber of Commerce	05/06/2016	Regular	0.00	210.00	25775
01001	CDW Government	05/06/2016	Regular	0.00	378.00	25776
00237	Chevron	05/06/2016	Regular	0.00	555.43	25777
00230	Cisco WebEx, LLC	05/06/2016	Regular	0.00	210.60	25778
06268	Comcast	05/06/2016	Regular	0.00	205.22	25779
00993	Harris Court Business Park	05/06/2016	Regular	0.00	721.26	25780
08929	HDR Engineering, Inc.	05/06/2016	Regular	0.00	8,953.60	25781
04717	Inder Osahan	05/06/2016	Regular	0.00	1,149.00	25782
08828	Johnson Construction	05/06/2016	Regular	0.00	4,715.00	25783
05371	June Silva	05/06/2016	Regular	0.00	372.68	25784
06745	KBA Docusys - Lease Payments	05/06/2016	Regular	0.00	946.13	25785
00769	Laborers Trust Fund of Northern CA	05/06/2016	Regular	0.00	26,664.00	25786
00242	MBAS	05/06/2016	Regular	0.00	880.00	25787
00154	Peninsula Messenger Service	05/06/2016	Regular	0.00	602.00	25788
00256	PERS Retirement	05/06/2016	Regular	0.00	13,878.79	25789
00282	PG&E	05/06/2016	Regular	0.00	390.42	25790
00282	PG&E	05/06/2016	Regular	0.00	1,959.30	25791
00262	Pure H2O	05/06/2016	Regular	0.00	64.49	25792
00166	Rickly Hydrological Co.	05/06/2016	Regular	0.00	2,022.52	25793
04709	Sherron Forsgren	05/06/2016	Regular	0.00	637.86	25794
09989	Star Sanitation Services	05/06/2016	Regular	0.00	114.11	25795
04341	State Board of Equalization	05/06/2016	Regular	0.00	973.00	25796
00286	Stephanie L Locke	05/06/2016	Regular	0.00	103.68	25797
00207	Universal Staffing Inc.	05/06/2016	Regular	0.00	1,622.40	25798
00221	Verizon Wireless	05/06/2016	Regular	0.00	583.64	25799
08105	Yolanda Munoz	05/06/2016	Regular	0.00	540.00	25800
00754	Zone24x7	05/06/2016	Regular	0.00	2,303.50	25801
01352	Dave Stoldt	05/10/2016	Regular	0.00	194.47	25802
00254	MoCo Recorder	05/12/2016	Regular	0.00	32.00	25806
00254	MoCo Recorder	05/12/2016	Regular	0.00	61.00	25807
00254	MoCo Recorder	05/12/2016	Regular	0.00	61.00	25808
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25809
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25810
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25811
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25812
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25813

**EXHIBIT 12-B**

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## Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25814
00254	MoCo Recorder	05/12/2016	Regular	0.00	29.00	25815
03966	ACWA (Memberships/Conferences/Publications	05/13/2016	Regular	0.00	445.00	25816
00763	ACWA-JPIA	05/13/2016	Regular	0.00	469.60	25817
04350	California Special Districts Assoc.	05/13/2016	Regular	0.00	100.00	25818
00243	CalPers Long Term Care Program	05/13/2016	Regular	0.00	40.56	25819
04041	Cynthia Schmidlin	05/13/2016	Regular	0.00	780.00	25820
07632	Debra Martin	05/13/2016	Regular	0.00	85.66	25821
00761	Delores Cofer	05/13/2016	Regular	0.00	405.00	25822
00267	Employment Development Dept.	05/13/2016	Regular	0.00	3,900.31	25823
00287	Eric Sandoval	05/13/2016	Regular	0.00	266.17	25824
07624	Franchise Tax Board	05/13/2016	Regular	0.00	85.99	25825
07624	Franchise Tax Board	05/13/2016	Regular	0.00	35.00	25826
00768	ICMA	05/13/2016	Regular	0.00	5,380.41	25827
06828	Jobs Available	05/13/2016	Regular	0.00	702.00	25828
00094	John Arriaga	05/13/2016	Regular	0.00	2,500.00	25829
00117	Marina Backflow Company	05/13/2016	Regular	0.00	60.00	25830
00259	Marina Coast Water District	05/13/2016	Regular	0.00	66.28	25831
00259	Marina Coast Water District	05/13/2016	Regular	0.00	255.27	25832
00242	MBAS	05/13/2016	Regular	0.00	465.00	25833
00118	Monterey Bay Carpet & Janitorial Svc	05/13/2016	Regular	0.00	1,000.00	25834
08006	Monterey County Sheriffs Office	05/13/2016	Regular	0.00	148.13	25835
04032	Normandeu Associates, Inc.	05/13/2016	Regular	0.00	8,521.94	25836
00225	Palace Office Supply	05/13/2016	Regular	0.00	93.95	25837
00755	Peninsula Welding Supply, Inc.	05/13/2016	Regular	0.00	108.00	25838
00282	PG&E	05/13/2016	Regular	0.00	9.56	25839
00282	PG&E	05/13/2016	Regular	0.00	48.34	25840
00282	PG&E	05/13/2016	Regular	0.00	21.38	25841
00229	Tyler Technologies	05/13/2016	Regular	0.00	2,937.50	25842
00269	U.S. Bank	05/13/2016	Regular	0.00	1,245.87	25843
11622	United States Geologic Survey	05/13/2016	Regular	0.00	25,000.00	25844
00207	Universal Staffing Inc.	05/13/2016	Regular	0.00	811.20	25845
00994	Whitson Engineers	05/13/2016	Regular	0.00	1,241.00	25846
00254	MoCo Recorder	05/18/2016	Regular	0.00	55.00	25847
00254	MoCo Recorder	05/18/2016	Regular	0.00	61.00	25848
00254	MoCo Recorder	05/18/2016	Regular	0.00	29.00	25849
00254	MoCo Recorder	05/18/2016	Regular	0.00	29.00	25850
00254	MoCo Recorder	05/18/2016	Regular	0.00	29.00	25851
00254	MoCo Recorder	05/18/2016	Regular	0.00	14.00	25852
00760	Andy Bell	05/19/2016	Regular	0.00	810.00	25853
01001	CDW Government	05/19/2016	Regular	0.00	74.79	25854
06268	Comcast	05/19/2016	Regular	0.00	209.97	25855
00192	Extra Space Storage	05/19/2016	Regular	0.00	716.00	25856
00986	Henrietta Stern	05/19/2016	Regular	0.00	1,149.00	25857
07415	Inca Landscape Management	05/19/2016	Regular	0.00	2,495.00	25858
00225	Palace Office Supply	05/19/2016	Regular	0.00	295.59	25859
00755	Peninsula Welding Supply, Inc.	05/19/2016	Regular	0.00	109.19	25860
00256	PERS Retirement	05/19/2016	Regular	0.00	13,894.65	25861
00282	PG&E	05/19/2016	Regular	0.00	10,908.21	25862
00282	PG&E	05/19/2016	Regular	0.00	7,694.19	25863
00752	Professional Liability Insurance Service	05/19/2016	Regular	0.00	38.95	25864
00234	Rapid Printers	05/19/2016	Regular	0.00	73.87	25865
00283	SHELL	05/19/2016	Regular	0.00	596.53	25866
01351	Staples Credit Plan	05/19/2016	Regular	0.00	123.48	25867
00286	Stephanie L Locke	05/19/2016	Regular	0.00	1,001.77	25868
04719	Telit Wireless Solutions	05/19/2016	Regular	0.00	143.10	25869
00258	Thomas Brand Consulting, LLC	05/19/2016	Regular	0.00	12,650.00	25870
00203	ThyssenKrup Elevator	05/19/2016	Regular	0.00	563.91	25871
00207	Universal Staffing Inc.	05/19/2016	Regular	0.00	811.20	25872
00271	UPEC, Local 792	05/19/2016	Regular	0.00	1,064.82	25873
09461	Water District jobs	05/19/2016	Regular	0.00	175.00	25874

**EXHIBIT 12-B**

Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
06009	yourservicesolution.com	05/19/2016	Regular	0.00	845.00	25875
00254	MoCo Recorder	05/23/2016	Regular	0.00	29.00	25876
00254	MoCo Recorder	05/26/2016	Regular	0.00	29.00	25882
00254	MoCo Recorder	05/26/2016	Regular	0.00	14.00	25883
00254	MoCo Recorder	05/26/2016	Regular	0.00	29.00	25884
00254	MoCo Recorder	05/26/2016	Regular	0.00	29.00	25885
00254	MoCo Recorder	05/26/2016	Regular	0.00	32.00	25886
00254	MoCo Recorder	05/26/2016	Regular	0.00	32.00	25887
00254	MoCo Recorder	05/26/2016	Regular	0.00	29.00	25888
00254	MoCo Recorder	05/26/2016	Regular	0.00	61.00	25889
00254	MoCo Recorder	05/26/2016	Regular	0.00	61.00	25890
00254	MoCo Recorder	05/26/2016	Regular	0.00	61.00	25891
01188	Alhambra	05/28/2016	Regular	0.00	188.26	25892
00253	AT&T	05/28/2016	Regular	0.00	715.88	25893
00253	AT&T	05/28/2016	Regular	0.00	83.72	25894
00036	Bill Parham	05/28/2016	Regular	0.00	650.00	25895
00252	Cal-Am Water	05/28/2016	Regular	0.00	179.42	25896
00024	Central Coast Exterminator	05/28/2016	Regular	0.00	104.00	25897
00028	Colantuono, Highsmith, & Whatley, PC	05/28/2016	Regular	0.00	1,787.00	25898
06001	Cypress Coast Ford	05/28/2016	Regular	0.00	653.35	25899
00267	Employment Development Dept.	05/28/2016	Regular	0.00	3,894.27	25900
00287	Eric Sandoval	05/28/2016	Regular	0.00	131.00	25901
07624	Franchise Tax Board	05/28/2016	Regular	0.00	85.99	25902
07624	Franchise Tax Board	05/28/2016	Regular	0.00	35.00	25903
00285	Gabby Ayala	05/28/2016	Regular	0.00	121.45	25904
00072	Goodin,MacBride,Squeri,Day,Lamprey	05/28/2016	Regular	0.00	7,482.40	25905
00993	Harris Court Business Park	05/28/2016	Regular	0.00	360.77	25906
00768	ICMA	05/28/2016	Regular	0.00	5,380.41	25907
00222	M.J. Murphy	05/28/2016	Regular	0.00	69.36	25908
01012	Mark Dudley	05/28/2016	Regular	0.00	337.46	25909
00223	Martins Irrigation Supply	05/28/2016	Regular	0.00	148.27	25910
04032	Normandeau Associates, Inc.	05/28/2016	Regular	0.00	20,098.15	25911
01005	OverWatch Systems, LTD	05/28/2016	Regular	0.00	680.10	25912
00256	PERS Retirement	05/28/2016	Regular	0.00	13,894.65	25913
00282	PG&E	05/28/2016	Regular	0.00	14.53	25914
00159	Pueblo Water Resources, Inc.	05/28/2016	Regular	0.00	10,541.11	25915
00251	Rick Dickhaut	05/28/2016	Regular	0.00	1,023.00	25916
00166	Rickly Hydrological Co.	05/28/2016	Regular	0.00	819.40	25917
00176	Sentry Alarm Systems	05/28/2016	Regular	0.00	215.50	25918
09989	Star Sanitation Services	05/28/2016	Regular	0.00	99.61	25919
03973	Stephanie Kister	05/28/2016	Regular	0.00	410.47	25920
00286	Stephanie L Locke	05/28/2016	Regular	0.00	403.38	25921
09351	Tetra Tech, Inc.	05/28/2016	Regular	0.00	12,812.33	25922
00229	Tyler Technologies	05/28/2016	Regular	0.00	875.00	25923
00207	Universal Staffing Inc.	05/28/2016	Regular	0.00	811.20	25924
05378	Water Awareness Committee	05/28/2016	Regular	0.00	2,000.00	25925
08105	Yolanda Munoz	05/28/2016	Regular	0.00	540.00	25926

Payment Type	Bank Code APBNK		Summary	
	Payable Count	Payment Count	Discount	Payment
Regular Checks	192	160	0.00	278,094.13
Manual Checks	0	0	0.00	0.00
Voided Checks	0	2	0.00	-873.40
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>192</b>	<b>162</b>	<b>0.00</b>	<b>277,220.73</b>

**EXHIBIT 12-B**

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## Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
<b>Bank Code: REBATES-02-Rebates: Use Only For Rebates</b>						
05345	Cynthia Tiberend	05/06/2016	Regular	0.00	-500.00	16582
11657	BARBARA ORR	05/06/2016	Regular	0.00	500.00	25720
11645	BEVERLY PACANSKY	05/06/2016	Regular	0.00	500.00	25721
11661	BURKHARD SIEDHOFF	05/06/2016	Regular	0.00	261.00	25722
05345	Cynthia Tiberend	05/06/2016	Regular	0.00	500.00	25723
11636	DANA ABER	05/06/2016	Regular	0.00	100.00	25724
11647	DAVID GIANNETTO	05/06/2016	Regular	0.00	500.00	25725
11635	DEANNA KERN	05/06/2016	Regular	0.00	100.00	25726
11633	DINAH HUBERT	05/06/2016	Regular	0.00	98.00	25727
11649	DINAH HUBERT	05/06/2016	Regular	0.00	500.00	25728
11665	ED Flatley	05/06/2016	Regular	0.00	600.00	25729
11648	GORDON PARKER	05/06/2016	Regular	0.00	500.00	25730
11666	GROVE COLONY HOA	05/06/2016	Regular	0.00	800.00	25731
11625	HAROLD STOFFEL	05/06/2016	Regular	0.00	500.00	25732
11634	HENRY TENG	05/06/2016	Regular	0.00	300.00	25733
11653	HILARIO VERA	05/06/2016	Regular	0.00	500.00	25734
11667	HIRDESH CHAND	05/06/2016	Regular	0.00	100.00	25735
11632	Jane W. Hunter	05/06/2016	Regular	0.00	100.00	25736
11639	JANIE SILVERIA	05/06/2016	Regular	0.00	125.00	25737
11644	JAY ONO	05/06/2016	Regular	0.00	500.00	25738
11664	Jeff Tucker	05/06/2016	Regular	0.00	500.00	25739
11652	Jessica Varnum	05/06/2016	Regular	0.00	500.00	25740
11637	Jim & Viveca Lohr	05/06/2016	Regular	0.00	100.00	25741
11654	John P. McCray	05/06/2016	Regular	0.00	500.00	25742
11641	KEN NIXON	05/06/2016	Regular	0.00	125.00	25743
11651	KERRY HOLDEN	05/06/2016	Regular	0.00	500.00	25744
11642	Kristin Ramsden	05/06/2016	Regular	0.00	500.00	25745
11658	LINDA KAREN BAXTER	05/06/2016	Regular	0.00	500.00	25746
11627	LINDA ROCKETT	05/06/2016	Regular	0.00	100.00	25747
11655	LISA DE MARIGNAC	05/06/2016	Regular	0.00	500.00	25748
11631	Matthew Glasby	05/06/2016	Regular	0.00	700.00	25749
11640	NADIA MANSOUR	05/06/2016	Regular	0.00	500.00	25750
11659	Nicole Litterine	05/06/2016	Regular	0.00	500.00	25751
11626	PHYLLIS H CHINN	05/06/2016	Regular	0.00	100.00	25752
11663	RICHARD CLINE	05/06/2016	Regular	0.00	100.00	25753
11660	Robert D. McCormick	05/06/2016	Regular	0.00	2,625.00	25754
11630	SHIRLEY CHANG	05/06/2016	Regular	0.00	100.00	25755
11628	SIGRID A STOKES	05/06/2016	Regular	0.00	100.00	25756
11650	Soyoung Ahn	05/06/2016	Regular	0.00	500.00	25757
11643	Steven Cusack	05/06/2016	Regular	0.00	500.00	25758
11662	SUSAN KENDALL	05/06/2016	Regular	0.00	200.00	25759
11629	TERRY CHENEY	05/06/2016	Regular	0.00	100.00	25760
11656	Thomas McClung	05/06/2016	Regular	0.00	500.00	25761
11638	TOM HEWITT	05/06/2016	Regular	0.00	125.00	25762
11646	WARD JENNINGS	05/06/2016	Regular	0.00	500.00	25763
11814	A.G. Davi Property Management	05/31/2016	Regular	0.00	100.00	25927
11805	AILEEN TURNER BJARNASON	05/31/2016	Regular	0.00	500.00	25928
11755	ALEJANDRO COATU	05/31/2016	Regular	0.00	500.00	25929
11803	Amanda Benavides	05/31/2016	Regular	0.00	500.00	25930
11782	Angelo Tringali	05/31/2016	Regular	0.00	100.00	25931
11711	ANTONIA SALIMENTO	05/31/2016	Regular	0.00	200.00	25932
11758	Aram Karabetyan	05/31/2016	Regular	0.00	500.00	25933
11747	Athena Arias	05/31/2016	Regular	0.00	500.00	25934
11675	BERT CUTINO	05/31/2016	Regular	0.00	200.00	25935
11728	BONGMYOUNG PARK	05/31/2016	Regular	0.00	596.00	25936
11727	BRUCE & HILARY ROBERTSON	05/31/2016	Regular	0.00	149.00	25937
11768	CARA WILSON	05/31/2016	Regular	0.00	150.00	25938
11781	Carol Evans	05/31/2016	Regular	0.00	149.00	25939
11720	CATHERINE AIELLO	05/31/2016	Regular	0.00	149.00	25940
11754	CELESTE FALOR	05/31/2016	Regular	0.00	500.00	25941

**EXHIBIT 12-B**

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## Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
11742	CHARMAINE FELTON	05/31/2016	Regular	0.00	125.00	25942
11762	CHRIS JULIAN	05/31/2016	Regular	0.00	500.00	25943
11784	CHRISTOPHER M & JENNIFER A CRYNS	05/31/2016	Regular	0.00	100.00	25944
11775	CINDY GOGGIA	05/31/2016	Regular	0.00	298.00	25945
11680	Colleen Sullivan	05/31/2016	Regular	0.00	100.00	25946
11759	Cyndi Bonetti	05/31/2016	Regular	0.00	500.00	25947
11710	CYNTHIA RUSSELL	05/31/2016	Regular	0.00	447.00	25948
11735	DALE BROTT	05/31/2016	Regular	0.00	149.00	25949
11813	Daniel Peterson	05/31/2016	Regular	0.00	500.00	25950
11752	Daniella Avila	05/31/2016	Regular	0.00	500.00	25951
11679	DARIAN HOUDE	05/31/2016	Regular	0.00	100.00	25952
11792	Deborah Housman	05/31/2016	Regular	0.00	100.00	25953
11723	DEBRA WEAKLEY	05/31/2016	Regular	0.00	298.00	25954
11689	DENNIS & LINDA LAW	05/31/2016	Regular	0.00	100.00	25955
11724	DENNIS FLANARY	05/31/2016	Regular	0.00	368.20	25956
11749	DESIREE ALBERT	05/31/2016	Regular	0.00	500.00	25957
11760	DIANE DE LORIMIER	05/31/2016	Regular	0.00	500.00	25958
11816	Don Kim	05/31/2016	Regular	0.00	804.63	25959
11686	DON SMYTHE	05/31/2016	Regular	0.00	100.00	25960
11817	DONALD & NANCY COOPER	05/31/2016	Regular	0.00	500.00	25961
11676	DONG H NGUYEN	05/31/2016	Regular	0.00	89.00	25962
11712	DOUGLAS McKNIGHT	05/31/2016	Regular	0.00	298.00	25963
11718	EDGARD COLY	05/31/2016	Regular	0.00	149.00	25964
11770	EDWARD DE VASCONCELOS	05/31/2016	Regular	0.00	596.00	25965
11791	ERIC GOREN	05/31/2016	Regular	0.00	298.00	25966
11783	EUGENE M KRUSE & SANDRA L PIKE	05/31/2016	Regular	0.00	149.00	25967
11802	FELIX COLELLO	05/31/2016	Regular	0.00	500.00	25968
11801	FELIX COLELLO	05/31/2016	Regular	0.00	500.00	25969
11702	FRANK & PHYLLIS CAMPO	05/31/2016	Regular	0.00	149.00	25970
11700	FRANK & PHYLLIS CAMPO	05/31/2016	Regular	0.00	149.00	25971
11740	FRANK & VIVIAN SARUBBI	05/31/2016	Regular	0.00	125.00	25972
11709	FRED LAWSON	05/31/2016	Regular	0.00	149.00	25973
11793	GERALDINE WEST	05/31/2016	Regular	0.00	100.00	25974
11713	GLENN CLAYTON	05/31/2016	Regular	0.00	149.00	25975
11698	GLENN KEHRER	05/31/2016	Regular	0.00	149.00	25976
11763	GORDON SCHACHER	05/31/2016	Regular	0.00	500.00	25977
11695	Greg & Martha Lehman	05/31/2016	Regular	0.00	298.00	25978
11810	GREGORY THOMPSON	05/31/2016	Regular	0.00	105.00	25979
11697	Hai deng HARRIS	05/31/2016	Regular	0.00	298.00	25980
11687	Heather Summers	05/31/2016	Regular	0.00	98.00	25981
11707	HILARIO RAMIREZ	05/31/2016	Regular	0.00	149.00	25982
11811	Iran Arellanes	05/31/2016	Regular	0.00	149.00	25983
11766	J RICHARD & RACHAEL KEHOE	05/31/2016	Regular	0.00	210.00	25984
11705	JACK AIELLO	05/31/2016	Regular	0.00	149.00	25985
11730	JACK E ENGLISH	05/31/2016	Regular	0.00	298.00	25986
11672	JAMES LEINENKUGEL	05/31/2016	Regular	0.00	200.00	25987
11797	JANE GINGERICH	05/31/2016	Regular	0.00	625.00	25988
11738	JASON MCFADDEN	05/31/2016	Regular	0.00	125.00	25989
11690	JAY LEE	05/31/2016	Regular	0.00	149.00	25990
11746	JEAN MENDEZ	05/31/2016	Regular	0.00	125.00	25991
11677	JEANETTE KING	05/31/2016	Regular	0.00	200.00	25992
11736	JEFF ZISCHKE	05/31/2016	Regular	0.00	149.00	25993
11721	JENNIFER CONRAD	05/31/2016	Regular	0.00	298.00	25994
11787	JEREMY SAVILLE	05/31/2016	Regular	0.00	149.00	25995
11750	JOE GRAMMATICO	05/31/2016	Regular	0.00	500.00	25996
11714	JOEL ROSENTHAL	05/31/2016	Regular	0.00	149.00	25997
11796	John Carminati	05/31/2016	Regular	0.00	678.00	25998
11744	JOHN GRADIS	05/31/2016	Regular	0.00	125.00	25999
11716	JOHN ROBBINS	05/31/2016	Regular	0.00	149.00	26000
11771	JOHN WAGNER	05/31/2016	Regular	0.00	100.00	26001
11769	Joseph P Damico	05/31/2016	Regular	0.00	100.00	26002

**EXHIBIT 12-B**

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## Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
11812	Josephine Moseley	05/31/2016	Regular	0.00	149.00	26003
11764	JOSHUA GORDIS	05/31/2016	Regular	0.00	500.00	26004
11708	JOY DESMARAIS	05/31/2016	Regular	0.00	149.00	26005
11794	JUANITA RUSSO	05/31/2016	Regular	0.00	100.00	26006
11696	JULIE BROWN	05/31/2016	Regular	0.00	425.00	26007
11731	JULIE WOOTEN	05/31/2016	Regular	0.00	149.00	26008
11673	JUVENAL LOPEZ FLORES	05/31/2016	Regular	0.00	298.00	26009
11699	KEN ROCKEFELLER	05/31/2016	Regular	0.00	149.00	26010
11798	KENNETH E BROWN	05/31/2016	Regular	0.00	125.00	26011
11733	KIRKR BUSSE	05/31/2016	Regular	0.00	149.00	26012
11789	KISHORE NARGUNDKAR	05/31/2016	Regular	0.00	100.00	26013
11800	Kyle S. Van Houtan	05/31/2016	Regular	0.00	500.00	26014
11788	LANA L PRICE	05/31/2016	Regular	0.00	98.00	26015
11717	LARRY D MCCORMICK	05/31/2016	Regular	0.00	149.00	26016
11761	LEE WOLFER	05/31/2016	Regular	0.00	500.00	26017
11674	LINDSAY DPENHA	05/31/2016	Regular	0.00	825.00	26018
11745	LORRAINE SCHULTE	05/31/2016	Regular	0.00	125.00	26019
11682	MARIA DOLORES JEREZ-MOYA	05/31/2016	Regular	0.00	99.00	26020
11694	MARILYN A CHURILLA TR	05/31/2016	Regular	0.00	100.00	26021
11772	MARK SWADE	05/31/2016	Regular	0.00	2,500.00	26022
11767	MARY BARIBEAU	05/31/2016	Regular	0.00	205.00	26023
11693	MARY BARIBEAU	05/31/2016	Regular	0.00	149.00	26024
11691	MARY BEGTRUP	05/31/2016	Regular	0.00	100.00	26025
11684	MARY CLAYPOOL	05/31/2016	Regular	0.00	100.00	26026
11683	MARY CLAYPOOL	05/31/2016	Regular	0.00	100.00	26027
11799	MARYANNA W. STAHL	05/31/2016	Regular	0.00	500.00	26028
11748	MATTHEW NITENSON	05/31/2016	Regular	0.00	500.00	26029
11751	MONICA ARELLANO	05/31/2016	Regular	0.00	500.00	26030
11815	MONTEREY PENINSULA VOLUNTEER SERVICES INC	05/31/2016	Regular	0.00	99.00	26031
11773	NANCY FLETCHER	05/31/2016	Regular	0.00	500.00	26032
11741	NELL CARLSON	05/31/2016	Regular	0.00	125.00	26033
11808	NINA MILLER	05/31/2016	Regular	0.00	500.00	26034
11681	NORMA J KELEHER	05/31/2016	Regular	0.00	100.00	26035
11706	PAUL N REILLY	05/31/2016	Regular	0.00	149.00	26036
11737	PAULA CRIVELLO	05/31/2016	Regular	0.00	500.00	26037
11790	PETER & DEBORAH STERN	05/31/2016	Regular	0.00	300.00	26038
11785	Peter & June Chu	05/31/2016	Regular	0.00	100.00	26039
11692	PETER HILLER	05/31/2016	Regular	0.00	298.00	26040
11780	PROVIDENCE A MONEY	05/31/2016	Regular	0.00	149.00	26041
11726	RAFAEL MENDEZ	05/31/2016	Regular	0.00	149.00	26042
11678	Richard Hobbie	05/31/2016	Regular	0.00	100.00	26043
11739	RICHARD LAUSTEN	05/31/2016	Regular	0.00	125.00	26044
11756	RICHARD STILES	05/31/2016	Regular	0.00	500.00	26045
11722	ROBERT BELTER	05/31/2016	Regular	0.00	596.00	26046
11804	Robert Conant	05/31/2016	Regular	0.00	500.00	26047
11743	ROBERT VIETH	05/31/2016	Regular	0.00	125.00	26048
11774	ROBERTO ISIDRO	05/31/2016	Regular	0.00	149.00	26049
11729	ROBERTO KOSAKA	05/31/2016	Regular	0.00	298.00	26050
11795	RODERICK L & SUZANNE M DEWAR TRS	05/31/2016	Regular	0.00	100.00	26051
11688	ROSLYN FLYER	05/31/2016	Regular	0.00	100.00	26052
11732	RUMIKO SHIROKOW	05/31/2016	Regular	0.00	149.00	26053
11734	SAMUEL BUTTREY	05/31/2016	Regular	0.00	149.00	26054
11786	SARA MICHAS-MARTIN	05/31/2016	Regular	0.00	700.00	26055
11806	Sierra Enrique	05/31/2016	Regular	0.00	500.00	26056
11779	SIEUN LEE	05/31/2016	Regular	0.00	800.00	26057
11715	SONYA WONG	05/31/2016	Regular	0.00	149.00	26058
11765	STEVAN HORVATH	05/31/2016	Regular	0.00	500.00	26059
11701	STEVE MOULTON	05/31/2016	Regular	0.00	149.00	26060
11704	STEVE MOULTON	05/31/2016	Regular	0.00	149.00	26061
11703	STEVE MOULTON	05/31/2016	Regular	0.00	149.00	26062
11809	SUSAN ROGAN	05/31/2016	Regular	0.00	500.00	26063

**EXHIBIT 12-B**

Check Report

Date Range: 05/01/2016 - 05/31/2016

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
11777	THOMAS MC KINNEY	05/31/2016	Regular	0.00	474.99	26064
11807	TIMOTHY & MARIAN HRUSA	05/31/2016	Regular	0.00	500.00	26065
11725	TOM RICHARDS	05/31/2016	Regular	0.00	149.00	26066
11778	TOM TUCKER	05/31/2016	Regular	0.00	200.00	26067
11719	TRACI DAVIS	05/31/2016	Regular	0.00	298.00	26068
11757	VICTOR & KELLY DAVI	05/31/2016	Regular	0.00	479.99	26069
11685	Walter McDonnell	05/31/2016	Regular	0.00	200.00	26070
11753	XAVIER RODRIGUEZ	05/31/2016	Regular	0.00	500.00	26071
11776	YANIRA PEREIRA	05/31/2016	Regular	0.00	298.00	26072

Bank Code REBATES-02 Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	190	190	0.00	60,964.81
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-500.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>190</b>	<b>191</b>	<b>0.00</b>	<b>60,464.81</b>

**Fund Summary**

<b>Fund</b>	<b>Name</b>	<b>Period</b>	<b>Amount</b>
99	POOL CASH FUND	5/2016	337,685.54
			<hr/>
			<b>337,685.54</b>



**EXHIBIT 12-C**

**Payroll Bank Transaction Report - MPWMD**



Monterey Peninsula Water Management Dist

By Payment Number

Date: 5/1/2016 - 5/31/2016

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
2223	05/13/2016	Regular	1024	Stoldt, David J	0.00	5,913.84	5,913.84
2224	05/13/2016	Regular	1025	Tavani, Arlene M	0.00	1,899.86	1,899.86
2225	05/13/2016	Regular	1006	Dudley, Mark A	0.00	2,878.01	2,878.01
2226	05/13/2016	Regular	1039	Flores, Elizabeth	0.00	1,804.57	1,804.57
2227	05/13/2016	Regular	1018	Prasad, Suresh	0.00	3,583.00	3,583.00
2228	05/13/2016	Regular	1019	Reyes, Sara C	0.00	1,856.04	1,856.04
2229	05/13/2016	Regular	1020	Sandoval, Eric J	0.00	1,933.31	1,933.31
2230	05/13/2016	Regular	1021	Schmidlin, Cynthia L	0.00	1,802.01	1,802.01
2231	05/13/2016	Regular	1022	Soto, Paula	0.00	1,420.10	1,420.10
2232	05/13/2016	Regular	1002	Bekker, Mark	0.00	1,627.15	1,627.15
2233	05/13/2016	Regular	1005	Christensen, Thomas T	0.00	2,548.31	2,548.31
2234	05/13/2016	Regular	1008	Hampson, Larry M	0.00	3,199.25	3,199.25
2235	05/13/2016	Regular	1013	Lyons, Matthew J	0.00	1,602.65	1,602.65
2236	05/13/2016	Regular	1023	Stern, Henrietta L	0.00	160.66	160.66
2237	05/13/2016	Regular	6028	Atkins, Daniel N	0.00	437.22	437.22
2238	05/13/2016	Regular	1004	Chaney, Beverly M	0.00	2,177.57	2,177.57
2239	05/13/2016	Regular	1007	Hamilton, Cory R	0.00	2,028.05	2,028.05
2240	05/13/2016	Regular	1009	James, Gregory W	0.00	2,932.79	2,932.79
2241	05/13/2016	Regular	6034	Kleven, Alana K	0.00	197.40	197.40
2242	05/13/2016	Regular	1011	Lear, Jonathan P	0.00	2,731.28	2,731.28
2243	05/13/2016	Regular	1012	Lindberg, Thomas L	0.00	2,156.93	2,156.93
2244	05/13/2016	Regular	1016	Oliver, Joseph W	0.00	2,645.69	2,645.69
2245	05/13/2016	Regular	1026	Urquhart, Kevan A	0.00	1,868.33	1,868.33
2246	05/13/2016	Regular	1001	Ayala, Gabriela D	0.00	1,653.91	1,653.91
2247	05/13/2016	Regular	1041	Gonnerman, Maryan C	0.00	1,507.97	1,507.97
2248	05/13/2016	Regular	1010	Kister, Stephanie L	0.00	1,838.32	1,838.32
2249	05/13/2016	Regular	1017	Locke, Stephanie L	0.00	2,686.68	2,686.68
2250	05/13/2016	Regular	1014	Martin, Debra S	0.00	1,668.84	1,668.84
2251	05/27/2016	Regular	1024	Stoldt, David J	0.00	5,913.84	5,913.84
2252	05/27/2016	Regular	1025	Tavani, Arlene M	0.00	1,899.87	1,899.87
2253	05/27/2016	Regular	1006	Dudley, Mark A	0.00	2,878.01	2,878.01
2254	05/27/2016	Regular	1039	Flores, Elizabeth	0.00	1,941.67	1,941.67
2255	05/27/2016	Regular	1018	Prasad, Suresh	0.00	3,583.00	3,583.00
2256	05/27/2016	Regular	1019	Reyes, Sara C	0.00	1,856.02	1,856.02
2257	05/27/2016	Regular	1020	Sandoval, Eric J	0.00	1,933.31	1,933.31
2258	05/27/2016	Regular	1021	Schmidlin, Cynthia L	0.00	1,802.01	1,802.01
2259	05/27/2016	Regular	1002	Bekker, Mark	0.00	1,627.14	1,627.14
2260	05/27/2016	Regular	1005	Christensen, Thomas T	0.00	2,548.31	2,548.31
2261	05/27/2016	Regular	1008	Hampson, Larry M	0.00	3,199.25	3,199.25
2262	05/27/2016	Regular	1013	Lyons, Matthew J	0.00	1,602.65	1,602.65
2263	05/27/2016	Regular	1023	Stern, Henrietta L	0.00	380.95	380.95
2264	05/27/2016	Regular	6028	Atkins, Daniel N	0.00	370.41	370.41
2265	05/27/2016	Regular	1004	Chaney, Beverly M	0.00	2,177.57	2,177.57
2266	05/27/2016	Regular	1007	Hamilton, Cory R	0.00	2,028.05	2,028.05
2267	05/27/2016	Regular	1009	James, Gregory W	0.00	2,932.79	2,932.79
2268	05/27/2016	Regular	6034	Kleven, Alana K	0.00	161.21	161.21
2269	05/27/2016	Regular	1011	Lear, Jonathan P	0.00	2,731.28	2,731.28
2270	05/27/2016	Regular	1012	Lindberg, Thomas L	0.00	2,156.93	2,156.93
2271	05/27/2016	Regular	1016	Oliver, Joseph W	0.00	2,645.69	2,645.69
2272	05/27/2016	Regular	1026	Urquhart, Kevan A	0.00	1,868.33	1,868.33
2273	05/27/2016	Regular	1001	Ayala, Gabriela D	0.00	1,653.91	1,653.91
2274	05/27/2016	Regular	1041	Gonnerman, Maryan C	0.00	1,507.97	1,507.97
2275	05/27/2016	Regular	1010	Kister, Stephanie L	0.00	1,868.84	1,868.84
2276	05/27/2016	Regular	1017	Locke, Stephanie L	0.00	2,686.68	2,686.68
2277	05/27/2016	Regular	1014	Martin, Debra S	0.00	1,816.97	1,816.97
25803	05/13/2016	Regular	6007	Delay, Thomas E	204.32	0.00	204.32
25804	05/13/2016	Regular	6033	Suwada, Joseph	158.53	0.00	158.53

**EXHIBIT 12-C**

<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>Total Payment</b>
25805	05/13/2016	Regular	1040	Smith, Kyle	1,472.52	0.00	1,472.52
25877	05/27/2016	Regular	1022	Soto, Paula	0.01	1,420.09	1,420.10
25878	05/27/2016	Regular	6007	Delay, Thomas E	54.48	0.00	54.48
25879	05/27/2016	Regular	6004	Malloway, Geoffrey J	1,106.76	0.00	1,106.76
25880	05/27/2016	Regular	6033	Suwada, Joseph	579.40	0.00	579.40
25881	05/27/2016	Regular	1040	Smith, Kyle	1,472.52	0.00	1,472.52
<b>Totals:</b>					<b>5,048.54</b>	<b>117,952.49</b>	<b>123,001.03</b>

**EXHIBIT 12-D**



Monterey Peninsula Water Management Dist

**Bank Transaction Report**

**Transaction Detail**

Issued Date Range: 05/01/2016 - 05/31/2016

Cleared Date Range: -

Issued Date	Cleared Date	Number	Description	Module	Status	Type	Amount
<b>Bank Account: 111 - Bank of America Checking - 0000 8170 8210</b>							
05/13/2016	05/31/2016	<a href="#">DFT0000733</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-10,551.79
05/13/2016	05/31/2016	<a href="#">DFT0000734</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-2,261.20
05/13/2016	05/31/2016	<a href="#">DFT0000735</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-168.26
05/16/2016	05/31/2016	<a href="#">SVC0000081</a>	To Post May/16 Bank Charge	General Ledger	Cleared	Service Charge	-287.87
05/27/2016	05/31/2016	<a href="#">DFT0000737</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-10,608.59
05/27/2016	05/31/2016	<a href="#">DFT0000738</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-2,314.92
05/27/2016	05/31/2016	<a href="#">DFT0000739</a>	I.R.S.	Accounts Payable	Cleared	Bank Draft	-391.96
<b>Bank Account 111 Total: (7)</b>							<b>-26,584.59</b>
<b>Report Total: (7)</b>							<b>-26,584.59</b>

**EXHIBIT 12-D**

**Bank Transaction Report**

Issued Date Range: 05/01/2016 - 05/31/2016    112  
Cleared Date Range: -

**Summary**

<b>Bank Account</b>	<b>Count</b>	<b>Amount</b>
<a href="#">111 Bank of America Checking - 0000 8170 8210</a>	7	-26,584.59
<b>Report Total:</b>	<b>7</b>	<b>-26,584.59</b>

<b>Cash Account</b>	<b>Count</b>	<b>Amount</b>
<a href="#">99 99-10-100100 Pool Cash Account</a>	7	-26,584.59
<b>Report Total:</b>	<b>7</b>	<b>-26,584.59</b>

<b>Transaction Type</b>	<b>Count</b>	<b>Amount</b>
Bank Draft	6	-26,296.72
Service Charge	1	-287.87
<b>Report Total:</b>	<b>7</b>	<b>-26,584.59</b>



Monterey Peninsula Water Management Dist

**Statement of Revenue Over Expense - No Decimals**  
**Group Summary**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

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	283,220	-283,220	0.00 %	3,336,701	3,400,000	-63,299	-98.14 %
R110 - Mitigation Revenue	0	200,920	-200,920	0.00 %	1,593,591	2,412,000	-818,409	-66.07 %
R120 - Property Taxes Revenues	0	130,781	-130,781	0.00 %	1,665,576	1,570,000	95,576	-106.09 %
R130 - User Fees	3,944	6,248	-2,304	-63.12 %	42,472	75,000	-32,529	-56.63 %
R140 - Connection Charges	18,333	14,578	3,755	-125.76 %	477,056	175,000	302,056	-272.60 %
R150 - Permit Processing Fee	15,037	14,578	460	-103.15 %	146,819	175,000	-28,181	-83.90 %
R160 - Well Registration Fee	25	167	-142	-15.01 %	675	2,000	-1,325	-33.75 %
R180 - River Work Permit Application	0	0	0	0.00 %	75	0	75	0.00 %
R190 - WDS Permits Rule 21	3,200	4,665	-1,465	-68.60 %	47,843	56,000	-8,157	-85.43 %
R200 - Recording Fees	722	666	56	-108.34 %	10,652	8,000	2,652	-133.15 %
R210 - Legal Fees	114	1,250	-1,136	-9.12 %	2,614	15,000	-12,386	-17.43 %
R220 - Copy Fee	3	0	3	0.00 %	99	0	99	0.00 %
R230 - Miscellaneous - Other	4,632	1,250	3,383	-370.72 %	12,552	15,000	-2,448	-83.68 %
R240 - Insurance Refunds	0	0	0	0.00 %	1,352	0	1,352	0.00 %
R250 - Interest Income	76	1,250	-1,173	-6.09 %	20,681	15,000	5,681	-137.88 %
R260 - CAW - ASR	0	23,566	-23,566	0.00 %	0	282,900	-282,900	0.00 %
R265 - CAW - Los Padres Reimbursement	0	49,980	-49,980	0.00 %	0	600,000	-600,000	0.00 %
R270 - CAW - Rebates	58,620	58,310	310	-100.53 %	579,431	700,000	-120,569	-82.78 %
R280 - CAW - Conservation	0	19,326	-19,326	0.00 %	0	232,000	-232,000	0.00 %
R290 - CAW - Miscellaneous	0	583	-583	0.00 %	0	7,000	-7,000	0.00 %
R300 - Watermaster	0	5,848	-5,848	0.00 %	39,709	70,200	-30,491	-56.57 %
R305 - City of Seaside - Rebates	0	1,666	-1,666	0.00 %	0	20,000	-20,000	0.00 %
R310 - Other Reimbursements	0	5,415	-5,415	0.00 %	0	65,000	-65,000	0.00 %
R320 - Grants	0	22,908	-22,908	0.00 %	197,519	275,000	-77,481	-71.83 %
R510 - Operating Reserve	0	270,009	-270,009	0.00 %	0	3,241,400	-3,241,400	0.00 %
<b>Total Revenue:</b>	<b>104,706</b>	<b>1,117,178</b>	<b>-1,012,472</b>	<b>-9.37 %</b>	<b>8,175,418</b>	<b>13,411,500</b>	<b>-5,236,082</b>	<b>-60.96 %</b>

**EXHIBIT 12-E**

**Statement of Revenue Over Expense - No Decimals**

**For Fiscal: 2015-2016 Period Ending: 05/31/2016**

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	175,844	197,838	21,994	88.88 %	2,144,133	2,375,000	230,867	90.28 %
1110 - Manager's Auto Allowance	462	500	38	92.34 %	5,538	6,000	462	92.30 %
1120 - Manager's Deferred Comp	631	650	19	97.08 %	7,508	7,800	292	96.25 %
1130 - Unemployment Compensation	0	250	250	0.00 %	670	3,000	2,330	22.34 %
1140 - Insurance Opt-Out Supplemental	1,414	1,583	169	89.34 %	16,431	19,000	2,569	86.48 %
1150 - Temporary Personnel	4,056	5,914	1,858	68.58 %	48,147	71,000	22,853	67.81 %
1160 - PERS Retirement	17,250	33,811	16,561	51.02 %	384,006	405,900	21,894	94.61 %
1170 - Medical Insurance	25,417	25,865	448	98.27 %	281,768	310,500	28,732	90.75 %
1180 - Medical Insurance - Retirees	6,087	4,798	-1,288	126.85 %	55,909	57,600	1,691	97.06 %
1190 - Workers Compensation	3,306	3,524	218	93.83 %	39,289	42,300	3,011	92.88 %
1200 - Life Insurance	409	458	50	89.16 %	4,767	5,500	733	86.67 %
1210 - Long Term Disability Insurance	1,121	1,166	45	96.13 %	12,037	14,000	1,963	85.98 %
1220 - Short Term Disability Insurance	223	250	27	89.07 %	2,379	3,000	621	79.30 %
1260 - Employee Assistance Program	66	100	34	65.82 %	738	1,200	462	61.46 %
1270 - FICA Tax Expense	422	400	-23	105.64 %	4,408	4,800	392	91.84 %
1280 - Medicare Tax Expense	2,321	2,907	586	79.85 %	27,990	34,900	6,910	80.20 %
1290 - Staff Development & Training	1,054	2,716	1,662	38.81 %	8,279	32,600	24,321	25.40 %
1300 - Conference Registration	0	267	267	0.00 %	2,545	3,200	655	79.53 %
1310 - Professional Dues	385	225	-160	171.18 %	2,288	2,700	413	84.72 %
1320 - Personnel Recruitment	175	417	242	42.02 %	7,961	5,000	-2,961	159.22 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>240,641</b>	<b>283,636</b>	<b>42,995</b>	<b>84.84 %</b>	<b>3,056,790</b>	<b>3,405,000</b>	<b>348,210</b>	<b>89.77 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	2,295	3,082	787	74.46 %	22,820	37,000	14,180	61.68 %
2020 - Board Expenses	0	333	333	0.00 %	9,462	4,000	-5,462	236.56 %
2040 - Rent	1,761	1,966	205	89.58 %	18,747	23,600	4,853	79.44 %
2060 - Utilities	2,655	3,199	544	82.99 %	30,363	38,400	8,037	79.07 %
2120 - Insurance Expense	3,517	3,749	231	93.83 %	39,377	45,000	5,623	87.50 %
2130 - Membership Dues	2,000	2,291	291	87.31 %	25,354	27,500	2,146	92.20 %
2140 - Bank Charges	453	292	-161	155.20 %	4,594	3,500	-1,094	131.25 %
2150 - Office Supplies	1,921	1,358	-563	141.47 %	11,624	16,300	4,676	71.31 %
2160 - Courier Expense	1,221	666	-555	183.22 %	7,199	8,000	801	89.99 %
2170 - Printing/Photocopy	0	750	750	0.00 %	398	9,000	8,602	4.42 %
2180 - Postage & Shipping	0	333	333	0.00 %	5,281	4,000	-1,281	132.03 %
2190 - IT Supplies/Services	2,865	8,780	5,915	32.63 %	70,485	105,400	34,915	66.87 %
2200 - Professional Fees	6,600	11,246	4,646	58.69 %	196,447	135,000	-61,447	145.52 %
2220 - Equipment Repairs & Maintenance	556	583	27	95.35 %	7,360	7,000	-360	105.14 %
2235 - Equipment Lease	946	1,250	303	75.72 %	12,089	15,000	2,911	80.59 %
2240 - Telephone	2,603	3,615	1,012	72.00 %	33,027	43,400	10,373	76.10 %
2260 - Facility Maintenance	2,861	2,899	37	98.71 %	35,761	34,800	-961	102.76 %
2270 - Travel Expenses	2,973	2,682	-291	110.84 %	25,314	32,200	6,886	78.62 %

**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2015-2016 Period Ending: 05/31/2016**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	2,936	1,883	-1,054	155.98 %	27,025	22,600	-4,425	119.58 %
2300 - Legal Services	57,439	33,320	-24,119	172.39 %	480,038	400,000	-80,038	120.01 %
2380 - Meeting Expenses	802	600	-202	133.68 %	3,623	7,200	3,577	50.32 %
2420 - Legal Notices	0	358	358	0.00 %	1,750	4,300	2,550	40.69 %
2460 - Public Outreach	62	417	354	14.97 %	4,135	5,000	865	82.69 %
2480 - Miscellaneous	272	417	145	65.31 %	1,561	5,000	3,439	31.22 %
2500 - Tax Administration Fee	0	1,666	1,666	0.00 %	18,800	20,000	1,200	94.00 %
2900 - Operating Supplies	100	1,741	1,641	5.74 %	12,908	20,900	7,992	61.76 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>96,837</b>	<b>89,473</b>	<b>-7,365</b>	<b>108.23 %</b>	<b>1,105,541</b>	<b>1,074,100</b>	<b>-31,441</b>	<b>102.93 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	265,086	658,095	393,009	40.28 %	4,239,085	7,900,300	3,661,215	53.66 %
4000 - Fixed Asset Purchases	71,735	12,037	-59,698	595.96 %	111,416	144,500	33,084	77.10 %
5000 - Debt Service	68,558	19,159	-49,399	357.84 %	138,627	230,000	91,373	60.27 %
5500 - Election Expenses	0	18,992	18,992	0.00 %	44,606	228,000	183,394	19.56 %
6000 - Contingencies	0	6,248	6,248	0.00 %	0	75,000	75,000	0.00 %
6500 - Reserves	0	29,538	29,538	0.00 %	0	354,600	354,600	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>405,378</b>	<b>744,069</b>	<b>338,691</b>	<b>54.48 %</b>	<b>4,533,734</b>	<b>8,932,400</b>	<b>4,398,666</b>	<b>50.76 %</b>
<b>Total Expense:</b>	<b>742,857</b>	<b>1,117,178</b>	<b>374,321</b>	<b>66.49 %</b>	<b>8,696,065</b>	<b>13,411,500</b>	<b>4,715,435</b>	<b>64.84 %</b>
<b>Report Total:</b>	<b>-638,151</b>	<b>0</b>	<b>-638,151</b>		<b>-520,648</b>	<b>0</b>	<b>-520,648</b>	

**EXHIBIT 12-E****Statement of Revenue Over Expense - No Decimals**

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For Fiscal: 2015-2016 Period Ending: 05/31/2016

**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	-202,965	0	-202,965		-183,563	0	-183,563	
26 - CONSERVATION FUND	-75,405	0	-75,405		223,483	0	223,483	
35 - WATER SUPPLY FUND	-359,781	0	-359,781		-560,568	0	-560,568	
<b>Report Total:</b>	<b>-638,151</b>	<b>0.08</b>	<b>-638,151</b>		<b>-520,648</b>	<b>0</b>	<b>-520,648</b>	





Monterey Peninsula Water Management Dist

**Statement of Revenue Over Expense - No Decimals**  
**Group Summary**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

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>								
R110 - Mitigation Revenue	0	200,920	-200,920	0.00 %	1,593,591	2,412,000	-818,409	-66.07 %
R130 - User Fees	3,329	6,248	-2,918	-53.29 %	35,855	75,000	-39,145	-47.81 %
R160 - Well Registration Fee	25	167	-142	-15.01 %	675	2,000	-1,325	-33.75 %
R180 - River Work Permit Application	0	0	0	0.00 %	75	0	75	0.00 %
R190 - WDS Permits Rule 21	3,200	4,665	-1,465	-68.60 %	47,843	56,000	-8,157	-85.43 %
R230 - Miscellaneous - Other	0	1,250	-1,250	0.00 %	443	15,000	-14,557	-2.95 %
R250 - Interest Income	8	541	-533	-1.50 %	1,348	6,500	-5,152	-20.74 %
R290 - CAW - Miscellaneous	0	583	-583	0.00 %	0	7,000	-7,000	0.00 %
R310 - Other Reimbursements	0	4,582	-4,582	0.00 %	0	55,000	-55,000	0.00 %
R320 - Grants	0	22,908	-22,908	0.00 %	197,519	275,000	-77,481	-71.83 %
R510 - Operating Reserve	0	10,579	-10,579	0.00 %	0	127,000	-127,000	0.00 %
<b>Total Revenue:</b>	<b>6,562</b>	<b>252,441</b>	<b>-245,878</b>	<b>-2.60 %</b>	<b>1,877,349</b>	<b>3,030,500</b>	<b>-1,153,151</b>	<b>-61.95 %</b>

**EXHIBIT 12-E**

**Statement of Revenue Over Expense - No Decimals**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

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	71,324	83,308	11,985	85.61 %	891,164	1,000,100	108,936	89.11 %
1110 - Manager's Auto Allowance	92	100	8	92.34 %	1,108	1,200	92	92.30 %
1120 - Manager's Deferred Comp	126	133	7	94.66 %	1,502	1,600	98	93.85 %
1130 - Unemployment Compensation	0	108	108	0.00 %	288	1,300	1,012	22.16 %
1140 - Insurance Opt-Out Supplemental	372	421	49	88.35 %	4,302	5,050	748	85.19 %
1150 - Temporary Personnel	0	42	42	0.00 %	4,732	500	-4,232	946.35 %
1160 - PERS Retirement	7,120	14,461	7,341	49.23 %	163,205	173,600	10,395	94.01 %
1170 - Medical Insurance	10,575	11,262	687	93.90 %	118,580	135,200	16,620	87.71 %
1180 - Medical Insurance - Retirees	2,617	2,066	-551	126.69 %	24,041	24,800	759	96.94 %
1190 - Workers Compensation	2,041	2,107	66	96.85 %	24,016	25,300	1,284	94.93 %
1200 - Life Insurance	182	196	14	93.07 %	2,069	2,350	281	88.02 %
1210 - Long Term Disability Insurance	470	516	47	90.98 %	5,113	6,200	1,087	82.46 %
1220 - Short Term Disability Insurance	93	108	15	86.18 %	1,011	1,300	289	77.77 %
1260 - Employee Assistance Program	27	42	15	64.22 %	304	500	196	60.78 %
1270 - FICA Tax Expense	330	192	-139	172.36 %	3,452	2,300	-1,152	150.09 %
1280 - Medicare Tax Expense	1,031	1,241	210	83.10 %	12,276	14,900	2,624	82.39 %
1290 - Staff Development & Training	411	841	431	48.81 %	2,236	10,100	7,864	22.14 %
1300 - Conference Registration	0	117	117	0.00 %	884	1,400	516	63.16 %
1310 - Professional Dues	166	83	-82	198.74 %	606	1,000	394	60.58 %
1320 - Personnel Recruitment	88	175	87	50.02 %	3,320	2,100	-1,220	158.09 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>97,065</b>	<b>117,520</b>	<b>20,455</b>	<b>82.59 %</b>	<b>1,264,208</b>	<b>1,410,800</b>	<b>146,592</b>	<b>89.61 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	987	1,324	338	74.51 %	9,813	15,900	6,087	61.71 %
2020 - Board Expenses	0	142	142	0.00 %	4,157	1,700	-2,457	244.52 %
2040 - Rent	830	908	78	91.45 %	8,838	10,900	2,062	81.08 %
2060 - Utilities	1,156	1,383	226	83.63 %	13,222	16,600	3,378	79.65 %
2120 - Insurance Expense	1,512	1,608	95	94.07 %	16,932	19,300	2,368	87.73 %
2130 - Membership Dues	0	833	833	0.00 %	9,743	10,000	257	97.43 %
2140 - Bank Charges	149	125	-24	119.27 %	1,567	1,500	-67	104.49 %
2150 - Office Supplies	826	583	-243	141.66 %	4,932	7,000	2,068	70.45 %
2160 - Courier Expense	525	283	-242	185.38 %	3,090	3,400	310	90.88 %
2170 - Printing/Photocopy	0	233	233	0.00 %	171	2,800	2,629	6.11 %
2180 - Postage & Shipping	0	142	142	0.00 %	2,224	1,700	-524	130.85 %
2190 - IT Supplies/Services	1,198	3,790	2,592	31.62 %	30,276	45,500	15,224	66.54 %
2200 - Professional Fees	2,838	4,831	1,993	58.74 %	84,472	58,000	-26,472	145.64 %
2220 - Equipment Repairs & Maintenance	239	250	11	95.67 %	3,165	3,000	-165	105.49 %
2235 - Equipment Lease	407	533	126	76.31 %	5,198	6,400	1,202	81.22 %
2240 - Telephone	1,199	1,558	359	76.98 %	14,434	18,700	4,266	77.18 %
2260 - Facility Maintenance	1,230	1,258	27	97.82 %	15,402	15,100	-302	102.00 %
2270 - Travel Expenses	777	900	122	86.42 %	5,559	10,800	5,241	51.48 %

**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2015-2016 Period Ending: 05/31/2016**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	1,922	733	-1,189	262.26 %	16,769	8,800	-7,969	190.55 %
2300 - Legal Services	16,889	7,497	-9,392	225.27 %	142,186	90,000	-52,186	157.98 %
2380 - Meeting Expenses	326	225	-101	144.92 %	1,563	2,700	1,137	57.89 %
2420 - Legal Notices	0	150	150	0.00 %	281	1,800	1,519	15.63 %
2460 - Public Outreach	27	175	148	15.33 %	1,504	2,100	596	71.61 %
2480 - Miscellaneous	0	183	183	0.00 %	554	2,200	1,646	25.20 %
2900 - Operating Supplies	43	283	240	15.18 %	704	3,400	2,696	20.72 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>33,082</b>	<b>29,930</b>	<b>-3,153</b>	<b>110.53 %</b>	<b>396,756</b>	<b>359,300</b>	<b>-37,456</b>	<b>110.42 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	44,019	59,043	15,024	74.55 %	326,691	708,800	382,109	46.09 %
4000 - Fixed Asset Purchases	35,361	5,581	-29,780	633.58 %	54,076	67,000	12,924	80.71 %
5500 - Election Expenses	0	8,163	8,163	0.00 %	19,181	98,000	78,819	19.57 %
6000 - Contingencies	0	2,666	2,666	0.00 %	0	32,000	32,000	0.00 %
6500 - Reserves	0	29,538	29,538	0.00 %	0	354,600	354,600	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>79,380</b>	<b>104,991</b>	<b>25,611</b>	<b>75.61 %</b>	<b>399,948</b>	<b>1,260,400</b>	<b>860,452</b>	<b>31.73 %</b>
<b>Total Expense:</b>	<b>209,528</b>	<b>252,441</b>	<b>42,913</b>	<b>83.00 %</b>	<b>2,060,912</b>	<b>3,030,500</b>	<b>969,588</b>	<b>68.01 %</b>
<b>Total Revenues</b>	<b>6,562</b>	<b>252,441</b>	<b>-245,878</b>	<b>-2.60 %</b>	<b>1,877,349</b>	<b>3,030,500</b>	<b>-1,153,151</b>	<b>-61.95 %</b>
<b>Total Fund: 24 - MITIGATION FUND:</b>	<b>-202,965</b>	<b>0</b>	<b>-202,965</b>		<b>-183,563</b>	<b>0</b>	<b>-183,563</b>	

**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2015-2016 Period Ending: 05/31/2016**

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	90,131	-90,131	0.00 %	1,214,173	1,082,000	132,173	-112.22 %
R130 - User Fees	614	0	614	0.00 %	6,617	0	6,617	0.00 %
R150 - Permit Processing Fee	15,037	14,578	460	-103.15 %	146,819	175,000	-28,181	-83.90 %
R200 - Recording Fees	722	666	56	-108.34 %	10,652	8,000	2,652	-133.15 %
R210 - Legal Fees	114	1,250	-1,136	-9.12 %	2,614	15,000	-12,386	-17.43 %
R230 - Miscellaneous - Other	0	0	0	0.00 %	1,082	0	1,082	0.00 %
R250 - Interest Income	23	333	-310	-6.89 %	3,953	4,000	-47	-98.83 %
R270 - CAW - Rebates	58,620	58,310	310	-100.53 %	579,431	700,000	-120,569	-82.78 %
R280 - CAW - Conservation	0	19,326	-19,326	0.00 %	0	232,000	-232,000	0.00 %
R305 - City of Seaside - Rebates	0	1,666	-1,666	0.00 %	0	20,000	-20,000	0.00 %
R310 - Other Reimbursements	0	833	-833	0.00 %	0	10,000	-10,000	0.00 %
R510 - Operating Reserve	0	2,666	-2,666	0.00 %	0	32,000	-32,000	0.00 %
<b>Total Revenue:</b>	<b>75,130</b>	<b>189,757</b>	<b>-114,627</b>	<b>-39.59 %</b>	<b>1,965,342</b>	<b>2,278,000</b>	<b>-312,658</b>	<b>-86.27 %</b>

**EXHIBIT 12-E**

**Statement of Revenue Over Expense - No Decimals**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

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	43,952	44,749	797	98.22 %	536,111	537,200	1,089	99.80 %
1110 - Manager's Auto Allowance	92	100	8	92.34 %	1,108	1,200	92	92.30 %
1120 - Manager's Deferred Comp	126	133	7	94.66 %	1,502	1,600	98	93.85 %
1130 - Unemployment Compensation	0	58	58	0.00 %	161	700	539	22.97 %
1140 - Insurance Opt-Out Supplemental	372	421	49	88.35 %	4,302	5,050	748	85.19 %
1150 - Temporary Personnel	4,056	5,848	1,792	69.36 %	39,784	70,200	30,416	56.67 %
1160 - PERS Retirement	4,072	7,755	3,684	52.50 %	91,359	93,100	1,741	98.13 %
1170 - Medical Insurance	7,441	6,656	-785	111.80 %	81,104	79,900	-1,204	101.51 %
1180 - Medical Insurance - Retirees	1,461	1,150	-311	127.08 %	13,418	13,800	382	97.23 %
1190 - Workers Compensation	168	175	7	95.77 %	2,061	2,100	39	98.13 %
1200 - Life Insurance	93	133	40	69.67 %	1,208	1,600	392	75.51 %
1210 - Long Term Disability Insurance	292	262	-29	111.11 %	3,096	3,150	54	98.29 %
1220 - Short Term Disability Insurance	58	58	0	99.33 %	614	700	86	87.71 %
1260 - Employee Assistance Program	19	25	6	76.83 %	213	300	87	70.85 %
1270 - FICA Tax Expense	34	42	7	82.02 %	340	500	160	67.91 %
1280 - Medicare Tax Expense	616	650	34	94.81 %	7,670	7,800	130	98.34 %
1290 - Staff Development & Training	328	1,200	871	27.36 %	4,053	14,400	10,347	28.14 %
1300 - Conference Registration	0	50	50	0.00 %	999	600	-399	166.50 %
1310 - Professional Dues	92	50	-42	184.87 %	810	600	-210	135.07 %
1320 - Personnel Recruitment	0	100	100	0.00 %	1,300	1,200	-100	108.33 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>63,271</b>	<b>69,614</b>	<b>6,342</b>	<b>90.89 %</b>	<b>791,211</b>	<b>835,700</b>	<b>44,489</b>	<b>94.68 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	551	741	191	74.29 %	5,477	8,900	3,423	61.54 %
2020 - Board Expenses	0	83	83	0.00 %	2,320	1,000	-1,320	232.01 %
2040 - Rent	172	258	86	66.55 %	1,835	3,100	1,265	59.20 %
2060 - Utilities	623	758	135	82.14 %	7,157	9,100	1,943	78.65 %
2120 - Insurance Expense	844	900	56	93.83 %	9,450	10,800	1,350	87.50 %
2130 - Membership Dues	2,000	808	-1,192	247.52 %	8,034	9,700	1,666	82.82 %
2140 - Bank Charges	75	67	-8	112.26 %	875	800	-75	109.41 %
2150 - Office Supplies	461	325	-136	141.91 %	2,970	3,900	930	76.16 %
2160 - Courier Expense	293	167	-126	175.89 %	1,947	2,000	53	97.33 %
2170 - Printing/Photocopy	0	342	342	0.00 %	95	4,100	4,005	2.33 %
2180 - Postage & Shipping	0	83	83	0.00 %	1,326	1,000	-326	132.62 %
2190 - IT Supplies/Services	746	2,058	1,311	36.27 %	16,987	24,700	7,713	68.77 %
2200 - Professional Fees	1,584	2,699	1,115	58.69 %	47,147	32,400	-14,747	145.52 %
2220 - Equipment Repairs & Maintenance	133	142	8	94.23 %	1,766	1,700	-66	103.90 %
2235 - Equipment Lease	227	300	73	75.72 %	2,948	3,600	652	81.89 %
2240 - Telephone	611	800	189	76.41 %	7,679	9,600	1,921	79.99 %
2260 - Facility Maintenance	687	641	-45	107.07 %	8,569	7,700	-869	111.29 %
2270 - Travel Expenses	1,427	1,033	-394	138.12 %	13,228	12,400	-828	106.68 %

**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	821	417	-404	197.10 %	6,321	5,000	-1,321	126.41 %
2300 - Legal Services	5,160	4,998	-162	103.24 %	51,998	60,000	8,002	86.66 %
2380 - Meeting Expenses	211	200	-11	105.33 %	878	2,400	1,522	36.56 %
2420 - Legal Notices	0	92	92	0.00 %	157	1,100	943	14.27 %
2460 - Public Outreach	15	100	85	14.98 %	1,208	1,200	-8	100.69 %
2480 - Miscellaneous	0	100	100	0.00 %	309	1,200	891	25.78 %
2500 - Tax Administration Fee	0	658	658	0.00 %	7,621	7,900	279	96.47 %
2900 - Operating Supplies	24	1,216	1,192	1.97 %	11,778	14,600	2,822	80.67 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>16,664</b>	<b>19,984</b>	<b>3,320</b>	<b>83.39 %</b>	<b>220,082</b>	<b>239,900</b>	<b>19,818</b>	<b>91.74 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	68,864	92,588	23,724	74.38 %	714,121	1,111,500	397,379	64.25 %
4000 - Fixed Asset Purchases	1,736	1,491	-245	116.45 %	5,740	17,900	12,160	32.07 %
5500 - Election Expenses	0	4,582	4,582	0.00 %	10,705	55,000	44,295	19.46 %
6000 - Contingencies	0	1,499	1,499	0.00 %	0	18,000	18,000	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>70,600</b>	<b>100,160</b>	<b>29,560</b>	<b>70.49 %</b>	<b>730,566</b>	<b>1,202,400</b>	<b>471,834</b>	<b>60.76 %</b>
<b>Total Expense:</b>	<b>150,535</b>	<b>189,757</b>	<b>39,222</b>	<b>79.33 %</b>	<b>1,741,859</b>	<b>2,278,000</b>	<b>536,141</b>	<b>76.46 %</b>
<b>Total Revenues</b>	<b>75,130</b>	<b>189,757</b>	<b>-114,627</b>	<b>-39.59 %</b>	<b>1,965,342</b>	<b>2,278,000</b>	<b>-312,658</b>	<b>-86.27 %</b>
<b>Total Fund: 26 - CONSERVATION FUND:</b>	<b>-75,405</b>	<b>0</b>	<b>-75,405</b>		<b>223,483</b>	<b>0</b>	<b>223,483</b>	

**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2015-2016 Period Ending: 05/31/2016**

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	283,220	-283,220	0.00 %	3,336,701	3,400,000	-63,299	-98.14 %
R120 - Property Taxes Revenues	0	40,650	-40,650	0.00 %	451,403	488,000	-36,597	-92.50 %
R140 - Connection Charges	18,333	14,578	3,755	-125.76 %	477,056	175,000	302,056	-272.60 %
R220 - Copy Fee	3	0	3	0.00 %	99	0	99	0.00 %
R230 - Miscellaneous - Other	4,632	0	4,632	0.00 %	11,027	0	11,027	0.00 %
R240 - Insurance Refunds	0	0	0	0.00 %	1,352	0	1,352	0.00 %
R250 - Interest Income	45	375	-330	-11.99 %	15,380	4,500	10,880	-341.78 %
R260 - CAW - ASR	0	23,566	-23,566	0.00 %	0	282,900	-282,900	0.00 %
R265 - CAW - Los Padres Reimbursement	0	49,980	-49,980	0.00 %	0	600,000	-600,000	0.00 %
R300 - Watermaster	0	5,848	-5,848	0.00 %	39,709	70,200	-30,491	-56.57 %
R510 - Operating Reserve	0	256,764	-256,764	0.00 %	0	3,082,400	-3,082,400	0.00 %
<b>Total Revenue:</b>	<b>23,013</b>	<b>674,980</b>	<b>-651,967</b>	<b>-3.41 %</b>	<b>4,332,727</b>	<b>8,103,000</b>	<b>-3,770,273</b>	<b>-53.47 %</b>

**EXHIBIT 12-E**

**Statement of Revenue Over Expense - No Decimals**

For Fiscal: 2015-2016 Period Ending: 05/31/2016

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	60,568	69,780	9,212	86.80 %	716,858	837,700	120,842	85.57 %
1110 - Manager's Auto Allowance	277	300	23	92.34 %	3,323	3,600	277	92.31 %
1120 - Manager's Deferred Comp	378	383	5	98.76 %	4,505	4,600	95	97.92 %
1130 - Unemployment Compensation	0	83	83	0.00 %	221	1,000	779	22.11 %
1140 - Insurance Opt-Out Supplemental	671	741	71	90.48 %	7,827	8,900	1,073	87.95 %
1150 - Temporary Personnel	0	25	25	0.00 %	3,631	300	-3,331	1,210.44 %
1160 - PERS Retirement	6,059	11,595	5,537	52.25 %	129,442	139,200	9,758	92.99 %
1170 - Medical Insurance	7,400	7,947	547	93.12 %	82,085	95,400	13,315	86.04 %
1180 - Medical Insurance - Retirees	2,009	1,583	-426	126.91 %	18,450	19,000	550	97.10 %
1190 - Workers Compensation	1,097	1,241	144	88.42 %	13,212	14,900	1,688	88.67 %
1200 - Life Insurance	133	129	-4	103.36 %	1,490	1,550	60	96.14 %
1210 - Long Term Disability Insurance	360	387	28	92.86 %	3,828	4,650	822	82.32 %
1220 - Short Term Disability Insurance	71	83	12	85.63 %	754	1,000	246	75.40 %
1260 - Employee Assistance Program	20	33	13	59.56 %	221	400	179	55.26 %
1270 - FICA Tax Expense	58	167	109	34.83 %	617	2,000	1,383	30.84 %
1280 - Medicare Tax Expense	674	1,016	342	66.31 %	8,043	12,200	4,157	65.93 %
1290 - Staff Development & Training	315	675	360	46.71 %	1,990	8,100	6,110	24.57 %
1300 - Conference Registration	0	100	100	0.00 %	662	1,200	538	55.15 %
1310 - Professional Dues	127	92	-35	138.66 %	871	1,100	229	79.21 %
1320 - Personnel Recruitment	88	142	54	61.79 %	3,341	1,700	-1,641	196.54 %
<b>Total Level1: 100 - Personnel Costs:</b>	<b>80,305</b>	<b>96,503</b>	<b>16,198</b>	<b>83.21 %</b>	<b>1,001,372</b>	<b>1,158,500</b>	<b>157,128</b>	<b>86.44 %</b>
<b>Level1: 200 - Supplies and Services</b>								
2000 - Board Member Compensation	757	1,016	259	74.52 %	7,531	12,200	4,669	61.73 %
2020 - Board Expenses	0	108	108	0.00 %	2,985	1,300	-1,685	229.63 %
2040 - Rent	759	800	41	94.89 %	8,074	9,600	1,526	84.10 %
2060 - Utilities	876	1,058	182	82.77 %	9,984	12,700	2,716	78.62 %
2120 - Insurance Expense	1,161	1,241	81	93.51 %	12,994	14,900	1,906	87.21 %
2130 - Membership Dues	0	650	650	0.00 %	7,577	7,800	223	97.14 %
2140 - Bank Charges	229	100	-129	228.75 %	2,151	1,200	-951	179.26 %
2150 - Office Supplies	634	450	-184	140.92 %	3,722	5,400	1,678	68.93 %
2160 - Courier Expense	403	217	-186	186.04 %	2,162	2,600	438	83.17 %
2170 - Printing/Photocopy	0	175	175	0.00 %	131	2,100	1,969	6.25 %
2180 - Postage & Shipping	0	108	108	0.00 %	1,730	1,300	-430	133.11 %
2190 - IT Supplies/Services	920	2,932	2,012	31.37 %	23,223	35,200	11,977	65.97 %
2200 - Professional Fees	2,178	3,715	1,537	58.62 %	64,828	44,600	-20,228	145.35 %
2220 - Equipment Repairs & Maintenance	183	192	8	95.77 %	2,429	2,300	-129	105.59 %
2235 - Equipment Lease	312	417	104	74.96 %	3,943	5,000	1,057	78.86 %
2240 - Telephone	793	1,258	465	63.03 %	10,914	15,100	4,186	72.28 %
2260 - Facility Maintenance	944	1,000	55	94.46 %	11,790	12,000	210	98.25 %
2270 - Travel Expenses	769	750	-19	102.54 %	6,526	9,000	2,474	72.51 %



**EXHIBIT 12-E**

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**Statement of Revenue Over Expense - No Decimals****For Fiscal: 2015-2016 Period Ending: 05/31/2016**

Level...	May Activity	May Budget	Variance Favorable (Unfavorable)	Percent Used	YTD Activity	Total Budget	Variance Favorable (Unfavorable)	Percent Used
2280 - Transportation	193	733	540	26.33 %	3,936	8,800	4,864	44.72 %
2300 - Legal Services	35,390	20,825	-14,565	169.94 %	285,854	250,000	-35,854	114.34 %
2380 - Meeting Expenses	265	175	-90	151.62 %	1,182	2,100	918	56.30 %
2420 - Legal Notices	0	117	117	0.00 %	1,311	1,400	89	93.66 %
2460 - Public Outreach	21	142	121	14.53 %	1,422	1,700	278	83.67 %
2480 - Miscellaneous	272	133	-139	204.08 %	697	1,600	903	43.59 %
2500 - Tax Administration Fee	0	1,008	1,008	0.00 %	11,179	12,100	921	92.39 %
2900 - Operating Supplies	33	242	209	13.66 %	426	2,900	2,474	14.67 %
<b>Total Level1: 200 - Supplies and Services:</b>	<b>47,091</b>	<b>39,559</b>	<b>-7,532</b>	<b>119.04 %</b>	<b>488,703</b>	<b>474,900</b>	<b>-13,803</b>	<b>102.91 %</b>
<b>Level1: 300 - Other Expenses</b>								
3000 - Project Expenses	152,203	506,464	354,261	30.05 %	3,198,273	6,080,000	2,881,727	52.60 %
4000 - Fixed Asset Purchases	34,637	4,965	-29,673	697.68 %	51,600	59,600	8,000	86.58 %
5000 - Debt Service	68,558	19,159	-49,399	357.84 %	138,627	230,000	91,373	60.27 %
5500 - Election Expenses	0	6,248	6,248	0.00 %	14,720	75,000	60,280	19.63 %
6000 - Contingencies	0	2,083	2,083	0.00 %	0	25,000	25,000	0.00 %
<b>Total Level1: 300 - Other Expenses:</b>	<b>255,398</b>	<b>538,918</b>	<b>283,520</b>	<b>47.39 %</b>	<b>3,403,220</b>	<b>6,469,600</b>	<b>3,066,380</b>	<b>52.60 %</b>
<b>Total Expense:</b>	<b>382,794</b>	<b>674,980</b>	<b>292,186</b>	<b>56.71 %</b>	<b>4,893,294</b>	<b>8,103,000</b>	<b>3,209,706</b>	<b>60.39 %</b>
<b>Total Revenues</b>	<b>23,013</b>	<b>674,980</b>	<b>-651,967</b>	<b>-3.41 %</b>	<b>4,332,727</b>	<b>8,103,000</b>	<b>-3,770,273</b>	<b>-53.47 %</b>
<b>Total Fund: 35 - WATER SUPPLY FUND:</b>	<b>-359,781</b>	<b>0</b>	<b>-359,781</b>		<b>-560,568</b>	<b>0</b>	<b>-560,568</b>	
<b>Report Total:</b>	<b>-638,151</b>	<b>0</b>	<b>-638,151</b>		<b>-520,648</b>	<b>0</b>	<b>-520,648</b>	

**EXHIBIT 12-E****Statement of Revenue Over Expense - No Decimals**

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For Fiscal: 2015-2016 Period Ending: 05/31/2016

**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	-202,965	0	-202,965		-183,563	0	-183,563	
26 - CONSERVATION FUND	-75,405	0	-75,405		223,483	0	223,483	
35 - WATER SUPPLY FUND	-359,781	0	-359,781		-560,568	0	-560,568	
<b>Report Total:</b>	<b>-638,151</b>	<b>0.08</b>	<b>-638,151</b>		<b>-520,648</b>	<b>0</b>	<b>-520,648</b>	

**ITEM: PUBLIC HEARING****20. CONSIDER FIRST READING OF ORDINANCE NO. 172, AN ORDINANCE OF THE MONTEREY PENINSULA WATER MANAGEMENT AMENDING REGIONAL WATER EFFICIENT LANDSCAPE REQUIREMENTS IN COMPLIANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 23, DIVISION 2, CHAPTER 2.7, CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE**

<b>Meeting Date:</b>	<b>July 18, 2016</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>Stephanie Locke</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review: In process.****Committee Recommendation: N/A****CEQA Compliance: Exempt. California Public Resources Code Section 21000 et seq.**

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**SUMMARY:** Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed the Department of Water Resources (DWR) to update the State's Model Water Efficient Landscape Ordinance (MWELo) through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015. Jurisdictions were directed to amend their local WELO or comply with the MWELo. MWELo requires that local regulations must be at least as effective as MWELo. Draft Ordinance No. 172 (Exhibit 20-A) adds the provisions of the State Model Water Efficient Landscape Ordinance, as amended by Monterey County, to the District's Rules and Regulations as a stand-alone Rule 142.1. It also amends District Rules that pertain to landscaping.

MPWMD Rule 142 has required compliance with the State's Model Water Efficient Landscape Ordinance (MWELo) since 2009. As part of the District's Water Permit process, staff routinely evaluates the Water Use Capacity of the landscape. Beginning in 2016, the District began reporting region-wide compliance with MWELo to the DWR. As the regional water manager, MPWMD is the appropriate agency to implement the water efficient landscape requirements.

MWELo applies to new landscapes (including landscapes associated with a building demolition/rebuild) with an aggregate landscape area greater than 500 square-feet that are associated with any grading permit, building permit, or design approval (including such projects as lighting, decks, retaining walls, fences, etc.). It also applies to refurbished landscapes (i.e., replacement of existing landscaping) greater than 2,500 square-feet that require a building or landscape permit, plan check, or design review. MWELo focuses on water efficiency in plant selection, landscape design, and the irrigation system.

Proposed Ordinance No. 172 essentially mirrors the ordinance that will be considered by the County. This is being done for consistency throughout Monterey County. District staff has been

collaborating with the County and other Jurisdictions to ensure that the process is well coordinated. District staff has also been working with the Jurisdictions' planning and building departments to help them understand the regulations so they know when to refer applicants to the Water Management District.

After the ordinance is adopted, the regulations will be posted to the District's website along with links to any additional rules established by the Jurisdictions. The Water Management District will also provide printed materials to the Jurisdictions for distribution to the public that will explain the WELO requirements. District staff has contacted the Department of Water Resources and discussed scheduling a local workshop on the State's WELO for landscape industry representatives, planners, and residents.

During the second reading of Ordinance No. 172, the Board will consider approval of the "Monterey Peninsula Water Management District Landscape Manual – Standards, Guidelines and Specified Performance Requirements for Landscape Water Use and Irrigation" ("Landscape Manual"). The Landscape Manual incorporates the requirements of new Rule 142.1 (contained in the draft ordinance) in a "user friendly" document that will include frequently asked questions, definitions, and forms to be used in the Landscape Documentation Package. The Landscape Manual can be amended by Board Resolution and will be the primary method to educate the public about the District's Water Efficient Landscape Requirements.

**DISCUSSION:** The Legislative Committee discussed the MWELo on March 29, 2015. The Committee recommendation was to convene the Technical Advisory Committee (TAC), list the current landscaping requirements and then show them the burden they would incur if they were to take responsibility for implementation of the state regulations. The Committee also directed that staff should advise the TAC members that if they decide it is appropriate for regional implementation of the landscape regulations, each Jurisdiction should submit a letter to the District requesting that MPWMD be the regional agency to report to the Department of Water Resources.

The Jurisdictions responded with requests for MPWMD to implement a regional approach to comply with MWELo (Exhibits 20-B through 20-F).

**RECOMMENDATION:** Staff recommends the Board approve the first reading of Ordinance No. 172. Although MWELo compliance is currently in the Rules and Regulations, the full body of the regulation is not codified.

**HISTORY:** Assembly Bill 1881 (2006 - Laird) adopted the first MWELo on September 10, 2009. AB 1881 required agencies to implement MWELo or create their own ordinance that was at least as stringent by January 1, 2010. MPWMD adopted a regional WELO November 16, 2009 (Ordinance 141) that is found in Rule 142, Water Efficiency Standards.

On April 1, 2015, Governor Brown ordered DWR (Executive Order B-29-15) to update the MWELo. A revised MWELo was adopted after considerable stakeholder input by the State on September 15, 2015. All agencies were directed to implement the changes by December 1, 2015, and to report on local adoption by March 1, 2016 if a regional approach was taken. At the

September 21, 2015 TAC meeting, the TAC voted that the MWELO should be implemented by the District as a regional measure. MPWMD reported to DWR that it would be reporting for the region (MPWMD) and reported as required on March 1, 2016.

#### **EXHIBITS**

**20-A** Draft Ordinance No. 172

**20-B** Letter supporting regional approach from City of Carmel-by-the-Sea

**20-C** Letter supporting regional approach from City of Del Rey Oaks

**20-D** Letter supporting regional approach from City of Monterey

**20-E** Letter supporting regional approach from City of Pacific Grove

**20-F** Letter supporting regional approach from City of Sand City

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**DRAFT  
ORDINANCE NO. 172**

**AN ORDINANCE OF THE BOARD OF DIRECTORS  
OF THE MONTEREY PENINSULA WATER MANAGEMENT  
AMENDING REGIONAL WATER EFFICIENT LANDSCAPE REQUIREMENTS  
IN COMPLIANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 23,  
DIVISION 2, CHAPTER 2.7, CALIFORNIA MODEL WATER EFFICIENT  
LANDSCAPE ORDINANCE**

**FINDINGS**

1. The Monterey Peninsula Water Management District 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. The Monterey Peninsula Water Management District has adopted and regularly implements water conservation and efficiency measures which, inter alia, set standards for the installation of plumbing fixtures in New Construction, and requires retrofit or replacement of existing plumbing fixtures upon Change of Ownership, Change of Use, and Expansion of Use, and for existing Non-Residential uses. The Monterey Peninsula Water Management District has general and specific power to cause and implement water conservation activities as set forth in Sections 325 and 328 of the Monterey Peninsula Water Management District Law.
3. Water conservation in landscaping serves the public health, safety, and welfare by minimizing water use, eliminating water waste, and maximizing energy efficiency.
4. Assembly Bill 325- The Water Conservation in Landscape Act of 1990 ("AB 325") was signed into law on September 29, 1990, requiring the California Department of Water Resources ("DWR") to develop and adopt a State Model Water Efficient Landscape Ordinance with provisions for water efficient landscape design, installation, and maintenance by January 1, 1992.
5. Assembly Bill 1881-The Water Conservation in Landscaping Act of 2006 ("AB 1881") required DWR to develop and adopt an updated State Model Water Efficient Landscape

Ordinance ("MWELO"). Government Code Section 65595 as enacted by AB 1881 mandates that local governments either adopt the MWELO or a local ordinance that is at least as effective in water conservation by January 1, 2010. If neither has occurred by that date, the local agency is required to enforce the MWELO.

6. On January 29, 2010, MPWMD notified the DWR that the MPWMD intends to follow the MWELO.
7. On April 1, 2015, the Governor of the State of California issued Executive Order B-29-15 due to the continued severe drought conditions. This order required DWR to revise the MWELO through expedited regulation to increase water efficiency standards for new and retrofitted landscapes through more efficient Irrigation Systems, greywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in turf.
8. On July 15, 2015, the California Water Commission approved the revised MWELO. Local governments are required to enforce the revised MWELO as of December 15, 2015, unless the local agency has adopted a local ordinance. The purpose of this ordinance is to adopt a local ordinance that is at least as effective in water conservation as the revised MWELO and accordingly enable the County to apply this ordinance in lieu of the revised MWELO.
9. In accordance with Section 490 of the California Code of Regulations Title 23 (Waters), Division 2, Chapter 2.7, the purpose of the MWELO is to establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction (including new buildings with landscape or other new landscape, such as a park, playground, or greenbelt without an associated building) and rehabilitated projects by encouraging the use of a watershed approach. Subsection "c" further states that such landscapes will make the urban environment resilient in the face of climatic extremes and result in an improved urban setting. Consistent with the state's purpose, this ordinance is intended to govern those types of landscapes that are ornamental in nature and typically found in urban settings.
10. In accordance with Sections 65595(c)(1) and 65597 of the Government Code, the Board of MPWMD hereby finds that this ordinance is at least as effective in conserving water as the revised MWELO. Pursuant to Section 65596 of the Government Code, specific elements were identified to be included within the revised MWELO. These elements have been incorporated into this ordinance; therefore, it meets the minimum requirements of state law.



11. Rule 21-B-3, Application for Permit to Connect to or Modify a Connection to a Water Distribution System, is amended to update the existing rule and add language from the Model Water Efficient Landscape Ordinance.
12. Rule 24-E, Calculation of Water Capacity and Capacity Fees, is amended to add language from the Model Water Efficient Landscape Ordinance regarding submitting a Landscape Documentation Package with the Water Permit application.
13. Rule 142, Water Efficiency Standards, is amended to reflect amendments to the Model Water Efficient Landscape Ordinance.
14. This ordinance authorizes the Board of the Monterey Peninsula Water Management District to adopt, by separate resolution, a Landscape Manual entitled the “Monterey Peninsula Water Management District Landscape Manual – Standards, Guidelines and Specified Performance Requirements for Landscape Water Use and Irrigation” (“Landscape Manual”). The Landscape Manual has been developed to work in conjunction with the ordinance, to explain the regulations and provide technical information, and it could be updated periodically by resolution without requiring amendment to Rule 142.1.
15. This ordinance is applicable to Sites within the Monterey Peninsula Water Management District that install new or Refurbished Landscapes (as defined in this ordinance) after December 1, 2015.
16. This ordinance is consistent with and supportive of other water conservation policies and regulations set forth in the Monterey County Code (“MCC”) that apply in the coastal and inland zones.
17. 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 **2016 Water Efficient Landscape Requirements Ordinance** of the Monterey Peninsula Water Management District.

**Section Two:**            **Statement of Purpose**

The Monterey Peninsula Water Management District enacts this ordinance to add the State's and Monterey County's water efficient landscape requirements to the District's Rules and Regulations in keeping with the District's role as the Monterey Peninsula's regional water manager.

**Section Three:**        **Amendment of Rule 11, Definitions**

Rule 11 shall be amended as shown in bold italics (*bold italics*) and strikethrough (~~strikethrough~~). The following terms shall be capitalized throughout the Rules and Regulations of the District. Numbering is provided for reference only and shall not be included in Rule 11.

1.     ***APPLIED WATER*** – “*Applied Water*” shall mean the portion of water supplied by the Irrigation System to the landscape.
2.     ***AS-BUILT DRAWINGS*** – “*As-Built Drawings*” shall mean drawings prepared by the contractor that show, in red ink, on-site changes to the original construction documents.
3.     ***AUTOMATIC IRRIGATION CONTROLLER*** – “*Automatic Irrigation Controller*” shall mean a timing device used to remotely control valves that operate an irrigation system. *Automatic Irrigation Controllers are able to self-adjust and schedule irrigation events using either Evapotranspiration (weather-based) or soil moisture data.*
4.     ***BACKFLOW PREVENTION DEVICE*** – “*Backflow Prevention Device*” shall mean a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water.

5. **CALIFORNIA INVASIVE PLANT INVENTORY** – *“California Invasive Plant Inventory” shall mean the California Invasive Plant Inventory maintained by the California Invasive Plant Council.*
6. **CERTIFIED IRRIGATION DESIGNER** – *“Certified Irrigation Designer” shall mean a person certified to design Irrigation Systems by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency’s WaterSense irrigation designer certification program and Irrigation Association’s Certified Irrigation Designer program.*
7. **CERTIFIED LANDSCAPE IRRIGATION AUDITOR** – *“Certified Landscape Irrigation Auditor” shall mean a Person certified by the Irrigation Association or the California Landscape Contractors Association to perform Landscape Irrigation Water Audits by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency’s WaterSense irrigation auditor certification program and Irrigation Association’s Certified Landscape Irrigation Auditor program, and prepare Landscape Water Budgets.*
8. **CHECK VALVE** – *“Check Valve” shall mean a valve located under a sprinkler head, or other location in the Irrigation System, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off. Check Valve is also known as an anti-drain valve.*
9. **COMMON INTEREST DEVELOPMENTS** – *“Common Interest Developments” shall mean community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.*
10. **COMPOST** – *“Compost” shall mean the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.*
11. **CONTROLLER** – *“Controller” shall mean an automatic timing device used to remotely control valves or heads to operate an Irrigation System. A weather-based Controller is a Controller that utilizes evapotranspiration or weather data to make adjustments to irrigation schedules. A self-adjusting irrigation Controller is a Controller that uses onsite sensor data (e.g., soil moisture) to adjust irrigation schedules.*

12. ***DISTRIBUTION UNIFORMITY*** – “*Distribution Uniformity*” shall mean the measure of the uniformity of irrigation water over a defined area.
13. ***DRIP IRRIGATION*** – “*Drip Irrigation*” shall mean a ~~low pressure, low volume watering system that applies water slowly to plants, near or at ground level, to minimize runoff and loss to evaporation.~~ ***any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*** The term “*Drip Irrigation*” shall have the same meaning as “*Micro Irrigation*” and “*Trickle Irrigation*.”
14. ***ECOLOGICAL RESTORATION PROJECT*** – “*Ecological Restoration Project*” shall mean a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
15. ***EFFECTIVE PRECIPITATION*** – “*Effective Precipitation*” or “*Eppt*” shall mean the portion of total precipitation which becomes available for plant growth. *Effective Precipitation is also known as “useable rainfall.”*
16. ***EMITTER*** – “*Emitter*” shall mean a drip irrigation emission device that delivers water slowly from the system to the soil.
17. ***ENERGY EFFICIENT LANDSCAPE*** – “*Energy Efficient Landscape*” shall mean any new or Rehabilitated Landscape, public or private, that helps a project achieve a minimum fifteen percent (15%) reduction in energy use when compared to the State’s mandatory energy efficiency standards.
18. ***ESTABLISHED LANDSCAPE*** – “*Established Landscape*” shall mean the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.
19. ***ESTABLISHMENT PERIOD OF THE PLANTS*** – “*Establishment Period of the Plants*” shall mean the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

20. **ESTIMATED TOTAL WATER USE (ETWU)** – “Estimated Total Water Use” shall mean the total water used for the landscape based on the plants used in the landscape design. ~~is determined based upon the area of Landscaping and the types of plant material used in the Landscaping (as determined by Water Use Classification of Landscape Species (WUCOLS) classifications). The sum of the ETWU calculated for all hydrozones shall not exceed MAWA.~~
21. **EVAPOTRANSPIRATION ADJUSTMENT FACTOR or ET ADJUSTMENT FACTOR** – “Evapotranspiration Adjustment Factor” or “ET Adjustment Factor” (ETAF) shall mean, *except for Special Landscape Areas*, a factor of *0.55 for Residential projects and 0.45 for Non-Residential projects that, when applied to Reference Evapotranspiration, adjusts for Plant Water Use Factors and Irrigation Efficiency.* ~~0.7, that, when applied to reference Evapotranspiration, adjusts for 11-16 Monterey Peninsula Water Management District plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the Landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is  $(0.7) = (0.5/0.71)$ . ETAF for a special Landscape Area as defined in the Model Water Efficient Landscape Ordinance shall not exceed 1.0. ETAF for existing non-rehabilitated Landscapes is 0.8.~~
22. **EVAPOTRANSPIRATION RATE** – “Evapotranspiration Rate” shall mean the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
23. **FLOW RATE** – “Flow Rate” shall mean the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
24. **FLOW SENSOR** – “Flow Sensor” shall mean an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to Flow Rate. Flow Sensors must be connected to an automatic irrigation Controller, or flow monitor capable of receiving flow signals and operating Master Shut-Off Valves. The combination Flow Sensor/Controller may also function as a landscape Water Meter or sub-meter.
25. **FRIABLE** – “Friable” shall mean a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material

*requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.*

26. **FUEL MODIFICATION PLAN GUIDELINE** – *“Fuel Modification Plan Guideline” shall mean guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.*
27. **GRAYWATER** -- *“Graywater” shall mean untreated waste-water which has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. ~~come into contact with toilet waste.~~ “Graywater” includes, but is not limited to; wastewater ~~used water~~ from bathtubs, showers, Bathroom Washbasins, clothes washing machines and laundry tubs. It does not include waste-water from Kitchen Sinks and Dishwashers, ~~photo lab sinks, or laundry water from soiled diapers.~~ **Health and Safety Code Section 17922.12.** “Graywater” shall have the same meaning as “Greywater.”*
28. **HARDSCAPES** – *“Hardscapes” shall mean any durable surface material (Pervious or impervious).*
29. **HIGH WATER USE PLANT** – *“High Water Use Plant” means any plant categorized as high water need by the Water Use Classification of Landscape Species guide (“WUCOLS”).*
30. **HYDROZONE** – *“Hydrozone” shall mean a portion of the landscaped area having plants with similar water needs and rooting depths served by a valve or set of valves with the same schedule. A Hydrozone may be irrigated or non-irrigated.*
31. **INFILTRATION RATE** – *“Infiltration rate” shall mean the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).*
32. **INVASIVE PLANT SPECIES** – *“Invasive Plant Species” shall mean a species of plants not historically found in California that spreads outside cultivated areas and can damage environmental or economic resources and is listed as an*

*Invasive Plant in either the California Invasive Plant Inventory; USDA invasive, noxious weeds database; or the Landscape Manual.*

33. **IRRIGATION AUDIT** – *“Irrigation Audit” shall mean an in-depth evaluation of the performance of an Irrigation System conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit shall include, but is not limited to: inspection, system tune-up, system test with Distribution Uniformity or emission uniformity, reporting Overspray or Runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association’s Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency “WaterSense” labeled auditing program.*
34. **IRRIGATION DESIGN PLAN** – *“Irrigation Design Plan” (IE) shall mean an irrigation plan and drawings designed and signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5431.4, 5441.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code).*
35. **IRRIGATION EFFICIENCY** – *“Irrigation Efficiency” shall mean the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation Efficiency is derived from measurements and estimates of Irrigation System characteristics and management practices. The Irrigation Efficiency for purposes of this ordinance is 0.75 for overhead spray devices and 0.81 for drip systems.*
36. **IRRIGATION METER** – *“Irrigation Meter” shall mean a separate meter that measures the amount of water used for items such as lawns, washing exterior surfaces, washing vehicles, or filling pools.*
37. **IRRIGATION SURVEY** – *“Irrigation Survey” shall mean an evaluation of an Irrigation System that is less detailed than an Irrigation Audit.*
38. **IRRIGATION WATER USE ANALYSIS** – *“Irrigation Water Use Analysis” shall mean an analysis of water use data based on meter readings and billing data.*

39. ~~LANDSCAPING~~—“~~Landscaping~~” shall ~~mean the arrangement of plants and other materials that may result in outdoor water use.~~
40. **LANDSCAPE ARCHITECT**— *“Landscape Architect” shall mean a person who holds a license to practice landscape architecture in the State of California (California Business and Professions Code Section 5615).*
41. **LANDSCAPE AREA** -- “Landscape Area” means all the planting areas, turf areas, and water features in a ~~L~~andscape **design** plan subject to the Maximum Applied Water Allowance and the Estimated Applied Water Use calculations. The Landscape Area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious ~~H~~hardscapes, and other non-irrigated areas designated for non-development (e.g. open spaces and existing Native Vegetation).
42. **LANDSCAPE CONTRACTOR** – *“Landscape Contractor” shall mean a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.*
43. **LANDSCAPE DESIGN PLAN** – *“Landscape Design Plan” shall mean a plan (and drawings) that (1) delineates and labels each Hydrozone; (2) identifies each Hydrozone as low, moderate, high water, or mixed water use; (3) identifies any recreational areas; (4) identifies areas permanently and solely dedicated to edible plants; (5) identifies areas irrigated with Recycled Water; (6) identifies type of mulch and application depth; (7) identifies soil amendments, type, and quantity; (8) identifies type and surface area of any Water Features; (9) identifies Hardscapes (Pervious and non-pervious); (10) identifies applicable storm water best management practices; (11) identifies any applicable rain harvesting or catchment technologies; and (12) identifies any applicable Graywater discharge piping, system components and area(s) of distribution. A Landscape Design Plan must be signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5431.4, 5441.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code). “Landscape Design Plan” shall also be known as a “Planting Plan.”*



44. **LANDSCAPE MANUAL** – *“Landscape Manual” shall mean the “Monterey Peninsula Water Management District Landscape Manual – Standards and Specified Performance Requirements for Water Efficient Landscape Water Use and Irrigation”.*
45. **LANDSCAPE PACKAGE**– *“Landscape Package” shall mean the landscape Water Permit application and materials required to be submitted for review and approval by the MPWMD.*
46. ~~**LANDSCAPE WATER AUDIT** – *“Landscape Water Audit” shall mean an action taken by a Landscape Irrigation Auditor to determine reasonable outdoor water use.*~~
47. **LANDSCAPE WATER METER** – *“Landscape Water Meter” shall mean an inline device installed at the irrigation supply point that measures the flow of water into the Irrigation System and is connected to a totalizer to record water use.*
48. **LATERAL LINE** – *“Lateral Line” shall mean the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.*
49. **LOCAL WATER PURVEYOR** – *“Local Water Purveyor” shall mean any entity, including a public agency, city, county or private water company that provides retail water service.*
50. **LOW VOLUME IRRIGATION SYSTEM** – *“Low Volume Irrigation System” shall mean the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume emitters such as drip, drip lines, and bubblers. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*
51. **LOW WATER USE PLANT** – *“Low Water Use Plant” shall mean any plant categorized as low water need by the Water Use Classification of Landscape Species (“WUCOLS”) guide.*
52. **MAJOR LANDSCAPE PROJECT** – *“Major Landscape Project” shall mean Landscape projects with an aggregate Landscape Area greater than two thousand five hundred (2,500) square feet.*

53. **MASTER SHUT-OFF VALVE** – *“Master Shut-Off Valve” shall mean an automatic valve installed at the irrigation supply point which controls water flow into the Irrigation System. When this valve is closed, water will not be supplied to the Irrigation System. A Master Shut-Off Valve will greatly reduce any water loss due to a leaky station valve.*
54. **MAXIMUM APPLIED WATER ALLOWANCE** – *“Maximum Applied Water Allowance” shall mean the upper limit of annual applied water for the Established Landscape area. It is based upon the area’s Reference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area. The Maximum Applied Water Allowance shall be calculated using the equation:  $MAWA = (ET_o) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$ . The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with Recycled Water are subject to the MAWA with an ET Adjustment Factor not to exceed 1.0.*
55. **MICRO IRRIGATION** – *“Micro Irrigation” shall mean a low pressure, low volume watering system that applies water slowly to plants, near or at ground level, to minimize runoff and loss to evaporation. any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term “Drip Irrigation” shall have the same meaning as “Micro Irrigation” and “Trickle Irrigation.”*
56. **MICROCLIMATE** – *“Microclimate” shall mean the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.*
57. **MINOR LANDSCAPE PROJECT** – *“Minor Landscape Project” shall mean landscape projects with an aggregate Landscape Area less than or equal to two thousand five hundred (2,500) square feet.*
58. **MODERATE WATER USE PLANT** – *“Moderate Water Use Plant” shall mean any plant categorized as moderate water need by the Water Use Classification of Landscape Species (“WUCOLS”) guide.*

59. **MULCH** – “Mulch” shall mean any organic material such as leaves, bark, straw, Compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.
60. **NON-RESIDENTIAL LANDSCAPE** – “Non-Residential Landscape” shall mean landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated Recreational Areas.
61. **OPERATING PRESSURE** – “Operating Pressure” shall mean the pressure at which the parts of an Irrigation System are designed by the manufacturer to operate.
62. **OVERHEAD SPRINKLER IRRIGATION SYSTEM** – “Overhead Sprinkler Irrigation System” or “Overhead Irrigation System” shall mean systems that deliver water through the air (for example pop-ups, impulse sprinklers, spray heads, rotors, and micro-sprays).
63. **OVERSPRAY** – “Overspray” shall mean the irrigation water that is delivered beyond the Landscape Area, wetting pavements, walks, structures, or other non-landscaped areas.
64. **PARKWAY** – “Parkway” shall mean the area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.
65. **PERVIOUS** – “Pervious” shall mean any surface or material that allows the passage of water through the material and into the underlying soil.
66. **PLANT WATER USE FACTOR** – “Plant Water Use Factor” shall mean a value, when multiplied by “Reference Evapotranspiration,” as defined below that estimates the amount of water needed by plants. For purposes of this ordinance, the Plant Water Use Factor range for very Low Water Use Plants is less than 0.1, the Plant Water Use Factor range for Low Water Use Plants is 0.1 to 0.3, the Plant Water Use Factor range for Moderate Water Use Plants is 0.4 to 0.6, and the Plant Water Use Factor range for High Water Use Plants is 0.7

*to 1.0. Plant Water Use Factors cited in this ordinance are derived from the publication “Water Use Classification of Landscape Species.” Plant Water Use Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources.*

67. **PLANTING PLAN** – *“Planting Plan” shall have the same meaning as Landscape Design Plan.*
68. **RAIN SENSOR** – *“Rain Sensor” or “Rain Sensing Shutoff Device” shall mean a device that measures rainfall and overrides the irrigation cycle of an Irrigation System, thus turning the Irrigation System off, when a predetermined amount of rain has fallen. component of an Irrigation System which automatically suspends irrigation when it rains.*
69. **RECYCLED WATER** – *“Recycled Water” shall mean treated or recycled waste water of a quality suitable for Sub-potable uses such as landscape irrigation and water features. This water is not intended for human consumption. water that originates from a Sub-potable Source of Supply such as wastewater treated to the tertiary level.*
70. **RECORD DRAWINGS** – *“Record Drawings” shall mean documents prepared by the architect that reflect on-Site changes the contractor noted in the As-Built Drawings. They are often compiled as a set of on-Site changes made for the owner per the owner-architect contract.*
71. **RECREATIONAL AREA** – *“Recreational area” shall mean areas, excluding private single family residential areas, designated for active play, recreation or public assembly in as parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.*
72. **REFERENCE EVAPOTRANSPIRATION** – *“Reference Evapotranspiration” shall mean a standard measurement of environmental parameters which affect the water use of plants. Evapotranspiration is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four to seven inches tall, cool-season grass that is well watered. Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.*

73. **REHABILITATED LANDSCAPE** – *“Rehabilitated Landscape” shall mean any re-landscaping of existing landscapes where the modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet.*
74. **RESIDENTIAL LANDSCAPE** – *“Residential Landscape” shall mean landscape surrounding single or multifamily homes.*
75. **RUNOFF** – *“Runoff” shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For example, Runoff may result from water that is applied at too great a rate (application rate exceeds Infiltration Rate) or when there is a slope.*
76. ~~SENSOR-BASED IRRIGATION CONTROLLER~~ — ~~“Sensor-Based Irrigation Controller” shall mean a Smart Controller designed to use real time measurements of one or more locally measured factors to adjust irrigation timing. The factors typically considered include: temperature, rainfall, humidity, solar radiation, and soil moisture. A Sensor-Based Irrigation Controller often has historic weather information (i.e. an ET curve) for the site location programmed into memory and then uses the sensor information to modify the expected irrigation requirement for the day.~~
77. ~~SIGNAL BASED IRRIGATION CONTROLLER~~ — ~~“Signal Based Irrigation Controller” shall mean a signal based Smart Controller that receives a regular signal of prevailing weather conditions via radio, telephone, cable, cellular, web, or pager technology. The signal typically comes from a local weather station (or series of weather stations) and usually updates the current Evapotranspiration rate to the controller.~~
78. ~~SMART CONTROLLER~~ — ~~“Smart Controller” shall mean a weather based device (typically a “timer”) that automatically controls an outdoor Irrigation System. Smart Controllers use weather, site or soil moisture data as a basis for determining an appropriate watering schedule. Smart Controllers (commonly referred to as ET controllers, weather-based irrigation controllers, smart sprinkler controllers, and water smart controllers) are a new generation of irrigation controllers that utilize prevailing weather conditions, current and historic Evapotranspiration, soil moisture levels, and other relevant factors to adapt water applications to meet the actual needs of the plants.~~

79. **SOIL TEXTURE** – “Soil Texture” shall mean the classification of soil based on its percentage of sand, silt, and clay.
80. **SOILS MANAGEMENT REPORT** – “Soils Management Report” shall mean an analysis of the existing soil conditions relative to horticulture (versus agriculture or structural integrity) resulting in recommendations of appropriate soil amendments.
81. **SOIL MOISTURE SENSING DEVICE** – “Soil Moisture Sensing Device” shall mean a device used to ~~that~~ measures soil moisture content ~~the amount of water in the soil.~~ *The device may also suspend or initiate an irrigation event, triggering a Smart Controller to water only when moisture levels recede to a level below that required to sustain Landscaping.*
82. **SPECIAL LANDSCAPE AREA** – “Special Landscape Area” or “SLA” shall mean an area of the landscape irrigated with Recycled Water, water features using Recycled Water, and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.
83. **SPRINKLER HEAD** – “Sprinkler Head” shall mean a device which delivers water through a nozzle.
84. **STATIC WATER PRESSURE** – “Static Water Pressure” shall mean the pipeline or municipal water supply pressure when water is not flowing.
85. **STREET MEDIAN** – “Street Median” shall mean an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.
86. **STORM WATER CONTROL FACILITY** – “Storm Water Control Facility” shall mean a structural feature intended to control or reduce storm water Runoff and associated pollutants, to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances.
87. **STORM WATER CONTROL MEASURE** – “Storm Water Control Measure” shall mean any structural or non-structural strategy, practice, technology, process, program or other method intended to control or reduce storm water Runoff and associated pollutants, or to induce or control the infiltration or

*Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances. Storm Water Control Measures include Storm Water Control Facilities.*

88. *SWING JOINT – “Swing Joint” shall mean an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.*
89. *TURF – “Turf” shall mean a ground cover surface of mowed grass and does not include artificial turf surfaces. For example, Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses and Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.*
90. *VALVE – “Valve” shall mean a device used to control the flow of water in the Irrigation System.*
91. *LANDSCAPE WATER BUDGET – “Landscape Water Budget” shall mean a maximum annual water allowance in gallons per year, ~~determined upon completion of a Landscape Water Audit by a Landscape Irrigation Auditor. The Landscape Water Budget shall~~ that takes into consideration the types of plants, soil condition, Evapotranspiration Rates and Irrigation System.*
92. *WATER CONSERVING PLANT SPECIES – “Water Conserving Plant Species” shall mean a plant species identified as having a low Plant Water Use Factor.*
93. *WATER EFFICIENT LANDSCAPE WORKSHEET – “Water Efficient Landscape Worksheet” shall mean the form used in the Landscape Documentation Package to calculate the Water Budget for a landscape. The form is found in Appendix B of the Landscape Documentation Package.*
94. *WATER FEATURE – “Water Feature” shall mean a design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and Swimming Pools where water is artificially supplied. The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed facilities used for onsite wastewater treatment or Storm Water*

*Control Measures that are not irrigated and used solely for water treatment or storm water retention are not considered Water Features.*

95. ***WATERING STATION*** – *“Watering Station” shall mean an area served by one valve or by a set of valves that operate simultaneously.*
96. ***WATERING WINDOW*** – *“Watering Window” shall mean the time of day irrigation is allowed.*
97. **WEATHER BASED IRRIGATION CONTROLLER** -- *“Weather Based Irrigation Controller” shall mean an Irrigation System controller **component** that ~~evaluates~~ **uses** local weather conditions and **landscape conditions** Evapotranspiration (ET) rates to create a site-specific irrigation schedule ~~adjust~~ **irrigation schedules automatically to actual conditions on the site or historical weather data.***
98. ***WUCOLS*** – *“WUCOLS” shall mean the Water Use Classification of Landscape Species guide published by the University of California Cooperative Extension and the California Department of Water Resources 2014, as may be periodically updated.*

**Section Four:**            **Amendment of Rule 20, Permits Required**

Rule 20-B shall be amended as shown in bold italics (***bold italics***) and strikethrough (~~strikethrough~~) to add the Model Water Efficient Landscape Ordinance requirement for large Rehabilitated Landscape Areas.

**B. PERMITS TO CONNECT TO OR MODIFY A CONNECTION TO A WATER DISTRIBUTION SYSTEM**

Before any Person connects to or modifies a water use Connection to a Water Distribution System regulated by the District or to any Mobile Water Distribution System regulated by the District or to any Mobile Water Distribution System, such Person shall obtain a written Permit from the District or the District’s delegated agent, as described in District Rules 21, 23 and 24. The addition of any Connection and/or modification of an existing water Connection to any Water Distribution System permitted and regulated by the District shall require a Water Permit.



The following actions require a Water Permit:

1. Any change in use, size, location, or relocation of a Connection or Water Measuring Device which may allow an Intensification of Use or increased water consumption.
2. Each use of an On-Site credit or Water Use Credit.
3. Any modification to the number or type of Residential water fixtures shown in Rule 24, Table 1, Residential Fixture Unit Count Values, with two exceptions: (1) replacement of a Standard Bathtub with a Shower Stall and vice versa; (2) removal of a lawful water fixture, and (3) replacement of a Large Bathtub previously documented by the District with a Standard Bathtub or a Shower Stall.
4. Any Landscaping changes (*added Landscape Area or changes in Hydrozones to higher water use plants than submitted on landscape plans reviewed and approved by the District*) that will result in an Intensification of Use when a Landscape plan has been reviewed and approved as a component of a Water Permit.
5. Rehabilitation of existing Landscape Area over 2,500 square-feet that is associated with a Jurisdiction's building or Landscape permit, plan check, or design review.
6. Any Change of Use or any expansion of a Non-Residential use to a more intensive use as determined by Rule 24, with the exception of Temporary Structures and Temporary Exterior Restaurant Seats that are not occupied or in use for longer than thirty (30) consecutive days.
7. Installation of new water fixtures (Rule 24, Table 1) in a Residential use, other than replacement of existing water fixtures.
8. Use of water from a Mobile Water Distribution System.

**Section Five:**            **Amendment of Rule 23-B-2-(b), Mandatory Conditions, Action on Application for a Water Permit to Connect to or Modify an Existing Water Distribution System**

Rule 23-B-(2)-(b), shall be amended as shown in bold italics (*bold italics*) and strikethrough (~~strikethrough~~) to incorporate requirements of the California Model Water Efficient Landscape Ordinance.

2. Construction of a New Structure.
  - a. All new water use permitted by the District shall install a separate Water Meter to each User.
  - b. All Non-Residential New Structures ~~receiving a Water Permit after January 1, 2009,~~ that include irrigated areas ~~beyond ten (10) feet of any building~~ *landscapes of 1,000 square-feet or greater* shall utilize a separate Water Meter *supplied by the Water Distribution System* to measure all exterior water uses.
 

*All Residential irrigated landscapes of 5,000 square-feet or greater shall install a separate private sub-meter to measure outdoor water use.*
  - c. All New Structures receiving a Water Permit after January 1, 2009, shall have separate water supply lines that tee off after the Water Meter to supply fire suppression service and domestic service. This configuration shall facilitate installation of a Flow Restrictor in the domestic service without interfering with the fire suppression service.
  - d. All Water Permits requiring deed restrictions shall also include a Notice and Deed Restriction titled “Provide Public Access to Water Use Data.”

**Section Six:**            **Amendment of Rule 21-B-3, Application for Permit to Connect to or Modify a Connection to a Water Distribution System**

Rule 21-B-3, shall be amended as shown in bold italics (*bold italics*) and strikethrough (~~strikethrough~~) to incorporate requirements of the California Model Water Efficient Landscape Ordinance.

3. New development projects that include Landscape Areas of 500 sq. ft. or more and existing Rehabilitated Landscape Areas over 2,500 square-feet that are associated with a Jurisdiction's building or landscape permit, plan check, or design review shall comply with ***Rule 142.1. The Jurisdiction shall be responsible for CEQA review, if applicable.*** ~~the Model Water Efficient Landscape Ordinance. The Applicant shall submit a complete Landscape Documentation Package which shall include:~~
- a. ~~Project information including the date, project Applicant, total Landscape Area, water supply, water purveyor;~~
  - b. ~~A Landscape Water Budget which includes the Maximum Applied Water Allowance (MAWA) and Estimated Applied Water Use (ETWU) calculations with three copies of the Landscape plan;~~
  - c. ~~Soil analysis and recommendations (from a soil laboratory);~~
  - d. ~~Landscape design/project notes; plant legend; plant count;~~
  - e. ~~Landscape design hydrozone water use;~~
  - f. ~~Irrigation design/irrigation project notes;~~
  - g. ~~Grading design plan from an Engineer;~~

**Section Seven:**        **Addition of Rule 142.1, Water Efficient Landscape Requirements**

Rule 142.1 (shown in ***bold and italic type***) shall be added to the Rules and Regulations.

- A. ***Purpose.*** *The purpose of this Rule is to provide landscape standards that minimize water use, eliminate Water Waste, and reduce storm water Runoff by requiring low water landscape plantings, design, and irrigation methods. Pursuant to Government Code Section 65595, this Rule is intended to be at least as effective in water conservation as the State's Model Water Efficient Landscape Ordinance and is intended to apply in lieu of the State Model Water Efficient Landscape Ordinance.*
- B. ***Applicability.*** *The provisions of this Rule shall apply to all of the following categories of landscaping:*

1. *New Construction projects requiring a grading permit, building permit or design approval with an associated new aggregate Landscape Area equal to or greater than five hundred (500) square feet;*
2. *New landscapes requiring a grading permit, building permit or design approval with an aggregate Landscape Area equal to or greater than five hundred (500) square feet;*
3. *Construction projects requiring a grading permit, building permit or design approval with associated Rehabilitated Landscapes having an aggregate Landscape Area equal to or greater than two thousand five hundred (2,500) square feet; and*
4. *Rehabilitated Landscapes requiring a grading permit, building permit, or design approval with an aggregate Landscape Area equal to or greater than two thousand five hundred (2,500) square feet.*
5. *Applicable landscapes with an aggregate Landscape Area of two thousand five hundred (2,500) square feet or less are considered Minor Landscape Projects and shall comply with the submittal requirements set forth this Rule.*
6. *Minor Landscape Projects using treated or untreated Graywater or rainwater captured onsite to irrigate the entire Landscape Area shall be subject to the approval of the County's Environmental Health Department.*
7. *Applicable landscapes with an aggregate Landscape Area greater than two thousand five hundred (2,500) square feet are considered Major Landscape Projects and shall comply with the submittal requirements set forth in this Rule.*

C. Exceptions. *This Rule does not apply to:*

1. *Local, state or federal historical sites listed in either the County's Local Official Register of Historic Resources, the California Register of Historic Places, or the National Register of Historic Places;*
2. *Ecological Restoration Projects that do not require a permanent Irrigation System;*

3. *Plant collections, as part of botanical gardens and arboretums open to the public;*
4. *Agricultural cultivation activities including, but not limited to, the preparation and planting of vegetation on agricultural lands for the production of food, products, or feed for either human or animal consumption;*
5. *Construction of structures that do not include changes in existing landscape;*
6. *Changes in use of an existing structure that do not include changes to existing landscape;*
7. *Private edible plant gardens and/or orchards for personal and individual consumption;*
8. *Constructed wetlands or other Landscaped Areas that are not irrigated and used solely for onsite wastewater treatment;*
9. *New, existing or rehabilitated storm water quality projects that are not irrigated and used solely for the purpose of improving Runoff quality and/or retaining Runoff for onsite infiltration;*
10. *Natural areas including, but not limited to: open space, native vegetative areas, and Pervious or impervious Hardscapes that do not require a permanent Irrigation System;*
11. *Erosion control activities that do not require permanent Irrigation Systems such as hydroseeding;*
12. *Existing landscapes installed prior to December 1, 2015 are strongly encouraged to reduce water consumption pursuant to this Rule.*
13. *New cemeteries are exempt from the specific requirements of this Rule but are required to engage in landscape maintenance practices that foster long-term water conservation, such as performing routine repair and adjustment of Irrigation Systems, conducting audits of water use, and prescribing the amount of water applied per landscaped acre.*

**D. Landscape Manual.** *The Board may by resolution adopt, and may from time to time amend, the “Monterey Peninsula Water Efficient Landscape Manual – Standards, Guidelines and Specified Performance Requirements for Landscape Water Use and Irrigation” (“Landscape Manual”) to establish guidelines to explain and implement this Rule. The Landscape Manual shall explain the specific procedures and technical requirements of this Rule. The Landscape Manual shall include the elements of the Landscape Package for Minor and Major Landscape projects, Water Efficient Landscape Worksheet, Soils Management Report, Planting Design Plan, Irrigation Design Plan, grading information, Minor Certificate of Completion, and Certificate of Completion. If any provisions of the Landscape Manual conflict with any provisions of this Rule, the provisions of this Rule shall prevail.*

**E. Minor Landscapes – Minor Landscape Package Submittal Requirements**

1. *Any project with an aggregate Landscape Area of 2,500 square-feet or less may conform to this Rule either by complying with the full performance standards of the Major Landscape Package or by complying with reduced requirements of the Minor Landscape Package. If the project is complying with the Minor Landscape Package requirements, the requirements must be documented on the Landscape Design Plan.*
2. *Prior to issuance of a grading permit, building permit, or design approval associated with Minor Landscape Projects subject to this Rule, the Applicant shall submit a Minor Landscape Package to the District for review and approval. The District shall approve the package once it has been verified that the proposed Minor Landscape Project complies with the provisions of this Rule. The approved Landscape Package Submittal Form as provided in the Landscape Manual must be used.*
3. *If the District denies the Minor Landscape Package application, the District shall provide information to the project Applicant regarding resubmittal with the appropriate information or right of appeal.*
4. *The Minor Landscape Package shall include:*
  - a. *Date prepared;*

- b. Project Applicant and contact information, name of and authorization by property owner if different than project Applicant;*
- c. Project location (and Assessor's Parcel Number);*
- d. Project type (i.e., Residential, Non-Residential, Rehabilitated Landscape);*
- e. Total square footage of Landscape Area including a breakdown of turf, and other plant material;*
- f. Water supply type (e.g., Potable, Recycled Water, Well) and identify the local retail water purveyor if not served by a private Well.*
- g. The Minor Landscape Package shall contain the following statement that shall be signed and dated by the project Applicant:*

*“I \_\_\_\_\_ agree to comply with the Monterey Peninsula Water Management District Minor Landscape requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited turf.”*

- 5. Landscape Design Plans and Irrigation Design Plans submitted as part of the Minor Landscape Package are not required to be drawn by licensed architect or contractor.*
- 6. Minor Landscape Project Landscape Design. Landscape Design Plans shall include and demonstrate how the landscaping is consistent with the following information:*
  - a. The landscape design shall incorporate Compost at a rate of at least four (4) cubic yards per one thousand (1,000) square feet to a depth of six (6) inches into the Landscape Area, unless contradicted by a Soils Management Report.*

- (1) *A Soils Management Report is not required if Compost is incorporated into the soil per this section of Rule 142-E.*
  - b. *Residential projects shall include installation of climate adapted plants that require occasional, little or no summer water (average WUCOLS Plant Water Use Factor 0.3) for seventy-five percent (75%) of the plant area, excluding areas solely dedicated to edible plants and areas using Recycled Water.*
  - c. *Non-Residential projects shall include installation of climate adapted plants that require occasional, little or no summer water (average WUCOLS Plant Water Use Factor 0.3) for one hundred percent (100%) of the plant area, excluding areas solely dedicated to edible plants and areas using Recycled Water.*
  - d. *Turf shall be limited to twenty percent (20%) of the Landscape Area or up to one thousand five hundred (1,500) square feet, whichever is less, for residential projects. Planting of turf shall be prohibited in the following conditions:*
    - (1) *Non-residential Minor Landscape Projects;*
    - (2) *Slopes exceeding ten percent (10%);*
    - (3) *Planting areas eight (8) feet wide or less; and*
    - (4) *Street Medians, traffic islands, planter strips, or bulb-outs of any size.*
  - e. *A minimum three inch (3”) layer of Mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.*
7. *Minor Landscape Irrigation System Design. Inefficient landscape irrigation resulting in Water Waste is prohibited. Therefore, Irrigation Systems shall comply with the following requirements:*



- a. *Automatic irrigation Controllers are required and must use Evapotranspiration or Soil Moisture Sensor Device data and a Rain Sensor.*
- b. *Irrigation Controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.*
- c. *Pressure regulators shall be installed on the Irrigation System to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.*
- d. *Manual shut-off valves shall be installed as close as possible to the point of connection of the water supply.*
- e. *All irrigation emission devices must meet that requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard." All Sprinkler Heads installed in the landscape must document a Distribution Uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.*
- f. *Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produce no Runoff or Overspray.*
- g. *Non-Residential Minor Landscape Projects served by a public water system with Landscape Areas of one thousand (1,000) square-feet or greater shall require installation of a Water Meter supplied by the Water Distribution System to measure all exterior water uses.*
8. **Certificate of Completion.** *Upon completion of installation of the Minor Landscape Project, but prior to occupancy or final of associated grading or building permits, the permit Applicant shall provide the property owner and the District with a Minor Landscape Certificate of Completion.*

- a. *The Minor Landscape Certificate of Completion shall include all of the following: Project information, a Certificate of Installation, an irrigation schedule, and a landscape and irrigation maintenance schedule.*
- b. *The approved form for the Minor Landscape Certificate of Completion as provided in the Landscape Manual must be used.*
- c. *A Minor Landscape Certificate of Completion shall not be accepted by the District unless it is complete and meets all the requirements of this section.*
- d. *The District shall approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the District shall provide the project Applicant with the opportunity to make correction(s). Decisions to deny a Certificate of Completion are appealable decisions.*
- e. *Prior to the final of grading or building permits associated with a Minor Landscape Project subject to this Rule, the Minor Landscape Project shall pass a final inspection by the District.*

9. **Obligations of Assignees and Successors.**

- a. *The project Applicant and the property owner, if different from the project Applicant, and their successors and assignees shall comply with the approved Minor Landscape Package.*
- b. *All required landscaping shall be reasonably maintained for the life of the project in healthy a clean, safe, and sanitary condition, free from disease, pests, weeds, and trash.*
- c. *Plants lost due to disease, destruction, or lifecycle shall be replaced and shall comply with all adopted standards for size, species, and irrigation. Replacement with different species is acceptable without amendment to the approved Minor Landscape Package provided that the water use is lower or remains the same as that which was previously approved. Modifications to landscaping that would result in higher water use than approved*

*in the Minor Landscape Package shall require an amendment or new Permit as required by the District's Rules.*

**F. Major Landscapes – Major Landscape Package Submittal Requirements**

- 1. Prior to issuance of a grading permit, building permit, or design approval associated with Major Landscape Projects subject to this Rule, the Applicant shall submit a Major Landscape Package to the District for review and approval. The Major Landscape Package shall contain all information and documentation, in sufficient detail, as specified in this section of Rule 142.1 and the Landscape Manual. The General Manager shall approve the package after verifying that the proposed landscape project complies with the provisions of this Rule and the provisions of the Landscape Manual. The approved Landscape Package Application and Submittal Form provided in the Landscape Manual shall be used.*
- 2. The Major Landscape Package shall include general project information such as the date prepared, project Applicant and contact information, name of the property owner if different than project Applicant, project location and Assessor's Parcel Number, project type (i.e. Residential, Non-Residential, Rehabilitated Landscape), total square footage of Landscape Area including a breakdown of turf and other plant material, and water supply or water purveyor.*
- 3. A Landscape Design Plan shall be submitted by the Applicant as part of the Major Landscape Package meeting the requirements set forth in Rule 142.1-I.*
- 4. An Irrigation Design Plan shall be submitted by the Applicant as part of the Major Landscape Package meeting the requirements set forth in Rule 142.1-J.*
- 5. Major Landscape Projects shall meet the Water Efficient Landscape Requirements set forth in this Rule.*
- 6. A Soils Management Report containing information set forth in Rule 142.1-H-5-b shall be submitted as part of the Major Landscape Package.*

7. *Upon completion of the Major Landscape Project, a Certificate of Completion shall be submitted to the District consistent with Rule 142.1-N.*
8. *Prior to Jurisdiction final of a grading permit or building permit for a Major Landscape Project subject to this Rule, the Major Landscape Project shall pass a final inspection by the District.*
9. *The Major Landscape Package shall contain the following statement:*

*“I \_\_\_\_\_ agree to comply with the Monterey Peninsula Water Management District Major Landscape Requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited turf.”*

*This verification shall be signed and dated by the project Applicant and the Site owner of record, if different.*

**G. Obligations of Assignees and Successors.**

1. *The project Applicant and the property owner, if different from the project Applicant, and their successors and assignees shall comply with the approved Major Landscape Package and the provisions of Rule 142.1. This condition shall be recorded on the title of the property via a “Notice and Deed Restriction Regarding Limitation on Use of Water on a Property.”*
2. *All required landscaping shall be maintained for the life of the project in healthy condition, free from disease, pests, weeds, and trash.*
3. *Plants lost due to disease, destruction, or lifecycle shall be replaced and shall comply with all adopted standards for size, species, and irrigation. Replacement with different species is acceptable without amendment to the approved Major Landscape Package provided that the Plant Water Use Factor is lower or remains the same as that which was previously approved. Modifications to landscaping that would result in higher water use than approved in the Major Landscape Package shall require a new or amended Water Permit.*

**H. Landscape Design Plans for Major Landscapes. For the efficient use of water, Landscape Design Plans for Major Landscape Projects shall meet all the requirements listed in this section and in the Landscape Manual. The Landscape Design Plan shall be signed by a licensed Landscape Architect, a licensed Landscape Contractor, or any other person authorized to design a landscape.**

**1. The Landscape Design Plan shall include grading design that minimizes soil erosion, Runoff, and Water Waste.**

**2. Landscape Design Plan Minimum Requirements.**

**a. Hydrozone areas shall be designated on the Landscape Design Plan by number, letter, or other designation;**

**b. Identify each Hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use Hydrozone for the Water Budget calculation;**

**c. Identify Recreational Areas;**

**d. Identify areas permanently and solely dedicated to edible plants;**

**e. Identify areas irrigated with Recycled Water;**

**f. Identify type of Mulch and application depth;**

**g. Identify soil amendments, type and quantity;**

**h. Identify type and surface area of Water Features;**

**i. Identify Hardscapes (Pervious and non-pervious);**

**j. Identify location, installation details, and 24-hour retention or infiltration capacity of any applicable storm water best management practices that encourage on-site retention and infiltration of storm water. Project Applicant shall refer to the Jurisdiction, wastewater processor and/or regional Water Quality Control Board for information on any applicable storm water**

*technical requirements. Storm water Best Management Practices are encouraged in the Landscape Design Plan;*

- k. Identify any applicable rain harvesting or catchment technologies;*
- l. Identify any applicable Graywater discharge piping, system components and area(s) of distribution;*
- m. Landscape Design Plans shall contain the following statement signed by a licensed Landscape Architect, a licensed Landscape Contractor, or any other person authorized to design a landscape:*

*“I \_\_\_\_\_ certify that this Landscape Design [or Planting] Plan complies with all Monterey Peninsula Water Management District Water Efficient Landscape Requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited turf.”*

**3. Plant Material.**

- a. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the Landscape Area does not exceed the Maximum Applied Water Allowance.*
- b. Turf shall be limited to twenty percent (20%) of the Landscape Area or up to one thousand five hundred (1,500) square feet, whichever is less, unless the turf area is designated as a Special Landscape Area and is dedicated as a Recreational Area. Planting of turf is prohibited in the following conditions:*
  - (1) Slopes exceeding ten percent (10%);*
  - (2) Planting areas eight (8) feet wide or less; and*
  - (3) Street Medians, traffic islands, planter strips, or bulb-outs of any size.*

- c. *All non-turf plants shall be selected, spaced, and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.*
- d. *Invasive Plant Species are strictly prohibited and eradication of Invasive Plant Species in the Landscape Area is highly encouraged.*
- e. *Selected plants shall include the use of native and/or climate appropriate species.*
- f. *Landscape planting shall include the use of drought resistant species.*
- g. *Where appropriate, landscape planting shall include the use of fire resistant plant species and shall be consistent with fire safe landscaping required by the designated fire district and Chapter 18.56 (Wildfire Protection Standards in State Responsibility Areas) of the Monterey County Code.*
- h. *Plants with similar water use needs shall be grouped together in distinct Hydrozones. Where irrigation is required, the distinct Hydrozones shall be irrigated with separate valves.*
- i. *Plants with low and high water use shall not be included in the same Hydrozone.*
- j. *Plants with high water use shall be prohibited in Street Medians.*

4. **Water Features.**

- a. *Recirculating water systems shall be used for Water Features.*
- b. *Where available, Recycled Water shall be used as a source for decorative Water Features.*
- c. *Surface area of a Water Feature shall be included in the High Water Use (Plant Water Use Factor) Hydrozone area of the Water Budget calculation.*

*d. Pool and spa covers are highly recommended.*

**5. Soil Preparation, Mulch and Amendments.**

*a. Landscape Design Plans shall include soil preparation methods, Mulch, and amendments recommended in the Soils Management Report.*

*b. Soils Management Report Requirements for Major Landscapes.*

*(1) A Soils Management Report shall be completed by the Applicant and submitted with the Major Landscape Package. In order to promote healthy plant growth and prevent excessive erosion and Runoff, the Soils Management Report shall be consistent with the required information outlined in this section and the applicable sections of the Landscape Manual.*

*(2) The Soils Management Report shall be prepared by a certified laboratory and evaluate soils relative to horticulture.*

*(3) The soil analysis shall include: soil texture, Infiltration Rate, pH, total soluble salts, sodium, and percentage of organic matter.*

*(4) Soil samples shall be from the Site and analyzed to identify quality top soil, soil limitations, and soil composition information necessary for planting.*

*(5) Projects with multiple landscape installation (i.e. subdivisions) shall either conduct a soil sampling rate of one (1) in seven (7) lots, or approximately fifteen percent (15%) will satisfy this requirement.*

*(6) Projects with large Landscape Areas shall have a soil sample at a rate of fifteen percent (15%).*



- (7) *The Soils Management Report shall include recommendations for soil amendments based on the conditions of the Site and the intended planting.*
  - (8) *The Soils Management Report shall be made available in a timely manner to the professionals preparing the Landscape Design Plan and the Irrigation Design Plan.*
  - (9) *If significant mass grading is not planned, the Soil Management Report shall be submitted to the District as part of the Landscape Documentation Package.*
  - (10) *If significant mass grading is planned, the Soil Management Report shall be submitted to the District as part of the Certificate of Completion.*
  - (11) *The project Applicant, or his/her designee, shall submit documentation verifying implementation of Soil Management Report recommendations to the District with the Certificate of Completion.*
- c. *Prior to the planting of any materials, compacted soils shall be transformed to a Friable condition. On engineered slopes, only amended planting holes need to meet this requirement.*
  - d. *Soil amendments shall be incorporated according to recommendations of the Soils Management Report and what is appropriate for the plants selected.*
  - e. *For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square-feet of permeable area shall be incorporated to a depth of six inches (6") into the soil. Soils with greater than six percent (6%) organic matter in the top six inches (6") of soil are exempt from adding compost and tilling.*
  - f. *A minimum three inch (3") layer of Mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated. To provide habitat for beneficial insects and other wildlife, up to five percent (5%) of*

*the Landscape Area may be left without Mulch. Designated insect habitat shall be included in the Landscape Design Plan.*

- g. Stabilizing Mulching products shall be used on slopes that meet current engineering standards.*
- h. The Mulching portion of the seed/Mulch slurry in hydro-seeded applications shall meet the Mulching requirement.*
- i. Organic Mulch materials made from recycled or post-consumer products shall take precedence over inorganic materials or virgin forest products unless the recycled, post-consumer products are not locally available. Organic Mulches are not required where prohibited by local Fuel Modification Plan Guidelines or other applicable local ordinances.*

**6. Grading Design Plan.**

- a. For the efficient use of water, grading of a project Site shall be designed to minimize soil erosion, Runoff, and Water Waste. A grading plan shall be submitted to the Jurisdiction for review. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.*
- b. The project Applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the Landscape Area including:
  - (1) Height of graded slopes;*
  - (2) Drainage patterns;*
  - (3) Pad elevations;*
  - (4) Finish grade; and*
  - (5) Storm water retention improvements, if applicable.**
- c. To prevent excessive erosion and Runoff, it is highly recommended that project Applicants:*

- (1) *Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable Hardscapes;*
- (2) *Avoid disruption of natural drainage patterns and undisturbed soil; and*
- (3) *Avoid soil compaction in landscape areas.*

*d. The grading design plan shall contain the following statement that shall bear the signature of a licensed professional as authorized by law:*

*“I have complied with the criteria of the Monterey Peninsula Water Management District Water Efficient Landscape Requirements and applied them accordingly for the efficient use of water in the grading design plan.”*

**I. Irrigation Design Plans for Major Landscapes.**

1. *This section applies to Landscaped Areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period.*
2. *The Irrigation Design Plan shall be drawn by a licensed Landscape Architect, a licensed Landscape Contractor, a Certified Irrigation Designer, or any other person authorized to design a landscape.*
3. *Irrigation Design Plan Minimum Requirements.*
  - a. *Location and size of separate Water Meters for landscape;*
  - b. *Location, type and size of all components of the Irrigation System, including Controllers, main and lateral lines, valves, Sprinkler Heads, Soil Moisture Sensing Devices, Rain Sensors, quick couplers, pressure regulators, and Backflow Prevention Devices;*
  - c. *Static water pressure at the point of connection to the public water supply;*

- d. *Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;*
- e. *Recycled Water Irrigation Systems.*
  - (1) *All Recycled Water Irrigation Systems shall be designated and operated in accordance with all applicable local and State laws.*
  - (2) *Landscapes using Recycled Water are considered Special Landscape Areas. The Evapotranspiration Adjustment Factor for new and existing (not Rehabilitated Landscape) Special Landscape Areas shall not exceed 1.0.*
- f. *Irrigation Design Plans shall contain the following statement signed by a licensed Landscape Architect, certified irrigation designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System:*

*“I have complied with the criteria of the Monterey Peninsula Water Management District Water Efficient Landscape Requirements and applied them accordingly for the efficient use of water in the Irrigation Design Plan.”*
- 4. *For the efficient use of water, an Irrigation System an Irrigation System shall meet all the following design requirements and the manufacturers’ recommendations and shall be submitted as part of the Landscape Documentation Package:*
- 5. *Irrigation System Design.*
  - a. *All Non-Residential landscapes receiving a Water Permit that include irrigated landscapes of 1,000 square-feet or greater shall utilize a separate Water Meter supplied by the local water purveyor to measure all exterior water uses.*

- b. All Residential irrigated landscapes of 5,000 square-feet or greater shall install a separate privately owned Water Meter to measure outdoor water use.*
- c. Automatic irrigation Controllers utilizing either Evapotranspiration or Soil Moisture Sensing Device data utilizing non-volatile memory shall be required for irrigation scheduling in all Irrigation Systems.*
- d. If the water pressure is below or exceeds the recommended pressure of the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.*
- e. A Rain Sensor (either integral or auxiliary) that suspends irrigation operation during and for 48 hours after Measurable Precipitation shall be required on all Irrigation Systems.*
- f. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection to the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.*
- g. Backflow Prevention Devices shall be required to protect the water supply from contamination by the Irrigation System. A project Applicant shall refer to the applicable local agency code (i.e., public health) for additional Backflow Prevention Device requirements.*
- h. Flow Sensors that detect high flow conditions created by system damage or malfunction are required for all Non-Residential landscapes and Residential landscapes of 5,000 square-feet or greater.*
- i. Master Shut-Off Valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.*

- j. The Irrigation System shall be designed to prevent Runoff, low head drainage, Overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, Hardscapes, roadways, or structures.*
- k. Relevant information from the Soils Management Report, such as soil type and Infiltration Rate, shall be utilized when designing Irrigation Systems.*
- l. The design of the Irrigation System shall conform to the Hydrozones of the Landscape Design Plan.*
- m. The Irrigation System must be designed and installed to meet the Irrigation Efficiency criteria calculated in the Water Efficient Landscape Worksheet.*
- n. All irrigation emission devices must meet that requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard." All Sprinkler Heads installed in the landscape must document a Distribution Uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.*
- o. In Mulched planting areas, the use of a Low Volume Irrigation System is required to maximize water infiltration into the root zone.*
- p. Sprinkler Heads and other emission devices shall have matched Precipitation Rates, unless otherwise directed by the manufacturer's recommendations.*
- q. Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible Distribution Uniformity using the manufacturer's recommendations.*

- r. *Swing Joints or other rise-protection components are required on all risers subject to damage that are adjacent to Hardscapes or in high traffic areas of turf grass.*
- s. *Check Valves or anti-drain valves are required on all Sprinkler Heads where low point drainage could occur.*
- t. *Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no Runoff or Overspray.*
- u. *Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be Mulch, gravel, or other porous material. These restrictions may be modified if:*
- (1) *The Landscape Area is adjacent to permeable surfacing and no Runoff occurs; or*
  - (2) *The adjacent non-permeable surfaces are designed and constructed to drain entirely to the landscaping; or*
- v. *Slopes greater than 25 percent shall not be irrigated with an Irrigation System with an application rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no Runoff or erosion will occur. Prevention of Runoff and erosion shall be confirmed during the Irrigation Audit.*
- w. *Hydrozones.*
- (1) *Each valve shall irrigate a Hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.*

- (2) *Sprinkler Heads and other emission devices shall be selected based on what is appropriate for the plant type within that Hydrozone.*
- (3) *Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.*
- (4) *Individual Hydrozones that mix moderate and low water use plants, or moderate and high water use plants, may be allowed if the Plant Water Use Factor of the higher water using plant is used for the Water Budget calculations.*
- (5) *Individual Hydrozones that mix low and high water use plants are prohibited.*
- (6) *On the Irrigation Design Plan, Hydrozone areas shall be designated by number, letter, or other designation. On the Irrigation Design Plan, designate areas irrigated by each valve.*

**J. Water Efficient Landscape Worksheet for Major Landscapes.**

1. *To ensure Major Landscape Projects conserve water to the maximum extent possible, information included within the Water Efficient Landscape Worksheet shall be consistent with the requirements listed in this Rule.*
2. **Water Budget.** *Water Budget calculations shall meet the following requirements:*
  - a. *The surface area of all water features shall be calculated as high water use and incorporated within a high water use Hydrozone.*
  - b. *Temporarily irrigated areas shall be calculated as low water use and incorporated within a low water use Hydrozone.*



- c. *Water Budget calculations for the Maximum Applied Water Allowance shall be calculated using the formula found in the Landscape Manual. Special Landscape Areas, as defined in this Rule, and areas irrigated with Recycled Water, are subject to Maximum Applied Water Allowance with an Evapotranspiration Adjustment Factor not to exceed 1.0.*
- d. *The calculation of a project's Estimated Total Water Use shall be performed using the formula found in the Landscape Manual.*
- e. *For calculation of the Maximum Applied Water Allowance and Estimated Total Water Use, the project Applicant shall use the annual Evapotranspiration values contained in Appendix A of the Landscape Manual.*
- f. *Landscape projects subject to this Rule shall not apply water to the landscape in excess of the maximum amount of water allowed. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance.*

**K. Alternative Water Sources in the landscape.**

- 1. *Rain gardens, Cisterns and other landscape features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended. Rainwater catchment systems shall meet the requirements of the Monterey County Environmental Health Bureau.*
- 2. *To promote the efficient use of water, the use of Graywater systems for irrigation is recommended. Graywater systems shall meet the requirements of the California Plumbing Code, including any modifications adopted by the County, and are subject to approval by the Monterey County Environmental Health Bureau.*
- 3. *All Recycled Water Irrigation Systems shall be designed and operated in accordance with all State and County laws and regulations related to Recycled Water use.*
- 4. *Landscape projects subject to this Rule shall incorporate the use of Recycled Water for irrigation and meet the three regulations set forth*

*below when, in the determination of the District, Recycled Water is available and connection to Recycled Water is feasible.*

**L. Irrigation Schedules.**

- 1. *For the efficient use of water, all irrigation schedules shall be developed, managed and evaluated to utilize the minimum amount of water required to maintain plant health. The irrigation schedule shall be developed by a Landscape Architect, Landscape Contractor, or any other person authorized to install irrigation equipment.***
- 2. *Irrigation scheduling shall be regulated by Automatic Irrigation Controllers using current Reference Evapotranspiration data or Soil Moisture Sensor Device data.***
- 3. *Overhead irrigation shall be scheduled between 8:00 p.m. and 9:00 a.m.***
- 4. *Operation of the Irrigation System outside the normal watering window is allowed for auditing and system maintenance.***
- 5. *For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, Flow Rate, and current Reference Evapotranspiration, so that Applied Water meets the Estimated Applied Water Use. Total annual Applied Water shall be less than or equal to Maximum Applied Water Allowance.***
- 6. *Parameters used to set the automatic Controller shall be developed and submitted for each of the following:***
  - a. *The plant establishment period;***
  - b. *The established landscape; and***
  - c. *Temporarily irrigated areas.***
- 7. *The irrigation schedule shall be consistent with the requirements of this Rule and shall consider for each station all of the following that apply:***
  - a. *Irrigation interval (days between irrigation);***

- b. Irrigation run times (hours or minutes per irrigation event to avoid Runoff);*
  - c. Number of cycle starts required for each irrigation event to avoid Runoff;*
  - d. Amount of Applied Water scheduled to be applied on a monthly basis;*
  - e. Application rate setting;*
  - f. Root depth setting;*
  - g. Plant type setting;*
  - h. Soil type;*
  - i. Slope factor setting;*
  - j. Shade factor setting; and*
  - k. Irrigation uniformity or efficiency setting.*
- 8. The irrigation schedule shall be submitted with the landscape Certificate of Completion pursuant to this Rule.*

***M. Landscape Planting and Maintenance Schedule.***

- 1. In order to maintain plant health and functioning irrigation equipment, a landscape planting and irrigation maintenance schedule shall be developed incorporating the requirements of this section, the applicable sections of the Landscape Manual, and include the following:*
  - a. A regular maintenance schedule shall be developed by a Landscape Architect, Landscape Contractor, or any other person authorized to design and maintain landscape planting and irrigation.*

- b. A regular maintenance schedule shall include, but is not limited to, routine inspection, adjustment, and repair of the Irrigation System and its components.*
- c. A note shall be included stating that any replacement plants shall not exceed the water use for the Hydrozone.*
- d. A regular maintenance schedule shall make provisions for irrigation inspections, systems tune-up, and system tests with Distribution Uniformity preventing Overspray or Runoff that causes overland flow.*
- e. The regular maintenance schedule shall be submitted with the landscape Certificate of Completion consistent with this Rule.*

**N. Certificate of Completion Requirements for Major Landscapes.**

- 1. Upon completion of installation of a Major Landscape Project, but prior to occupancy or final of the associated grading or building permits, the permit Applicant shall provide the property owner and the District with a Certificate of Completion. The Certificate of Completion shall comply with the requirements of this Rule.*
- 2. The Certificate of Completion shall include all of the following:*
  - a. Project information;*
  - b. Certification for installation of the landscape planting and irrigation;*
  - c. The proposed irrigation schedule;*
  - d. An Irrigation Audit conducted by a Certified Landscape Irrigation Auditor. The audit shall not be conducted by the person who designed and/or installed the landscape.*
  - e. The proposed schedule for landscape planting and irrigation maintenance; and*

- f. Verification of implementing recommendations of the Soils Management Report.*
- 3. The Certificate of Completion shall be signed by either the person or entity who signed the Landscape Design Plan, the person or entity who signed the Irrigation Design Plan, or the licensed Landscape Contractor who installed the landscape.*
  - 4. If minor changes were made during installation, Record Drawing or As-Built Plans shall be included with the certification. Record Drawing or As-Built Plans must be in conformance with this Rule.*
  - 5. If significant changes were made during installation, the project shall require an amendment to the approved Major Landscape Package as required by this Rule.*
  - 6. A copy of the approved form for the Certificate of Completion can be found in the Landscape Manual.*
  - 7. A Certificate of Completion shall not be accepted by the District unless it is complete and meets all the requirements of this Rule.*
  - 8. The District shall approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the District shall provide the project Applicant with the opportunity to make correction(s). Decisions to deny a Certificate of Completion are appealable decisions.*
- O. Inspection Requirements. Prior to the final of grading or building permits associated with Major and Minor Landscape Projects subject to the provisions of this Rule, inspection by the District or its designated agent to verify compliance with the approved Landscape Package shall be required.*
- P. Amendments.*
- 1. Proposed amendments to an approved Minor Landscape Package shall be submitted to the District for review and approval. The amendment shall be in writing, in sufficient detail to adequately address the nature of the amendment and demonstrate consistency with the requirements of*

*this Rule. Amendments shall be processed in the same manner as the Landscape Package application.*

2. *Proposed amendments to an approved Major Landscape Package shall be submitted to the District for review and approval. The amendment shall be in writing, in sufficient detail to adequately address the nature of the amendment and demonstrate consistency with the requirements of this Rule. Amendments shall be processed in the same manner as the Landscape Package application.*

**Q.** *Appeals.* *Any denial by the General Manager or his/her designee of a Minor or Major Landscape Package, Minor Landscape Certificate of Completion, or Certificate of Completion pursuant to this Rule may be appealed by the Applicant to the Board of Directors pursuant to Rule 70.*

**R.** *Existing Landscapes.* *The purpose of this section is to encourage reduction of excessive water use in landscapes through public education.*

1. *Existing landscapes installed prior to December 1, 2015 are strongly encouraged to reduce water consumption through participation in water conservation programs, including but not limited to those listed in this section.*
2. *Existing landscapes located within the Monterey Peninsula Water Management District are strongly encouraged to participate in applicable landscape Rebate programs, landscape water audit/budget analysis and/or any other available water conservation programs to the greatest extent feasible.*
3. *All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this Rule.*
  - a. *Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as Hydrozones, irrigation equipment, use of native plants, graywater systems and rainwater catchment systems to demonstrate low water use approaches and techniques in landscaping.*

S. *The following definitions are used in this Rule and in the Landscape Manual:*

**APPLIED WATER** – *“Applied Water” shall mean the portion of water supplied by the Irrigation System to the landscape.*

**AS-BUILT DRAWINGS** – *“As-Built Drawings” shall mean drawings prepared by the contractor that show, in red ink, on-site changes to the original construction documents.*

**AUTOMATIC IRRIGATION CONTROLLER** – *“Automatic Irrigation Controller” shall mean a timing device used to remotely control valves that operate an irrigation system. Automatic Irrigation Controllers are able to self-adjust and schedule irrigation events using either Evapotranspiration (weather-based) or soil moisture data.*

**BACKFLOW PREVENTION DEVICE** – *“Backflow Prevention Device” shall mean a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water.*

**CALIFORNIA INVASIVE PLANT INVENTORY** – *“California Invasive Plant Inventory” shall mean the California Invasive Plant Inventory maintained by the California Invasive Plant Council.*

**CERTIFICATE OF COMPLETION** – *“Certificate of Completion” shall mean a document certifying completion of a landscape in compliance with the Monterey Peninsula Water Management District Water Efficient Landscape Requirements.*

**CERTIFIED IRRIGATION DESIGNER** – *“Certified Irrigation Designer” shall mean a person certified to design Irrigation Systems by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency’s WaterSense irrigation designer certification program and Irrigation Association’s Certified Irrigation Designer program.*

**CERTIFIED LANDSCAPE IRRIGATION AUDITOR** – *“Certified Landscape Irrigation Auditor” shall mean a Person certified to perform landscape Irrigation Audits by an accredited academic institution, a professional trade organization or other program such as the United States Environmental*

*Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.*

**CHECK VALVE** – *“Check Valve” shall mean a valve located under a sprinkler head, or other location in the Irrigation System, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.*

**COMMON INTEREST DEVELOPMENTS** – *“Common Interest Developments” shall mean community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.*

**COMPOST** – *“Compost” shall mean the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.*

**CONTROLLER** – *“Controller” shall mean an automatic timing device used to remotely control valves or heads to operate an Irrigation System. A weather-based Controller is a Controller that utilizes evapotranspiration or weather data to make adjustments to irrigation schedules. A self-adjusting irrigation Controller is a Controller that uses onsite sensor data (e.g., soil moisture) to adjust irrigation schedules.*

**CONVERSION FACTOR (0.62)** – *“Conversion Factor (0.62)” shall mean the number that converts acre-inches per acre per year to gallons per square foot per year.*

**DISTRIBUTION UNIFORMITY** – *“Distribution Uniformity” shall mean the measure of the uniformity of irrigation water over a defined area.*

**DRIP IRRIGATION** – *“Drip Irrigation” shall mean any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term “Drip Irrigation” shall have the same meaning as “Micro Irrigation” and “Trickle Irrigation.”*

**ECOLOGICAL RESTORATION PROJECT** – *“Ecological Restoration Project” shall mean a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.*



***EFFECTIVE PRECIPITATION*** – “*Effective Precipitation*” or “*Eppt*” shall mean the portion of total precipitation which becomes available for plant growth. *Effective Precipitation* is also known as “*useable rainfall*.”

***EMITTER*** – “*Emitter*” shall mean a drip irrigation emission device that delivers water slowly from the system to the soil.

***ENERGY EFFICIENT LANDSCAPE*** – “*Energy Efficient Landscape*” shall mean any new or *Rehabilitated Landscape*, public or private, that helps a project achieve a minimum fifteen percent (15%) reduction in energy use when compared to the State’s mandatory energy efficiency standards.

***ESTABLISHED LANDSCAPE*** – “*Established Landscape*” shall mean the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

***ESTABLISHMENT PERIOD OF THE PLANTS*** – “*Establishment Period of the Plants*” shall mean the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

***ESTIMATED TOTAL WATER USE (ETWU)*** – “*Estimated Total Water Use*” shall mean the total water used for the landscape based on the plants used in the landscape design.

***EVAPOTRANSPIRATION ADJUSTMENT FACTOR or ET ADJUSTMENT FACTOR*** – “*Evapotranspiration Adjustment Factor*” or “*ET Adjustment Factor*” (*ETAF*) shall mean, except for *Special Landscape Areas*, a factor of 0.55 for *Residential projects* and 0.45 for *Non-Residential projects* that, when applied to *Reference Evapotranspiration*, adjusts for *Plant Water Use Factors* and *Irrigation Efficiency*.

***EVAPOTRANSPIRATION RATE*** – “*Evapotranspiration Rate*” shall mean the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

**FRIABLE** – “Friable” shall mean a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

**FLOW RATE** – “Flow Rate” shall mean the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

**FLOW SENSOR** – “Flow Sensor” shall mean an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to Flow Rate. Flow Sensors must be connected to an automatic irrigation Controller, or flow monitor capable of receiving flow signals and operating Master Shut-Off Valves. The combination Flow Sensor/Controller may also function as a landscape Water Meter or sub-meter.

**GRAYWATER** -- “Graywater” shall mean untreated waste-water which has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. “Graywater” includes, but is not limited to; wastewater from bathtubs, showers, Bathroom Washbasins, clothes washing machines and laundry tubs. It does not include waste-water from Kitchen Sinks and Dishwashers. Health and Safety Code Section 17922.12. “Graywater” shall have the same meaning as “Greywater.”

**HARDSCAPES**– “Hardscapes” shall mean any durable surface material (Pervious or impervious).

**HIGH WATER USE PLANT** – “High Water Use Plant” means any plant categorized as high water need by the Water Use Classification of Landscape Species guide (“WUCOLS”).

**HYDROZONE** – “Hydrozone” shall mean a portion of the landscaped area having plants with similar water needs and rooting depths served by a valve or set of valves with the same schedule. A Hydrozone may be irrigated or non-irrigated.

**INFILTRATION RATE** – *“Infiltration rate” shall mean the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).*

**INVASIVE PLANT SPECIES** – *“Invasive Plant Species” shall mean a species of plants not historically found in California that spreads outside cultivated areas and can damage environmental or economic resources and is listed as an Invasive Plant Species in either the California Invasive Plant Inventory; USDA invasive, noxious weeds database; or the Landscape Manual.*

**IRRIGATION AUDIT** – *“Irrigation Audit” shall mean an in-depth evaluation of the performance of an Irrigation System conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit shall include, but is not limited to: inspection, system tune-up, system test with Distribution Uniformity or emission uniformity, reporting Overspray or Runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association’s Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency “WaterSense” labeled auditing program.*

**IRRIGATION DESIGN PLAN** – *“Irrigation Design Plan” (IE) shall mean an irrigation plan and drawings designed and signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5431.4, 5441.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code).*

**IRRIGATION EFFICIENCY** – *“Irrigation Efficiency” shall mean the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation Efficiency is derived from measurements and estimates of Irrigation System characteristics and management practices. The Irrigation Efficiency for purposes of this ordinance is 0.75 for overhead spray devices and 0.81 for drip systems.*

**IRRIGATION METER** – *“Irrigation Meter” shall mean a separate meter that measures the amount of water used for items such as lawns, washing exterior surfaces, washing vehicles, or filling pools.*

***IRRIGATION SURVEY*** – “*Irrigation Survey*” shall mean an evaluation of an Irrigation System that is less detailed than an Irrigation Audit.

***IRRIGATION WATER USE ANALYSIS*** – “*Irrigation Water Use Analysis*” shall mean an analysis of water use data based on meter readings and billing data.

***LANDSCAPE ARCHITECT*** – “*Landscape Architect*” shall mean a person who holds a license to practice landscape architecture in the State of California (California Business and Professions Code Section 5615).

***LANDSCAPE AREA*** -- “*Landscape Area*” means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance and the Estimated Applied Water Use calculations. The Landscape Area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious Hardscapes, and other non-irrigated areas designated for non-development (e.g. open spaces and existing Native Vegetation).

***LANDSCAPE CONTRACTOR*** – “*Landscape Contractor*” shall mean a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

***LANDSCAPE DESIGN PLAN*** – “*Landscape Design Plan*” shall mean a plan (and drawings) that (1) delineates and labels each Hydrozone; (2) identifies each Hydrozone as low, moderate, high water, or mixed water use; (3) identifies any recreational areas; (4) identifies areas permanently and solely dedicated to edible plants; (5) identifies areas irrigated with Recycled Water; (6) identifies type of mulch and application depth; (7) identifies soil amendments, type, and quantity; (8) identifies type and surface area of any Water Features; (9) identifies Hardscapes (Pervious and non-pervious); (10) identifies applicable storm water best management practices; (11) identifies any applicable rain harvesting or catchment technologies; and (12) identifies any applicable Graywater discharge piping, system components and area(s) of distribution. A Landscape Design Plan must be signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5431.4, 5441.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California

*Code of Regulations, and Section 6721 of the Food and Agricultural Code). “Landscape Design Plan” shall also be known as a “Planting Plan.”*

*LANDSCAPE MANUAL – “Landscape Manual” shall mean the “Monterey Peninsula Water Management District Landscape Manual – Standards and Specified Performance Requirements for Water Efficient Landscape Water Use and Irrigation”.*

*LANDSCAPE PACKAGE– “Landscape Package” shall mean the landscape Water Permit application and materials required to be submitted for review and approval by the MPWMD.*

*LANDSCAPE WATER METER – “Landscape Water Meter” shall mean an inline device installed at the irrigation supply point that measures the flow of water into the Irrigation System and is connected to a totalizer to record water use.*

*LATERAL LINE – “Lateral Line” shall mean the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.*

*LOCAL WATER PURVEYOR – “Local Water Purveyor” shall mean any entity, including a public agency, city, county or private water company that provides retail water service.*

*LOW VOLUME IRRIGATION SYSTEM – “Low Volume Irrigation System” shall mean the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume emitters such as drip, drip lines, and bubblers. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*

*LOW WATER USE PLANT – “Low Water Use Plant” shall mean any plant categorized as low water need by the Water Use Classification of Landscape Species (“WUCOLS”) guide.*

*MAJOR LANDSCAPE PROJECT – “Major Landscape Project” shall mean Landscape projects with an aggregate Landscape Area greater than two thousand five hundred (2,500) square feet.*

*MASTER SHUT-OFF VALVE – “Master Shut-Off Valve” shall mean an automatic valve installed at the irrigation supply point which controls water*

*flow into the Irrigation System. When this valve is closed, water will not be supplied to the Irrigation System. A Master Shut-Off Valve will greatly reduce any water loss due to a leaky station valve.*

**MAXIMUM APPLIED WATER ALLOWANCE** – *“Maximum Applied Water Allowance” shall mean the upper limit of annual Applied Water for the Established Landscape area. It is based upon the area’s Reference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area.*

**STREET MEDIAN** – *“Street Median” shall mean an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.*

**MICRO IRRIGATION** – *“Micro Irrigation” shall mean any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term “Drip Irrigation” shall have the same meaning as “Micro Irrigation” and “Trickle Irrigation.”*

**MICROCLIMATE** – *“Microclimate” shall mean the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.*

**MINOR LANDSCAPE PROJECT** – *“Minor Landscape Project” shall mean landscape projects with an aggregate Landscape Area less than or equal to two thousand five hundred (2,500) square feet.*

**MODERATE WATER USE PLANT** – *“Moderate Water Use Plant” shall mean any plant categorized as moderate water need by the Water Use Classification of Landscape Species (“WUCOLS”) guide.*

**MULCH** – *“Mulch” shall mean any organic material such as leaves, bark, straw, Compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.*

**NON-RESIDENTIAL LANDSCAPE** – *“Non-Residential Landscape” shall mean landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated Recreational Areas.*

**OPERATING PRESSURE** – *“Operating Pressure” shall mean the pressure at which the parts of an Irrigation System are designed by the manufacturer to operate.*

**OVERHEAD SPRINKLER IRRIGATION SYSTEM** – *“Overhead Sprinkler Irrigation System” or “Overhead Irrigation System” shall mean systems that deliver water through the air (for example pop-ups, impulse sprinklers, spray heads, rotors, and micro-sprays).*

**OVERSPRAY** – *“Overspray” shall mean the irrigation water that is delivered beyond the Landscape Area, wetting pavements, walks, structures, or other non-landscaped areas.*

**PARKWAY** – *“Parkway” shall mean the area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.*

**PERVIOUS** – *“Pervious” shall mean any surface or material that allows the passage of water through the material and into the underlying soil.*

**PLANT WATER USE FACTOR** – *“Plant Water Use Factor” shall mean a value, when multiplied by “Reference Evapotranspiration,” as defined below that estimates the amount of water needed by plants. For purposes of this ordinance, the Plant Water Use Factor range for very Low Water Use Plants is less than 0.1, the Plant Water Use Factor range for Low Water Use Plants is 0.1 to 0.3, the Plant Water Use Factor range for Moderate Water Use Plants is 0.4 to 0.6, and the Plant Water Use Factor range for High Water Use Plants is 0.7 to 1.0. Plant Water Use Factors cited in this ordinance are derived from the publication “Water Use Classification of Landscape Species.” Plant Water Use Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources.*

**PLANTING PLAN** – *“Planting Plan” shall have the same meaning as “Landscape Design Plan.”*

**RAIN SENSOR** – *“Rain Sensor” or “Rain Sensing Shutoff Device” shall mean a component of an Irrigation System which automatically suspends irrigation when it rains.*

**RECORD DRAWINGS** – *“Record Drawings” shall mean documents prepared by the architect that reflect on-Site changes the contractor noted in the As-Built Drawings. They are often compiled as a set of on-Site changes made for the owner per the owner-architect contract*

**RECREATIONAL AREA** – *“Recreational Area” shall mean areas, excluding private Single Family Residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheatres or golf course tees, roughs, surrounds and greens.*

**RECYCLED WATER** – *“Recycled Water” shall mean treated or recycled waste water of a quality suitable for Sub-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.*

**REFERENCE EVAPOTRANSPIRATION** – *“Reference Evapotranspiration” shall mean a standard measurement of environmental parameters which affect the water use of plants. Evapotranspiration is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four to seven inches tall, cool-season grass that is well watered. Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.*

**REHABILITATED LANDSCAPE** – *“Rehabilitated Landscape” shall mean any re-landscaping of existing landscapes where the modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet.*

**RESIDENTIAL LANDSCAPE** – *“Residential Landscape” shall mean landscape surrounding single or multifamily homes.*

**RUNOFF** – *“Runoff” shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For*



*example, Runoff may result from water that is applied at too great a rate (application rate exceeds Infiltration Rate) or when there is a slope.*

**SOILS MANAGEMENT REPORT** – *“Soils Management Report” shall mean an analysis of the existing soil conditions relative to horticulture (versus agriculture or structural integrity) resulting in recommendations of appropriate soil amendments.*

**SOIL MOISTURE SENSING DEVICE** – *“Soil Moisture Sensing Device” shall mean a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.*

**SOIL TEXTURE** – *“Soil Texture” shall mean the classification of soil based on its percentage of sand, silt, and clay.*

**SPECIAL LANDSCAPE AREA** – *“Special Landscape Area” or “SLA” shall mean an area of the landscape irrigated with Recycled Water, water features using Recycled Water, and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.*

**SPRINKLER HEAD** – *“Sprinkler Head” shall mean a device which delivers water through a nozzle.*

**STATIC WATER PRESSURE** – *“Static Water Pressure” shall mean the pipeline or municipal water supply pressure when water is not flowing.*

**STORM WATER CONTROL FACILITY** – *“Storm Water Control Facility” shall mean a structural feature intended to control or reduce storm water Runoff and associated pollutants, to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances.*

**STORM WATER CONTROL MEASURE** – *“Storm Water Control Measure” shall mean any structural or non-structural strategy, practice, technology, process, program or other method intended to control or reduce storm water Runoff and associate pollutants, or to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances. Storm Water Control Measures include Storm Water Control Facilities.*

*SWING JOINT – “Swing Joint” shall mean an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.*

*TURF – “Turf” shall mean a ground cover surface of mowed grass and does not include artificial turf surfaces. For example, Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses and Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.*

*VALVE – “Valve” shall mean a device used to control the flow of water in the Irrigation System.*

*WATER BUDGET – “Water Budget” shall mean a maximum annual water allowance in gallons per year that takes into consideration the types of plants, Evapotranspiration Rates and Irrigation System.*

*WATER CONSERVING PLANT SPECIES– “Water conserving plant species” shall mean a plant species identified as having a low Plant Water Use Factor.*

*WATER EFFICIENT LANDSCAPE WORKSHEET – “Water Efficient Landscape Worksheet” shall mean the form used in the Landscape Documentation Package to calculate the Water Budget for a landscape. The form is found in Appendix B of the Landscape Documentation Package.*

*WATER FEATURE – “Water Feature” shall mean a design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and Swimming Pools where water is artificially supplied. The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed facilities used for onsite wastewater treatment or Storm Water Control Measures that are not irrigated and used solely for water treatment or storm water retention are not considered Water Features.*

*WATERING STATION – “Watering Station” shall mean an area served by one valve or by a set of valves that operate simultaneously.*

*WATERING WINDOW – “Watering Window” shall mean the time of day irrigation is allowed.*

***WEATHER BASED IRRIGATION CONTROLLER -- “Weather Based Irrigation Controller” shall mean an Irrigation System component that uses local weather conditions and landscape conditions to adjust irrigation schedules automatically to actual conditions on the site or historical weather data.***

***WUCOLS – “WUCOLS” shall mean the Water Use Classification of Landscape Species guide published by the University of California Cooperative Extension and the California Department of Water Resources 2014, as may be periodically updated.***

**Section Eight:           Amendment to Rule 142-C, Water Efficiency Standards**

Rule 142-C shall be amended as shown below, with added language as shown in ***bold italic*** type face, and deleted language shown in ~~strikeout~~ type face.

C.     Residential Water Efficiency Standards for New Structures.

All Residential New Structures receiving a Water Permit shall meet or exceed the following standards:

1.     High Efficiency or Ultra-High Efficiency Toilets shall be installed;
2.     Urinals, when installed in a Residential use, shall be designed to flush with one (1) gallon of water. After January 1, 2016, newly installed Urinals shall flush with no more than 0.125 gallon per flush;
3.     Showerheads, Rain Bars, or Body Spray Nozzles must be designed and manufactured to emit a maximum of 2.0 gallons per minute of water;
4.     All shower fixtures should be equipped with scald protection valves rated for 2.0 gallons per minute Showerheads;
5.     High Efficiency Clothes Washer(s) and High Efficiency Dishwasher(s) shall be required when installed in a Residential use;
6.     Lavatory Sink faucets shall emit a maximum of 1.2 gallons of water per minute at 60 psi;

7. Kitchen Sink, Utility Sink, and Bar Sink faucets shall emit a maximum of 1.8 gallons of water per minute at 60 psi. Faucets may have the capability to temporarily increase flow to 2.2 gallons per minute for filling pots and pans, but must default back to a maximum ~~F~~Flow ~~R~~Rate of 1.8 gallons per minute measured at 60 psi.;
8. Instant-Access Hot Water Systems shall be installed;
9. All hot water pipes shall be insulated;
10. Sodium chloride (salt) water softeners shall be discouraged in New Construction. Alternate technologies such as potassium chloride shall be recommended. When a sodium chloride water softener is to be installed within the MPWMD, the unit shall use demand-initiated regeneration which senses when the resin must be recharged, either electronically or with a meter that measures and calculates usage. This requirement shall be specified on the Construction Drawings.
11. Landscaping. *All New Construction (including new buildings with landscape or other new landscape, such as a park, playground, or greenbelt without an associated building) shall install and maintain landscapes that comply with Rule 142.1.*
12. *Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.*
13. *Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.*
14. *All Sites utilizing a Graywater reuse system shall install and maintain a Backflow Prevention Device as required by any Water Distribution System Operator that supplies water to the Site.*

- a. ~~All New Construction shall install and maintain Landscaping that complies with the California Model Water Efficient Landscape Ordinance as revised (California Code of Regulations, Title 23, Water, Division 2, Department of Water Resources, Chapter 2.7, Model Water Efficient Landscape Ordinance) or with local or District Landscape requirements if more restrictive.~~
- b. ~~Plants shall be grouped in hydrozones.~~

12. ~~Irrigation System Efficiency.~~

- a. ~~Weather Based Irrigation System Controllers (e.g. Smart Controllers) shall be installed, used and maintained on Sites where there is an Irrigation System.~~
- b. ~~Weather Based Irrigation System Controllers shall include functioning Soil Moisture Sensors and a Rain Sensor as components of the system.~~
- c. ~~Drip Irrigation shall be utilized for watering all non turf irrigated plantings.~~
- d. ~~Rotating Sprinkler Nozzles shall be utilized for turf irrigation.~~
- e. ~~Overhead spray irrigation shall not be used to water non turf Landscaping, including trees and shrubs.~~
- f. ~~Irrigation Systems shall operate with at least 75 percent efficiency for overhead spray devices and at least 81 percent efficiency for drip systems.~~
- g. ~~Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.~~

- ~~h. Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.~~
- ~~i. All Sites utilizing a Graywater reuse system shall install and maintain a backflow prevention device as required by any Water Distribution System Operator that supplies water to the Site.~~

D. Non-Residential Water Efficiency Standards for New Structures.

All Non-Residential New Structures receiving a Water Permit shall meet or exceed the following standards:

1. High Efficiency or Ultra High Efficiency Toilets shall be installed;
2. Urinals shall be Pint Urinals or Zero Water Consumption Urinals and shall be clearly specified on the final Construction Drawings. Zero Water Consumption Urinals shall be encouraged in settings where there is a regular maintenance staff;
3. Showerheads, Rain Bars, or Body Spray Nozzles must be designed and manufactured to emit a maximum of 2.0 gallons per minute of water;
4. All shower fixtures should be equipped with scald protection valves rated for 2.0 gallons per minute Showerheads;
5. Public Washbasins shall emit a maximum of 0.5 gallon of water per minute at 60 psi. Private Washbasins (e.g. hotel or motel guest rooms and hospital patient rooms) shall emit a maximum of 1.2 gallons of water per minute at 60 psi. All other sinks shall emit a maximum of 2.2 gallons of water per minute at 60 psi unless higher flow is required by Health and Safety Code;
6. Public Washbasins equipped with automatic shut off devices or sensor faucets shall operate with a maximum flow of 0.25 gallons per cycle;

7. High Efficiency Clothes Washers shall be installed when a Clothes Washer is installed in a New Structure permitted under this Regulation;
8. High Efficiency Dishwashers or High Efficiency Commercial Dishwashers shall be installed and maintained on the Site when a Dishwasher is installed in a New Structure permitted by a Water Permit;
9. Instant-Access Hot Water System(s) shall be installed for hot water access points to ensure that hot water is available within ten (10) seconds;
10. All hot water pipes shall be insulated;
11. Sodium chloride (salt) water softeners shall be discouraged in New Construction. Alternate technologies, such as potassium chloride shall be recommended. When a sodium chloride water softener is to be installed within the MPWMD, the unit shall use demand-initiated regeneration which senses when the resin must be recharged, either electronically or with a meter that measures and calculates usage. This requirement shall be specified on the Construction Drawings;
12. Water Efficient Pre-Rinse Spray Valves shall be utilized when a pre-rinse spray valve is installed;
13. There shall be no single-pass water use systems in ice machines, hydraulic equipment, refrigeration condensers, X-ray processing equipment, air compressors, vacuum pumps, etc. Air-cooled or better technology shall be installed when available;
14. Water cooled refrigeration equipment shall be prohibited when there is alternative cooling technology available at the time the Water Permit is issued;
15. Cooling Towers shall be equipped with conductivity controllers that are used to increase the number of cycles that can be achieved;

16. Boilerless steamers or connectionless steamers shall be installed in place of boiler-based steamers when a steamer is installed in New Construction;
17. Landscaping. *All New Construction (including new buildings with landscape or other new landscape, such as a park, playground, or greenbelt without an associated building) shall install and maintain landscapes that comply with Rule 142.1.*
18. *Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.*
19. *Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.*
20. *All Sites utilizing a Graywater reuse system shall install and maintain a Backflow Prevention Device as required by any Water Distribution System Operator that supplies water to the Site.*
- ~~a. All New Construction shall install and maintain Landscaping that complies with the California Model Water Efficient Landscape Ordinance as revised (California Code of Regulations, Title 23, Water, Division 2, Department of Water Resources, Chapter 2.7, Model Water Efficient Landscape Ordinance) or with local or District Landscape requirements if more restrictive.~~
- ~~b. Plants shall be grouped in hydrozones.~~
- ~~18. Irrigation System Efficiency.~~
- ~~a. Weather Based Irrigation System Controllers shall be installed, used and maintained on Sites where there is an Irrigation System.~~



- ~~b. Weather Based Irrigation System Controllers shall include functioning Soil Moisture Sensors and a Rain Sensor as components of the system.~~
- ~~c. Drip Irrigation shall be utilized for watering all non turf irrigated plantings.~~
- ~~d. Rotating Sprinkler Nozzles shall be utilized for turf irrigation.~~
- ~~e. Overhead spray irrigation shall not be used to water non-turf Landscaping, including trees and shrubs.~~
- ~~f. Irrigation Systems shall operate with at least 75 percent efficiency for overhead spray devices and at least 81 percent for drip systems.~~
- ~~g. Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.~~
- ~~h. Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.~~
- ~~i. All Sites utilizing a Graywater reuse system shall install and maintain a backflow prevention device as required by any Water Distribution System Operator that supplies water to the Site.~~

~~1921~~. The implementation of water conservation Best Management Practices shall be integrated into construction and operation of the project to the extent possible.

~~2022~~. The use of Alternative Water Sources for indoor toilet flushing and other uses allowed by the Jurisdiction shall be encouraged.

E. Residential and Non-Residential Change of Ownership, Change of Use, and Expansion of Use Water Efficiency Standards

Sites that have a Change of Ownership, or receive a Water Permit for a Change of Use or Expansion of Use shall meet or exceed the following standards:

1. High Efficiency or Ultra High Efficiency Toilets shall be installed;
2. Urinals shall be at a minimum High Efficiency Urinals (when installed prior to January 1, 2016). Newly installed Urinals shall be Pint Urinals or Zero Water Consumption Urinals. Zero Water Consumption Urinals shall be encouraged in settings where there is a regular maintenance staff;
3. Showerhead ~~f~~Flow ~~r~~Rates shall meet or exceed water efficiency standards for New Structures;
4. Bathroom faucet ~~f~~Flow ~~R~~ates shall meet or exceed water efficiency standards for New Structures;
5. Kitchen faucet ~~f~~Flow ~~r~~Rates shall meet or exceed water efficiency standards for New Structures;
6. Remodels or relocations of water fixtures or appliances that involve hot water shall be encouraged to install an Instant-Access Hot Water System and insulate all new hot water pipes;
7. Pre-rinse spray valves shall meet or exceed the District's definition for Water Efficient Pre-Rinse Spray Valves;

8. Changes of Use and Expansions of Use that require a Water Permit shall not install any single-pass water use systems in ice machines, hydraulic equipment, refrigeration condensers, X-ray processing equipment, air compressors, vacuum pumps, etc. Air-cooled or better technology shall be installed when available;
9. Changes of Use and Expansions of Use that require a Water Permit shall not install any water cooled refrigeration equipment when there is alternative water efficient cooling technology available at the time the Water Permit is issued;
10. Automatic Irrigation Systems, with the exception of Weather-Based Irrigation Systems, shall be retrofit to include a Rain Sensor;
11. The implementation of Non-Residential Best Management Practices shall be integrated into construction and operation of Non-Residential uses to the extent possible;§
12. *Projects that include Rehabilitated Landscapes (modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet) shall comply with Rule 20-B and Rule 142.1.*

**Section Nine:**            **General Replacement of Terms**

New definitions adopted by this ordinance shall be capitalized throughout the Rules and Regulations.

**Section Ten:**            **Publication and Application**

The provisions of this ordinance shall cause the amendment and republication of Rules 11, 20, 21, 22, 24, 25.5, and 142 of the permanent Rules and Regulations of the Monterey Peninsula Water Management District.

**Section Eleven:**        **Effective Date and Sunset**

This ordinance shall take effect at 12:01 a.m. thirty (30) days after adoption.

This Ordinance shall not have a sunset date.

**Section Twelve: Severability**

If any subdivision, 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 or unenforceability 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.

On motion of Director \_\_\_\_\_, and second by Director \_\_\_\_\_, the foregoing ordinance is adopted upon this \_\_\_\_ day of \_\_\_\_\_, 2016, 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 is a full, true, and correct copy of an ordinance duly adopted on the \_\_\_\_ day of \_\_\_\_\_, 2016.

Witness my hand and seal of the Board of Directors this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

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



# City of Carmel-by-the-Sea

COMMUNITY PLANNING AND BUILDING DEPARTMENT  
POST OFFICE DRAWER G  
CARMEL-BY-THE-SEA, CA 93921  
(831)620-2010 OFFICE

June 1, 2016

Mr. David J. Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

REC'D  
JUN 06 2016  
MPWMD

Subject: State of California Model Water Efficient Landscape Ordinance

Dear Mr. Stoldt:

We understand that the City of Carmel-by-the-Sea had until December 1, 2015 to adopt the State's Model Water Efficient Landscape Ordinance or adopt its own ordinance, which must be at least as effective in conserving water as the State's Ordinance, or conversely had until February 1, 2016 to adopt a regional ordinance. If the City did not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance would become effective by default.

This letter is to inform you that the City of Carmel-by-the-Sea wishes that the Monterey Peninsula Water Management District adopt a regional ordinance, undertake the Landscape Documentation Package review, and perform the required annual reporting to the State.

The City will retain authority over, and provide review of, any Grading Design Plan element of a Landscape Documentation Package. The City will also remain responsible for review of any jurisdictional-specific landscape design requirements, as well as compliance with the Monterey Regional Stormwater Management Program.

The City will inform its planning and building department staff of the District's MWELO ordinance and provide a copy for public review in City offices.

Sincerely yours,

Marc Wiener  
Acting Planning and Building Director

### **Compliance Guide for Landscape Documentation Package**

- Prior to construction, the City shall direct the project applicant to the District website or offices for the ordinance and procedures for permits, plan checks, or design reviews.
- The District shall review the Landscape Documentation Package submitted by the project applicant. If a grading plan is required, the applicant will be sent to the City for review and approval.
- The District will approve or deny the Landscape Documentation Package.
- The District will issue a permit or approve the plan check or design review.
- The applicant must record the date of approval of the permit, plan check, or design review in the Certificate of Completion.

### **Elements of the Landscape Documentation Package**

- 1) Project information (Date, applicant name, address and parcel number, total landscape area, project type, source of water supply, checklist of all documents in the Package, contact information, signature/date with statement "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.")
- 2) Water Efficient Landscape Worksheet with hydrozone information table and water budget calculations for Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU).
- 3) Soil management report.
- 4) Landscape design plan.
- 5) Irrigation design plan. And
- 6) Grading design plan

In the alternative, many projects will qualify for "prescriptive compliance" and may utilize the "simple checklist." Applicants should consult the District ordinance and guidelines.



CITY OF DEL REY OAKS<sup>203</sup>

650 CANYON DEL REY RD. • DEL REY OAKS, CALIFORNIA 93940  
PHONE (831) 394-8511 • FAX (831) 394-6421

June 1, 2016

Mr. David J. Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

RECEIVED

JUN 01 2016

MPWMD

Subject: State of California Model Water Efficient Landscape Ordinance

Dear Mr. Stoldt:

We understand that the City of Del Rey Oaks had until December 1, 2015 to adopt the State's Model Water Efficient Landscape Ordinance or adopt its own ordinance, which must be at least as effective in conserving water as the State's Ordinance, or conversely had until February 1, 2016 to adopt a regional ordinance. If the City did not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance would become effective by default.

This letter is to inform you that the City of Del Rey Oaks wishes that the Monterey Peninsula Water Management District adopt a regional ordinance, undertake the Landscape Documentation Package review, and perform the required annual reporting to the State.

The City will retain authority over, and provide review of, any Grading Design Plan element of a Landscape Documentation Package. The City will also remain responsible for review of any jurisdictional-specific landscape design requirements, as well as compliance with the Monterey Regional Stormwater Management Program.

The City will inform its planning and building department staff of the District's MWELO ordinance and provide a copy for public review in City offices.

Sincerely,

Daniel Dawson – City Manager

### **Compliance Guide for Landscape Documentation Package**

- Prior to construction, the City shall direct the project applicant to the District website or offices for the ordinance and procedures for permits, plan checks, or design reviews.
- The District shall review the Landscape Documentation Package submitted by the project applicant. If a grading plan is required, the applicant will be sent to the City for review and approval.
- The District will approve or deny the Landscape Documentation Package.
- The District will issue a permit or approve the plan check or design review.
- The applicant must record the date of approval of the permit, plan check, or design review in the Certificate of Completion.

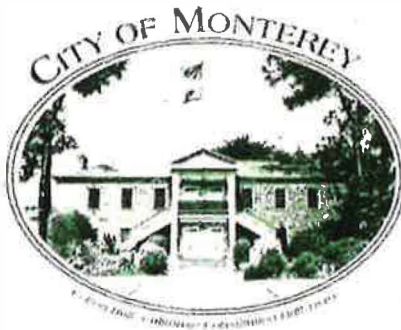
### **Elements of the Landscape Documentation Package**

- 1) Project information (Date, applicant name, address and parcel number, total landscape area, project type, source of water supply, checklist of all documents in the Package, contact information, signature/date with statement "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.")
- 2) Water Efficient Landscape Worksheet with hydrozone information table and water budget calculations for Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU).
- 3) Soil management report.
- 4) Landscape design plan.
- 5) Irrigation design plan. And
- 6) Grading design plan



In the alternative, many projects will qualify for “prescriptive compliance” and may utilize the “simple checklist.” Applicants should consult the District ordinance and guidelines.

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MAY 02 2016

MAY 02 2016

April 28, 2016

Mr. David J. Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

Subject: State of California Model Water Efficient Landscape Ordinance

Dear Mr. Stoldt:

We understand that the City of Monterey had until December 1, 2015 to adopt the State's Model Water Efficient Landscape Ordinance or adopt its own ordinance, which must be at least as effective in conserving water as the State's Ordinance, or conversely had until February 1, 2016 to adopt a regional ordinance. If the City did not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance would become effective by default.

This letter is to inform you that the City of Monterey wishes that the Monterey Peninsula Water Management District adopt a regional ordinance, undertake the Landscape Documentation Package review, and perform the required annual reporting to the State.

The City will retain authority over, and provide review of, any Grading Design Plan element of a Landscape Documentation Package. The City will also remain responsible for review of any jurisdictional-specific landscape design requirements, as well as compliance with the Monterey Regional Stormwater Management Plan.

The City will inform its planning and building department staff of the District's MWELO ordinance and provide a copy for public review in City offices.

Sincerely yours,

Kimberly Cole, AICP  
Chief of Planning, Engineering & Environmental Compliance

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**CITY OF PACIFIC GROVE**  
Community and Economic Development Department  
300 Forest Avenue, Pacific Grove, CA 93950  
T: 831.648.3183 • F: 831.648.3184 • [www.cityofpacificgrove.org/cdd](http://www.cityofpacificgrove.org/cdd)

RECEIVED

APR 28 2016

MPWMD

April 25, 2016

Mr. David J. Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

**RE: State of California Model Water Efficient Landscape Ordinance**

Dear Mr. Stoldt:

We understand that the City of Pacific Grove had until December 1, 2015 to adopt the State's Model Water Efficient Landscape Ordinance (MWELo) or adopt its own ordinance, which must be at least as effective in conserving water as the State's Ordinance, or conversely had until February 1, 2016 to adopt a regional ordinance. If the City did not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance would become effective by default.

This letter is to inform you that the City of Pacific Grove supports adoption of a regional ordinance by the Monterey Peninsula Water Management District to undertake the Landscape Documentation Package review, and perform the required annual reporting to the State.

The City will retain authority over, and provide review of, any Grading Design Plan element of a Landscape Documentation Package. The City will also remain responsible for review of any jurisdictional-specific landscape design requirements, as well as compliance with the Monterey Regional Stormwater Management Program.

The City will inform its planning and building department staff of the District's MWELo ordinance and provide a copy for public review in City offices.

Sincerely,

Mark Brodeur  
Community and Economic Development Director

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APR 26 2016

April 22, 2016

Mr. David J. Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, CA 93940

Subject: State of California Model Water Efficient Landscape Ordinance

Dear Mr. Stoldt:

We understand that the City of Sand City had until December 1, 2015 to adopt the State's Model Water Efficient Landscape Ordinance or adopt its own ordinance, which must be at least as effective in conserving water as the State's Ordinance, or conversely had until February 1, 2016 to adopt a regional ordinance. If the City did not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance would become effective by default.

This letter is to inform you that the City of Sand City wishes that the Monterey Peninsula Water Management District adopt a regional ordinance, undertake the Landscape Documentation Package review, and perform the required annual reporting to the State.

The City will retain authority over, and provide review of, any Grading Design Plan element of a Landscape Documentation Package. The City will also remain responsible for review of any jurisdictional-specific landscape design requirements, as well as compliance with the Monterey Regional Stormwater Management Program.

The City will inform its planning and building department staff of the District's MWELO ordinance and provide a copy for public review in City offices.

Sincerely,

Todd Bodem  
City Administrator

City Hall  
1 Sylvan Park,  
Sand City, CA  
93955

Administration  
(831) 394-3054

Planning  
(831) 394-6700

FAX  
(831) 394-4272

Police  
(831) 394-1451

FAX  
(831) 394-1038

Incorporated  
May 31, 1960

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exceed \$110,000, and receive reimbursement from Cal-Am for the cost of the study, conditional upon MPWSP Governance Committee recommendation and approval on July 20, 2016.

**DISCUSSION:** Some overarching considerations in evaluating the proposals were;

- 1) Both teams of consultants were deemed competent and qualified to perform both engineering analysis and the value engineering process and workshops;
- 2) The Hazen and Sawyer team a “mid-point review” and “post workshop” services that appeared more innovative and/or useful than the VMS team;
- 3) The Hazen and Sawyer fee proposal was more advantageous; and
- 4) The Hazen and Sawyer team was more responsive on follow-up questions.

Attached as **Exhibits AA-B and AA-C**, respectively, are the Hazen and Sawyer Proposal for Services and their cost proposal.

#### **EXHIBITS**

**AA-A** June 1, 2016 RFP for Preparation of a Value Engineering Study

**AA-B** Hazen and Sawyer Proposal for Services

**AA-C** Hazen and Sawyer Cost proposal



June 1, 2016

To Selected Recipients

Re: California American Water Company  
Monterey Peninsula Water Supply Project (MPWSP) Conveyance Facilities  
Request for Proposal – Value Engineering Study

Dear Sir or Madam:

The Monterey Peninsula Water Management District (MPWMD), on behalf of the MPWSP Governance Committee, is seeking a qualified Consultant to provide Value Engineering (VE) services related to the design and construction of the conveyance facilities for a water supply project for the Monterey Peninsula. You are invited to submit a proposal for VE services for the conveyance facilities.

In general, the objectives of the value engineering services are:

- To identify potential changes to the project design or construction that would satisfy the essential functions of the project at a lower capital and/or life cycle cost;
- To identify potential changes to the project design or construction that would better accomplish the essential functions of the project and/or provide better overall value;
- To improve confidence in the effectiveness of the design and construction, i.e., to ensure the design represents the most efficient combination of cost, performance and reliability;
- To identify constructability, durability, adaptability, operability, safety, and maintenance issues;

#### Description of Conveyance Facilities

Structures and facilities that are components of the conveyance facilities portion of the project are expected to consist of the following: 1) transmission mains; 2) terminal reservoirs; and 3) booster pump stations. The following subsections describe in concept each of these facilities:

#### Transmission Mains

California American Water Company (CAW) is proposing to construct approximately twenty (20) miles of primarily 36" and 42" transmission main with supporting mains of up to 16". The 36" transmission mains will run from the desalination plant south through the County of Monterey and the cities of Marina, Seaside, Monterey and terminating in Pacific Grove. About

two miles of 42" HDPE transmission mains will run from the source water wells located in the City of Marina near the coastline to the desalination plant located near the Monterey Regional Environmental Park in North Marina. The anticipated pipeline segments along with the anticipated pipe diameters include:

<b>VE Item Number</b>	<b>Component</b>	<b>Length (LF) Approx.</b>	<b>Diameter</b>
1	Feedwater - Cemex	11,500	42"
2	Brine Discharge	3,800	36"
	Salinas Valley Return	5,700	12"
3	Transfer Pipeline	49,500	36"
4	Aquifer Storage & Recovery	5,100'	36"
	(3) ASR Extension	4,300' (ea)	16"
5	Monterey Pipeline2	35,000	36"

The feedwater pipeline is needed to convey raw water to the desalination plant from the source wells located at the CEMEX property in Marina.

The brine discharge pipeline is needed to convey brine or concentrate from the desalination plant to the headworks of the PCA's outfall, where it will mix with effluent from the PCA's regional treatment plant and be discharged to the ocean through the existing outfall diffusers.

The Salinas Valley return pipeline is an alternate routing to the Castroville Seawater Intrusion Project pond needed to convey desalinated water to the Salinas Valley Groundwater Basin.

The transfer pipeline, ASR extension pipelines, and Monterey pipeline are required to deliver desalinated (product) water from the pumps at the desalination plant into a 36-inch diameter product water pipeline to deliver water to the existing water system facilities and to deliver to and from the ASR facilities.

**Terminal Reservoirs:**

CAW is proposing to construct a terminal reservoir consisting of two (2) storage reservoirs, three (3) million gallon (MG) each for a total storage volume of six (6) MG. The terminal reservoir is located on the former Ft. Ord site. The project components include the following major elements:

<b>VE Item Number</b>	<b>Component</b>	<b>Dimensions</b>	<b>Diameter</b>
6	Terminal Reservoir - 2 tanks and related civil work and electrical work	3 MG (ea)	130'
	Inlet/Outlet Pipelines	1,700' (ea)	16"
	Drain Pipeline	900'	30"

### Booster Pump Stations:

The Booster Pump Stations component of the Project includes two (2) facilities: the Monterey Pump Station and the Valley Greens Pump Station. These facilities include the following major elements:

<b>VE Item Number</b>	<b>Component</b>	<b>Capacity (GPM)</b>
7a	Monterey Pump Station and related civil work, electrical, and piping work	6,300
7b	Valley Greens Pump Station and related civil work, electrical, and piping work	2,500

### Contracted Companies

VE Items 1, 3, and 5 were awarded to Garney Pacific, Inc.

VE Items 4, 6, and 7 were awarded to Monterey Peninsula Engineering

VE Item 2 was awarded to Mountain Cascade, Inc.

Additional information and specifications on the conveyance facilities RFPs can be found at:

<http://www.watersupplyproject.org/#!about1/c1ufc>

Please see links under the title “2. Conveyance Facilities RFP”

### Scope of Services

The work will consist of the following tasks and as detailed in Exhibit “A”, Scope of Services, attached.

It is intended that the selected VE Consultant will conduct one VE workshop to be conducted in the Monterey, California area in September 2016. The VE workshop should follow the standards of the Society of American Value Engineers (SAVE). The workshop meeting location will be announced and will be paid for by others. The VE workshop will consist of the following phases conducted over a period of three or four consecutive days:

- Information Phase
- Function Analysis Phase
- Creative Phase
- Evaluation Phase
- Development Phase
- Presentation Phase

### Required Qualifications

The VE Consultant shall provide a team leader/facilitator that is certified by SAVE International as a Certified Value Specialist (CVS) or describe why you believe a CVS is unnecessary. The team will also include multidiscipline technical specialists with appropriate qualifications such as: civil and structural engineers, water distribution engineers/operators, electrical engineer, construction cost estimator and experienced water pipeline construction superintendent/manager and any other personnel experienced in water operations and maintenance to round out the technical specialist staff. The VE Consultant shall demonstrate corporate experience pertinent to the subject matter of the VE study.

### Proposal Elements

Proposals are to consist of no more than 15 single sided pages and include the following elements:

- Cover Letter
- Table of Contents
- Understanding of the Scope of Work
- Proposed Methodology and Delivery Schedule
- Qualifications and Experience, including client references
- Brief Biographies of Key Personnel
- Fee Proposal (in separate sealed envelope)
- Other considerations

Detailed resumes and additional corporate information may be also submitted, if so desired. Note that key personnel must disclose any economic interest they have in CAW, American Water, CDM Smith, and/or the Contracted Companies named above.

The proposal should be on a lump sum basis, inclusive of per diem costs for travel and living expenses. Note that the MPWMD will utilize a Qualification Based Selection (QBS) process in procuring professional services. Accordingly, the fee proposal is to be provided in a separate sealed envelope submitted with the technical proposal, and will not be considered in the selection of the best proposal.

Proposals should be submitted by 4:00 p.m. on Thursday, June 23, 2016. Three (3) hard copies and three (3) copies on electronic media in PDF format shall be addressed and sent to:

Monterey Peninsula Water Management District (MPWMD)  
5 Harris Court, Building G  
Monterey, CA 93940  
Attention: General Manager

Thank you for your cooperation. If you have any questions or comments concerning the project scope of services, please contact me at 831-658-5651 or dstoldt@mpwmd.net

Very truly yours,



David J. Stoldt  
General Manager

EXHIBITS:

A- Scope of Work for Value Engineering Study

B- Sample Contract for Professional Services

cc: Bill Kampe - President MPRWA  
Jim Cullem – Executive Director, MPRWA  
I. Crooks –CAW  
R. Svindland - CAW

**EXHIBIT "A"**

**SCOPE OF SERVICES FOR VALUE ENGINEERING STUDY**

The Value Engineering (VE) Consultant will provide the following services in accordance with this scope of work.

**CONSULTANT VE STUDY TEAM**

The Value Engineering Consultant will provide the VE study team members identified below:

- |  |                                 |
|--|---------------------------------|
| • VE Team Leader/Facilitator               | Provided by VE Consultant       |
| • Civil Engineer                           | Provided by VE Consultant       |
| • Process / Hydraulics Design Engineer     | Provided by VE Consultant & CAW |
| • Construction Cost Estimator              | Provided by VE Consultant & CAW |
| • Construction Superintendent              | Provided by VE Consultant & CAW |
| • Water Distribution Operations personnel  | Provided by VE Consultant & CAW |
| • Water Distribution Maintenance personnel | Provided by VE Consultant & CAW |

All other team members will be provided by the Governance Committee (GC) and/or California American Water (CAW), at no cost to the VE Consultant. The VE Consultant will communicate directly with the MPWMD Contract Manager, the GC Project Manager, the California American Water Project Manager, Contracted Companies, and with all other study team members as needed relative to scheduling, pre-workshop, workshop and post workshop activities.

**PRE-WORKSHOP ACTIVITIES**

The VE Consultant will perform pre-workshop activities to include those tasks which must be accomplished in order for the study team to be able to efficiently and effectively perform in the workshop. These activities will consist of:

- Scheduling value engineering study tasks,
- Scheduling and coordination with VE study team members
- Assisting the GC and CAW with scheduling VE study participants
- Coordination of the necessary project documentation of the project for distribution by the GC and CAW to study team members
- Document review by VE Consultant-supplied team members
- Preparation of cost, energy, life cycle costs, etc. to the extent that the information needed for their preparation is available.

CAW and the GC will distribute the project documents and materials to be studied to the VE study team members at least five (5) working days prior to the workshop start. All team members are expected to review the project documents and material prior to the start of the workshop.



**WORKSHOP**

The VE Consultant will conduct a multi-day value engineering workshop using the six-step job plan that is consistent with the best management practices recognized by SAVE. The workshop will include an Information Phase, a Function Analysis Phase, a Creative Phase, and Evaluation Phase a Development Phase and a Presentation Phase. A site visit for the team members will be conducted on the first day of the workshop.

The workshop will be initiated by presentations from the GC and CAW representatives, who will describe the objectives of the study and any constraints that will be placed on the study team. The designers will explain specifically how the design accomplishes MPRWA and CAW's objectives and the details of that design.

The workshop will include a detailed function analysis of the major project elements. The team will generate a list of ideas for project improvement followed by an evaluation of those ideas. This evaluation will include input from key GC and CAW decision makers before proceeding with development of recommendations. On the last day of the workshop, a presentation of the recommendations will be provided to CAW, key representatives of the design team, and the GC.

The workshop will be held at a location within the California American Water service area and will be announced at a later date. The cost of providing the workshop meeting facilities and all other costs associated with the meeting facilities will not be borne by the consultant.

To ensure that the study team has complete information about the project criteria, CAW will provide, at a minimum, key personnel from both CAW and the design team for the first day and last day presentations.

**POST WORKSHOP**

The VE Consultant will conduct a four-hour post-workshop Decision/Implementation Meeting at a location to be announced following receipt by the study team of the written design responses to the Preliminary Report. The purpose of the Decision/Implementation Meeting is to assist the GC and CAW in making decisions regarding acceptance or rejection of the individual value proposals. Attendees will consist of GC representatives, key CAW staff, key designer staff and the VE study team leader.

**SCHEDULE**

The work will be performed in accordance with the following schedule:

Pre-Study Activities	Upon receipt of a signed contract and notice to proceed
Workshop	September ____, 2016
Preliminary VE Study Report	Three (3) days after completion of the Workshop
Decision/implementation Meeting	On a date to be determined by the GC, CAW, VE Consultant and designer
Final VE Study Report	Fourteen (14) days after receipt of Comments on the draft report

DELIVERABLES

The VE study effort will include the following deliverables, all which are related to the results of the workshop:

- Study Team Presentation Handout
- Preliminary VE Study Report
- Final VE Study Report

The Preliminary VE Report will be prepared in the Value Engineering Consultant report format, and will be a compilation of the handwritten products developed in the workshop.

The purpose of this draft report is to give the GC, CAW and other reviewers the opportunity to check the final VE Study report prior to final issuance.

The Final VE Study Report is the final documentation of the VE Study. The report is a finalized version of the Draft Report including the incorporation of GC and CAW comments. The submittal of the final report concludes the Scope of Work.

The VE Consultant will provide the GC with two (2) electronic copies (CD-ROM) and the following number of hard copies of each report:

- |                                  |           |
|----------------------------------|-----------|
| • Preliminary VE Study Report    | 6 copies  |
| • Draft of Final VE Study Report | 6 copies  |
| • Final VE Study Report          | 6 copies. |

**EXHIBIT "B"**

**FORM OF CONTRACT FOR PROFESSIONAL SERVICES**

**Agreement for Consultant Support Services**

**THIS AGREEMENT** is executed this \_\_\_ day of \_\_\_\_\_, by and between the Monterey Peninsula Water Management District, a municipal corporation, hereinafter called "District", and \_\_\_\_\_, hereinafter called "Consultant".

**IT IS HEREBY MUTUALLY AGREED AS FOLLOWS:**

1. Scope. Consultant hereby agrees to provide to the District, as the scope of services under this Agreement, Value Engineering Services as described on the following attachment: Scope of Services for Value Engineering Study (attached hereto as Exhibit "A").

2. Timely Work. Consultant shall perform all tasks in a timely fashion, as set forth more specifically in paragraph 3 below. Failure to so perform is hereby deemed a material breach of this Agreement, and District may terminate this Agreement with no further liability hereunder, or may agree in writing with Consultant to an extension of time.

3. Term. The work under this Agreement shall commence no later than August 1, 2016 and shall be completed by November 30, 2016, unless District grants a written extension of time as forth in paragraph 2 above.

4. Compensation. District agrees to pay and Consultant agrees to accept as full and fair consideration for the performance of this Agreement, a lump-sum payment as set forth in Consultant's Proposal (Exhibit C), in a total amount of \_\_\_\_\_ (\$\_\_\_\_\_). Compensation under this Agreement shall become due and payable 30 days after District's approval of Consultant's submission of a written invoice to the District General Manager. Written invoices shall include a copy of timesheets or invoices from sub-consultants. The payment of any compensation to Consultant hereunder shall be contingent upon performance of the terms and conditions of this Agreement to the satisfaction of the District. If District determines that the work set forth in the written invoice has not been performed in accordance with the terms of this Agreement, District shall not be responsible for payment until such time as the work has been satisfactorily performed.

5. Additional Services. In the event that District should request services identified in Exhibit C, or for additional services not covered by the terms of this Agreement, said services will be provided by Consultant and paid for by District only after a fee for said services has been agreed upon between Consultant and the District General Manager, only after the District General Manager provides written authorization for the additional work.

6. Meet and Confer. Consultant agrees to meet and confer with District or its agents or employees with regard to services as set forth herein as may be required by District to insure timely and adequate performance of this Agreement.

7. Indemnification. Consultant hereby agrees to the following indemnification clause:

To the fullest extent permitted by law (including, without limitation, California Civil Code Sections 2782 and 2782.6), Consultant shall defend (with legal counsel reasonably acceptable to the District), indemnify and hold harmless the District and its officers, designated agents, departments, officials, representatives and employees (collectively "Indemnitees") from and against claims, loss, cost, damage, injury expense and liability (including incidental and consequential damages, court costs, reasonable attorneys' fees, litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation) to the extent they arise out of, pertain to, or relate to, the negligence, recklessness, or willful misconduct of Consultant, any Subconsultant, anyone directly or indirectly employed by them, or anyone that they control (collectively "Liabilities"). Such obligations to defend, hold harmless and indemnify any Indemnitee shall not apply to the extent that such Liabilities are caused in part by the negligence, or willful misconduct of such Indemnitee.

Notwithstanding the provisions of the above paragraph, Consultant agrees to indemnify and hold harmless the District from and against any and all claims, demands, defense costs, liability, expense, or damages arising out of or in connection with damage to or loss of any property belonging to Consultant or Consultant's employees, contractors, representatives, patrons, guests or invitees.

Consultant further agrees to indemnify District for damage to or loss of District property to the proportionate extent they arise out of Consultant's negligent performance of the work associated with this agreement or to the proportionate extent they arise out of any negligent act or omission of Consultant or any of Consultant's employees, agents, contractors, representatives, patrons, guests or invitees; excepting such damage or loss arising out of the negligence of the District.

8. Insurance. Consultant shall submit and maintain in full force all insurance as described herein. Without altering or limiting Consultant's duty to indemnify, Consultant shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

Commercial general liability insurance including but not limited to premises, personal injuries, bodily injuries, products, and completed operations, with a combined single limit of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

Professional Liability Insurance: Consultant shall maintain in effect throughout the term of this Agreement professional liability insurance with limits of not less than \$1,000,000 per claim and \$2,000,000 in the aggregate. Consultant will either maintain or cause to be maintained professional liability coverage in full force or obtain extended reporting (tail) coverage (with the same liability limits) for at least three years following District's acceptance of the work.

Commercial automobile liability insurance covering all automobiles, including owned, leased, non-owned, and hired automobiles, used in providing services under this Agreement, with a combined single limit of not less than \$1,000,000 per occurrence.

EXHIBITAA-A

Workers' Compensation Insurance: If Consultant employs others in the performance of this Agreement, Consultant shall maintain workers' compensation insurance in accordance with California Labor Code section 3700 and with a minimum of \$100,000 per occurrence for employer's liability.

Other Insurance Requirements

- A. All insurance required under this Agreement must be written by an insurance company either:
- admitted to do business in California with a current A.M. Best rating of no less than A:VI;
  - or
  - an insurance company with a current A.M. Best rating of no less than A:VII.
- Exception may be made for the State Compensation Insurance Fund when not specifically rated.
- B. Each insurance policy required by this agreement shall be endorsed to state that Monterey Peninsula Water Management District shall be given notice in writing at least thirty days in advance of any cancellation thereof, except 10-day notice for nonpayment of the premium.
- C. The general liability and auto policies shall:
- Provide an endorsement naming the District, its officers, officials, and employees as additional insureds under an ISO CG 20 10 07 04 or ISO 20 37 07 04 or their equivalent.
  - Provide that such insurance is primary and non-contributing insurance to any insurance or self-insurance maintained by the District.
  - Contain a "Separation of Insureds" provision substantially equivalent to that used in the ISO form CG 00 01 10 01 or their equivalent.
  - Provide for a waiver of any subrogation rights against the District via an ISO CG 24 01 10 93 or its equivalent.
- D. Prior to the start of work under this Agreement, Consultant shall file certificates of insurance and endorsements evidencing the coverage required by this agreement with the District. Consultant shall file a new or amended certificate of insurance promptly after any change is made in any insurance policy which would alter the information on the certificate then on file.
- E. Neither the insurance requirements hereunder, nor acceptance or approval of Consultant's insurance, nor whether any claims are covered under any insurance, shall in any way modify or change Consultant's obligations under the indemnification clause in this Agreement, which shall continue in full force and effect. Notwithstanding the insurance requirements contained herein,

Consultant is financially liable for its indemnity obligations under this Agreement.

- F. Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insured shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees and volunteers; or Consultant shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

9. Ownership of Work. Upon completion of the work under this Agreement, ownership, and title to all materials and deliverables produced as part of this Agreement will automatically be vested in the District and no further agreement will be necessary to transfer ownership to District.

10. Licensing. Consultant represents as follows: that it is experienced in the professional services and a specialist in the work performed under this Agreement; is duly organized, existing and in good standing under applicable state law; and is properly licensed and/or certified to perform the work specified under this Agreement, including but not limited to possession of a current City of Monterey business license, and will only employ persons and sub-consultants with all required licenses and certifications.

11. Substitution of Consultant Personnel. The key personnel of Consultant or any sub-consultants listed in Consultant's proposal and assigned to perform the work under this Agreement may not be substituted with or replaced by other personnel or sub-consultants without the advance written consent of District.

12. Termination. District may terminate this Agreement upon ten days' written notice. The amount of damages, if any, as a result of such termination may be decided by negotiations between the parties or before a court of competent jurisdiction.

13. Agency. In performing the services specified under this Agreement, Consultant is hereby deemed to be an independent Consultant and not an agent or employee of District.

14. Entire Agreement. This Agreement constitutes the entire Agreement between the parties hereto and supersedes any and all prior agreements, whether oral or written, relating to the subject matter thereof. Any modification of this Agreement will be effective only if it is in writing signed by both parties hereto.

15. Validity. If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will continue in full force without being impaired or invalidated in any way.

16. Assignment of Interest. The duties under this Agreement shall not be assignable, delegable, or transferable without the prior written consent of District. Any such purported assignment, delegation, or transfer shall constitute a material breach of this Agreement upon which District may terminate this Agreement and be entitled to damages.

17. Conflict of Interest. Consultant hereby certifies that it does not now have, nor shall it acquire, any financial or business interest that would conflict with the performance of services under this Agreement.

18. Counterparts. This Agreement may be executed in multiple originals, each of which is deemed to be an original, and may be signed in counterparts.

19. Laws. Consultant agrees that in the performance of this Agreement it will reasonably comply with all applicable State, Federal and local laws and regulations. This Agreement shall be governed by and construed in accordance with the laws of the State of California and the City of Monterey.

20. Venue. Should either party to this agreement bring legal action against the other (formal judicial proceeding, mediation, or arbitration) the venue for the matter shall be Monterey County, California.

IN WITNESS WHEREOF, this Agreement is entered into by the parties hereto on the day and year first above written in Monterey, California.

DISTRICT

CONSULTANT

\_\_\_\_\_  
General Manager

\_\_\_\_\_  
Consultant Name

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# Hazen



## Proposal for Monterey Peninsula Water Supply Project Conveyance Facilities - Value Engineering Study

June 23, 2016

June 23, 2016

David Stoldt  
 General Manager  
 Monterey Peninsula Water Management District  
 5 Harris Court – Bldg G  
 Monterey, CA 93940

**Re: California American Water Company – Monterey Peninsula Water Supply Project (MPWSP)  
 Conveyance Facilities –Request for Proposal – Value Engineering Study**

Dear Mr. Stoldt:

Hazen and Sawyer (Hazen) is pleased to present this Proposal to assist the MPWMD with the value engineering services for the Monterey Peninsula Water Supply Project (MPWSP) Conveyance Facilities. We are excited at the prospect of being a part of the challenging MPWSP to solve the local water supply and provide an environmental mitigation solution in Monterey and the surrounding area. The project is a complex system of slant well intake system, seawater supply pipeline, desalination plant, brine line, Salinas Valley pipeline, ASR Pipelines and treated water conveyance pipelines, pump stations and the terminal reservoirs.

***Our knowledge and prior Cost Savings ideas and work will provide substantial value to the MPWSP!***

Hazen is a leader in providing innovative solutions for water projects to clients throughout the Country and in California. This expertise, combined with our direct technical experience associated with prior review of the MPWSP, positions us well to quickly and efficiently review the conveyance projects and will provide the best value to the MPWSP. Our general approach to assisting the MPWMD consists of the following key strategies:

- **Assemble a Diverse Team of Experts to Meet the MPWSP Conveyance Project Needs.** Hazen has assembled a diverse team of experts that can provide the type of innovative thinking that will be required to ensure the developed solutions will provide the best value to the MPWMD. Our team includes world renowned experts in Value Engineering, conveyance and seawater process and design. We have included on our team Don Stafford, who as a Certified Value Specialist has participated and facilitated over 400 Value Engineering or Peer Review workshops during his career with approximately 100 being water and or wastewater facilities. Our Project Manager, Kevin Alexander is a known membrane expert who has participated with Don on multiple VE Studies. He has direct recent experience helping MRWPCA with evaluation of cost saving ideas for the overall MPWSP.
- **Work as Part of an Integrated Team with MPWMD and CAW.** Hazen recognizes the importance of working as part of an integrated team with MPWMD, CWA and other MPWSP stakeholders. Given the number and complexity of the projects, the need for a collegial and collaborative approach will be an important element of success. Our culture promotes

collaboration and we have learned that philosophy is a key element of successful Value Engineering services. When providing Value Engineering services we are always conscientious of working with other consultants who have strong ownership in their design. Sometimes VE recommendations can be perceived as criticism of a design so particular care is exercised to ensure the VE recommendations are seen as opportunities.

- **Leveraging Familiarity and Knowledge of MPWSP Conveyance Projects, Our Team Covers the Full Range of Value Engineering Services.** Based on our understanding of the MPWSP Hazen has assembled a team familiar with Value Engineering services and with all aspects of conveyance design, operations, maintenance and safety. Our team members bring direct relevant experience with similar agencies in the Bay Area and throughout the country. Our Project Manager, VE Facilitator and other key team members all have recent, relevant experience both locally and around the world with similar facilities.
- **A Team with a History of Working Together.** Our team both individually and collectively has a strong working relationship that is founded on previous experience working together. This long history provides us with seamless integration and a more cohesive Value Engineering session.
- **Our Nationwide Experience Brings New Ideas, Innovation, and Cost-Savings.** Our team of experts will be able to leverage their experience on other projects nationally to bring new ideas and cost-savings measures to the MPWSP. Our Value Engineering team members on average save approximately 4 times the cost of the actual Value Engineering fees and for large projects we far exceed this value. On average our team brings forward over 200 relevant comments from each workshop. The value that we bring to the MPWSP is our ability to develop relevant cost-savings and identify potential challenges or issues on each project.
- **Depth and Breadth of Our Team Addresses All Areas of a Project.** We understand that this project is unique and there are limited firms with desalination conveyance experience which requires specialized expertise and technical disciplines. Therefore, our team has been assembled to include both the breadth of skills asked for in the RFP with support from our depth of technical resources to handle all aspects of the project.
- **Ensure the Commitment of Key/Lead Resources.** Our commitment to the MPWMD is we will ensure that our key staff are committed to working on this VE study.

**Established Working Relationships of Firm Staff**

Sub consultant	Role	Worked with the Hazen Staff
RSRI	VE Facilitation	✓
Jerry Cole	Local Knowledge and Design	✓
Dennis Van Kirk	Expert Cost Estimator	✓

The Hazen team offers proven value engineering expertise; exceptional technical strength; and the full range of engineering, operations and construction specialists that will make us an outstanding addition to the project. We appreciate this opportunity to submit our proposal and look forward to the opportunity to work with you.

Sincerely,

Kevin Alexander  
 Vice President and Project Manager

# **Table of Contents**

- 1 Understanding of the Scope of Work
- 2 Proposed Methodology and Delivery Schedule
- 3 Qualifications and Experience
- 4 Key Personnel
- 5 Fee Proposal (Separate Envelope)

Appendix 1: Resumes

# Section 1: Understanding of the Scope of Work



**Section No. 1**

# Understanding of the Scope of Work

*Our knowledge and understanding of the Monterey Peninsula Water Supply Project (MPWSP) will allow our team to develop defensible ideas with the purpose of adding real value to the project.*

## Defining the MPWSWP

The California American Water (CAW) is the water supply agency serving the Monterey Peninsula and is the agency developing the Monterey Peninsula Water Supply Project (MPWSP). The project is being developed in response to legal decisions affecting the available water for municipal uses in the Carmel River and the Seaside Groundwater Basin. The project is intended to reduce pressure on those stressed water supplies which have both been effected by local demand and the current drought. The MPWSP is a challenging and exciting water supply solution that provides significant environmental, social and resource benefit to the community.

The Monterey Peninsula Water Supply Project is defined by the following major elements:

- Slant Wells and pumps
- Raw Water Transmission Pipeline- The raw water transmission line will run from the CEMEX property to the Desalination Plant.
- Concentrate disposal transmission pipeline – The concentrate line will run from the desalination plant to the outfall at the MRWPCA regional water reclamation plant.
- Salinas Valley return pipeline – The pipeline will take product water to an infiltration pond for recharge into the Castroville Seawater Intrusion Project for protection and supply of the Salinas Valley Groundwater Basin.
- Desalination Plant (Not part of the VE Study)
- Product Water Conveyance Pipelines- The transmission mains will run from the desalination plant south through the County of Monterey and the cities of Marina, Seaside, Monterey and terminating in Pacific Grove.
- Terminal Reservoir and Pump Stations – The two (2) reservoirs located at the former Ft. Ord site will receive desalinated water for storage and equalization prior to being pumped to the communities.
- Monterey Transmission Pipeline – The pipeline will distribute water to Monterey.
- Aquifer Storage and Recovery (ASR) pipelines – Three (3) pipelines will transmit water to existing aquifer storage and recovery facilities for further aquifer recharge and recovery.

The following table is a further description of all of the components of the project with approximate pipe lengths and number of facilities. This list represents what the Value Engineering team will review from the bid documents and information provided for each component of the project.

VE Item Number	Description	Component Length (LF) or Number of Components	Diameter(inches)/ Capacity(gpm)	Contractors
1	Feedwater – Cemex	11,500'	42"	Garney Pacific, Inc.
2	Brine Discharge	3,800'	36"	Mountain Cascade, Inc.
2	Salinas Valley Return	5,700'	12"	Mountain Cascade, Inc.
3	Transfer Pipeline	49,500'	36"	Garney Pacific, Inc.

1008-192

VE Item Number	Description	Component Length (LF) or Number of Components	Diameter(inches)/ Capacity(gpm)	Contractors
4	Aquifer Storage & Recovery	5,100'	36"	Monterey Peninsula Engineering
4	ASR Extensions – 3 pipeline	4,300' (each)	16"	Monterey Peninsula Engineering
5	Monterey Pipeline	35,000'	36"	Garney Pacific, Inc.
6	Terminal Reservoirs - tanks and related civil work and electrical work	2 Tanks	3 Million Gallons (each)	Monterey Peninsula Engineering
6	Terminal Reservoir Inlet/ Outlet Piping	1700' (each)	16"	Monterey Peninsula Engineering
7a	Monterey Pump Station and related civil work, electrical and piping work	1 pump station	6300 gpm	Monterey Peninsula Engineering
7b	Valley Greens Pump Station and Related civil work, electrical and piping work	1 pump station	2500 gpm	Monterey Peninsula Engineering

The listed transmission, pump stations and reference projects have all been bid to the contractors in the local area.

## VE Project Objective

Our understanding is that this project for MPWMD as part of the governance committee for the MPWSP would like to identify potential changes to the project design or construction that could allow the project and components of the project to meet primary functions of supplying water to the region but at a lower capital and lifecycle costs or at a better overall value to the communities. As part of the project, the VE team is to work with MPMWD to evaluate and provide input on the constructability, durability of the design, adaptability of the project, operability, safety, and maintenance issues.

Our approach to conducting this value engineering study will be consistent with the standards of SAVE International®, EPA, the State of California, and ASTM for conducting value engineering. To maximize the effectiveness of the process for MPWMD and CAW, we have made some significant improvements to the details of the process. These improvements result in a better understanding of the fundamental issues for our VE Team and functions of the project, thus producing what we know will be higher quality VE recommendations that are more useful to the MPWMD, CAW and the designer. Our focus is on an efficient VE process itself, resulting in less time spent on decision-making in the

process, and more time spent in producing good recommendations for CAW and MPWMD’s use.

Our approach is founded on the development of a strict adherence to an “optimized workshop” format. This approach enhances VE team productivity and ensures that all of the work of the team will be completed on time. A unique aspect of our approach is the intense, focused management of the workshop time and activities. We stay on schedule to ensure we deliver results in a planned timely manner.

Furthermore, our study will target the best long-term value, not the greatest short-term savings, by using the most appropriate of several available approaches to Life Cycle Cost (LCC) analysis. Our approach examines the combined initial and O&M cost impacts when developing VE recommendations. Thus, our VE recommendations seek to obtain the best value for the dollar expended, and routinely include such issues as operability, maintainability, operations during construction, aesthetic issues, impacts on neighbors, security and safety, impacts to the environment, staffing, constructability, public and political acceptance.

*Our VE recommendations seek to obtain the best value for the dollar expended*

# Section 2: Proposed Methodology and Delivery Schedule





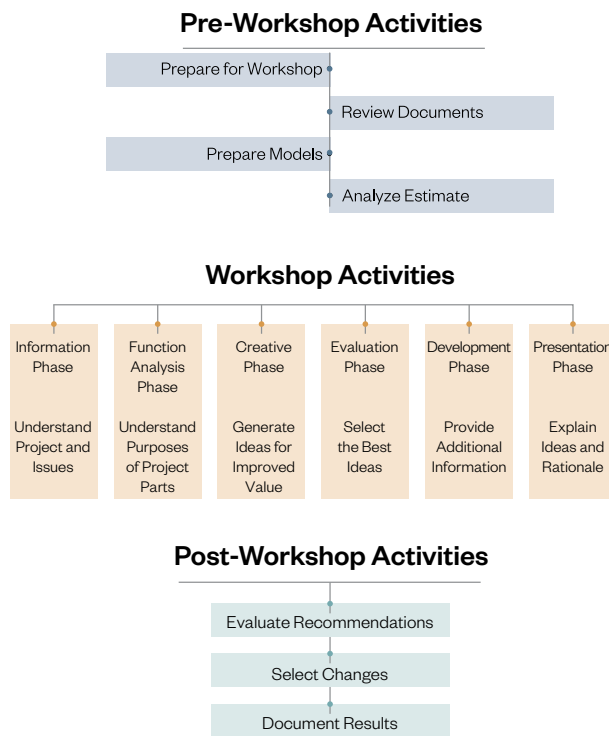
Section No. 2

# Proposed Methodology and Delivery Schedule

*Our proven process for delivering VE studies will find capital and O&M savings for the Monterey Peninsula Water Supply Project (MPWSP).*

## The VE Process

For our projects, we use a systematic approach called the Job Plan in conducting VE studies. The Job Plan functions as a road map through the VE process, ensuring that all of the needed steps in the process are performed in the optimal fashion for maximum MPWMD and CAW benefit.



The figure above illustrates our Job Plan. As can be seen from the diagram, the VE process takes place in three major groups of activities: pre-workshop, workshop, and post-workshop.

### 1. Pre-Workshop

During the pre-workshop period our VE team will conduct several activities designed to make the team’s use of the workshop time most efficient by creating formats, identifying design standards for the area and

identifying all prior documentation for use by the VE Team. In addition, for this project because it has been completely designed our estimator will review the over-all project budget and the bids to ensure the VE recommendations will be prepared on a common cost basis with the estimates and bids, so that any cost savings identified are truly representative of the VE changes, rather than representing differences in estimating.

We are proposing to prepare capital cost, O&M cost and Life Cycle cost models, as appropriate, for each part of the VE study.

### 2. Workshop

As noted previously, for the optimized workshop we use the SAVE International® standard 6-step process. This six-step process is an expansion of the historical 5-step process initially used by the US Army Corps of Engineer for the past several decades, modified to put greater emphasis on analysis of the project’s critical functions for success. Our approach to each of the six steps as identified in the RFP is described in the following sections including a description of our optimization to each step.

#### 2.1.1 Information Phase

In the Information Phase, our VE team learns first-hand, the goals and objectives of MPWSP and the project designer’s approach to accomplishing them. This phase continues the process of educating the VE team in understanding the project that began during the pre-workshop review of project documents.

We believe that a thorough VE team understanding of the project, the project issues and CAW and MPMWD and designer concerns is critical to the development of usable VE recommendations. Thus we place heavy emphasis on ensuring during this phase of the process

that 1) the VE team asks questions and 2) all questions are clearly and completely answered by CAW and MPMWD and the designer. Unless the VE team truly understands the project, the true potential of the VE process to identify usable VE recommendations is reduced.

We are therefore recommending that the VE team members take a tour of where the proposed pipelines and pump stations will be installed on the first day of the workshop.

### 2.1.2 Function Analysis Phase

During the Function Analysis Phase, the VE team uses one or more of several function analysis tools to analyze the project. The VE team will review the objectives of the overall project and will further analyze the functions of the key elements of the project. The team leader leads the team through intensive discussions of the possible functions of the project elements until they have a clear and precise understanding of the true purposes of the project components. Unlike some VE processes where only a single function analysis method is used, our team members are well versed in several function analysis methods, enabling them to select the analytical approach best suited to your project. This could include a mission statement analysis methodology, a mind-mapping exercise, Tabular Function Analysis or any of several Function Analysis System Technique (FAST) methods.

Our team leaders also ensure that two other goals are accomplished during the function analysis phase:

1. The VE team is molded from a group of individuals into a high-energy, cohesive team prior to the creative phase, to ensure optimal effectiveness of the creative idea generation, and
2. The ideas for project value improvement that are typically generated during a well-managed function analysis effort are identified and captured for inclusion in the subsequent creative phase.

The first of these is a particularly important issue, for, if the “team-work environment” has not been completely and successfully formed in the function analysis phase, the effectiveness of the creative phase will

suffer significantly due to reduced creativity on the part of one or more team members.

The best function analysis tools for each VE study of each project will be selected by the VE team leader and project manager during the pre-workshop preparation period, based on the information available at the time.

### 2.1.3 Creative Phase

During the creative phase the team participates in the most exciting and vibrant part of the workshop – generating new ideas. Again, we have a number of techniques for stimulating the generation of ideas for project improvement, and the most appropriate is selected for the project. The most commonly used is the very consistently effective “brainstorming” technique. The brainstorming technique is very effective and efficient in generating ideas from a group of the typical VE team size and is quite effective in reducing negative thinking, which is very inhibitory to goals of this step in the VE process. Using augmentation techniques to improve the effectiveness of the brainstorming activity, our teams usually generate from 150 to over 300 ideas.

During this part of the VE process, the team goes well beyond traditional design solutions, to identify unusual and innovative approaches, without regard to their ultimate acceptability. This ensures that all possible answers, no matter how ridiculous they may initially appear, have been identified. This is important, because sometimes an apparently impractical idea, when modified, becomes the seed of a wonderfully practical idea that would otherwise have been overlooked.

### 2.1.4 Evaluation Phase

Once all of the ideas have been identified and tabulated, the team must select the best of them for development into full-fledged VE recommendations. As with the other steps in the process, we utilize a number of evaluation tools to accomplish this step in the process. We select the one with the best applicability for the type of project, based on a number of factors, including the level of documentation of the selection process needed, the time available for the evaluation, the number of ideas which must be considered, and the production capability of your VE team. Again, one of our strengths

is we utilize a number of ways of conducting this phase of the VE process, with increased effectiveness in the overall process.

An analysis of the functions of the various phases of the VE process led our team to conclude several years ago that a more efficient method was needed to accomplish this workshop phase than was then available. Accordingly, we have developed a very time-efficient method of idea evaluation to minimize the time spent in this phase and make more time available for development of additional VE recommendations. This method is a combination of a voting methodology and exception-based consensus discussion. The voting process is used to make the initial screening of ideas, and can be done efficiently, even with a very large number of ideas.

Following the voting, the team discusses the idea-selection decisions made in the voting process to determine, by exception, whether changes should be made to the initial decisions about which ideas to recommend to the owner. This second step ensures that the knowledge that may be unique to each individual team member is considered fully in the idea evaluation process.

Use of this new evaluation process can cut the time required by other evaluation methods in half, making the additional time available for developing more VE recommendations.

### 2.1.5 Mid-Point Review

In important additional step in our approach after the evaluation phase is complete, we invite CAW and MPMWD and designer to review the initial list of recommendations with our VE Team Leader. They are asked to identify any ideas that are “fatally flawed”. This reduces the chance that the VE team will spend valuable time working on recommendations that, because of unique CAW, MPMWD or designer knowledge, have no potential for success. The result is that the recommendations that are developed by the VE team have a much higher likelihood of acceptance. At this time, CAW and MPMWD and designer are also given the opportunity to identify other ideas for further VE team consideration, which had not been selected by the VE team as recommendations. This check also provides CAW and MPMWD and designer with a preliminary look at the ideas that will be presented at the end of the

workshop to help determine which staff members should attend the VE presentation. This activity is conducted by the VE team leader, CAW and MPMWD and designer representatives in parallel with the beginning of the recommendation development effort by the VE team members, so no productive time is lost by the team.

### 2.1.6 Development Phase

As with the other phases of the VE process, there are several approaches to conducting the development phase. Selection of the technique is based on the specific project needs. The general approach followed in all cases, however, is the development of justification, design calculations, illustrations, and cost information for the selected ideas. This information enables CAW and MPMWD and designer staffs to decide whether the VE recommendation has sufficient promise for their project to warrant inclusion into the design.

We always conducts this process in a combined team environment, rather than allowing individual team members to return to their offices for this work. This continuation of the “teamwork” approach ensures that all aspects of a concept will be developed and included in the VE recommendation through the interaction of all of the disciplines represented on the team.

Our approach to presenting the VE recommendations involves the development of each idea as a separate recommendation, to provide a “shopping list” of potential cost savings and project improvements from which the owner and designer can select their optimal combination.

### 2.1.7 Presentation Phase

In the last VE workshop phase, our VE team will present the workshop results to CAW and MPMWD and to the designer. The team members will present the recommendations they developed during the workshop, and will provide CAW and MPMWD and the designer the opportunity to ask questions to ensure your understanding of the concepts that generated the recommendations. This permits a first-hand discussion with the idea developer to improve understanding of each recommendation. This last step in the workshop process is not a debate of the acceptability of the VE ideas, but rather a continuing exchange of perspectives.

The VE team cost estimator also presents the results of the examination of the project budget and details of the estimate at this time. The cost estimator’s review provides a second opinion on the adequacy of the estimated project cost to either validate the project budget, or identify suggested changes.

Because VE recommendations can sometimes be perceived as criticisms of the design, particular care is exercised ensure that the VE recommendations are presented as opportunities for improving the design performance, for the mutual benefit of CAW and MPMWD and the designer, rather than as criticism of the design. The talents of our team leaders are very important in this workshop phase, because they ensure a productive environment for the initial consideration of the VE recommendations and minimize defensiveness on the part of the designer.

### 3. Post-Workshop

We are mindful that staying on schedule is important, therefore, to speed the review process, we will provide CAW and MPMWD with a preliminary report that includes all of the work produced in the workshop within three working days of workshop completion. CAW and MPMWD and designer can quickly begin their review of the VE recommendations, thus shortening the time for decision-making regarding acceptance.

Additional post workshop activities consist of coordinating and facilitating CAW and MPMWD’s deci-

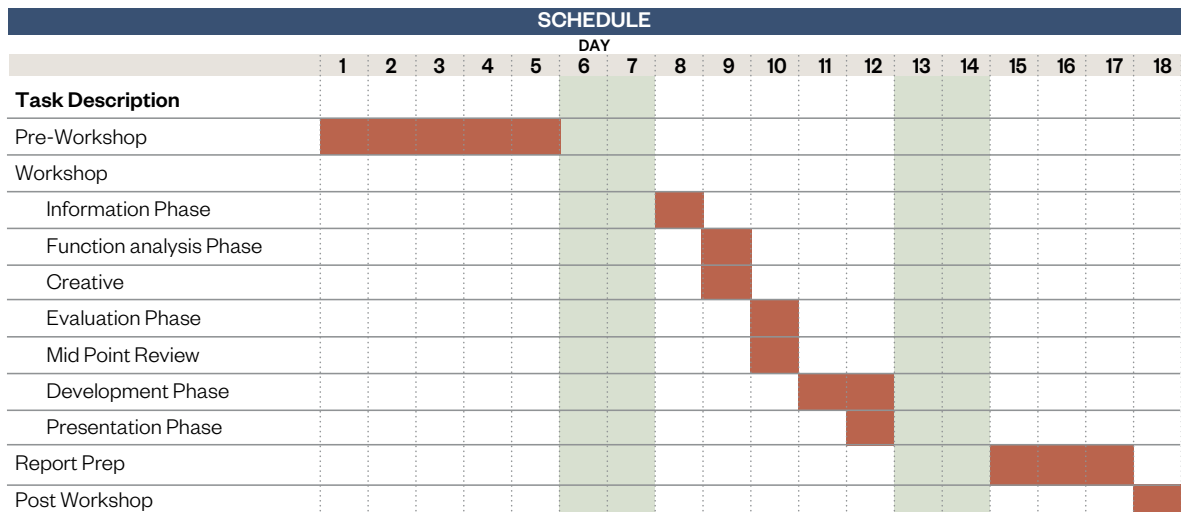
sion-making process, and documenting the complete Value Engineering process. This interactive feature of our post-workshop process ensures that good VE recommendations are not lost through lack of understanding, personal preferences, insufficient involvement of all appropriate staff in the decision-making.

Our experience indicates that with a written designer response and a decision-making meeting that includes VE team representation, substantial additional savings will be realized from the VE study. Without both of these steps, designer reluctance to make changes, lack of a thorough understanding of the full consequences of the VE recommendations, and the lack of an open forum for CAW and MPMWD to hear all sides of the issues raised by the VE recommendations can result in lost opportunities. Therefore, our proposed approach includes a plan for a written response to be provided by the designer, and discussions of the decisions on the VE recommendations in a decision-making meeting that includes representatives from the CAW, MPWMD, the designer and the VE team.

Our decision-making steps ensure maximum information to CAW and MPMWD to enable the best possible decision. The reports provide documentation of the VE study and recommendation acceptance for later review to confirm the inclusion of the desired changes in the design, and to document the work effort.

## Proposed VE Team Schedule

Our proposed schedule is shown in the following simple format. The schedule will encompass approximately 3 weeks of effort to complete all of the tasks and workshop efforts.



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# Section 3: Qualifications and Experience



**Section No. 3**

**Qualifications and Experience**

*Hazen is a nationally-recognized environmental engineering and consulting firm, specializing in the engineering and management of wastewater collection, treatment, and disposal; recycled water treatment and distribution; and water supply, distribution, and treatment.*

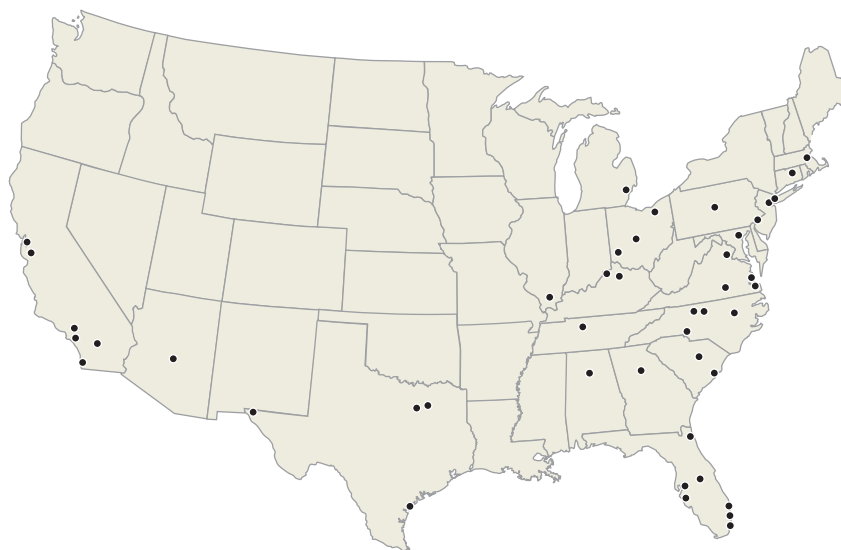
Since our founding in 1951, the firm has developed a reputation for the technical, quality, and timeliness of our work. Currently, we have over 900 professionals and support staff in 46 offices with 6 offices in California.

Hazen has a strong focus in planning, design, startup, and operation and maintenance of water treatment and distribution/conveyance systems. We have a west coast team that has extensive desalination experience working on treatment and distribution of desalinated water. We inherently consider water quality, safety and O&M concerns from the outset of a project. We are able to do this because our key team members bring a working background in operations, having worked at water treatment plants including desalination treatment plants similar to MPWSP. We are always focused on solutions that provide efficient operations and low maintenance.

Our key subconsultant, RSRI, was selected based on their expertise, working relationship with Hazen team members, and familiarity with the area and with large water treatment and conveyance systems.

RSRI's experience in Value Engineering reaches back to 1981, providing clients with 35 years of experience in optimizing projects and conducting Value Engineering studies to improve the cost effectiveness of capital projects.

The MPWMD Value Engineering Services contract requires a wide range of skills to address different aspects of the project that may be included under the scope of these services. Hazen has selected a talented team for this contract with specialists in the areas of desalinated water treatment, pipeline and pump stations, reservoirs, value engineering facilitation, cost estimating, and construction.



- Alabama**  
Birmingham
- Arizona**  
Tempe
- California**  
Irvine  
Palm Desert  
San Diego  
San Francisco  
San Jose  
Los Angeles
- Connecticut**  
Rocky Hill
- Florida**  
Boca Raton  
Coral Gables  
Hollywood  
Jacksonville  
Orlando  
Sarasota  
Tampa
- Georgia**  
Atlanta
- Illinois**  
Marion
- Kentucky**  
Lexington  
Louisville
- Maryland**  
Baltimore
- Massachusetts**  
Boston
- Michigan**  
Detroit
- New Jersey**  
Iselin
- New York**  
New York
- North Carolina**  
Charlotte  
Greensboro  
Raleigh  
Winston-Salem
- Ohio**  
Cincinnati  
Columbus  
Northeast
- Pennsylvania**  
Philadelphia  
State College
- South Carolina**  
Charleston  
Columbia
- Tennessee**  
Nashville
- Texas**  
Corpus Christi  
Dallas  
El Paso  
Fort Worth  
Houston
- Virginia**  
Fairfax  
Newport News  
Richmond  
Virginia Beach

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## Value Engineering Projects

### Ridgewood View Park Reservoir & Pump Station – Beaverton, OR

**Reference** Mike Britch, Tualatin Valley Water District, 503-701-1343, mike.britch@tvwd.org

VE study of a project to construct a new 7 MG, cast in place, concrete, finished water reservoir at the location currently occupied by the 5 million gallon Hyde Park Reservoir, which is in poor condition and is currently not in use. Additionally, the project will construct a new 11 mgd integrated pump station, interconnecting piping and fluoridation facilities. Estimated construction cost is approximately \$27 million. Owner-accepted VE alternatives totaled \$3.64 million in net life cycle cost savings.

### IPL Pipeline – Tarrant Regional Water District – Ft. Worth, TX

**Reference** Ed Weaver, Tarrant Regional Water District, 817-720-4255, ed.weaver@trwd.com

Eight separate VE Team studies on elements of a \$2.2 billion, 105 mile long, new raw water pipeline system serving the Dallas-Ft. Worth area were conducted. Project elements included more than 100 miles of 84-108-inch raw water pipeline; three new raw water pump stations, ranging in capacity from 150-277 mgd; and three booster pump stations ranging in capacity from 200-350 mgd; along with associated balancing reservoirs, short and long tunnels, corrosion control facilities and chemical feed facilities. Owner-accepted savings from the VE studies were in excess of \$50 million.

### DC Water Blue Plains Advanced Wastewater Treatment Plant, Facility Improvements

**Reference** Rouben Derminassian, DC Water, 202-787-2372

DC Water operates the Blue Plains Advanced Wastewater Treatment Plant (AWTP) which is the largest advanced wastewater treatment plant in the world with a capacity of 384 mgd and a peak capacity of 1,076 mgd. It has a design peak hour treatment capacity of 555 mgd. The facility employs high level treatment to meet or surpass regulatory requirements for wastewater treatment. The liquid process includes primary clarification, 2-stage biological treatment (aeration basins and clarifiers), enhanced nitrogen removal denitrification reactors, post aeration, filtration and chlorine disinfection. The solids process includes gravity thickening of primary sludge, dissolved air flotation thickening of WAS, thermal hydrolysis pre-treatment, mesophilic anaerobic digestion, belt filter press dewatering, gas turbine combined heat and power and anammox filtrate treatment.

A number of these facilities and processes have been upgraded or implemented in the recent years to support the migration to enhanced nitrogen removal (ENR) and achieving a final effluent total nitrogen concentration of 3.0 mg/L. As these facilities have been in the design process, Hazen was retained by DC Water to perform Value Engineering services on several of the upgrades to ensure that the projects are delivered to result in the highest value for DC Water. A description of some of these Value Engineering studies follows.

#### Enhanced Nutrient Removal (South) Improvements

The heart of this project was the construction of a large denitrification reactor with a total volume of approximately 37 million gallons. Secondary effluent conveyance from the nitrification reactors, post aeration basins and conversion of existing nitrification sedimentation basins to denitrification sedimentation basins were the other key elements of the project. The cost estimate for the project prior to the Value Engineering study was approximately \$295 million. Over the 5-day VE workshop, the Value Engineering team fully developed 14 VE alternatives and 7 design suggestions for consideration by DC Water and the design team.

**Enhanced Nutrient Removal (North) Improvements**

This project was to perform improvements and modifications on the first stage biological process to support extended service life and improve the aeration system to support continued operation of these facilities as the AWTP migrates to an Enhanced Nutrient Removal facility. Significant work was required on very large centrifugal blowers to rehabilitate them for continued service and a large portion of the estimated \$51 million construction cost (prior to the Value Engineering study) was related to aeration system improvements. Over the 4-day VE workshop the Value Engineering team fully developed 10 VE alternative and 13 design suggestions for consideration by DC Water and the design team.

**Gravity Thickener Upgrades (Phase II)**

This project was to perform improvements and modifications to the existing gravity thickeners to support the biosolids processing improvements that were planned (and have now been implemented) to convert the facility to thermal hydrolysis pretreatment and mesophilic anaerobic digestion. Significant considerations for mechanical and structural rehabilitation as well as odor control via cover system selection were included in the project. The cost estimate for the project prior to the Value Engineering study was approximately \$16 million. Over the 4-day VE workshop, the Value Engineering team fully developed 17 VE alternatives and 19 design suggestions for consideration by DC Water and the design team.

**Filtrate Treatment Facility**

The conversion to thermal hydrolysis and anaerobic digestion biosolids treatment results in a dewatering sidestream rich in nitrogen and phosphorus that has the potential to significantly impact the ability of the AWTP to meet the target effluent total nitrogen concentration of 3.0 mg/L. The proposed process was a system that could function in either a nitrification-denitrification configuration or an anammox (DEMON) configuration. Pretreatment of the filtrate prior to the anammox process through a combination of physical/chemical treatment and dilution is planned to help mitigate potential toxicity of the sidestream to the biological process of the filtrate treatment facility. The cost estimate for the project prior to the Value Engineering study was approximately \$63



# Section 4: Key Personnel

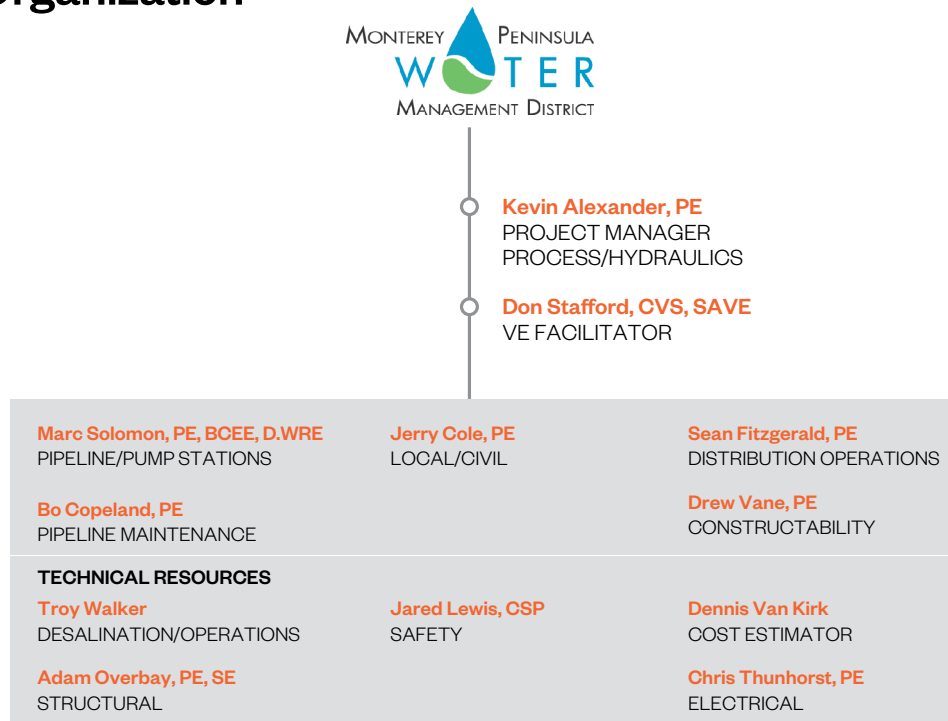


Section No. 4

# Key Personnel

*Our team is built to address all aspects of the MPWSP Transmission Projects allowing us to find the most savings and value. Our VE team is made up of the core disciplines and are supported by Technical Resources that address other valuable aspects of the Project.*

## Team Organization



## Team Biographies

### Kevin Alexander, PE

#### Project Manager

Mr. Alexander is Vice President and Senior Project Manager for Hazen with an extensive background in desalination projects and system operations. He has spent the entirety of his career working on large desalination projects for brackish groundwater, brackish wastewater and seawater. His understanding of these types of projects including the many project specific consideration necessary to address this specific type of water treatment and treatment operations will be valuable to the MPWSP. He has participated in all aspects of these types of projects from planning, design, construction and operations. His most recent work was directly related to evaluating potential savings associated with the MPWSP. His familiarity with the project will provide valuable time savings in guiding and managing the VE team. He is a team leader with a team building style that garners trust from team members and clients.

**Don Stafford, CVS, SAVE****VE Facilitator**

Mr. Stafford is a founding partner in Robinson, Stafford & Rude, Inc. (RSRI), currently serving the firm as President and as a Senior Project Manager. His career includes nearly 50 years of experience in the planning, management, design, value engineering (VE) and construction of public and private capital projects across North America. For 30+ years, he has been managing and leading value engineering studies. His experience includes more than 400 VE studies on a very wide variety of project types, including water and wastewater conveyance, including large pipeline projects; storage and treatment facilities; drainage facilities; and transportation facilities. He has conducted VE studies on projects and programs with capital costs ranging from a few hundred thousand dollars to \$2 billion.

**Jerry Cole, PE, BCEE****Civil/Local Knowledge**

Mr. Cole has over 35 years of civil engineering experience on projects from conceptual planning, design, construction management, and project and program management. He has provided services on water supply and treatment; wastewater collection, treatment, disposal and reuse management for municipal, foreign, commercial, and industrial clients. He has in-depth experience in development and implementation of water projects in an around Monterey and will provide valuable insight into the challenges of implementing projects and potential value engineering ideas. He has worked for various agencies in the area and understands how projects move forward.

**Dennis Van Kirk, CET****Cost Estimating**

Mr. Van Kirk is a has over 50 years of professional experience in project cost management services including cost estimating, change order analysis, value engineering, and constructability reviews. He has extensive experience in estimating through all aspects of projects from conceptual planning and design through construction and closeout. He has one of the broadest backgrounds in project estimating including pump stations, pipelines, tunnels, treatment plants, power plants, bridges, railroads, transportation systems,

aviation complexes, marine structures and outfalls, manufacturing plants, power generation and transmission facilities, solid waste disposal facilities, laboratories, office buildings, schools, medical facilities, landfills, and underground utilities. He will brings a wealth of knowledge on cost estimating and understands how to evaluate and integrate local conditions into his estimates.

**Sean Fitzgerald, PE****Distribution Operations**

Mr. FitzGerald has over 24 years of conveyance experience. He has worked on large wastewater collection systems as well as large distribution systems. He serves as Hazen's Conveyance Practice Leader. His has extensive experience in all stages of collection system planning, operation and detailed design. He has led numerous master planning projects including evaluations for wet weather capacity involving complex hydraulic modeling. Sean has also helped clients develop cost-effective CMOM programs including condition assessment and cleaning as well as overall Asset Management.

**Drew Vane, PE****Conveyance/Constructability**

Mr. Vane serves as a project manager and technical designer for sanitary sewers, force mains and water mains and the associated construction administration. His experience also includes resident inspection and construction administration for wastewater treatment plant projects; design and studies for pump stations and collection systems; hydraulic computer modeling; and regulatory permit applications. Mr. Vane also serves as the primary technical resource for Horizontal Directional Drilled Pipe (HDD) pipe projects corporate-wide.

**Bo Copeland, PE****Pipeline Maintenance**

Mr. Copeland is an expert in water and wastewater conveyance systems, including engineering services from planning through construction, operations engineering, condition assessment, and other issues related to operation and maintenance of these systems.

**Jared Lewis, CSP****Safety**

Mr. Lewis is Hazen's corporate safety and risk management leader. He is a safety specialist with professional experience in developing, implementing and monitoring risk-based programs and projects to identify, assess and mitigate any operational risk while maintaining a balance between risk mitigation and operational efficiency. His strength is in assessing project safety and operational safety for projects during design to ensure Owners and Operators understand the daily risks that will be present while conducting routine job.

**Adam Overbay, PE, SE****Structural**

Mr. Overbay is the lead structural engineer for Hazen's West Region. Mr. Overbay specializes in structural design of water and wastewater treatment and pumping facilities. His experience includes reinforced and prestressed concrete, structural steel, and reinforced masonry structures. He is experienced in computer modeling and analysis of structural systems and condition assessments of reinforced concrete, steel, and wood structures. Mr. Overbay is involved in design and construction of alternative delivery projects and understands how quickly ideas need to be turned into design.

**Chris Thunhorst, PE****Electrical**

Mr. Thunhorst is a registered Electrical and Instrumentation Engineer with over 17 years of experience providing power supply solutions and control system solutions to water and wastewater facilities including treatment plants and associated water distribution and wastewater collection systems. He has participated in value engineering studies as part of teams for various alternative delivery projects. His ability to quickly identify electrical and control system solutions and define the project needs will be valuable to the VE team.

**Troy Walker****Desalination/Operations**

Mr. Walker is the corporate Membrane Technology Lead and is one of Hazen's most experienced operations experts. He has over 20 years' experience in the planning, design, construction and operations management of advanced water reuse and seawater desalination facilities. His experience with membrane plants began in 1994, where he was involved in the commissioning of the first ever application of microfiltration and reverse osmosis together for reuse of municipal effluent at the Eraring Power Station in Australia. Since that time he has designed, constructed, commissioned and operated multiple advanced reuse and desalination facilities. He was previously the lead technical manager for Veolia in Australia where he managed the operations of the Sydney Desalination Plant, the Gold Coast Desalination Plant and the operations of the Western Corridor Project which included three advanced water treatment plants for indirect potable reuse. His value to the team will be in evaluating ideas from a desalination plant operations perspective.

**Marc Solomon, PE, BCEE, D.WRE****Pipeline/Pump Stations**

Mr. Solomon has more than 30 years of experience as an accomplished designer and project manager on a wide range of water, water reuse and wastewater projects. His career has been focused on water projects with extensive experience on large pump station and pipelines in California and around the world. He has delivered on challenging projects like the Geysers Recharge project for the City of Santa Rosa which included large diameter pipe with a wide range of high pressure pump stations. He is also credited with designing one of the largest pump stations in the world in Singapore. His roll-up-the-sleeves style and good interpersonal skills allows Marc to develop trust within teams and with clients.

# Appendix 1: Resumes





## Kevin Alexander, PE

### Vice President

*Mr. Alexander is a Vice President and Senior Project Manager with over 20 years of extensive experience in the planning, design, construction and operation of large water, wastewater and reclaimed water treatment programs.*

#### Education

B.S. Civil Engineering, Missouri University of Science and Technology (Previously University of Missouri at Rolla)

#### Certification/License

Professional Engineer: CA, AZ, ID, OK, TX, WA

#### Areas of Expertise

- Project Management
- Project Delivery
- Microfiltration
- Reverse Osmosis
- Drinking Water
- Wastewater
- Water Reclamation
- Concentrate Treatment

#### Professional Activities

AWWA, AZWA, AMTA

CA-NV AWWA

CA Water Reuse Association

WaterReuse Association

WEF

#### Technical Publications

Author of more than 30 technical presentations and publications.

He is a known expert in designing cutting edge membrant treatment technologies from membrane filtration and reverse osmosis for brackish and seawater desalination. He has participated in over 15 value engineering studies and has developed cost models for membrane treatment plant capital and O&M costs to allow for rapid project life cycle cost evaluations. He has participated in the startup and operations support of large programs. He has experience with many different project delivery methods including: design-bid-build, CM at risk, alliance contracting, design-build and design-build-operate.

#### **City of Signal Hill – Design Build Project for a NF Treatment Plant for Well No. 9, Signal Hill, California**

As part of the Filanc DB Team, Mr. Alexander is the Design Project Manager responsible for the process, civil, electrical, structural and mechanical design of the NF plant from the well pump through the treatment process and into the distribution system. Project pursuit required completion of value engineering, constructability and pricing of a 60 percent design to allow for development of a GMP for a 2.0 MGD NF treatment plant for color removal. Project cost proposal is under review.

#### **Monterey Regional Water Pollution Control Agency – MPWSP and GWR Cost Evaluation Study, Monterey, California**

As Project Manager, Mr. Alexander was the lead evaluator performing a cost study of the Desalination and Groundwater Replenishment System projects. The project included development of savings options and a review of capital costs, bids and unit pricing.

#### **City of Santa Barbara – Design-Build-Operate (DBO) Services For Reactivation and Operation of the Charles Meyer Desalination Plant, Santa Barbara, California**

As part of the Acciona/Filanc DBO Team, Mr. Alexander was the Design Project Manager responsible for the civil, electrical, structural and mechanical design of the desalination plant from the open ocean intake through the treatment process. Project required a 60 percent design to

allow for development of is a 2.9 MGD seawater desalination plant that is expandable to an ultimate capacity of 8.9 MGD. Project was not awarded to the Team.

**Coachella Valley Water District – Water Supply Treatment for Hexavalent Chromium, Coachella Valley Water District, Palm Desert, CA**

As Principle In Charge and Technical Advisor to the project. Mr. Alexander is providing assistance with reviewing project deliverables for the design of 31 wellhead treatment projects, 10 plus miles of pipeline and Ion Exchange treatment processes and a central ion exchange regeneration facility.

**West Basin Municipal Water District – Seawater Desalination Demonstration Facility Decommissioning, Redondo Beach, California**

As Project Manager, Mr. Alexander is leading the project for decommissioning of the 110 GPM seawater desalination system. A major effort includes finding a buyer or research organization for purchasing the used equipment to maximize value to the Client.

**Sand City, Seawater Desalination Facility Planning and Design Build Document Development, Sand City, California, Project Engineer**

Assisted with the development of a 300 GPM Seawater RO system treating wedge water between brackish groundwater and seawater for potable use. Assisted with permitting of the facility as a groundwater under the direct influence of surface water and with development of the design build documents.

**Veolia Water Services- Australia, Adalaide Desalination Project-Add Water Alliance, 36 MGD, Project Tendering Design, Adalaide, Australia, Project Manager**

Managed a team and provided quality control of design and construction documents, performed RO membrane projection and developed energy calculations for 20 years of operation scenario for the entire desalination plant under various turndown capacities and seawater conditions..

**Veolia Water Services-Australia, Wonthaggi Seawater Desalination Project- Bass Water Alliance, 108 MGD, Melbourne, Australia, Project Manager**

Managed the team to assist with the development and operation of a seawater pilot system. Assisted with preparation and review of computer based RO membrane projections to develop a comprehensive energy consumption model for the guarantees for a 30 years plant operation to ensure the design met the energy, carbon footprint and cost objectives.

**City Of Scottsdale, Pump Station 68 Retrofit, Scottsdale, Arizona, Project Manager**

Assisted with development of detailed mechanical plans and specifications for a 525 gpm pump station retrofit project. The project converted horizontal pumps to vertical drypit pumps to allow the pump station to meet current electrical codes. Project was delivered as a design build project.

**City Of Scottsdale, Hualapai Drive 24 inch Pipeline, Scottsdale, Arizona, Project Engineer for Black & Veatch**

Developed design plans and specifications for a 0.5 mile pipeline in Hualapai Drive. The pipeline was design and installed to carry reclaimed water in the RWDS system. Responsibilities included design and engineering support during construction.



*BS, Civil Engineering  
Georgia Tech*

*Registrations/Certifications*

*Professional Engineer –  
FL, GA, NJ, OR, TX, WA,  
VA*

*Certified Value Specialist -  
Life Certified*

*CTM, Toastmasters  
International*

*SAVE, International, -  
Fellow, former VP  
Education, Director,  
Certification Board  
Member*

*American Society of Civil  
Engineers - Member*

*Water Environment  
Federation – Member*

**Years Experience – 48**

Don Stafford is a founding partner in Robinson, Stafford & Rude, Inc. (RSRI), currently serving the firm as President and as a Senior Project Manager.

Don's career includes nearly 50 years of experience in the planning, management, design, value engineering (VE) and construction of public and private capital projects across North America.

For 30+ years, he has been managing and leading value engineering studies. His experience includes more than 400 VE studies on a very wide variety of project types. Complementing his VE experience is 16 years of additional experience in planning, management, design and construction of civil works projects.

His education includes a degree in civil engineering from Georgia Tech and advanced training in value engineering. He is a registered civil engineer in seven states and a Life-Certified, Certified Value Specialist (the highest level of certification in VE).

Don's employment experience has included working for public agencies (owners), designers, value engineers and contractors, providing him with an unusually broad range of perspectives on capital project issues. His design and project management experience includes many water, wastewater and drainage facilities.

Don's VE study experience includes roads and bridges; water and wastewater conveyance, including large pipeline projects; storage and treatment facilities; and drainage facilities. He has conducted VE studies on projects and programs with capital costs ranging from a few hundred thousand dollars to \$2 billion.

He is particularly adept at conducting VE studies on water and wastewater facilities, with extensive experience in this arena as an owner, designer and VE specialist.

The true measure of Don's capability as a value professional, however, is his record of savings for his clients on past VE studies. Studies he has led have averaged owner-accepted savings in excess of four times the VE industry average. Examples of his experience follow:

***Red River Valley Water Supply Project - Garrison Diversion Conservancy District - Bismarck, ND*** VE study of the large pipeline project that is being constructed to transfer water from the Missouri River Basin to the Sheyenne and Red River basins to provide supplemental water during drought conditions in the Sheyenne and Red River basins. The entire project will include an intake structure on the McClusky Canal, a 122 CFS water treatment plant, a 122 CFS pump station, a 122-mile, 66-inch diameter pipeline, a flow control structure and an outlet structure into the Sheyenne River. **Owner-accepted savings totaled over \$30 million on this \$438 million project.**

***Integrated Pipeline (IPL) Project VE Study #1 - Tarrant Regional Water District (TRWD) - Fort Worth, TX*** VE study of the joint TRWD-Dallas IPL project, at the end of the planning stage (0% Design). The \$1.3 billion project consists of a 350 MGD raw water transmission pipeline system from Lake Palestine to Lake Benbrook with connections to Cedar Creek Reservoir, Richland Chambers Reservoir, and a Dallas delivery point, collectively constituting approximately 180 miles of pipeline and six pump stations. This is the first of three workshops to be conducted for the IPL Project. **After the first workshop, VE team recommendations resulted in Owner-accepted savings totaling over \$278 million.**

***IPL pipeline – 60% Design, Tarrant Regional Water District – Ft Worth, TX*** – Co-led a VE study of a large raw water pipeline serving the Dallas and Ft Worth, TX area, consisting of 23 miles of 84-inch, 13 miles of 96-inch and 69 miles of 108-inch pipe, 30 short tunnels and a five-mile, 14-foot diameter deep tunnel, along with valves, surge control and cathodic protection facilities. **Owner-accepted capital cost savings totaled approximately \$46 million.**

***TRWD IPL Booster Pump Stations - Tarrant Regional Water District, Ft. Worth, TX*** VE study of three separate booster pump stations at 30% design completion. The booster stations will increase system pressure in the new IPL raw water system being constructed by TRWD. Each booster station also includes a large earthen balancing reservoir to address surge and changes in flow rates. The stations have capacities of 350 mgd, 350 mgd and 200 mgd respectively, with build-out capacity to over 1,000 mgd for the first two station and 400 mgd for the third. **Owner-accepted life cycle cost savings totaled in excess of \$35 million.**

***San Diego River Outfall Tunnel – City of San Diego -San Diego, CA*** VE study of a planned twelve-foot diameter deep rock tunnel to connect the new treated effluent conveyance system for the City's new North City Water Reclamation Plant to the existing Point Loma effluent discharge system.

***Point Loma Parallel Outfall – City of San Diego - San Diego, CA*** VE study of the planned one mile long twelve-foot diameter parallel outfall tunnel for the Point Loma Wastewater Treatment Plant, to be built under the sea bed in the Pacific Ocean.



**Washington Park Reservoir Improvements Project – Portland Water Bureau – Portland, OR** – VE study of a project to replace two, 120-year old open, concrete lined reservoirs, located in a major City park, with a new, cast in place, covered concrete 14 million gallon underground reservoir. The project includes updating of piping, valves and metering facilities, as well as construction of extensive public amenities, including reflecting ponds, a cascade, walkways and landscaping. The reservoir site is located at the base of a historical landslide that is still slowly moving. Also included are repairs to 120-year old historical features of the original reservoir facilities. The estimated construction cost is approximately \$101 million. The project will be delivered using a Construction Manager/General Contractor (CMGC) approach.

**JCCI Intake Pump Station – 60% Design – Tarrant Regional Water District – Ft Worth, TX** – Co-led a VE study of a 277 mgd raw water pump station, withdrawing water from the Cedar Creek Reservoir and pumping the flows into the new IPL pipeline. The station will have seven identical pumps, withdrawing water through six slotted fish screens. Pumps will be driven by VFD-controlled, water-cooled 4160 volt motors. A chemical addition facility will also be constructed to introduce chloramines for control of invasive species in the pipeline, and to introduce sodium hydroxide for pH control. The estimated construction cost is approximately \$78 million. **Owner-accepted net life cycle cost savings totaled approximately \$700,000.**

**JB3 Pump Station – 60% Design – Tarrant Regional Water District – Ft Worth, TX** – Co-led a VE study of a raw water booster pump station with an initial capacity of 350 mgd, and a total build-out capacity of 1,050 mgd. The JB3 site includes two 40 MG earthen embankment, balancing reservoir cells. The total build-out reservoir capacity is planned for 160 MGD. The estimated construction cost is approximately \$121 million. **Owner-accepted life cycle cost savings totaled approximately \$6.3 million**

**Ridgewood View Park Reservoir and Pump Station – Tualatin Valley Water District – Beaverton, OR** – VE study of a project to construct a new 7 MG, cast in place, concrete, finished water reservoir at the location currently occupied by the 5 million gallon Hyde Park Reservoir, which is in poor condition and is currently not in use. Additionally, the project will construct a new 11 mgd integrated pump station, interconnecting piping and fluoridation facilities. Estimated construction cost is approximately \$27 million. **Owner-accepted VE alternatives totaled \$3.64 million in net life cycle cost savings.**

**TRWD IPL Lake Pump Stations - Tarrant Regional Water District, Ft. Worth, TX** VE study of three separate raw water intake pump stations at 30% design completion. The three pump stations will withdraw raw water from the Cedar Creek, Richland Chambers and Lake Palestine Reservoirs, and have capacities of 277 mgd, 250 mgd and 150 mgd, respectively. All three use multiple, variable speed, vertical turbine pumps. **Owner-accepted savings totaled \$10.9 million.**

**Bend Water Treatment Plant – Bend, OR** VE study of proposed improvements to the existing water intake facility to add fish screens, a fish ladder and replace the existing building; construction of a new 10-mile long raw water transmission main; construction of a hydropower facility and construction of a 13.6 mgd membrane filtration plant. The treatment processes will include rapid mix and flocculation tanks, plate settlers and membrane filtration facilities. **Owner implemented VE alternatives resulted in \$2.9 million is accepted life cycle cost savings.**

**City of Saint John Water System Improvements- City of Saint John - Saint John, NB, Canada** Three VE studies of a proposed \$200+ million improvement program for the Saint John Water System. The program includes construction of improvements to the reservoir intakes, a new 100 megaliter per day conventional filtration plant, and extensive replacements and repairs to the transmission and distribution system, as well as additional booster pump stations, storage tanks, and system and customer meter installations. The water system provides both potable and industrial quality water to the entire City. The VE studies reviewed supply, treatment and system configuration; plant design capacity and process selection; and a qualitative risk assessment comparing alternative program delivery scenarios including public-private partnership options. **Owner-accepted savings resulting from the VE studies will exceed \$30 million.**

**Hillview Reservoir Cover – New York City OMB - New York, NY** VE study of a proposed \$500 million concrete cover for New York City's 90-acre, 900 million gallon Hillview water reservoir that serves as the balancing reservoir for the City's Catskill and Delaware watersheds. The reservoir has two basins separated by a concrete dividing wall. The proposed cover will use pre-cast concrete components, a concrete topping and a roof system. The proposed roof system will consist of water-resistant concrete, waterproof membrane, and a multi-layered green roof system, consisting of native plants, succulents and sedum. An architecturally finished concrete ring wall extending around the reservoir perimeter will, along with columns in the reservoir, provide the structural support for the cover.

**City of Columbus Upground Reservoir – City of Columbus - Columbus, OH** VE study of the City of Columbus Upground Reservoir project reviewed at 90% design completion consisting of construction of a new 9.3 billion gallon above grade raw water reservoir, an inflatable dam on the Scioto River, a raw water pump station and a 72-inch pipeline from the pump station to the new reservoir. This new reservoir is the first of three above-grade reservoirs to be constructed by the city to increase the safe yield of the Scioto River basin. The new system will also provide additional water for the Delaware Water Company (Delco) for a new water treatment plant to built downstream of the reservoirs. **Owner-accepted savings total \$1.8 million.**



## Marc S. Solomon, PE, BCEE, D.WRE

### Vice President

*Mr. Solomon is an accomplished project manager on a wide range of wastewater projects. Marc's broad project experience has exposed him to all phases of project planning, design, system modeling, system controls, construction management, and operational reliability. In addition, Marc has a Value Engineering certification from the US Army Corps of Engineers and has conducted and participated in numerous VE Peer Review sessions.*

#### Education

BS, Civil Engineering, Duke University, North Carolina

MS, Public Health, Tulane University, Louisiana

#### Certification/License

Professional Engineer: CA, LA, OH, OR, PA, WA

Water Treatment Plant Operator

Water Distribution System Operator

AAEE Board Certified Environmental Engineer

ASCE Diplomat, Water Resource Engineer

Value Engineering Certification

#### Areas of Expertise

- Managing complex wastewater and recycled water projects
- Design of wastewater process, headworks, and pump stations
- O&M consulting
- Workshop Facilitation using Multi-criteria Decision Analysis
- Value Engineering and Peer Review Facilitation

#### Experience

- 33 total years
- 3 years with Hazen

#### Peer Review-Secondary Clarifier Study and Design, San Francisco Public Utilities Commission, Southeast WWTP, SF, CA

The SFPUC Southeast WWTP (SEP) is a 57-mgd high purity oxygen activated sludge facility. The sixteen 120-ft diameter secondary clarifiers are at the end their useful lives and require replacement. Rather than replace in-kind, SFPUC opted to pursue a modern clarifier design to serve the facility for the next 40 years. To support the secondary clarifier design, Mr. Solomon was project manager for the peer review phase. Process, structural, mechanical, and electrical reviews were performed for preliminary and final design.

#### Carlsbad Desalination Facility, Poseidon Water, San Diego, CA

Principal-in-Charge for the study, design, and construction of a 50-mgd desalination plant and transmission system for Poseidon Water. When completed the plant will be the largest seawater desalination plant in the Western Hemisphere.

#### Peer Review-Disinfection Improvements, City of Santa Rosa, Laguna Treatment Plant, Santa Rosa, CA

Marc was project manager and facilitated all peer review workshops for this project. The City of Santa Rosa owns and operates the Laguna Treatment Plant (LTP), which uses UV as its primary disinfection process. The facility produces disinfected tertiary recycled water, as defined by Title 22. The existing LTP UV system was recently re-rated from a capacity of 67-mgd, with redundancy, to a capacity of 48.5-mgd with redundancy. This creates a potential disinfection system capacity deficiency under some wet weather conditions. Additionally the existing Trojan 4000

**Professional Activities**

Water Environment Federation

American Water Works  
Association

American Society of Civil  
Engineers

American Academy of  
Environmental Engineers

WaterReuse Association

**Selected Publications**

Contributing Author, "WEF MOP8,  
Design of Municipal Wastewater  
Treatment Plants, Centrifuge  
Dewatering"

Contributing Author, "WEF MOP11,  
Operation of Municipal  
Wastewater Treatment Plants"

Author, "Soil Filter Beds: The West  
Coast Experience, WEF"

Co-author, Bringing Recycled  
Water to Town - The City of Santa  
Rosa's Urban Reuse Project"

Co-author, "Video and Sonar  
Inspection Guides Coronado  
Transbay Force Main  
Rehabilitation"

Co-author, "Recycled Water-The  
Chile Experience"

system was installed in 1997 and is nearing the end of its useful life. These events triggered the need to upgrade the disinfection system in order to ensure that the LTP has adequate disinfection capacity under all flow rates.

**Main Wastewater Treatment Plant, East Bay Municipal Utility District, Oakland, CA**

Project manager for the investigation of struvite formation at the District's Main WWTP. Struvite is a complex mineral precipitate and has reduced the District's dewatering capacity and has caused maintenance concerns. As part of the study Marc is leading workshops with engineering, operations, maintenance, laboratory, and management staff using the multi-criteria decision analysis.

**EBMUD Secondary Clarifier Analysis, Oakland, CA**

Principal and QA Engineer for the analysis and model development of EBMUD's secondary clarifiers. Tasks include working with EBMUD staff to perform pilot and full-scale stress testing and development of a model of the secondary clarifiers. Other operational enhancements include dye studies for optimized flow splits and investigation of Nocardioform froth control at the plant.

**Main WWTP Headworks, East Bay Municipal Utility District, Oakland, CA**

Marc's diverse experience also includes influent pump and effluent pump station design. As Project Manager Marc provided design for the rehabilitation of the Influent and Effluent Pump Stations at EBMUD's Main WWTP with a design capacity of 425-mgd.

**Shitzutou Pumping Station and Headworks, Taiwan Housing and Urban Development Bureau, Taipei, Taiwan**

Marc was Project Manager for the design of the world's largest (at the time) raw wastewater pump station with a design capacity of 1,200-mgd for Taiwan Housing and Urban Development Bureau, Republic of China.

**Laguna Wastewater Treatment Plant, Combined Heat and Power Facility, City of Santa Rosa, CA**

Project Manager for the evaluation of various cogeneration technologies, air permitting, pre-design and design of a new 4.4-MW cogeneration facility that included new ARES internal combustion engines and extensive air permitting for the new facility.

**Town of Windsor Phosphorus Elimination Study, Windsor, CA**

Project Manager for the Plant Phosphorus Elimination Study to analyze potential process upgrades to meet Regional Water Quality Control Board 0 mg/l effluent phosphorus limits and anticipated future flows and loads. Extensive negotiations with the regional board to develop an accelerated schedule that would phosphorus discharge while also minimizing risk of violation for the Town. Economic and non-economic factors were weighed in the business case evaluation of phosphorus removal alternatives.

**T. Gerald Cole, P.E., BCEE**

*Consulting Engineer –Water Supply and Recycled Management*

**Education**

Master of Engineering  
 University of Notre Dame  
 Master of Engineering  
 University of Notre Dame

Mr. Cole has extensive conceptual planning, design, construction management, and project and program management experience spanning over 35 years of professional service to municipal, foreign, commercial, and industrial clients. Projects include water supply and treatment; wastewater collection, treatment, disposal and reuse management. He has in-depth experience in development and implementation of recycled water systems and technical direction and quality control for major projects.

**Registration**

Registered Consulting Engineer  
 California 0010000

***Selected Water Supply Projects in Monterey County***

**Independent Consultant, Groundwater Replenishment (GWR) Project, Monterey Regional Water Pollution Control Agency (MRWPCA), California.**

Mr. Cole developed concept designs and construction cost estimates for the proposed Product Water Conveyance component of the GWR Project. Developed and analyzed two alternative alignments, including pump stations, pipelines and special structures. Conducted preliminary hydraulic analyses for various pipeline capacities. Analyzed electrical power requirements and construction techniques. Interfaced with Project Team members, including several independent consultants. Interacted directly with the CEQA consultant during preparation of the Project EIR. Prepared and submitted several technical memos.

**Honors/Awards**

Board Certified Environmental  
 Engineer  
 American  
 Academy of Environmental  
 Engineers and Scientists

Sigma Xi

**Independent Consultant, Aboveground Recycled Water Storage Project, Monterey Regional Water Pollution Control Agency (MRWPCA), California.**

Mr. Cole developed concept design and construction cost estimates for the proposed Aboveground Recycled Water Storage Project for winter storage of tertiary treated recycled water. The conceptual design of the storage reservoir was developed for capacity of 600 acre-feet (AF) of tertiary treated recycled water. Tertiary water quality data were evaluated and a reservoir mixing system was included to circulate the stored water, along with chemical feed systems to maintain water quality, and reservoir lining system to prevent leakage. A Technical Memo was prepared that described the Project components and the estimated construction cost of \$30 million.

**Project Manager, Groundwater Replenishment (GWR) Project, Monterey Regional Water Pollution Control Agency (MRWPCA), California.** Served as Project Manager for CDM for early phase of conceptual planning of the Groundwater Replenishment Project for Monterey Regional Water Pollution Control Agency, which would provide up to 3,500 AFY of MF/RO/UVOX recycled water to recharge the Seaside Groundwater Basin.

**Principal-in-Charge and Project Manager, Pebble Beach-Carmel Recycled Water Project, California.** Served as Principal-in-Charge and Project Manager for Parsons Engineering-Science for the planning, design and construction management of the Pebble Beach-Carmel Recycled Water Project, which provides recycled water to the seven golf courses within Pebble Beach. In

addition to a tertiary treatment plant the project also includes a distribution system consisting of a 1,400 gpm high-service pump station, 5 miles of pipelines, 2.5 mg steel storage tank, and a 2 mgd potable water booster pump station for emergency make-up water to the recycled water distribution system. *The project won the Project of the Year Award from the WateReuse Association.*

**Principal-in-Charge and Project Director, Regional Wastewater Program, Monterey Regional Water Pollution Control Agency, California.** Principal-in-Charge and Project Director Parsons Engineering-Science for Monterey Regional Water Pollution Control Agency's (MRWPCA) \$120 million Regional Wastewater Program, including planning, design and construction. The MRWPCA Project includes 30 miles of large diameter interceptors, 7 pump stations, 2-mile ocean outfall and a 20 mgd secondary (TF/AS) treatment plant. Served as Project Director for the concept development, planning, design and construction and operations of MRWPCA's demonstration project for irrigation of unprocessed food crops in the lower Salinas Valley. This project, after full-scale development, supplies approximately 14,000 AFY of Title-22 recycled water to 12,000 acres of food crops for irrigation.

**Principal-in-Charge and Project Manager, Recycled Water Treatment Plant Design, DSRSD, California.** Served as Principal-in-Charge and Project Manager for the design of the DSRSD \$18 million Recycled Water Treatment Plant, which produces Title 22 recycled water for unrestricted irrigation to over 300 customers in the Dublin, San Ramon, Danville area. During the construction phase, he served as Project Manager for CDM for the development of a System-Wide Operations Plan for the \$70 million DERWA Recycled Water Program, which will ultimately deliver up to 16.5 mgd of recycled water to over 500 customers. The DERWA RW system includes 8 pump stations ranging in size from 300 gpm up to 7,000 gpm. The back-bone distribution system consists of approximately 25 miles of pipelines, ranging in size from 18 to 30 inches diameter & six reservoirs. The Operations Plan included strategies for moving water throughout five pressure zones while meeting customers' demands and maintaining water quality requirements throughout the recycled water distribution system. The operating strategies were designed to be implemented by the District's SCADA system.

### *Value Engineering Projects*

Salt Lake City, UT WWTP, 2 studies

City of Everett, WA, Wastewater pump stations and interceptors

City of Las Vegas, NV WWTP

Orange County Sanitation Districts, CA Five-mile wastewater interceptor

### *Professional Affiliations*

American Water Works Association, Life Member

WateReuse Association

American Academy of Environmental Engineers & Scientists

## STATEMENT OF QUALIFICATIONS

Dennis E. Van Kirk, C.E.T.

VK Tech Services

*Mr. Van Kirk has over 50 years of professional experience in project cost management services including cost estimating, change order analysis, value engineering, and constructability reviews. He has extensive experience in all CSI Specification Divisions, ranging from conceptual planning and design through construction and closeout. Projects include pump stations, pipelines, tunnels, treatment plants, power plants, bridges, railroads, transportation systems, aviation complexes, marine structures and outfalls, manufacturing plants, power generation and transmission facilities, solid waste disposal facilities, laboratories, office buildings, schools, medical facilities, landfills, and underground utilities. His experience includes renovations, remodels, demolition, historic preservation, conversions, additions, hazardous materials remediation, and new construction.*

**Education:**

*Diploma, Liberal Arts, Yakima Valley College, Washington, 1962*

**Certification/Registration:**

*Certified, Engineering Technician, Architectural Engineering Technology, National Institute for Certification in Engineering Technologies, (NICET) 1972*

*King County SCS Certification No. 760*

*Washington State Veteran's Affairs (Veteran-Owned Business) Certification No. 42338AB2*

*Disabled Veteran-Owned Business (SDVOB)(U.S. Dept. of Veteran's Affairs)*

**Professional Affiliations:**

*Honorary Life Member, Association for the Advancement of Cost Engineering (ACEI). President, Oregon Section, 2009-2011.*

*Society of American Value Engineers (SAVE)*

**COST ESTIMATING (Not All-Inclusive)****Water/Wastewater:**

*–Kelso, WA, Mint Farm Regional Water Supply Project estimate review. Client: Kennedy-Jenks. 2011*

*–Confidential. Mississippi River Lock and Dam No. 1 Fish Deterrence Array 95% Design Submittal Estimate. Client: Smith-Root/Pinnell-Busch. 2013.*

*–King County, WA. North Sammamish Diversion Project Conceptual and Pre-design level estimates. Included Alternative pipeline route selection estimates and alternatives to modifications at the North Creek and York Pump Station sites. Client: Gray and Osborne. 2015.*

*–City of Portland, OR, BES, Columbia Boulevard Wastewater Treatment Plant Wash Water Pipeline Replacement Project. Predesign estimates for alternative selection. Alternatives included replacing pipe in place in an existing tunnel, Installing new pipeline in the tunnel, and rehabilitating the existing piping in the tunnel. Client: Tetra-Tech, 2015.*

*–Lake Oswego/Tigard Water Partnership West Linn WTP Expansion Cost Estimate review. Client: Brown & Caldwell/Pinnell-Busch. 2011*

*– Lake Oswego/Tigard Water Partnership 30% and 60% Raw Water and Finished Water Pipeline estimate Reviews. Client: Brown & Caldwell/Kennedy-Jenks. 2012*

*-Lake Oswego/Tigard Water Partnership Raw Water and Finish Water Pipelines (24" – 42"). Pre-Design Estimates. Client: Pinnell Busch/Brown & Caldwell. 2010*

*-Lake Oswego Influent Sewer Lake Down project. Final Engineer's Estimate. Client: Pinnell Busch/Brown & Caldwell. 2010*

*- City of Everett, Washington WTP Clearwell No. 2 Estimate review. (Carollo). 2008*

*- Tualatin Valley Water District – Proposed Pipelines and River Intake – Alternatives up to 96". (Carollo). 2007*

*- City of Eugene, Oregon – WWTP Expansion (Carollo). 2007*

*- King County, WA – Brightwater WWTP Recycled Water Facilities (Carollo). 2008*

*-Salem, OR WWTP Expansion, including riverine outfall. (Carollo).*

- Cost estimator for proposed digester rehabilitation at the Hyperion Wastewater plant in Los Angeles, California. Work included replacement of interconnecting pipelines in galleries beneath the digesters, and rehabilitation/replacement of ferric*

## STATEMENT OF QUALIFICATIONS

Dennis Van Kirk, C.E.T.

VK Tech Services

chloride systems. (CH2M Hill). Estimating work included a field survey of existing conditions and conceptual cost estimates. (CH2M Hill)

- Lead estimator and estimate reviewer on the City of Portland, Oregon, Bureau of Environmental Services CSCC project. Major project elements included a large-diameter tunnel for combined sewer overflow (CSO) conveyance and storage. (C3MG)
- Lead cost estimator for the Portland, Oregon, West Side CSO Project 35-percent design. Project included a large-diameter tunnel, vertical shafts, and a large, deep pumping station on Swan Island. (C3MG)
- Lead estimator for the 5 Denny Way CSO projects in Seattle, Washington. Work included a large diameter tunnel, pumping stations, marine outfall, conveyance lines and a major CSO control facility. For the same client, the Henderson CSO Projects, consisting of pipelines, large diameter tunnel and pumping facilities. (C3MG)
- Cost estimator on the city of Portland, Oregon, Bureau of Environmental Services Columbia Boulevard Wet Weather Pump Station project. Estimating work included conceptual, budgetary and final estimates; value engineering team participation; and cost support. (C3MG)
- Lead cost estimator for the West Point Municipal Wastewater Plant, King County, Washington. This large plant had construction costs in excess of \$200 million. Major site work issues included poor soil conditions and restricted access. Estimating work included conceptual estimates, value engineering team participation and cost support, budgetary estimates, final estimates, and change order estimates. (CH2M Hill)
- Cost estimator for the base infrastructure facilities at the Kodiak, Alaska, Coast Guard Base. Projects included water transmission and wastewater conveyance pipelines, pump stations, a water treatment facility at Buskin Lake, a wastewater treatment plant, and a marine outfall. Estimating work included

conceptual, budgetary, final, and change order estimates. (CH2M Hill)

- Cost estimator for conceptual and budget level estimates for selecting alternatives on the proposed replacement of AC sewer lines in lake Washington at the North end of Mercer Island. (C3MG)
  - Cost estimator for a municipal wastewater plant and conveyance system for Bremerton, Washington. The project consisted of the wastewater plant, pump stations and pipelines, and a marine undercrossing of Port Washington Narrows. Estimating work included conceptual, budgetary, final, and change order estimates. (CH2M Hill)
  - Cost estimator on the Post Point Wastewater Treatment Plant in Anacortes, Washington. The project included demolition of existing facilities and the construction of conveyance pipelines and an influent pumping station. Estimating work included conceptual, budgetary, and final estimates. (CH2M Hill)
  - Cost estimator for the F.E. Weymouth Water Treatment Facility at LaVerne, CA. This is a proposed new WTP. Budgetary and final engineer's estimates included Site Preparation, Yard & Process Piping, Ozone System, Caustic Soda Tank Farm, Sulfuric Acid Tank Farm, Hydrogen Peroxide Tank Farm, Sodium Hypochlorite Tank farm, Liquid Oxygen Tank Farm, and Gaseous Chlorine Facilities. (Carollo, 2007).
  - Cost estimator for the Marine Park Water Reclamation Facility in Vancouver, Washington. Major project features included an influent pump station, a screening/grit handling facility, primary and secondary clarifiers, aeration basins, auxiliary power generation, and operator laboratory facilities. Estimating work included conceptual, budgetary, and final estimates. (CH2M Hill) 24M, 1993.
- TRANSPORTATION:**
- Cost estimator for the Sound Transit Link Operations and Maintenance Facility, Tacoma, WA. Project included a new one-story 10,775 SF Maintenance Building for the daily and routine

## STATEMENT OF QUALIFICATIONS

Dennis Van Kirk, C.E.T.

VK Tech Services

inspection, maintenance, repairs and cleaning of Sound Transit's light rail vehicles. Project included demolition of existing warehouse buildings, on-site utilities and installation of piling supports for the new structure. The Building is a high-bay pre-engineered metal structure of 8,648 SF with an eave height of 31 feet. Equipment includes a 7.5 ton bridge crane, a car service and jacking pit in the floor, and a 2,300 SF low-bay area with offices. (Waterleaf Architecture/LTK/C3MG 1999-2000).

**Value Engineering Team Member:**

- Brightwater Wastewater Treatment Plant, King County, Washington. Included checking and validation of the Engineer's Estimate. (Carollo/RSRI)
- Washington Park Reservoir VE Study. City of Portland, OR Water Bureau. Included checking and validation of the Engineer's Estimate. (Carollo/RSRI)
- Tualatin Valley Water District, Ridgewood View Reservoir and Pump Station. 2013. Included checking and validation of the Engineer's Estimate. (AECOM/RSRI).
- Murray CSO Project, King County, WA. 2012. Included checking and validation of the Engineer's Estimate. (Kennedy Jenks/RSRI/VKTS)
- Dublin, OH Water Plant Expansion Project, Columbus, OH. 2012. Included checking and validation of the Engineer's Estimate. (CH2M Hill/RSRI/VKTS)
- North Beach CSO Project, King County, WA. 2012. Included checking and validation of the Engineer's Estimate. (Kennedy Jenks/RSRI/VKTS)
- Nanaimo, B.C., South Fork WTP, 2012. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Nanaimo, B.C., South Fork WTP, 2011. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Bend, OR Surface Water Improvements, 2011. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Temecula, CA EMWD Plant Expansion, 2010. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Mason County Belfair Wastewater Treatment Plant 2009. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Cleveland, Ohio CSO Control Facility, 2010. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Skokomish-Mason County HPC Management Facilities, 2010. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- City of Pendleton, OR WWTP Phase 1 Upgrades, 2009. Included checking and validation of the Engineer's Estimate. (RHA/VKTS)
- City of Eugene, OR MWMC Tertiary Filtration Project, 2009. Included checking and validation of the Engineer's Estimate. (RHA/VKTS)
- City of Portland, OR Fanno Creek Basin Pump Station Surge Analysis VE. Included checking and validation of the Engineer's Estimate. 2009 (RSR/VKTS)
- Bull Run Water Intertie, Portland, Oregon. Included checking and validation of the Engineer's Estimate.
- Bull Run Intake Towers, Portland, Oregon, 2010. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Tarrant Regional Water District, IPL Project, Fort Worth, TX. (180 Miles of 108" Dia. Pipeline), 2010 (30%) and 2013 (60%). Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)
- Tarrant Regional Water District, IPL Project, Fort Worth, TX. (Intake Pump Stations), 2012 & 2013. Included checking and validation of the Engineer's Estimate. (RSRI/VKTS)

10013 NE Hazel Dell Ave. #197 Vancouver, WA 98685-5203; Phone: 360-574-0736; [www.vktechservices.com](http://www.vktechservices.com)



## STATEMENT OF QUALIFICATIONS

Dennis Van Kirk, C.E.T.

VK Tech Services

- Tarrant Regional Water District, IPL Project, Fort Worth, TX. (Booster Pump Stations and Reservoirs), 2012 (30%) and 2013 (60%). Included checking and validation of the Engineer's Estimate. (HATH/VKTS)
  - Columbia Boulevard 125 MGD Influent Pump Station, Portland, Oregon. Included checking and validation of the Engineer's Estimate.
  - City of Portland Wellfield Improvements, Portland, Oregon. Included checking and validation of the Engineer's Estimate.
  - Wet Weather Pump Station, Portland, Oregon. Included checking and validation of the Engineer's Estimate.
  - Ankeny Pump Station, Portland, Oregon. Included checking and validation of the Engineer's Estimate.
  - Grant's Pass Master Plan Liquids Stream, Grant's Pass, Oregon. Included checking and validation of the Engineer's Estimate.
  - Grant's Pass Master Plan Solids Stream, Grant's Pass, Oregon. Included checking and validation of the Engineer's Estimate.
  - U.V. Sterilization Process, LOTT Plant, Lacey, Washington. Included checking and validation of the Engineer's Estimate.
  - West Point Wastewater Treatment Plant, King County, WA. Included checking and validation of the Engineer's Estimate. 1984 (RSR)
  - Kenmore Interceptor, King County, WA. Included checking and validation of the Engineer's Estimate. 1984 (RSR)
  - Kennewick Wastewater Treatment Plant Upgrades, Kennewick, Washington. Included checking and validation of the Engineer's Estimate. (RSR)
  - Newport, Oregon Wastewater Treatment Plant. Included checking and validation of the Engineer's Estimate. (RSR)
  - North Creek Pump Station, King County, Washington. Included checking and validation of the Engineer's Estimate. (RSR)
  - York Pump Station Upgrade, King County, WA. Included checking and validation of the engineer's Estimate. (U.S. Cost/D/ Hamilton).
  - Tualatin Valley Water District (TVWD), Willamette Water Supply Program (WWSP Program). The study, based on PDR documents, included a transmission system consisting of over 30 miles of large diameter pipelines. (Included checking and validation of the Engineer's Estimate. (RSR).
- Awards:**
- Charles V. Keane Award for Distinguished Service, Association for the Advancement of Cost Engineering International, 1995
- Excellence in Publications Award, Association for the Advancement of Cost Engineering International, (AAACEI) 1983
- AAACEI Honorary Life Membership Award, 2009.
- Publications/Presentations:**
- Van Kirk, D. "The Unknown Cost Engineer," Cover, *Cost Engineering Magazine*. Volume 25, No. 4. July 1983.
- Van Kirk, D. "Cost Estimating Standards," Carollo Internal Document, 2002
- Van Kirk, D. "Cost Estimating in a Fluctuating Market" AWPCA Annual Meeting, Mesa, AZ. 2006, JTAC/AWWA , Denver, CO, 2007.
- Van Kirk, D. "Introduction to Cost Estimating" 0.3 CEU's. 2005, Carollo CTEC Course No. 3.
- Van Kirk, D. "Why Change Orders Cost More," Carollo Internal Document, 2005.
- Van Kirk, D., "Contingency - What is it? How Much Should You Use?," Carollo Internal Document, 2004
- Van Kirk, D. "Talking to Vendors," Carollo Internal Document, 2003.

**STATEMENT OF QUALIFICATIONS**

**Dennis Van Kirk, C.E.T.**

**VK Tech Services**

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**Employment History:**

2008-Present: VK Tech Services. Sole Proprietor and Cost Estimator.

2002-2008: Carollo Engineers, Portland, OR. Firmwide Director of Cost Estimating.

1996-2002: C3 Management Group, Kirkland WA. Senior Cost Estimator and Portland, OR Office Manager.

1993-1996: Public Service, Indiana (PSI Energy). Senior Cost Estimator

1969-1993: CH2M Hill. Senior Cost Estimator

1968-1969: U.S. Army, Vietnam

1961-1968: College, Alaska Division of Buildings, various architectural and engineering firms. Draftsman and Engineering Technician

1960-1961: Federal Bureau of Public Roads, Juneau, Alaska. Engineering Technician.

.



## Sean FitzGerald, PE

### Vice President

*Sean FitzGerald has 25 years of collection system and distribution system experience and serves as Hazen's Conveyance Practice Leader. He has extensive experience in all stages of collection and distribution system planning, operation and detailed design.*

#### Education

MSEE, University of Cincinnati,  
1994

BSCE, University of Cincinnati,  
1992

#### Certification/License

Professional Engineer: OH, KY,  
NY, TX

NASSCO PACP Certification

BAM-I Asset Management  
Certification

#### Areas of Expertise

- Hydraulic Analysis
- Pipe and Pump Station Design
- Sewer and Water Master Planning
- Sewer and Force Main Assessment and Rehabilitation

#### Experience

- 24 total years
- 10 years with Hazen

#### Professional Activities

Water Environment Federation  
- Collection System Committee

Ohio Water Environment  
Association - Collection System  
Committee

American Waterworks  
Association

North American Society for  
Trenchless Technology

He has led numerous master planning projects including projects involving complex hydraulic modeling and growth projections.

Sean is a long-standing member of the Water Environment Federation Collection System Committee where he served as Vice Chair and co-authored two of the leading Manuals of Practice, including FD-6 Exiting Sewer Evaluation and Rehabilitation and FD-17 Prevention and Control of Sewer System Overflows.

#### City of Fairborn, Ohio Master Plan – Fairborn, OH

Technical lead for the City of Fairborn Sanitary Sewer Master Plan. The project included a detailed assessment of current and future collection system and wastewater treatment plant capacity for the City of Fairborn, Ohio.

#### Greater Cincinnati Water Works Main Replacement Program

Project Manager for the evaluation and assessment of GCWW's main replacement program. The data was analyzed using a powerful analytics software called Tableau which was able to show definitive patterns in breaks and is allowing GCWW to better target its target main replacements.

#### Sanitation District No. 1 Asset Renewal Rate Study

Project Manager for the Asset Renewal Rate Study as part of SD1's Asset Management program. The study developed a sanitary sewer asset renewal rate in terms of funding for the next 10-20 years based on available condition data for the 1,700 mile system.

#### City of Miamisburg, OH Collection System Master Plan

Mr. FitzGerald was the technical lead for the development of a capacity assessment and improvements plan for the Miamisburg, Ohio collection system. Hazen and Sawyer conducted a flow monitoring program and developed a detailed collection system model which was then used to assess collection system capacity issues and to develop improvements to eliminate the SSOs and address future growth. The master plan also included a detailed condition assessment of the sewer system.

**Sanitation District No. 1 of Northern Kentucky – Eastern Regional System Master Plan**

Deputy Project Manager for the Eastern Regional System Master Plan. The Master Plan included the development of a detailed, calibrated collection system model using Infoworks software and the development of a 50-year plan to address overflows and planned growth in the area.

**Butler County Department of Environmental Services (BCDES) – Sewer System Master Plan**

Project Manager for the BCDES sewer system Master Plan. The project included a recalibration of a County-wide model. The models were used to size and analyze system improvements to address wet weather issues and growth through ultimate development conditions.

**Mason OH – Water Distribution Master Plan**

Served as Deputy Project Manager for the Master Plans of the fastest growth City in the state and is projected to double in size within the planning period.

**Miamisburg OH – Water System Master Plan**

Served as Technical Advisor for the development and calibration of a detailed hydraulic model of the City's distribution system to analyze the current performance of the system and to determine and analyze future improvements necessary to address growth.

**South Bend IN Water Master Plan**

Served as Project Engineer for the development and calibration of a distribution system model using EPANET. The model was also used to evaluate system deficiencies, and to develop, plan, and prioritize the system improvements over a 20-year period for a system that serves over 300,000 people.

**Butler County Water and Sewer – Water Master Plan**

Mr. Fitzgerald was Project Manager for detailed modeling and planning for one of the fastest growing communities in the state of Ohio. The planning component was complicated by the fact that the County purchases all of its water from outside sources. The Master Plan included a detailed evaluation of future water supply as well as the planning for distribution and storage facilities through build-out. One key tool used for this Master Plan was genetic algorithms for optimization. The hydraulic modeling software InfoWater was used along with an integral optimization package. Future condition models were developed for every five years and optimization models were run to find the most cost-effective means to meet system demands. Projected optimization improvement for each planning year were evaluated, compared and coordinated to develop a cost-effective overall capital improvement plan through the next 20 years.

**Jefferson County Department of Environmental Services, AL – Asset Management Program**

Mr. FitzGerald is the technical lead for the development and implementation of a comprehensive Asset Management program for JCDES. The program includes the development of a prioritized condition assessment and O&M program with the goal of addressing overflows, many of which are related to O&M issues. The project also includes the development and implementation of Asset Management decision support software tools that will enable the County to better manage its operations and to better target collection system spending. In addition the program includes CIP support, financial information system support, and implementation support for their CityWorks CMMS system.



## Andrew Vane, PE

### Associate

*Mr. Vane serves as a project manager and technical designer for sanitary sewers, force mains and water mains and the associated construction administration.*

#### Education

BSCE, Clemson University, 1991

#### Certification/License

Professional Engineer: NJ, NC, SC

#### Areas of Expertise

- Water, Sewer and Force Main Design and Construction Administration
- Soil Erosion and Sediment Control Design
- Water Line Hydraulic Computer Modeling
- Wastewater Treatment Plant Construction Administration and Inspection
- Wastewater Pumping Station Construction Administration

#### Experience

- 24 total years
- 16 years with Hazen

#### South Fork Improvements Program, City/County Utilities Commission, Winston-Salem, NC

Mr. Vane was lead gravity sewer designer for the replacement and parallel installation of new large diameter gravity sewer outfalls. This project was split into two contracts. Contract No. 1 involved replacement of existing 36" diameter RCP gravity sewer and manholes with new 54" diameter FRP and DIP gravity sewer along the South Fork Muddy Creek. Mr. Vane performed all preliminary design, pipe material technical memorandum, cost estimates, detailed design, and assisted the Owner with the bid process. This project also included coordination of eliminating a 15-mgd pumping station along the proposed sewer alignment. Contract No. 2 involved replacement of existing 30" diameter and smaller RCP gravity outfalls sewers with new 42" diameter through 15" diameter gravity sewers upstream of Contract No. 1. This project included elimination of existing diversion structures and a flow restriction, the open-cut of the pipe beneath an existing railroad trestle, and a diversion box to force the new outfall sewer to be used as a relief sewer during high flow periods. Mr. Vane coordinated all efforts to complete the processes of environmental permitting, state highway encroachment permissions, obtaining private easements, railroad encroachment, and erosion control and sediment control design and permitting.

#### Taggart Creek Outfall Replacement, Charlotte Water, Charlotte, NC

Mr. Vane served as lead designer and project manager, to replace 21,000LF of aged and failing gravity sewer outfall measuring 24" through 15" in diameter with new 42" diameter sewer. This project followed Taggart Creek and cross controlled-access highways within the City limits. A portion of this project was accelerated and constructed to allow for the completion of construction of a federal public housing project. Mr. Vane coordinated all efforts to complete the processes of environmental permitting including co-authoring the EA Study, state highway encroachment permissions, obtaining private easements, railroad encroachment, high pressure gas line encroachment, and erosion control and sediment control

**Grove Creek WWTP Effluent Force Main, Renewable Water Resources, Mauldin, SC**

Mr. Vane served as Pipeline Design Task Leader for the Grove Creek WWTP Effluent Force Main Project. This project consisted of 12,380 LF of 18/20-inch-diameter force mains, 470 LF of 42-inch-diameter outfall with an 11-part effluent diffuser, and a cascade aerator to increase dissolved oxygen prior to discharge into the Saluda River. This project also included several jack-and-bore crossings of roadways, creeks and CSX railroad (330 LF of 48-inch casing) and parallel 300-LF directional drilled crossings of the Saluda River. Mr. Vane coordinated all environmental permitting on this project.

**Harleyville Reach Water Transmission Mains, Lake Marion Regional Water System, Santee, SC**

Mr. Vane served as lead designer and construction administrator for the design, permitting and construction of 34,800 LF of 16" diameter water transmission mains. This project included a 6,800 LF crossing of Four Hole Swamp using Horizontal Directional Drilled (HDD) methods as a single pull, five jack and bore crossings of state highways and Interstate 26, wetlands crossings, a packaged dual master meter station, installation of PRV's and altitude valves at two existing tank sites, and tie-ins to existing water distribution systems. Mr. Vane oversaw all hydraulic modeling, preliminary design, and final design of this project including construction cost estimates, technical specifications, and coordination with multiple Counties and the US Army Corps of Engineers Charleston District office. This project also included aerial and ground survey, development of easement plats, SCDOT encroachment permits, SCDHEC Stormwater design and permitting, obtaining an encroachment from CSX Transportation (railroad), a cultural resources study, and other related permitting activities. (\$7.5 M) (2014)

**Arrowood/Sulkirk Road Water Transmission Lines, Charlotte-Mecklenburg Utilities, Charlotte, NC**

Mr. Vane served as Lead Designer and Project Manager for the replacement of 11,500 LF of 24" diameter PCCP water transmission mains. This project was divided into two phases. 5,500 LF of existing 24" water transmission mains was replaced in a major collector roadway for Interstate traffic. 6,000 LF of existing 24" water transmission mains was replaced in an older affluent section of Charlotte along heavily travelled roadways. This project included development of a 40+ phase traffic control plan, coordination with CATS transit system and existing planned intersection improvements, aerial and ground surveying, SUE, geotechnical investigation, and NCDENR Land Quality permitting.

**Bear Cut Water Line Replacement, Miami-Dade Water & Sewer Department, Miami, FL**

Lead designer for the new dual Horizontal Directional Drilled (HDD) water lines adjacent to the West Bridge and Bear Cut between the City of Miami and Key Biscayne, Florida. Mr. Vane designed both HDD crossings for this design-build project. The crossings consisted of 16" diameter HDPE pipe pulled 1,700 LF across the West Bridge crossing and 2,800 LF long 16" diameter HDPE pulled across Bear Cut. The Bear Cut crossing included both vertical and horizontal curves in the pipe to avoid wetlands areas and active traffic roadways. The design included horizontal and vertical layout, design calculations of required stresses, strains, pull strengths, collapse pressures, and other critical aspects of both drills. Upon completion of the drills, Mr. Vane verified the as-built information to ensure the adequate safety factors were achieved post-construction.

**Lake Marion Regional Water System, Santee, SC**

Chief Design Engineer and Project Manager for the Lake Marion Regional Water System which consists of 12-through 36-inch water transmission mains totaling 50+ miles in length in six counties northwest of Charleston, SC. Mr. Vane is currently Project Manager on this project with Santee Cooper Power Company, the U.S. Army Corps of Engineers in Charleston, and various sub-consultants. This project is under various phases of design and construction with approximately 25% of the planned transmission mains installed. Total construction cost is estimated to be over \$50M.



## Jared M. Lewis, CSP

### Safety Compliance

*Mr. Lewis is a safety and risk professional experienced in developing, implementing and monitoring risk-based programs to identify, assess and mitigate any operational risk while maintaining a balance between risk mitigation and operational efficiency. He has an excellent background in vendor management, employee development, and customer relations. Mr. Lewis will review the safety plan and make sure Hazen staff are up to date on the necessary certifications and protocol and provide quality control for all safety designs as appropriate.*

#### Education

Bachelor of Science, Business Management, St. John's University, Queens, NY

#### Certification/License

Certified Safety Professional BCSP  
 Associate Safety Professional BSCP  
 OSHA 510 for Construction  
 OSHA 500 Authorized trainer  
 RCRA Hazardous Waste Training  
 National Traffic Incident Responder Training  
 2012 MTA Chairman's Safety Award for FSTC project  
 Licensed NYS DOL Asbestos Supervisor  
 National Safety Council AED/CPR Instructor  
 FDNY Certified Construction Site Fire Safety Manager  
 NYC DOB 4-hour Scaffold Course  
 UMDNJ Systems of Safety Focus-Four Hazard Categories  
 30-hour OSHA Safety Course  
 40 hour HAZWOPER  
 7.5 Globally Harmonized System of Classification and labeling of Chemicals  
 40 hour NYC DOB Site Safety Manager Course  
 The Practicing Institute of Engineering, Inc. Soft Ground Tunneling Seminar  
 NYCT QA/QC Master Workshop  
 NYCT Core Analyst training program  
 LIRR/NYCT/MNR/Amtrak railroad safety training

#### MTA NYC Transit, New York, NY

General Superintendent, Safety and Environmental Management.

- Oversee labor relations and worker's compensation claims.
- Management of operations staff and union personnel
- Implement review adherence of safety and environmental management systems
- Participated in corporate mission statement and goals safety committee
- Direct Emergency Management and Fire Safety programs is in compliance with applicable regulations
- Investigate accidents in thorough manner, following corporate protocol.
- Audit and report all work-place violence and communicate with proper authorities.
- Oversee collective bargaining agreements and follow through on all aspects.
- Train staff to make sure that safety and environmental regulations are understood and in compliance.

**Areas of Expertise**

- Safety Inspection
- Code Compliance
- Strategic Planning/Analysis
- Records Management
- Risk Management
- Budget Analysis
- Corporate Governance
- Site Security
- Plant Operations

**Experience**

- 15 total years
- 1 year with Hazen

**MTA Bridges and Tunnels, New York, NY****Safety Engineer**

- Managed and directed consultant safety staff.
- Oversaw contract payment verification and reconciliation.
- Participated in contractor/consultant selection committees.
- Developed contract specifications and in-house safety management procedures.
- Reviewed designs and assessed the construction feasibility of proposed projects.
- Investigated all accidents in thorough manner.
- Developed and implemented engineering and operations/maintenance staff safety training.
- Analyzed and worked to improve labor relations through dialogue and communications.
- Oversaw risk management and loss control analysis.
- Selected as member of MTA Bridges and Tunnels Safety Committee.
- Reviewed and approved contractor safe work plans and accident prevention programs.
- Reviewed and updated emergency evacuation plans and Site Security Plans.
- Performed threat and infrastructure vulnerability risk assessments.

**MTA Capital Construction, New York, NY****Safety Specialist**

- Managed contractor safety engineers and labor force.
- Chaired multi-employer Fulton Center Safety Committee.
- Analyzed real and potential hazards and created mitigation plan.
- Coordinated safe working practices and procedures between government and private entities.
- Performed safety audits and conducted incident investigations as needed.
- Counter-terrorism and site security assessments.
- Served as lead rail construction inspector.
- Created detailed project reports for the Federal Transit Administration.





## Adam Overbay, PE, SE

### Senior Associate

*Mr. Overbay is the structural discipline lead for Hazen's West Region. Mr. Overbay specializes in the design of buildings, tanks, and the supporting structures for water and wastewater treatment facilities. His experience includes the design of reinforced and prestressed concrete, structural steel, reinforced masonry structures, and temporary structures. He has led condition assessments of existing infrastructure and assists with structural construction administration.*

#### Education

BSCE, North Carolina State University, 1996

MCE, North Carolina State University, 1997

#### Certification/License

Professional Engineer: CA, AZ, DE, FL, GA, IN, IA, NY, NC, PA, SC, TN, VA

Structural Engineer: CA, IL

#### Areas of Expertise

- Structural Design and Analysis of Sanitary, Industrial, and Architectural Structures
- Structural Construction Administration
- Inspection and Evaluation of Existing Structures

#### Experience

- 20 total years
- 18 years with Hazen

#### Professional Activities

American Concrete Institute

American Institute of Steel Construction

International Concrete Repair Institute

ACI Committee 350,  
Environmental Engineering  
Concrete Structures - Associate  
Member

American Society of Civil  
Engineers

#### Chromium 6 Water Treatment Facilities, Coachella Valley Water District, Coachella, CA

Mr. Overbay served as the Structural Engineer of Record on the design team for the Coachella Valley Water District Chromium 6 Water Treatment Facilities Project. The project included a new 200'x300' Central Resin Regeneration Facility, over 20 well sites with multiple structures on each site, and 2 central treatment sites with below grade reinforced concrete tanks and masonry superstructures. Mr. Overbay's responsibilities involved leading the structural design effort and coordinating the structural work with the process requirements and the aggressive design schedule. Structural tasks included design of a reinforced concrete frame building, metal and load bearing masonry buildings, below grade reinforced concrete hydraulic structures, and equipment foundations.

#### City of Signal Hill – Wellhead No. 9 NF Treatment System, Signal Hill, CA

Mr. Overbay served as the Structural Engineer of Record for the design of the Signal Hill nanofiltration treatment facility. The facility consists of multiple structures including metal buildings, metal canopies, and mat foundations for equipment. This project required close coordination with the design-build team to meet an aggressive schedule.

#### Oxygen Plant Demolition at Plant No. 2, for Orange County Sanitation District, CA

Responsible for all aspects of structural design for the Oxygen Plant Demolition at Plant No. 2 for Orange County Sanitation District. The project included demolition of existing structural supports for the main

air compressors and restoration of the structural floors for reuse as a maintenance facility. Portions of the existing structural supports were incorporated into the new flooring design to facilitate construction and reduce demolition costs.

**Government Cut Utility Relocation Project, Miami-Dade Water and Sewer Department, Miami, FL**

Mr. Overbay served as the Lead Structural Engineer for this design-build project. The project included the design of vertical secant pile shafts installed to facilitate tunneling under Government Cut at the harbor of Miami. The three shafts (two 100-foot and one 70-foot) consisted of overlapping unreinforced 42-inch-diameter secant piles that were further strengthened by the addition of a corrugated metal liner. Most noteworthy is the combination of unreinforced secant piles and a corrugated steel liner to construct a shaft to an unprecedented depth of 100 feet. This project also included the design of sheet pile coffercells and a structural steel working platform located in Government Cut. The aggressive design schedule and extensive coordination with the partnering firm and subconsultants presented unique design challenges.

**Muddy Creek WWTP Clarifier Upgrades, City/County Utility Commission, Winston-Salem, NC**

Mr. Overbay served as the Lead Structural Engineer for design and drafting for the project. The project included a cast-in-place 1.65-mg concrete clarifier, a prefabricated metal storage building, two prefabricated concrete buildings, a cast-in-place concrete flow distribution structure, modifications to the primary clarifiers, conversion of a pair of sludge wet wells into pipe galleries, and coating of four existing steel digester covers. Mr. Overbay conducted condition assessments of the digester covers and recommended repairs and coatings to extend service life.

**Northwest WTP Expansion, Brunswick County, NC**

Mr. Overbay served as Structural Engineer for the expansion of the WTP. The project included the addition of a 253 foot diameter prestressed concrete clearwell, a reinforced concrete framed chemical storage building, and a reinforced concrete pipe and containment vault. Mr. Overbay was also involved in the construction administration for the facility.

**Avenue V Pumping Station Upgrade, NYCDEP, New York, NY**

Mr. Overbay served as the Lead Structural Engineer for the design and drafting for the pump station upgrade. The project included a condition assessment, rehabilitation, and seismic retrofit of a 90-year-old historic Pump Station and tie-ins to brick-lined sewers. The structural repairs involved installing a reinforced concrete frame within the existing brick masonry superstructure to provide ductility to meet current building code requirements for seismic design. The project also included construction of a temporary bypass pumping structure, wet well, generator building and electrical building.

**Irwin Creek WWTP Improvements and Upgrades, Charlotte-Mecklenburg Utilities, Charlotte, NC**

Led the structural design for the upgrade to the Irwin Creek WWTP. This effort involved directing the work of assistant engineers and designers and coordinating with other disciplines. The project included the evaluation and rehabilitation of multiple structures, some of which are approximately 80 years old. Our design included the renovation of an existing masonry structure to provide additional access points and to update the process structure to house personnel facilities. Also included was the upgrade of multiple aeration basins with new air piping and air pipe supports.

**Indio Water Authority Cr6 Treatment Facilities, Indio, CA**

Structural Engineer of Record for the design of the treatment facilities for three 3200 gpm wells. The project included the design of equipment support and assistance during construction to meet a demanding schedule.



## Christopher Thunhorst, PE

### Senior Associate

*Mr. Thunhorst is a Senior Associate in the firm's Irvine office and he serves as Hazen's Electrical and Instrumentation Group Leader for the West Region. Mr. Thunhorst has over 15 years of experience in electrical engineering for building systems, water and wastewater treatment facilities, and pumping stations associated with water distribution and wastewater collection systems.*

#### Education

BSEE, North Carolina State University, 2005

AAS, Asheville-Buncombe Technical Community College, 2001

#### Certification/License

Professional Engineer: OH, KY, TN, IN, PA

#### Areas of Expertise

- Medium and Low Voltage Power Distribution
- Standby Power Systems
- Control Systems
- Process Instrumentation
- SCADA Systems

#### Experience

- 15 total years
- 8 years with Hazen

#### Professional Activities

Instrumentation, Systems, and Automation Society

International Association of Electrical Inspectors

#### Well #9 Water Treatment Plant, Signal Hill, CA

Lead Electrical Engineer for the design of a nano-filtration water treatment plant with a treatment capacity of 2 MGD. The design includes a new well pump, cartridge filter pre-treatment, two NF treatment trains, chemical feed systems, product water tank, product water pumps, non-recoverable waste system, clean in place system, and an operations/training building. The electrical design also includes a 600kW diesel standby power generator. Construction of the Well #9 WTP is scheduled to be complete in June of 2016.

#### Carson Regional WRF Plant Improvements – Carson, CA

Lead Electrical Engineer for the plant improvements project including design of a new 2 MGD tertiary-MBR, a 2.64 MGD microfiltration system, modifications to the potable water service, and a new standby power system to supply backup power to the RO product pumps and limited tMBR loads. Design of the plant improvements are scheduled to be complete in September 2016.

#### Muncie WTF Phase 1 Improvements Project – Indiana American Water Company, Muncie, IN

Lead Electrical Engineer for the Muncie WTF Phase 1 Improvements Project design which included a new electrical service, new standby power system including a 1,000 kW, 480V generator, new High Service Pump Station, new Clearwell, and chemical feed system modifications.

**Richard Miller Treatment Plant – Greater Cincinnati Water Works:**

Electrical Engineer for the Richard Miller Treatment Plant Generator Project which included the installation of a new 1,000kW, 4,160V standby generator to supply backup power to the Filter Building. The project also included modifications to the existing medium voltage switchgear and new paralleling controls to allow closed transition transfer and soft loading capabilities.

**Richmond Road Station WTP Plant Improvements – Kentucky American Water Company, Lexington, KY**

Technical Advisor for the design of improvements to the 25-MGD water treatment plant. Improvements include a new filter building to replace the existing filter building, a new chlorine contact basin and a new backwash pump station. The project is currently under construction and will be constructed using a construction manager at risk.

**Pierce-Union-Batavia WTP – Clermont County, OH**

Electrical Engineer for the study and design of water plant improvements and wellfield rehabilitation for the 15 MGD Pierce-Union-Batavia groundwater treatment plant. Project includes new filter media, new field instruments, new and rehabilitated wells in a floodplain and associated electrical and I&C work.

**Bob McEwen WTP – Clermont County, OH**

Electrical Engineer for the plant improvements project including a new 18 MGD, 10 minute EBCT GAC facility with intermediate lift pumps, modifications to several chemical systems including gas chlorine, coagulant, polymer and sodium hydroxide. The project also included a new instrumentation and control system for the new GAC facility, as well as replacement of the existing Distributed Control System (DCS) for the entire plant with a non-proprietary PC/PLC based system.

**Cornell PS and Irwin-Simpson PS – Greater Cincinnati Water Works**

Electrical Engineer for the pump station generator project which included the installation of two new 480V generators, 500kW and 450kW respectively, at the Cornell and Irwin-Simpson Pump Stations. The scope of this project also included the installation of new service entrance switchboards and automatic transfer switches.

**Glendale WTP – Village of Glendale, OH**

Electrical Engineer for the Phase 2 water treatment plant improvements project. Improvements included installation of VFDs on lime softening mixers, replacement of lime feed silo, installation of new chemical feed system, modifications to well pumps, SCADA system improvements, and a new Laboratory.

**Bogan Road PS – Buford, GA**

Electrical Designer for the Water Pump Station upgrades increasing the pumping capacity to 7500 gpm. Upgrades include expanding the existing Building, replacing the existing Booster Pumps, relocating the existing Pump Controls, and replacing the existing Electrical Distribution Equipment.

**Eastside Pump Station – Miamisburg, OH**

Technical Advisor for the design of a new 15 MGD dry well / wet well pump station. Station will include two (2) mechanical fine screens and compactors, a separate electrical room, ventilation and emergency generator. Station will house four (4) sanitary pumps, three (3) capable of delivering 15 MGD to the Water Reclamation Facility via the two existing force mains. Two (2) additional pumps will be used to deliver flow in excess of 15 MGD to the Equalization Basin. The 1.3 MG Equalization basin will be constructed below grade in the park just west of the new pump station.



## Troy Walker

### Senior Associate

*Mr. Walker is the corporate Membrane Technology lead for Hazen. Mr. Walker has over 20 years' experience with Membrane Treatment Systems including seawater desalination systems and water recycling.*

#### Education

BE, Chemical Engineering, University of New South Wales, Australia, 1990-1994; Graduate of CO-OP Scholarship Program.

#### Certification/License

MIE (Aust)

#### Areas of Expertise

- Seawater Desalination
- Reverse Osmosis
- Microfiltration
- Membrane Bioreactor
- Membrane Procurement
- Delivery of Operation of Membrane Facilities
- Plant Startup

#### Experience

- 22 total years
- 3 years with Hazen

#### Professional Activities

AWWA – Membrane Process Committee

AWWA – Membrane Systems Subcommittee

American Membrane Technology Association

Water Reuse Foundation

South West Membrane Operators Association

#### Carlsbad Desalination Plant

Provided a detailed review at mechanical completion of the Carlsbad SWRO Desalination Plant in San Diego, California. This included detailed review of seawater reverse osmosis system, energy recovery devices, pretreatment and post treatment systems.

#### Confidential Desalination Plant – External to the United States

Technical review of restart requirements including water quality safety for a large seawater desalination plant following plant damage from a natural storm event. Included a review of the water quality safety plan and practical requirements for membrane testing.

#### City of Beverly Hills – RO Plant Operations Optimization and Restart

Operations support for a 2 MGD groundwater reverse osmosis treatment plant. This work included development of operating plants, operational monitoring, standard operating procedures, membrane selection and procurement and plant restart from long term shutdown.

#### West Basin Municipal Water District - Carson Plant

Project manager for complete design of a 2.0 mgd tertiary membrane biore-actor (tMBR) and a 2.64 mgd microfiltration (MF) system and ancillary processes at the Carson Regional Water Recycling Facility. These will upgrade the existing 5.0 mgd MF - Reverse Osmosis (RO) train and the 0.9 mgd biological aerated filtration (BAF) treatment train originally installed for nitrification.

#### Coachella Valley Water District – Chromium Treatment Options Study

Provision of preliminary design and technical options for chromium removal for numerous groundwater sites in the Coachella Valley. This involved an evaluation of options for mobile ion exchange systems, centralized ion exchange resin regeneration and operations implications. Detailed development of Theory of Operations reviewing operating philosophy and staffing approaches for the future facilities. Review of detailed design.

**City of Santa Monica – Reverse Osmosis Treatment Plant Optimization**

Provision of expert technical advice and planning to troubleshoot and significantly improve the performance of the City's 8 MGD reverse osmosis facility. This included an economical design and retrofit to ameliorate severe membrane fouling.

**Wateruse Research Foundation (WRRF) Direct Potable Reuse Research Projects**

Mr. Walker is the Principal Investigator for two key, operationally focused projects as a part of the WRRF Direct Potable Reuse Initiative. WRRF 13-03 "Critical Control Point Assessment to Quantify Robustness and Reliability of Multiple Treatment Barriers of a DPR Scheme" uses the principles of Hazard Analysis and Critical Control Points (HACCP), a safety methodology widely used in food manufacturing and production, to manage microbiological and chemical hazards and ensure the safety of recycled water. This project engaged multiple indirect and direct potable reuse facilities worldwide, and used their operational and maintenance data to provide statistical evidence of process effectiveness. It also provided practical operational response procedures for integration into DPR operating plans. WRRF 13-13 "Development of Operation and Maintenance Plan and Training and Certification Framework for Direct Potable Reuse (DPR) Systems" is aimed at developing the key requirements for operations, maintenance and importantly capturing the training and certification requirements to underpin the skills and knowledge for operations teams that are engaged in direct potable reuse schemes.

**Experience Prior to Hazen****Gold Coast Desalination Plant, Queensland, Australia**

Technical oversight for the Gold Coast desalination plant in Queensland Australia, supporting the operations team on review of operational reporting, environmental compliance oversight and membrane performance monitoring. Responsible for the development of Water Quality Safety and Management Plan, using the critical control point methodology, to ensure safety of water quality. This included both performance of membrane systems as well as post treatment to minimize corrosion and ensure safety of water in distribution systems.

**Western Corridor Recycled Water Scheme, Brisbane, Australia**

Led the technical operations team for a \$2 billion dollar advanced recycled water scheme in Brisbane, Australia. The scheme provided highly purified recycled water to two coal fired power stations in addition to availability for indirect potable reuse. Provided detailed design review during design phase, commissioning support and managed transition from commissioning to long term operations. Mr Walker took a lead role in the water quality management for the project, including extensive collaboration with power stations to optimize and increase cooling water cycles, manage limitations with cooling water blowdown and identify impacts to power station high purity water boiler treatment circuits.

**Kwinana Water Reclamation Plant, Perth Australia**

Completed detailed design, construction support, commissioning and transfer to operations of a 4 MGD advanced membrane recycled water plant near Perth, Australia. This plant provided highly purified water from recycled municipal effluent to a range of industries including titanium oxide manufacturing, oil fired power station, oil refining and bulk chemical industries.

**Wollongong Water Reclamation Plant, Australia**

Completed detailed design, construction support, commissioning and transfer to operations of a 5 MGD advanced membrane recycled water plant south of Sydney, Australia. This plant provided highly purified recycled water from municipal effluent to a steel manufacturing plant.



## Robert L. “Bo” Copeland Jr., PE Associate

*Mr. Copeland is an expert in water and wastewater conveyance systems, including engineering services from planning through construction, operations engineering, condition assessment, and other issues related to operation and maintenance of these systems.*

### Education

BSCHEM E, University of Illinois at Urbana-Champaign, 1993

### Certification/License

Professional Engineer: OH

### Areas of Expertise

- Water Transmission and Distribution Systems
- Gravity Collection Systems and Force Mains
- Pump Stations
- Hydraulic and Surge Modeling
- Condition Assessment of Pump Stations and Pipelines
- Asset Management

### Experience

- 23 total years
- 9 years with Hazen

### Professional Activities

Water Environment Federation

American Water Works Association

AWWA – Ohio Section Distribution Committee

Ohio Rural Water Association

**Water Main Replacement Program Data Management Evaluation and Effectiveness Evaluation, Greater Cincinnati Water Works, OH**  
Reviewed current procedures, data types, and tools used in conducting the organization’s water main replacement program. Evaluated available data management and decision support software/database tools and developed recommendations for implementation. Compiled and analyzed 30-years of water main failure records to determine failure rates for various pipe cohorts, identify key risk factors that affect the likelihood of failure, and evaluate the effectiveness of the organization’s ongoing water main replacement program. GIS, spreadsheets, databases, and visual analytics software were used in this evaluation.

### **Standard Specifications for Water Main Construction, Indiana-American Water Company, Inc, Greenwood, IN**

Technical Lead for development of new standard technical specifications for all aspects of water main construction for projects throughout the State of Indiana. The specifications developed under this work have been successfully used on over 200 projects in the first year.

### **Distribution System Water Quality Modeling, Clermont County Water Resources Division, OH**

Updated hydraulic model of distribution system to support water quality modeling, & evaluated water age & DBP concentrations. Evaluated operational methodologies & system improvements to remedy areas of high water age & high DBPs, while also reducing treatment costs by maximizing groundwater vs. surface water supplies.

### **Water System Supply and Pumping Capacity Evaluation, Butler County Water and Sewer Department, Hamilton, OH**

Project manager, technical leader, and modeler. Coordinated and assisted with field capacity testing of wholesale supply connections, compiled and analyzed resulting data, performed hydraulic modeling, and prepared report summarizing supply, pumping and distribution system capacities that resulted in a capacity re-rating from 23.9 to 43.47 mgd by Ohio EPA.

### **Selected Publications and Presentations**

"Evaluation of Water Main Replacement Program Helps Greater Cincinnati Water Works Achieve Asset Management Goals", Copeland, B., Weinle, J. and Calder, B., Straight From the Tap, Kentucky/Tennessee Section AWWA, Winter/Spring 2015 (also Ohio Section AWWA Newsletter, Spring 2015).

"Flow Woes: Effects and Solutions for Low Velocities in Force Mains", Copeland, B. and O'Rourke, S., Water Environment and Technology, Water Environment Federation, February 2014.

"Development of a Phased Water Master Plan Using Optimization", Speight, V. L. and Copeland Jr., R. L., ASCE WDSA, Cincinnati, OH, 2006.

### **Wastewater Collection System and Treatment Facilities Capital Assets Valuation, Sanitation District No. 1, KY**

Developed inventory & valuations of all sanitary & combined sewer system capital assets, including WWTPs & entire collection system. Project approach used condition data, where available, to help determine remaining useful life & values of collection system assets.

### **Wastewater Collection System Trouble Call Standard Operating Procedures, Sanitation District No. 1, KY**

Developed standard operating procedures & flow charts for the District's response to & follow-up from wastewater collection system trouble calls.

### **Continuous Sewer Assessment Program Failure Analysis, Sanitation District No. 1, KY**

Project manager and technical lead for evaluation of historical collection system failures (i.e. overflows, backups in buildings, and sinkholes) and inspections data to correlate failures to previously-observed defects, assess time-to-failure for various defects, compare condition score to remaining useful life, assess return frequency of blockages, and related analysis.

### **Pump Station Force Main and ARV Preventative Maintenance Program, Sanitation District No. 1, KY**

Condition assessment & testing of 10 priority pump stations, field location of 76 miles of force main, condition assessment of 25 miles of priority force main (incl. 6 miles of leak detection on 6" – 48" force mains), condition assessment of 179 air valves, surge modeling of 7 pump station/force main systems, odor & corrosion survey at approximately 120 pump stations & respective force main discharges, CCTV inspection of 40 miles of gravity sewer, inspection of approximately 297 manholes, & development of a preventative maintenance program for pump stations, force mains & air valves.

### **Butler County Department of Environmental Services (1995 – 2007)**

Prior to joining Hazen and Sawyer in 2007, Mr. Copeland worked for 12 years as an engineer for Butler County Department of Environmental Services (BCDES), a medium-sized water and wastewater utility in southwest Ohio. During his tenure at Butler County, he coordinated with management, engineering, accounting, customer service, operations and maintenance staff on nearly all aspects of the organization's operations. He worked particularly closely with distribution system and pump station operations and maintenance personnel in the process of managing over 20 design and construction projects, planning system improvements and extensions, and ongoing engineering support for day-to-day operation and maintenance of the distribution system and pump stations.





**Hazen**

Hazen and Sawyer  
2880 Zanker Road, Suite 203 • San Jose, CA, 95134

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Hazen and Sawyer  
2000 Santer Road Suite 200  
San Jose CA 95131

June 23, 2016

David Stoldt  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court – Bldg G  
Monterey, CA 93940

**Re: California American Water Company – Monterey Peninsula Water Supply Project (MPWSP)  
Conveyance Facilities –Request for Proposal – Value Engineering Study – Fee Estimate**

Dear Mr. Stoldt:

We are excited to have the opportunity to propose on the Monterey Peninsula Water Supply Project (MPWSP) Conveyance Facilities – Value Engineering Study. We have assembled a core team that understands the project and is ready to work to find value for the constituents and stakeholders in the Monterey Area.

Attached, please find the fee estimate for our efforts to deliver a high quality and focused Value Engineering Project.

If you have any questions regarding the proposal or the fee estimate, please feel free to give me a call at (760) 525-3281.

Sincerely,

Kevin Alexander  
Vice President and Project Manager

***Our knowledge and prior Cost Savings ideas and work will provide substantial value to the MPWSP!***

**Monterey Peninsula Water Management District**  
**Monterey Peninsula Water Supply Project - Conveyance VE Study**  
**Fee Estimate**  
**Rev 0, June 21, 2016**



Task	Role	K. Alexander	D. Stafford	S. Fitzgerald	A. Vane	B Copeland	D. Van Kirk	G. Cole	VE Assist	Clerical	Total Hours
		PM-Process Hydraulics	VE Lead	Operations	Construction	Maintenance	Cost	Civil	VE Assist	Admin	
<b>Hourly Rates</b>		<b>\$235</b>	<b>\$235</b>	<b>\$211</b>	<b>\$172</b>	<b>\$185</b>	<b>\$170</b>	<b>\$170</b>	<b>\$100</b>	<b>\$85</b>	
<b>1 Project Management</b>		<b>2.5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>4</b>	<b>16.5</b>
1.1 Project Management		0.5	1								1.5
1.2 Coordination		1	2								3
1.3 Invoicing		1	2						5	4	12
<b>2 Pre-Workshop</b>		<b>2</b>	<b>14</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>12</b>	<b>8</b>	<b>76</b>
2.1 Review Existing Drawings, bids, documents		2	7	8	8	8	8	8	5	8	62
2.2 Prepare format and documents			7						7		14
<b>3 Workshop</b>		<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>48</b>	<b>0</b>	<b>328</b>
3.1 Day 1		8	8	8	8	8	8	8	10		66
3.2 Day 2		8	8	8	8	8	8	8	10		
3.3 Day 3		8	8	8	8	8	8	8	10		66
3.4 Day 4		8	8	8	8	8	8	8	10		66
3.5 Day 5		8	8	8	8	8	8	8	8		64
<b>4 Post Workshop</b>		<b>8</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>0</b>	<b>91</b>
4.1 Final Report		4	29						46		79
4.2 Meeting		4	8								12
Hours		52.5	96	48	48	48	48	48	111	12	511.5
Labor		\$ 12,338	\$ 22,560	\$ 10,138	\$ 8,268	\$ 8,892	\$ 8,160	\$ 8,160	\$ 11,100	\$ 1,020	\$ 90,635
Project Expenses		1600	4150	2000	1700	1700	1600	1100	4150	0	\$ 18,000
<b>Total</b>											<b>\$ 108,635</b>

**ITEM: ACTION ITEM****BB. CONSIDER APPROVAL OF AMENDMENT 2 TO AMENDED AND RESTATED AGREEMENT TO FORM THE MONTEREY PENINSULA WATER SUPPLY GOVERNANCE COMMITTEE****Meeting Date:** July 18, 2016 **Budgeted:** N/A**From:** David J. Stoldt  
General Manager **Program/  
Line Item No.:** N/A**Prepared By:** David J. Stoldt **Cost Estimate:** N/A**General Counsel Approval:** N/A**Committee Recommendation:****CEQA Compliance:** N/A

**SUMMARY:** The revision under consideration will be considered by the Governance Committee at its meeting of July 20, 2016. If approved, the Governance Committee will also request that the Water Authority adopt the Amendment. The amendment is to allow the Water Management District enter into a contract with a Value Engineering Consultant for the MPWSP conveyance facilities.

**RECOMMENDATION:** The General Manager recommends that the Board of Directors approve the amendment, conditional on MPWSP Governance Committee recommendation and approval on July 20, 2016.

**EXHIBITS****BB-A** Proposed Amendment - Clean Version**BB-B** Proposed Amendment - Redline Version

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**EXHIBIT BB-A**

**SECOND AMENDMENT TO THE AMENDED AND RESTATED AGREEMENT TO FORM THE  
MONTEREY PENINSULA WATER SUPPLY PROJECT GOVERNANCE COMMITTEE**

**THIS SECOND AMENDMENT** (“**Second Amendment**”), dated July 20, 2016, supplements and modifies the terms and conditions of that certain **Amended and Restated Agreement to Form The Monterey Peninsula Water Supply Project Governance Committee**, dated November 5, 2013 (“**Agreement**”), by and between the **MONTEREY PENINSULA REGIONAL WATER AUTHORITY** (“**MPRWA**”), the **MONTEREY PENINSULA WATER MANAGEMENT DISTRICT** (“**MPWMD**”), the **COUNTY OF MONTEREY**, and the **CALIFORNIA-AMERICAN WATER COMPANY** (“**Cal-Am**”) (collectively, the “**Parties**”), as amended by Amendment dated April 30, 2016. The Parties agree to further amend the Agreement as set forth below.

1. Section II.R., defining the term “Value Engineer,” is deleted in its entirety and replaced with the following:

R. Value Engineer. The professional engineer(s) to be retained by MPRWA or MPWMD upon the selection of the Governance Committee to perform a value engineering analysis for one or more components of the Desalination Project, excluding the Source Water Infrastructure, to potentially lower the costs of, or maximize the value of, the Desalination Project to Cal-Am’s ratepayers, including matters concerning the cost effectiveness, performance, reliability, quality, safety, durability, effectiveness, or other desirable characteristics of the Desalination Project. A value engineering analysis will not be performed on the Source Water Infrastructure.

2. Section V.D., Category A, Paragraph 1., concerning the selection of the Value Engineer, is deleted in its entirety and replaced with the following:

1. The Governance Committee shall select, and shall request that the MPRWA or MPWMD retain, a Value Engineer(s) to facilitate and report on the proposed value engineering for one or more components of the Desalination Project. In selecting the Value Engineer(s), the Governance Committee shall consider any recommended engineer submitted by any member of the Governance Committee. This matter shall be ripe for decision for the Desalination Infrastructure component before Cal-Am accepts the 30% Design from the contractor retained for the design of the Desalination Infrastructure, and at any other time that Cal-Am advises a Value Engineer should be retained for any other infrastructure constructed as a component of the Desalination Project. Cal-Am shall reimburse the MPRWA or the MPWMD respectively for all payments made by MPRWA or MPWMD to the Value Engineer for expenses reasonably incurred in the Value Engineer’s performance of the value engineering services for the Desalination Project up to, but not to exceed, two hundred forty thousand dollars (\$240,000). Cal-Am shall make such reimbursement payments within 60 days following Cal-Am’s receipt of a valid invoice, with supporting documentation, from MPRWA or MPWMD.

3. All provisions of the Agreement other than the provisions expressly amended above are unaltered by this Second Amendment.

4. This Second Amendment may be executed in two or more counterparts, each of which shall be deemed and original, but all of which together shall constitute one and the same instrument.

**IN WITNESS WHEREOF**, the Parties have executed this Second Amendment as of the date first stated above.

California-American Water Company

By: \_\_\_\_\_  
Robert MacLean,  
President

Monterey Peninsula Regional Water Authority

By: \_\_\_\_\_  
Bill Kampe  
Interim President

Agreed as to form:

By: \_\_\_\_\_  
Donald Freeman  
General Counsel

Monterey Peninsula Water Management District

By: \_\_\_\_\_  
Jeanne Byrne  
Chair

Agreed as to form:

By: \_\_\_\_\_  
David Laredo  
General Counsel

County of Monterey

By: \_\_\_\_\_  
Jane Parker  
Chair of the Board of Supervisors

Agreed as to form:

By: \_\_\_\_\_  
Charles McKee  
County Counsel



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**EXHIBIT BB-B****SECOND AMENDMENT TO THE AMENDED AND RESTATED AGREEMENT TO FORM THE MONTEREY PENINSULA WATER SUPPLY PROJECT GOVERNANCE COMMITTEE**

THIS **SECOND AMENDMENT** ("**Second Amendment**"), dated ~~April 30~~ July 20, 2014~~6~~, supplements and modifies the terms and conditions of that certain **Amended and Restated Agreement to Form The Monterey Peninsula Water Supply Project Governance Committee**, dated November 5, 2013 ("**Agreement**"), by and between the **MONTEREY PENINSULA REGIONAL WATER AUTHORITY** ("**MPRWA**"), the **MONTEREY PENINSULA WATER MANAGEMENT DISTRICT** ("**MPWMD**"), the **COUNTY OF MONTEREY**, and the **CALIFORNIA-AMERICAN WATER COMPANY** ("**Cal-Am**") (collectively, the "Parties"), as amended by Amendment dated April 30, 2016. The Parties agree to further amend the Agreement as set forth below.

1. Section II.R., defining the term "Value Engineer," is deleted in its entirety and replaced with the following:

R. Value Engineer. The professional engineer(s) to be retained by MPRWA or MPWMD upon the selection of the Governance Committee to perform a value engineering analysis for one or more components of the Desalination Project, excluding the Source Water Infrastructure, to potentially lower the costs of, or maximize the value of, the Desalination Project to Cal-Am's ratepayers, including matters concerning the cost effectiveness, performance, reliability, quality, safety, durability, effectiveness, or other desirable characteristics of the Desalination Project. A value engineering analysis will not be performed on the Source Water Infrastructure.

2. Section V.D., Category A, Paragraph 1., concerning the selection of the Value Engineer, is deleted in its entirety and replaced with the following:

1. The Governance Committee shall select, and shall request that the MPRWA or MPWMD shall retain, a Value Engineer(s) to facilitate and report on the proposed value engineering for one or more components of the Desalination Project. In selecting the Value Engineer(s), the Governance Committee shall consider any recommended engineer submitted by any member of the Governance Committee. This matter shall be ripe for decision for the Desalination Infrastructure component before Cal-Am accepts the 30% Design from the contractor retained for the design of the Desalination Infrastructure, ~~or and~~ at any other time that Cal-Am ~~intends to retain~~ advises a Value Engineer should be retained for any other infrastructure constructed as a component of the Desalination Project. Cal-Am shall reimburse the MPRWA or the MPWMD respectively for all payments made by MPRWA or MPWMD to the Value Engineer for expenses reasonably incurred in the Value Engineer's performance of the value engineering services for the Desalination Project up to, but not to exceed, two hundred forty thousand dollars (~~\$204~~0,000). Cal-Am shall make such reimbursement payments within 60 days following Cal-Am's receipt of a valid invoice, with supporting documentation, from MPRWA or MPWMD.

~~3. In Section IX, concerning the term and termination of the Agreement, the first sentence of this section is deleted in its entirety and replaced with the following:~~

Execution Copy Draft

~~This Agreement shall continue in effect until the earlier of (1) March 8, 2053, or (2) the date that Cal-Am ceases to operate the Desalination Project, the earlier such date to be known as the "Expiration Date."~~

~~4. Section X.F., concerning the Parties bearing of costs, is deleted in its entirety and replaced with the following:~~

~~Except as expressly set forth in this Agreement, each Party shall bear its own costs relating to the rights and obligations of each Party arising from this Agreement and its participation in the Governance Committee and, therefore, no Party shall be entitled to any reimbursement from another Party as a result of any provision of this Agreement.~~

~~5.3.~~ All provisions of the Agreement other than the provisions expressly amended above are unaltered by this Second Amendment.

~~6.4.~~ This Second Amendment may be executed in two or more counterparts, each of which shall be deemed and original, but all of which together shall constitute one and the same instrument.

**IN WITNESS WHEREOF**, the Parties have executed this Second Amendment as of the date first stated above.

California-American Water Company

By: \_\_\_\_\_  
Robert MacLean,  
President

Monterey Peninsula Regional Water Authority

By: \_\_\_\_\_  
~~Chuck Della Sala~~ Bill Kampe  
Interim President

Agreed as to form:

By: \_\_\_\_\_  
Donald Freeman  
General Counsel

Monterey Peninsula Water Management District

By: \_\_\_\_\_  
Jeanne Byrne ~~David Pendergrass~~  
Chair

Agreed as to form:

By: \_\_\_\_\_  
David Laredo  
General Counsel

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|  
County of Monterey  
|

By: \_\_\_\_\_  
~~Fernando Armenta~~Jane Parker  
Chair of the Board of Supervisors

Agreed as to form:

By: \_\_\_\_\_  
Charles McKee  
County Counsel

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**EXHIBIT 22-A**

**FINAL MINUTES  
Monterey Peninsula Water Management District  
Administrative Committee  
*June 13, 2016***

**Call to Order**

The meeting was called to order at 8:30 AM in the District Conference Room.

Committee members present:           Andrew Clarke  
  Molly Evans  
  David Pendergrass

Staff present:                               David Stoldt, General Manager  
  Suresh Prasad, Administrative Services Manager/Chief Financial Officer  
  Stephanie Locke, Water Demand Manager  
  Sara Reyes, Office Services Supervisor

**Oral Communications**

None

**1.     Approve Minutes of May 9, 2016 Committee Meeting**

On a motion by Clarke and second by Evans, the minutes of the May 9, 2016 meeting were approved on a vote of 3 to 0.

**Items on Board Agenda for June 20, 2016**

**2.     Consider Expenditure for Temporary Agency Employee to Assist with Data Migration in the Water Demand Division During FY 2016-2017**

On a motion by Clarke and second by Evans, the committee voted 3 to 0 to recommend the Board authorize the expenditure of funds for a local staffing agency to provide an individual to perform data migration duties in the Water Demand Division for 1,980 hours from July 1, 2016 through June 30, 2017.

**3.     Consider Expenditure to Contract for Limited-Term Field Positions During FY 2016-2017**

On a motion by Evans and second by Clarke, the committee voted 3 to 0 to recommend the Board authorize the expenditure of funds to hire several limited-term Water Resources Assistants for up to a total of 2,872 hours of work, several Fisheries Aides for up to 1,705 hours, and one on-call Fish Crew Leader for up to 130 hours, from July 1, 2016 through June 30, 2017.

- 4. Consider Expenditure to Contract for a Limited-Term Project Manager in the Planning and Engineering Division During FY 2016-2017**  
On a motion by Clarke and second by Evans, the committee voted 3 to 0 to recommend the Board authorize the expenditure of funds to hire a limited-term Project Manager for up to 644 hours of work from July 1, 2016 through June 30, 2017.
- 5. Consider Renewal of Standard License Agreement with Corelogic Information Solutions, Inc.**  
On a motion by Evans and second by Clarke, the committee voted 3 to 0 to recommend the Board authorize staff to expend up to \$13,500 for the standard license agreement and deposit.
- 6. Consider Continuance of Contract with Zone 24X7 for Water Demand Database Improvements and Maintenance**  
On a motion by Evans and second by Clarke, the committee voted 3 to 0 to recommend the Board authorize expenditure of budgeted funds in an amount not-to-exceed \$60,000 for programming changes to the WDD-DBS to accommodate functionality improvements and database support/maintenance.
- 7. Consider Adoption of Resolution 2016-11 Establishing Article XII (B) Fiscal Year 2016-2017 Appropriations Limit**  
On a motion by Clarke and second by Evans, the committee voted 3 to 0 to recommend the Board adopt Resolution 2016-11.
- 8. Consider Adoption of Treasurer’s Report for April 2016**  
On a motion by Evans and second by Clarke, the committee voted 3 to 0 to recommend the Board adopt the April 2016 Treasurer’s Report and financial statements, and ratification of the disbursements made during the month.

**Other Business**

- 9. Review Draft June 20, 2016 Board Meeting Agenda**  
The committee reviewed the draft agenda and made no changes.

**Adjournment**

The meeting was adjourned at 9:23 AM.



**EXHIBIT 22-B**

**FINAL MINUTES**  
**Water Supply Planning Committee of the**  
**Monterey Peninsula Water Management District**  
*May 24, 2016*

**Call to Order**           The meeting was called to order at 10:00 am in the MPWMD conference room.

**Committee members present:**   Robert S. Brower, Sr. - Committee Chair  
   Jeanne Byrne  
   David Pendergrass

**Committee members absent:**   None

**Staff members present:**         David Stoldt, General Manager  
   Larry Hampson, Planning & Engineering Division Manager  
   Joseph Oliver, Water Resources Division Manager  
   Arlene Tavani, Executive Assistant

**District Counsel present**         David Laredo

**Comments from the Public:**     No comments.

**Action Items**

1.     **Consider Adoption of Committee Meeting Minutes of December 11, 2015, and also January 20, March 3 and April 8, 2016**  
        On a motion by Pendergrass and second of Bryne, minutes of the committee meetings presented were approved on a unanimous vote of 3 – 0 by Pendergrass, Byrne and Brower. No comments were directed to the committee during the public comment period on this item.

**Discussion Items**

2.     **Discuss Monterey County General Plan Requirements for Carmel Valley Alluvial Aquifer**  
        Following the discussion on this item, staff was directed to present a recommendation at the next committee meeting.

**Summary of Discussion:** Hampson reviewed information provided in the committee packet. The 2010 Monterey County General Plan states that discretionary permits issued for new subdivision projects must prove they can be served by a long-term sustainable water supply. The County has not yet adopted an ordinance that defines “sustainable.” However, the General Plan outlines several factors to consider when

making a determination of a sustainable water supply, including Policy PS-3.2 sections e and f to determine sustainability. The General Manager of the Monterey County Water Resources Agency (MCWRA) is charged with determining whether a supply is sustainable and in meetings between MCWRA staff and MPWMD staff, it was pointed out to MPWMD staff that: 1) the Carmel Valley Alluvial Aquifer (CVAA) is subject to seasonal overdraft; 2) the SWRCB has issued a Cease-and-Desist Order to significantly reduce Carmel River diversions in order to protect the resources of the river; and 3) there is no formal analysis or plan that describes how to reverse these trends that would allow MCWRA to make a determination of “long term sustainability” for supplies from the CVAA.

The Carmel River experiences drawdown due to summer diversions; however, flows typically exceed diversions in the winter months when the aquifer fills. The District’s policy for approving wells in the CVAA requires that water use for a project cannot exceed the 10-year average use on the site; therefore, water use does not increase over the long-term as a result of this policy. However, the policy does not reduce or reverse ongoing impacts during certain dry periods to aquatic species from diversion based on existing water rights.

During discussion of this item, comments were received from John Ford, Senior Planner at the Monterey County Planning Department, and Howard Franklin, Senior Hydrologist at Monterey County Water Resources Agency. **(a) Ford** - Suggested the Water Management District develop a management plan for the CVAA so that the County’s findings could state that a project is in compliance with that plan. **(b) Franklin** – The management plan must address all factors outlined in the general plan policy re a sustainable water supply. To simply reference the Water Management District CVAA well policy would not meet the general plan criteria. **(c) Ford** – The General Plan limits the number of new subdivision units that can be developed in Carmel Valley to 190. An alternative to preparation of a CVAA management plan would be for the Water Management District to acknowledge that its policy of permitting projects based on previous use differs from the County’s sustainability requirement. **(d) Franklin** – The County will develop its own requirement for proving sustainability in the CVAA if the Water Management District does not develop a policy that complies with the General Plan. **(e) Franklin** – Mitigation measures required by the Water Management District could possibly be utilized to meet the sustainability requirement, but they must be codified by policy. If the Water Management District’s goal is to reach a balanced or sustainable basin, the measures to be taken must be defined.

Comments by committee members and staff. **(a)** The CVAA is sustainable over the long-term because the aquifer recharges regularly. **(b)** Sustainability could be proven because: the long-term production trend is showing a reduction; the Water Management District could require that a percentage of historical production be retired for the benefit of the river; when the GS flow model is completed a determination could be made on the amount of reduction in production that each user must achieve; and a policy must be developed that sets a baseline in order to comply with Policy PS-3.2 sections e and f. **(c)** The County has land use authority in Carmel Valley and can promulgate regulations that are in addition to the Water Management District’s policies. **(d)** It is not yet known how the CVAA will be affected when California American Water reduces diversions to

meet its legitimate water right. (e) The Water Management District’s policy disallows any increase in water production; therefore, it aligns with Policy PS-3.2.f. (f) MPWMD has historically required at least a 15% reduction in water use for discretionary permits. The requirement that a portion of historical production (or demand) be set aside for a drought reserve or to benefit the river meets the need to show a reverse in the trend of basin overdraft, so modeling may not be necessary. (g) A set aside should apply to all developments in the CVAA. (h) Suggest that any ordinance developed by the Water Management District to address the long-term sustainability issue include a sunset clause triggered by lifting of the CDO.

During the public comment period on this item, **Luke Coletti** addressed the committee. He suggested that when developing estimates of a project’s historical annual water use, staff should use the median.

**3. Discuss Possible District Water Entitlement Ordinance**

Stoldt discussed with the committee the concept of a water entitlement ordinance. The issue was deferred to a future meeting. During the public comment period on this item, **Luke Coletti** asked if the Water Allocation Program will be abandoned after the CDO is lifted. *Stoldt responded that the Water Management District will make a decision at that time about development of an EIR and establishment of a new allocation plan, or making the water available on a first-come-first-served basis.*

**4. Update on Aquifer Storage and Recovery Project Activities**

Stoldt reported that diversions have ceased for the year for Aquifer Storage and Recovery (ASR), and the total amount of water produced for the year was 699 acre-feet. At the June 20, 2016 Board meeting, the directors will consider certification of an addendum to the EIR on the Pure Water Monterey Project and also the EIR on the ASR Project. This is needed in order to move ahead on approval of a pipeline for the Hilby Pump Station. The 36-inch pipeline is needed for: delivery of desalinated water; to transmit water around the hydraulic trough; to ensure maximization of water deliveries throughout the District; and to ensure maximization of ASR water deliveries throughout the District. One pipeline will run from the Carmel River to the pump station; another from GWR to the Seaside basin; and another from the proposed desalination plant to the Seaside Basin.

(a) **Brian LeNeve** addressed the Board during the public comment period on this item. He asked how much water could have been delivered through the ASR program if the pipe were larger. *Stoldt - No estimate at this time.* (b) **Luke Coletti** asked for an estimate of the cost to build the two source-water pipelines. *Stoldt noted that two pipelines are needed because guidelines for indirect potable reuse state the purified, recycled water is not reusable until it has been in the ground for six months; therefore, two pipelines, separately trenched, are needed. The conveyance pipelines will be paid for by Cal-Am; the costs will ultimately be passed on to the rate payers.*

**5. Update on Pure Water Monterey Project**

Hampson reported that the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) have filed protests to the application for the project. The local agencies have been working with NMFS and

CDFW to resolve those protests, which is a high priority for the State Water Resources Control Board. If the protests cannot be resolved at the staff level by June 2016, the issue may need to go to hearing. During the public comment period on this item, **Brian LeNeve** addressed the committee. He asked what percentage of Pure Water Monterey water would be sourced from the Blanco Drain. *Hampson responded that the amount has not been determined as many variables are involved.*

**6. Update on California American Water Desalination Project**  
No report.

**7. Update on Alternative Desalination Project**  
No report.

**Suggestions from the Public on Water Supply Project Alternatives:** No Discussion

**Set Next Meeting Date:** The meeting was scheduled for June 14, 2016, at 2 pm.

**Adjournment:** The meeting was adjourned at 11:30 am.

**ITEM: CONSENT CALENDAR****23. SEMI-ANNUAL FINANCIAL REPORT ON THE CAWD/PBCSD WASTEWATER RECLAMATION PROJECT****Meeting Date:** July 11, 2016 **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 11, 2016 and recommended approval.**CEQA Compliance:** N/A

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, 2016 through June 30, 2016. 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, 2016:

<u>Description</u>	<u>Institution</u>	<u>Market Value</u>	<u>Rate/Yield</u>	<u>Term</u>
Interest Fund	U.S. Bank	\$327	0.00%	Daily
Certificate Payment Fund	U.S. Bank	\$791	0.00%	Daily
Acquisition/Rebate Funds	U.S. Bank	\$19	0.00%	Daily
Water Sales Revenue Acct.	Bank of America	\$10,199	0.03%	Daily

### Operation and Maintenance Disbursements:

MPWMD transferred advances in the amount of \$2,763,000 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 Pebble Beach Company during this reporting period. The outstanding balance on the Certificates is currently \$15,800,000.

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 0.03% and 0.52%.

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 ITEM/STAFF REPORTS****24. MONTHLY ALLOCATION REPORT****Meeting Date:** July 18, 2016 **Budgeted:** N/A**From:** David J. Stoldt,  
General Manager **Program:** N/A  
**Line Item No.:****Prepared By:** Gabriela Ayala **Cost Estimate:** N/A**General Counsel Review:** N/A**Committee Recommendation:** N/A**CEQA Compliance:** N/A

**SUMMARY:** As of June 30, 2016, a total of **25.830** acre-feet (**7.5%**) of the Paralta Well Allocation remained available for use by the Jurisdictions. Pre-Paralta water in the amount of **35.561** acre-feet is available to the Jurisdictions, and **30.384** acre-feet is available as public water credits.

**Exhibit 24-A** shows the amount of water allocated to each Jurisdiction from the Paralta Well Allocation, the quantities permitted in June 2016 (“changes”), and the quantities remaining. The Paralta Allocation had no debits in June 2016.

**Exhibit 24-A** also shows additional water available to each of the Jurisdictions and the information regarding the Community Hospital of the Monterey Peninsula (Holman Highway Facility). Additional water from expired or canceled permits that were issued before January 1991 are shown under “PRE-Paralta.” Water credits used from a Jurisdiction’s “public credit” account are also listed. Transfers of Non-Residential Water Use Credits into a Jurisdiction’s Allocation are included as “public credits.” **Exhibit 24-B** shows water available to Pebble Beach Company and Del Monte Forest Benefited Properties, including Macomber Estates, Griffin Trust. Another table in this exhibit shows the status of Sand City Water Entitlement.

**BACKGROUND:** The District’s Water Allocation Program, associated resource system supply limits, and Jurisdictional Allocations have been modified by a number of key ordinances. These key ordinances are listed in **Exhibit 24-C**.

**EXHIBITS****24-A** Monthly Allocation Report**24-B** Monthly Entitlement Report**24-C** District’s Water Allocation Program Ordinances

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**EXHIBIT 24-A**

**MONTHLY ALLOCATION REPORT**  
**Reported in Acre-Feet**  
**For the month of June 2016**

Jurisdiction	Paralta Allocation*	Changes	Remaining	PRE-Paralta Credits	Changes	Remaining	Public Credits	Changes	Remaining	Total Available
<b>Airport District</b>	8.100	0.000	5.197	0.000	0.000	0.000	0.000	0.000	0.000	5.197
<b>Carmel-by-the-Sea</b>	19.410	0.000	1.397	1.081	0.000	1.081	0.910	0.000	0.182	2.660
<b>Del Rey Oaks</b>	8.100	0.000	0.000	0.440	0.000	0.000	0.000	0.000	0.000	0.000
<b>Monterey</b>	76.320	0.000	0.203	50.659	0.000	0.030	38.121	0.000	3.661	3.894
<b>Monterey County</b>	87.710	0.000	10.284	13.080	0.000	0.000	7.827	0.000	1.891	12.175
<b>Pacific Grove</b>	25.770	0.000	0.000	1.410	0.300	0.012	15.874	0.000	0.133	0.145
<b>Sand City</b>	51.860	0.000	0.000	0.838	0.000	0.000	24.717	0.000	23.373	23.373
<b>Seaside</b>	65.450	0.000	8.749	34.438	0.000	34.438	2.693	0.000	1.144	44.331
<b>TOTALS</b>	<b>342.720</b>	<b>0.000</b>	<b>25.830</b>	<b>101.946</b>	<b>0.300</b>	<b>35.561</b>	<b>90.142</b>	<b>0.000</b>	<b>30.384</b>	<b>91.775</b>

Allocation Holder	Water Available	Changes this Month	Total Demand from Water Permits Issued	Remaining Water Available
<b>Quail Meadows</b>	33.000	0.000	32.237	0.763
<b>Water West</b>	12.760	0.123	8.966	3.774

\* Does not include 15.280 Acre-Feet from the District Reserve prior to adoption of Ordinance No. 73.

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**EXHIBIT 24-B**

**MONTHLY ALLOCATION REPORT ENTITLEMENTS**  
**Reported in Acre-Feet**  
**For the month of June 2016**

**Recycled Water Project Entitlements**

<b>Entitlement Holder</b>	<b>Entitlement</b>	<b>Changes this Month</b>	<b>Total Demand from Water Permits Issued</b>	<b>Remaining Entitlement/and Water Use Permits Available</b>
<b>Pebble Beach Co. <sup>1</sup></b>	237.660	0.900	25.994	211.666
<b>Del Monte Forest Benefited Properties <sup>2</sup> (Pursuant to Ord No. 109)</b>	127.340	0.610	43.573	83.767
<b>Macomber Estates</b>	10.000	0.000	9.595	0.405
<b>Griffin Trust</b>	5.000	0.000	4.809	0.191
<b>CAWD/PBCSD Project Totals</b>	<b>380.000</b>	<b>1.510</b>	<b>83.971</b>	<b>296.029</b>

<b>Entitlement Holder</b>	<b>Entitlement</b>	<b>Changes this Month</b>	<b>Total Demand from Water Permits Issued</b>	<b>Remaining Entitlement/and Water Use Permits Available</b>
<b>City of Sand City</b>	165.000	0.000	3.616	161.384
<b>Malpasos Water Company</b>	80.000	0.096	0.320	79.680
<b>D.B.O. Development No. 30</b>	13.95	0.000	0.000	13.95
<b>City of Pacific Grove</b>	66.000	0.000	0.000	66.000

Increases in the Del Monte Forest Benefited Properties Entitlement will result in reductions in the Pebble Beach Co. Entitlement.

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## EXHIBIT 24-C

### **District's Water Allocation Program Ordinances**

**Ordinance No. 1** was adopted in September 1980 to establish interim municipal water allocations based on existing water use by the jurisdictions. Resolution 81-7 was adopted in April 1981 to modify the interim allocations and incorporate projected water demands through the year 2000. Under the 1981 allocation, Cal-Am's annual production limit was set at 20,000 acre-feet.

**Ordinance No. 52** was adopted in December 1990 to implement the District's water allocation program, modify the resource system supply limit, and to temporarily limit new uses of water. As a result of Ordinance No. 52, a moratorium on the issuance of most water permits within the District was established. Adoption of Ordinance No. 52 reduced Cal-Am's annual production limit to 16,744 acre-feet.

**Ordinance No. 70** was adopted in June 1993 to modify the resource system supply limit, establish a water allocation for each of the jurisdictions within the District, and end the moratorium on the issuance of water permits. Adoption of Ordinance No. 70 was based on development of the Paralta Well in the Seaside Groundwater Basin and increased Cal-Am's annual production limit to **17,619** acre-feet. More specifically, Ordinance No. 70 allocated 308 acre-feet of water to the jurisdictions and 50 acre-feet to a District Reserve for regional projects with public benefit.

**Ordinance No. 73** was adopted in February 1995 to eliminate the District Reserve and allocate the remaining water equally among the eight jurisdictions. Of the original 50 acre-feet that was allocated to the District Reserve, 34.72 acre-feet remained and was distributed equally (4.34 acre-feet) among the jurisdictions.

**Ordinance No. 74** was adopted in March 1995 to allow the reinvestment of toilet retrofit water savings on single-family residential properties. The reinvested retrofit credits must be repaid by the jurisdiction from the next available water allocation and are limited to a maximum of 10 acre-feet. This ordinance sunset in July 1998.

**Ordinance No. 75** was adopted in March 1995 to allow the reinvestment of water saved through toilet retrofits and other permanent water savings methods at publicly owned and operated facilities. Fifteen percent of the savings are set aside to meet the District's long-term water conservation goal and the remainder of the savings are credited to the jurisdictions allocation. This ordinance sunset in July 1998.

**Ordinance No. 83** was adopted in April 1996 and set Cal-Am's annual production limit at **17,621** acre-feet and the non-Cal-Am annual production limit at **3,046** acre-feet. The modifications to the production limit were made based on the agreement by non-Cal-Am water users to permanently reduce annual water production from the Carmel Valley Alluvial Aquifer in exchange for water service from Cal-Am. As part of the agreement, fifteen percent of the historical non-Cal-Am production was set aside to meet the District's long-term water conservation goal.

**Ordinance No. 87** was adopted in February 1997 as an urgency ordinance establishing a community benefit allocation for the planned expansion of the Community Hospital of the Monterey Peninsula (CHOMP). Specifically, a special reserve allocation of 19.60 acre-feet of production was created exclusively for the benefit of CHOMP. With this new allocation, Cal-Am's annual production limit was increased to **17,641** acre-feet and the non-Cal-Am annual production limit remained at **3,046** acre-feet.

**Ordinance No. 90** was adopted in June 1998 to continue the program allowing the reinvestment of toilet retrofit water savings on single-family residential properties for 90-days following the expiration of Ordinance No. 74. This ordinance sunset in September 1998.

**Ordinance No. 91** was adopted in June 1998 to continue the program allowing the reinvestment of water saved through toilet retrofits and other permanent water savings methods at publicly owned and operated facilities.

**Ordinance No. 90 and No. 91** were challenged for compliance with CEQA and nullified by the Monterey Superior Court in December 1998.

**Ordinance No. 109** was adopted on May 27, 2004, revised Rule 23.5 and adopted additional provisions to facilitate the financing and expansion of the CAWD/PBCSD Recycled Water Project.

**Ordinance No. 132** was adopted on January 24, 2008, established a Water Entitlement for Sand City and amended the rules to reflect the process for issuing Water Use Permits.

**Ordinance No. 165** was adopted on August 17, 2015, established a Water Entitlement for Malpas Water Company and amended the rules to reflect the process for issuing Water Use Permits.

**Ordinance No. 166** was adopted on December 15, 2015, established a Water Entitlement for D.B.O. Development No. 30.

**Ordinance No. 168** was adopted on January 27, 2016, established a Water Entitlement for the City of Pacific Grove.



**ITEM: INFORMATIONAL ITEM/STAFF REPORTS****25. WATER CONSERVATION PROGRAM REPORT**

<b>Meeting Date:</b>	<b>July 18, 2016</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>Kyle Smith</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**Committee Recommendation: N/A****CEQA Compliance: N/A**

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**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, 2.2 gpm faucet aerators, 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 entered into the database and compared against the properties that have submitted WCCs. Details on **126** property transfers that occurred in June 2016 were entered into the database.

**B. Certification**

The District received **39** WCCs between June 1, 2016, and June 30, 2016. Data on ownership, transfer date, and status of water efficiency standard compliance were entered into the database.

**C. Verification**

In June, **43** properties were verified to be in compliance with Rule 144 (Retrofit Upon Change of Ownership or Use). Of the **119** inspections, **54** properties verified compliance by submitting certification forms and/or receipts. District staff completed **65** site inspections. Of the **65** properties inspected **41 (63%)** were in compliance. **None** of the properties that passed inspection involved more than one visit to verify compliance with all water efficiency standards.

District inspectors are tracking toilet replacement with High Efficiency Toilets (HET) in place of ULF toilets. These retrofits are occurring in remodels and new construction, and are the toilet of choice for Rule 144 compliance. State law mandated the sale and installation of HET by January 1, 2014, with a phase-in period that began in 2010. The majority of toilets sold in California are HET.

**Savings Estimate**

Water savings from HET retrofits triggered by Rule 144 verified in June 2016 are estimated at **0.360** acre-feet annually (AFA). Water savings from retrofits that exceeded requirements (i.e., HETs to Ultra High Efficiency Toilets) is estimated at **0.360** AFA (36 toilets). Year-to-date estimated savings occurring as a result of toilet retrofits is **7.400** 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. This month, District inspectors performed **74** inspections. Of the **74** inspections certified, **47 (63%)** were in compliance. **None** 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 June 2016, MPWMD referred **24** properties to Cal-Am for verification of outdoor Rate BMPs.

#### E. Water Waste Enforcement

In response to the State's drought emergency conservation regulation effective June 1, 2016, the District has increased its 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 **seven** Water Waste responses during the past month. There were **no** repeated incidents that resulted in a fine.

## II. WATER DEMAND MANAGEMENT

### A. Permit Processing

District Rule 23 requires a Water Permit application for all properties that propose to expand or modify water use on a Site, including New Construction and Remodels. District staff processed and issued **122** Water Permits in June 2016. **Nine** Water Permits were issued using Water Entitlements (Macomber, Pebble Beach Company, Griffin Estates, etc). No Water Permit involved a debit to a Public Water Credit Account.

All Water Permits have a disclaimer informing applicants of the Cease and Desist Order against California American Water and that MPWMD reports Water Permit details to California American Water. All Water Permit recipients with property supplied by a California American Water Distribution System will continue to be provided with the disclaimer.

District Rule 24-3-A allows the addition of a second Bathroom in an existing Single-Family Dwelling on a Single-Family Residential Site. Of the **122** Water Permits issued in June, **twelve** were issued under this provision.

### B. Permit Compliance

District staff completed **79** Water Permit final inspections during June 2016. **Eleven** of the final inspections failed due to unpermitted fixtures. Of the **54** properties that were in compliance, **35** passed on the first visit. In addition, **six** pre-inspection 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. In the month of June, the District prepared **108** deed restrictions. Of the **122** Water Permits issued in June, **82 (67%)** required deed restrictions. District staff provided Notary services for **99** Water Permits with deed restrictions.

### III. JOINT MPWMD/CAW REBATE PROGRAM

Participation in the rebate program is detailed in the following chart. The table below indicates the program summary for Rebates for California American Water Company customers.

<b>REBATE PROGRAM SUMMARY</b>		June-2016				2016 YTD	1997 - Present	
<b>I. <u>Application Summary</u></b>								
A.	Applications Received	164				1109	21944	
B.	Applications Approved	125				887	17242	
C.	Single Family Applications	154				1032	19769	
D.	Multi-Family Applications	4				47	1094	
E.	Non-Residential Applications	6				30	282	
<b>II. <u>Type of Devices Rebated</u></b>		Number of devices	Rebate Paid	Estimated AF	Gallons Saved	YTD Quantity	YTD Paid	YTD Est AF
A.	High Efficiency Toilet (HET)	12	1167.00	0.500976	163,244	105	10424.00	4.38354
B.	Ultra Low Flush to HET	34	3400.00	0.340000	110,789	207	20357.57	2.07
C.	Ultra HET	19	2763.97	0.190000	61,912	148	21767.80	1.48
D.	Toilet Flapper	0	0.00	0.000000	0	0	0.00	0
E.	High Efficiency Dishwasher	13	1625.00	0.039000	12,708	110	13750.00	0.33
F.	High Efficiency Clothes Washer	44	21500.00	0.708400	230,833	314	156444.65	5.0554
G.	Instant-Access Hot Water System	2	400.00	0.000000	0	20	3701.00	0
H.	On Demand Systems	0	0.00	0.000000	0	5	500.00	0
I.	Zero Use Urinals	0	0.00	0.000000	0	0	0.00	0
J.	High Efficiency Urinals	0	0.00	0.000000	0	0	0.00	0
K.	Pint Urinals	0	0.00	0.000000	0	0	0.00	0
L.	Cisterns	4	3742.50	0.000000	0	41	47476.00	0
M.	Smart Controllers	2	330.00	0.000000	0	3	470.00	0
N.	Rotating Sprinkler Nozzles	0	0.00	0.000000	0	0	0.00	0
O.	Moisture Sensors	0	0.00	0.000000	0	0	0.00	0
P.	Lawn Removal & Replacement	2	3881.00	0.318242	103,699	19	23837.00	2.139954
Q.	Graywater	0	0.00	0.000000	0	0	0.00	0
R.	Ice Machines	0	0.00	0.000000	0	0	0.00	0
<b>III. <u>Totals: Month; AF; Gallons; YTD</u></b>		132	38809.47	2.096618	683,185	972	298,728.02	15.458894
						2016 YTD	1997 - Present	
<b>IV. <u>Total Rebated: YTD; Program</u></b>						298,728.02	5,193,021.08	
<b>V. <u>Estimated Water Savings in Acre-Feet Annually*</u></b>						15.458894	500.195859	

\* Retrofit savings are estimated at 0.041748 AF/HET; 0.01 AF/UHET; 0.01 AF/ULF to HET; 0.003 AF/dishwasher; 0.0161 AF/residential washer; 0.0082 AF/100 square feet of lawn removal.

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**ITEM: INFORMATIONAL ITESM/STAFF REPORTS****26. QUARTERLY WATER USE CREDIT TRANSFER STATUS REPORT****Meeting Date: July 18, 2016** **Budgeted: N/A****From: David J. Stoldt,  
General Manager** **Program/  
Line Item No.: N/A****Prepared By: Gabriela Ayala** **Cost Estimate: N/A****General Counsel Review: N/A****Committee Recommendation: N/A****CEQA Compliance: N/A**

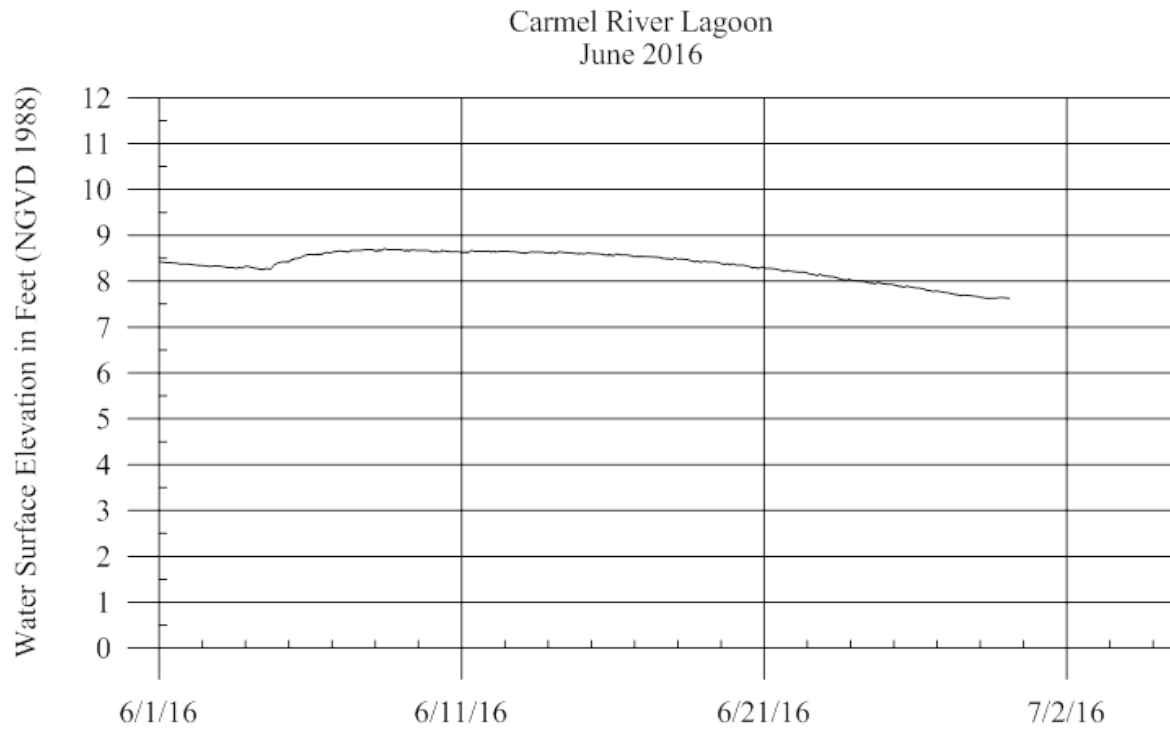
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Information about Water Use Credit transfer applications will be reported as applications are received. There are no pending Water Use Credit transfer applications.

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**SLEEPY HOLLOW STEELHEAD REARING FACILITY:** The first rescued fish were brought to the Facility on June 13, 2016. Through the end of June there were 53 steelhead including 11 YOY, 16 1+, and 26 2+ fish in the Facility.





**ITEM: INFORMATIONAL ITEMS/STAFF REPORTS****28. QUARTERLY CARMEL RIVER RIPARIAN CORRIDOR MANAGEMENT PROGRAM REPORT**

<b>Meeting Date:</b>	<b>July 18, 2016</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 and Larry Hampson</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review:** N/A  
**Committee Recommendation:** N/A  
**CEQA Compliance:** N/A

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**IRRIGATION OF RIPARIAN VEGETATION:** The supplemental watering of riparian restoration plantings has resumed for the summer season in 2016 at six Monterey Peninsula Water Management District (District) riparian habitat restoration sites. The following irrigation systems were in use April through June: deDampierre, Trail and Saddle Club, Begonia, Schulte, Valley Hills, and Schulte Bridge.

**Water Use in Acre-Feet (AF)**  
(preliminary values subject to revision)

January - March 2016	0.0 AF
April - June 2016	<u>1.64</u>
Year-to-date	1.64 AF

**MONITORING OF RIPARIAN VEGETATION:** During June 2016, staff recorded bi-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 bi-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 28-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 2016 monitoring season to date show that riparian vegetation is below threshold stress levels. At present, the river is drying back. However, there has been adequate soil moisture for the first part of summer to sustain the riparian corridor. The graph in **Exhibit 28-A** shows average canopy ratings for willows and cottonwoods in selected restoration

sites in lower Carmel Valley. The graph in **Exhibit 28-B** shows impacts to water table elevations.

The types of monitoring measurements made during May and June 2016 are as follows:

### Monitoring Measurement

Canopy ratings	(See <b>Exhibit 28-A</b> for trends.)
Groundwater levels (monitoring wells)	(See <b>Exhibit 28-B</b> for trends.)
Groundwater pumping (production wells)	

### **OTHER TASKS PERFORMED SINCE THE APRIL 2015 QUARTERLY REPORT:**

1. **Carmel River Vegetation Management Project Notification:** On April 15, 2016, 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 thirteen sites that are scheduled for vegetation management activities this fall. A total of approximately 2000 square feet of stream encompassing approximately 0.05 acres in the channel bottom will be affected by this year's project. 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 (Mark Bekker and Matt Lyons) have been tuning up multiple irrigation systems along the Carmel River that are designed to offset impacts associated with groundwater extraction. Tune-ups include replacement of clogged emitters, leak repair, and trouble shooting well pumps and pressure tanks.
3. **Public Outreach and Education:** On April 8, 2016, District staff (Christensen) gave a presentation to students of Chartwell High School in Seaside on the current state of water supply planning for the Monterey Peninsula. Highlights included discussion on the Monterey Peninsula Water Resource System, Aquifer Storage and Recovery, and elements of the District's Mitigation Program.

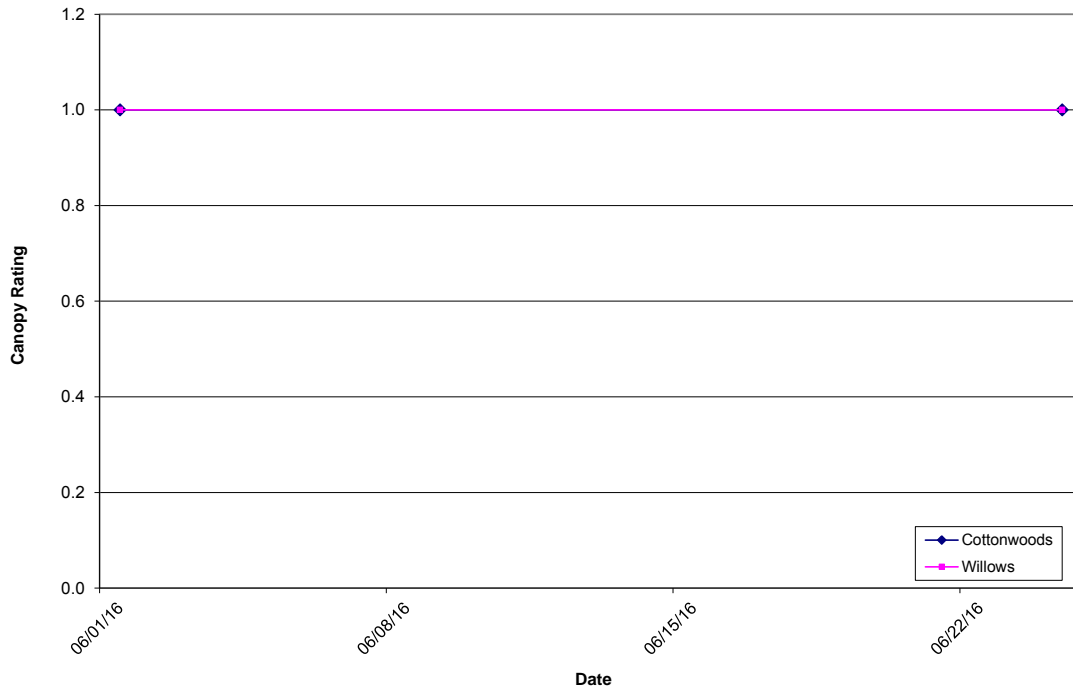
### **EXHIBITS**

**28-A** Average Willow and Cottonwood Canopy Rating

**28-B** Depth to Groundwater

**EXHIBIT 28-A**

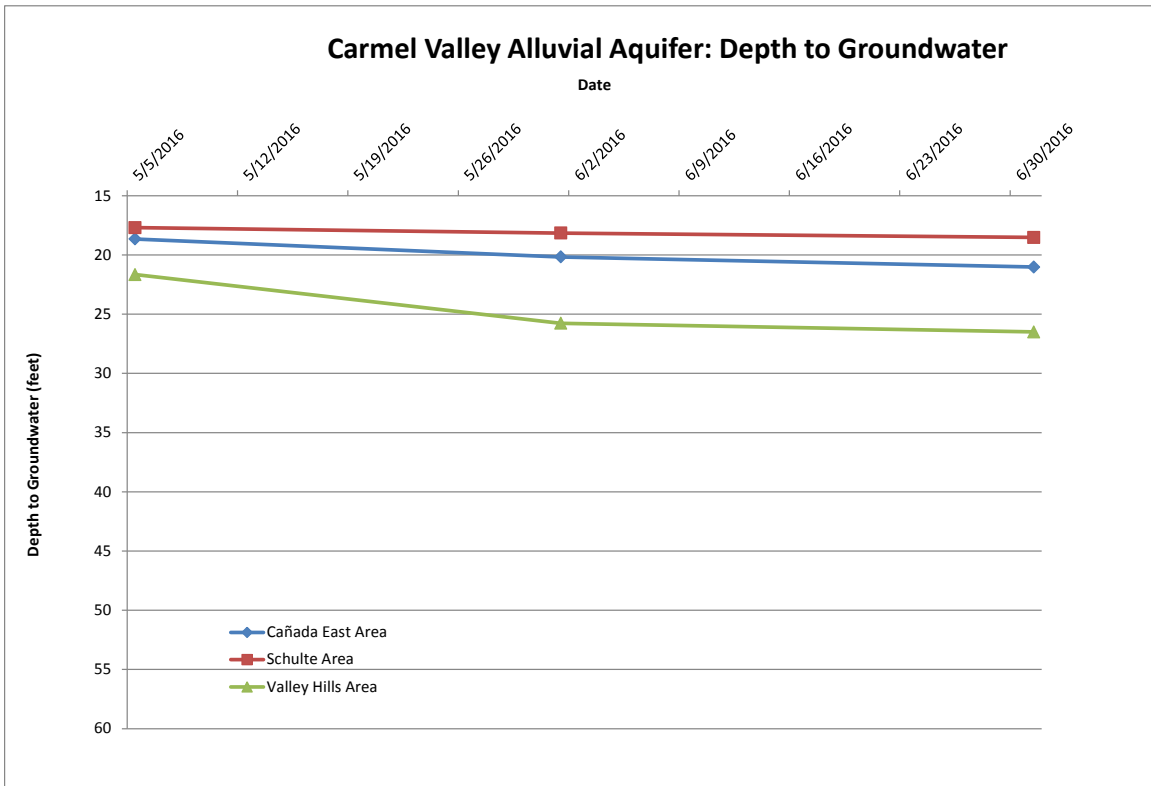
**Carmel River Riparian Vegetation:  
Average Canopy Rating for Cottonwoods and Willows**



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

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**EXHIBIT 28-B**






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**EXHIBIT 29-A**

Monterey Peninsula Water Management District Water Supply Status July 1, 2016					
Factor	Water Year 2016 Oct - Jun	Average To Date	Percent of Average	Water Year 2015 Oct - Jun	
	<b>Rainfall</b> (Inches)	22.25	20.92	106%	15.90
	<b>Runoff</b> (Acre-Feet)	44,408	66,474	67%	22,131
	<b>Storage</b> (Acre-Feet)	30,880	30,000	103%	29,240

**Notes:**

1. Rainfall and runoff estimates are based on measurements at San Clemente Dam. Annual rainfall and runoff at San Clemente Dam average 21.1 inches and 67,442 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 San Clemente Dam site are based on records for the 1922-2015 and 1902-2015 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 1989-2015 period. The storage estimates are end-of-month values for the dates referenced in the table.
4. The maximum usable storage capacity for the MPWRS at this time, with the flashboard in at Los Padres Dam and no capacity at San Clemente Dam, is 37,639 acre-feet.
5. The adult steelhead count historically provided for fish that migrate up the fish ladder at San Clemente Dam is no longer available subsequent to the removal of the dam in 2015.

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**EXHIBIT 29-B**

**Production vs. CDO and Adjudication to Date: WY 2016**

(All values in Acre-Feet)

Year-to-Date Values	Carmel River Basin <sup>2</sup>	Seaside Groundwater Basin		Water Rights and Projects <sup>7</sup>			MPWRS Total	Percent Below Target
		Coastal	Laguna Seca	ASR Recovery	Table 13	Sand City <sup>3</sup>		
Target	6,769	1,100	32	0	227	225	8,353	<b>14.0%</b>
Actual <sup>4</sup>	6,009	963	215	149	137	103	7,187	
Difference	760	137	-183	-149	91	122	1,166	

1. This table is current through the last populated month of the table below.
2. For CDO compliance, ASR and Table 13 diversions are included in River production per State Board.
3. Sand City Desal is not part of the MPWRS production and is tracked as a new source.
4. To date, 699 AF and 137 AF have been produced from the River for ASR and Table 13 respectively.

**Monthly Production from all Sources for Customer Service: WY 2016**

(All values in Acre-Feet)

	Carmel River	Seaside Basin	ASR Recovery	Table 13	Sand City	Total
Oct-15	568	288	0	0	11	867
Nov-15	479	187	0	0	0	666
Dec-15	527	117	0	0	0	644
Jan-16	495	87	0	42	2	627
Feb-16	606	44	0	10	5	664
Mar-16	427	139	0	81	15	662
Apr-16	698	54	0	3	28	783
May-16	761	98	0	0	22	881
Jun-16	614	165	149	0	20	948
Jul-16						
Aug-16						
Sep-16						
<b>Total</b>	<b>5,174</b>	<b>1,178</b>	<b>149</b>	<b>137</b>	<b>103</b>	<b>6,741</b>

1. This table is produced as a proxy for customer demand.
2. Numbers are provisional and are subject to correction.

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**EXHIBIT 29-C**

**California American Water Production by Source: Water Year 2016**

	Carmel Valley Wells <sup>1</sup>						Seaside Wells <sup>2</sup>						Total Wells			Sand City Desal		
	Actual		Anticipated <sup>3</sup>		Under Target		Actual		Anticipated		Under Target		Actual	Anticipated	Acre-Foot Under Target	Actual	Anticipated	Under Target
	Upper acre-feet	Lower acre-feet	Upper acre-feet	Lower acre-feet	Upper acre-feet	Lower acre-feet	Coastal acre-feet	LagunaSeca acre-feet	Coastal acre-feet	LagunaSeca acre-feet	Coastal acre-feet	LagunaSeca acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
Oct-15	0	568	0	568	0	0	258	31	400	5	142	-26	856	973	117	11	25	14
Nov-15	0	479	0	479	0	0	166	21	300	3	134	-18	665	782	116	0	25	25
Dec-15	0	527	35	637	35	110	97	20	100	3	3	-17	644	775	131	0	25	25
Jan-16	85	662	0	725	-85	63	69	19	100	3	31	-16	835	828	-7	2	25	23
Feb-16	53	622	0	926	-53	304	25	19	100	2	75	-17	719	1,028	309	5	25	20
Mar-16	154	731	0	1,011	-154	280	119	19	100	3	-19	-16	1024	1,114	90	15	25	10
Apr-16	24	729	0	994	-24	265	29	25	0	3	-29	-22	807	997	190	28	25	-3
May-16	24	736	0	1,191	-24	455	68	30	0	5	-68	-25	859	1,196	337	22	25	3
Jun-16	0	614	0	1,109	0	495	282	33	150	5	-132	-28	928	1,264	336	20	25	5
Jul-16																		
Aug-16																		
Sep-16																		
<b>To Date</b>	<b>342</b>	<b>5,668</b>	<b>35</b>	<b>7,639</b>	<b>-307</b>	<b>1,971</b>	<b>1,112</b>	<b>215</b>	<b>1,250</b>	<b>32</b>	<b>138</b>	<b>-183</b>	<b>7,337</b>	<b>8,956</b>	<b>1,619</b>	<b>103</b>	<b>225</b>	<b>122</b>

**Total Production: Water Year 2016**

	Actual	Anticipated	Acre-Foot Under Target
Oct-15	867	998	131
Nov-15	666	807	141
Dec-15	644	800	156
Jan-16	837	853	16
Feb-16	723	1,053	329
Mar-16	1,039	1,139	100
Apr-16	835	1,022	187
May-16	881	1,221	340
Jun-16	948	1,289	341
Jul-16			
Aug-16			
Sep-16			
<b>To Date</b>	<b>7,440</b>	<b>9,181</b>	<b>1,741</b>

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. Current "anticipated" water budget reflects "Normal" Carmel River inflow conditions and monthly distribution of production based on long-term averages for the Cal-Am system.

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# Supplement to 7/18/16 MPWMD Board Packet

Attached are copies of letters received between June 11, 2016 and July 8, 2016. These letters are listed in the July 18, 2016 Board packet under Letters Received.

Author	Addressee	Date	Topic
Jane Haines	SWRCB/copy to Dave Stoldt	6/29/16	SWRCB Injustice – proposed modification of Cal Am Cease and Desist Order (CDO) WR 2009-0060
Julie Vance	David Chardavoyne/copy to Dave Stoldt	6/29/16	Acceptance of Proposed Portest Dismissal Terms for Water Right Applications (WRAs) 32263 A&B, and Suspension of Processing for WRA 32263-C
George Riley and Charles Cech	Felicia Marcus/copy to Dave Stoldt	6/28/16	Comment Regarding the Cal Am Cease and Desist Order (CDO) WR 2009-0060, Preliminary Recommendations Document from the State Water Resources Control Board (SWRCB)
Julie Uretsky	David Stoldt	6/22/16	Excellent Customer Service Provided by Debbie Martin and Maryan Gonnerman
Stephen J. Gauthier	Jeanne Byrne	6/21/16	Certificate of Achievement for Excellence in Financial Reporting Awarded to Suresh Prasad
Charles McKee	Jeanne Byrne	6/24/16	2015-2016 Monterey County Civil Grand Jury Final Report – “Striving for Sustainability”

U:\staff\Boardpacket\2016\20160718\LettersRecd\LettersRecd.docx

Jane Haines

601 OCEAN VIEW BOULEVARD, APT. 1 PACIFIC GROVE CA 93950

janehaines80@gmail.com

Tel 831 375 5913

June 29, 2016

State Water Resources Control Board  
c/o Mr. Matthew Quint  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000



Re: SWRCB INJUSTICE - proposed modification of Cal Am Cease and Desist Order (CDO) WR 2009-0060

Dear State Water Resources Control Board,

I protest the **injustice** of financially punishing Monterey Peninsula water users, rather than Cal Am, for Cal Am's failure to comply with the SWRCB 1995 order for a lawful water source. The 1995 SWRCB order was directed to Cal Am, not to Peninsula residents. Yet, as the residents substantially cut back water use, the PUC allows Cal Am to charge higher rates to compensate for reduced sales. Today, Cal Am still has not complied with the SWRCB 1995 order yet has suffered no adverse financial consequence. Instead, the financial penalty for Cal Am's 21 year failure falls solely on Cal Am's customers. Had the 1995 order been structured to financially penalize Cal Am for delay, the Peninsula's water supply would likely have been from lawful sources long ago.

The current situation is grossly unjust. California Civil Code section 3543 states:

***Where one of two innocent persons must suffer by the act of a third, he, by whose negligence it happened, must be the sufferer.***

Monterey Peninsula water users unjustly suffer financially resulting from Cal Am's failure to comply with the 1995 SWRCB order. Cal Am suffers not. *Justice requires that Cal Am, not its customers, be the sufferer.*

The enclosed June 28, 2016 letter to the SWRCB from Public Water Now proposes a way for the SWRCB to shift the financial penalty for Cal Am's delays from Peninsula water users to Cal Am. Justice requires no less.

I urge your serious attention to the enclosed June 28, 2016 proposal by Public Water Now.

Sincerely,

Jane Haines

Jane Haines

copy w/ PWN 6/28/16 proposal enclosed: Bill Monning, Ken Lewis (PUC), David Stoldt (MPWMD), Bill Kampe (Mayors Authority), Rita Dalessio (Sierra Club), George Riley (Public Water Now).







**PUBLIC  
WATER  
NOW**

## **PUBLIC WATER NOW**

**P.O. Box 1293, Monterey CA 93942**

[www.publicwaternow.org](http://www.publicwaternow.org)

[publicwaternow@gmail.com](mailto:publicwaternow@gmail.com)

State Water Resources Control Board  
Attn: Chair Felecia Marcus, SWRCB Members and Staff  
PO Box 2000  
Sacramento CA 95812-2000

June 28, 2016

**Comment Regarding the Cal Am Cease and Desist Order (CDO) WR 2009-0060, Preliminary Recommendations Document** from the State Water Resources Control Board (SWRCB).

Dear Chair and Members,

Public Water Now (PWN) is an all volunteer group of ratepayer advocates on the Monterey Peninsula. It is a 501(c)4 with 14 people on the Board of Directors, is an intervener in selected CPUC applications, and actively engages on local water issues. The predecessor group was Citizens for Public Water, which began operating in 2005. We have been at this for years.

The SWRCB staff recommendations added a few adjustments to the Cal Am CDO extension request, but essentially the SWRCB supports the request filed by Cal Am and their allied organizations. **PWN hereby registers a strong objection because it is the ratepayer who will bear the brunt of any reduced water resulting from Cal Am falling short on prescribed milestones.** The penalty falls on ratepayers, not Cal Am that is the targeted guilty party in the CDO to comply. This is blatantly unfair to ratepayers, and certainly forgives Cal Am for any culpability. Is this what SWB originally intended? Is it what SWB intends now?

As far back in 1995, Cal Am was accused of being in violation of legal water rights pumping from the Carmel River, and was told to prepare a new replacement supply system. In 2009, Cal Am was reprimanded for unreasonable delays, and was ordered to take specific actions to generate a water supply project, and threatened with penalties for non-compliance.

We remind the SWRCB that Cal Am has failed on three occasions to generate a new water supply, and has sent the ratepayers the bill, which totals about \$35 million. Ratepayers have already paid for Cal Am misfeasance, and will pay for Cal Am nonfeasance in the future. We remind you of these costs on ratepayers because we have seen how Cal Am has not been penalized in any way for its past failures, and we continue to pay for these stranded costs. Cal Am (American Water Works) shareholders have paid nothing. Now with the proposed modifications, Cal Am again will pay nothing.

Our primary objection is the cost and hardship exposure to the ratepayers that can be expected from Cal Am failures to meet milestones. The CDO, and your Board's demands for a timeline and deadline, and your threats for penalties, are being tossed aside by the proposed modification that protects Cal Am. We question if the SWRCB means what it says. Cal Am was warned, and then ordered, but still it has diddled away 20 years. Cal Am is the non-performer here, and should bear the brunt of any penalties for missed milestone.

It appears that SWRCB is willing to negotiate a compromise, rather than back up its CDO threat for penalties for non-compliance. For an agency with power, you seem far too willing to let the guilty escape. You seem far

too willing to protect the non-performing entity -- Cal Am -- and far too willing to place a further penalty on the innocent -- ratepayers.

Under Cal Am's proposed modification, when milestones are missed, Cal Am will be required to reduce the amount of water delivered to ratepayers by 1000 acre feet for each missed milestone. One problem with this approach is that a substantial amount of the penalty will fall on the hospitality business sector, the major economic driver on the Monterey Peninsula.

The Cal Am 2014 financial report indicates that the commercial customers consumed 24% of the water delivered on the Monterey Peninsula. It is estimated that there are an average of about 19,000 overnight visitors on the Monterey Peninsula, (see chart on last page). The aquarium alone attracts 1.8 million visitors annually averaging approximately 5,000 per day. The 2016 Pebble Beach Pro Am golf tournament attendance was almost 150,000; an estimated 100,000 where non-resident visitors. The water used by Monterey Peninsula visitors will probably not decrease, so the 1,000 acre foot reduction will all fall on residential ratepayers. Consequently the resident ratepayers will be required to reduce more than their fair share of the total water normally used.

This reduction in water availability, this rationing, penalizes the ratepayers of the Monterey Peninsula, especially the residential ratepayers, for Cal Am taking water illegally for 20 years! These 1000 acre foot water cuts do not penalize or incentivize Cal Am because their annual income and profit margins are predetermined and set by the California Public Utilities Commission (CPUC). Nor does it penalize the local hospitality industry because it has a flat rate structure approved by the CPUC that does not incentivize conservation. It incentivizes 'best management practices' but not conservation.

Whenever Cal Am experiences a reduction in income as a result of the reduced water consumption, it submits a request to the CPUC for an increase adjustment to their income. As an example in 2016 Cal Am submitted a request to the CPUC to recover \$50 million due to ratepayers cutting water use over five years and satisfying the state drought mandated water use reductions.

Also, your staff recommendation to reduce the authorized take from 8310 to 7990ac further increases the exposure on residential ratepayers to increased costs, since Cal Am can recover revenue lost from under-pumping.

There needs to be a way for SWRCB to live up to its threat to Cal Am. Imposing a potential penalty on ratepayers falls flat. In an effort to be supportive and relevant to the SWRCB threat, there needs to be a penalty threat to Cal Am. This can only occur if there is a penalty, and only if it is applied to Cal Am, not its ratepayers. In an effort to be helpful, PWN hopes you will consider the following penalty format, and apply it to Cal Am.

Cal Am has taken thousands of acre feet of water from the Carmel River it had no rights to every year for more than 20 years, paid nothing for it, and sold it to ratepayers at a very substantial profit. Cal Am was given 20 years to provide a new source of water for the Monterey Peninsula by the SWRCB. Cal Am has started and failed to develop a new water source on at least three occasions over the past 20 years. Ratepayers are already paying \$35 million for Cal Am failures, but have never received one drop from a new Cal Am water source.

It is proposed that rather than cutting water to the ratepayers, Cal Am should be required to reduce the cost of water to the ratepayers. With this approach Cal Am is penalized for their failures, not the ratepayers. An example of the proposed water price reductions are displayed in the matrix below. It is an attempt to apply an

accelerated tier structure to failures, very similar to the increasing tiered rates Cal Am applies to residential customers using excess water.

Cal Am Milestones	First Miss	Second Miss	Third Miss
Customer water price reduction	0.2 Cent/gal	0.4 Cent/gal	0.8 Cent/Gal
1000 AF =325,851,000 gal.	\$651,706.00	\$1,303,412.00	\$2,606,824.00

If it is determined by the SWRCB that Cal Am has missed the first milestone, Cal Am will reduce water cost to ratepayers by 0.2 cents per gallon until the milestone is achieved. If the first milestone is incomplete on the date the second milestone is also missed, the sum of the first and second milestones reductions, or 0.6 cents (0.2 + 0.4 cents) will be provided the ratepayers. If the first milestone is completed at the time the second milestone is missed the water price reduction would be the second milestone 0.4 cent per gallon amount until that milestone is achieved. In the event the third milestone is missed while the either the first and/or the second milestone are incomplete the sum of the missed milestones will be in effect up to a maximum of 1.4 cents per gallon (0.2 + 0.4 + 0.8) until individual milestones are completed and reduced as each milestone is completed to the satisfaction of the SWRCB.

**Because these proposed reductions in income are penalties for Cal Am missing MPWSP milestones, they should not be recoverable in any way from the ratepayers!**

Should a competing desalination facility or alternative new water source become available and is capable of delivering the required quantity of water to the Monterey Peninsula, the SWRCB would have the option of canceling the CDO and/or discontinuing the proposed ratepayer water price reductions.

Respectfully submitted,

George T. Riley

Charles S. Cech

/s/ George T. Riley

/s/ Charles S. Cech

Public Water Now, 1198 Castro Road, Monterey CA 93940

Public Water Now, PO Box 1293, Monterey, CA 93942

Attached: A. Monterey Peninsula Hospitality Industry data  
B. CC list

Attachment A. Monterey Peninsula Hospitality Industry data

**Rough Estimate of Monterey Peninsula Hospitality Sector Annual Water Consumption**

Average Total Daily Guest Census

No. of rental rooms on the Monterey Peninsula	12004, Source: <a href="http://www.seemonterey.com">www.seemonterey.com</a>
Average annual national occupancy rate	63% Per National Occupancy Average
Peninsula Rooms rented per national average	7562.52 Rented Room Calculation
Estimated average number of occupants per room	2.5 Estimated Avg. No. of Occupants
Total number of rental occupants per day	18906.3 Average Overnight Guests
<b>(The Monterey Aquarium averages 4950 guests per day)</b>	

Estimate Occupant Water Usage

10 minute shower per occupant per day	25.0 gallons per occupant - Estimate
Four uses of 1.2 gallon per toilet per day	4.8 gallons per occupant - Estimate
Bedding Washing Gallons per occupant per day	2.6 gallons per occupant - Guess
Dish Washing Gallons per occupant per day	2.6 gallons per occupant - Guess
miscellaneous/ice/drinks/meals/foilage watering	3.0 gallons per occupant - Guess
Total Consumption/occupant/day	38.0 gallons per occupant per day
<hr/>	
Total guest water consumption per day 18,906.3 X 38	718,439 gallons per day
Estimated annual guest Consumption	262,230,381 gallons per year
Non-resident employees water consumption	18,000,000 Gallons per year
Total non-resident and occupant usage	280,230,381 Gallons per year
Estimated acre feet of water consumed	<b>859.99 Acre Feet</b>

Cal Am reported commercial water use in 2014 was 2601 Acre Feet.

The 859.99 Acre Feet estimate for hotel visitors only, is very conservative.

This rough estimate does not include thousands of tourists passing through flushing toilets daily.

There are 22,000 fulltime hospitality employees. An estimated 80% are not Peninsula residents using water daily.

Nonresident hospitality employees could add up to an additional 100 acre feet of water consumed per year.

A brief list of Monterey Peninsula major events that attract many thousands of visitors annually:

- Pebble Beach Pro Am
- Pebble Beach Concourse d'Elegance
- Pebble Beach Food and Wine festival
- Pebble Beach TaylorMade golf tournament
- Pebble Beach 1<sup>st</sup> Tee Open juniors golf tournament
- Big Sur Marathon
- Big Sur Half Marathon
- Carmel Bach Festival
- Carmel International Film Festival
- Laguna Seca automobile and motorcycle races
- Sea Otter Classic bicycle competition
- Monterey Jazz, Blues and other festivals

Attachment B. CC list: PWN Comment Letter of 6/28/16 to SWRCB

Robert MacLean, President California American Water Company 1033 B Avenue, Suite 200, Coronado, CA, 92118	Mathew Quint, SWRCB Division of Water Rights PO Box 2000 Sacramento, CA 95812-2000
Ken Lewis, CA Public Utilities Commission % Environmental Science Associates 550 Kearny St., Suite 800, San Francisco, CA 94108	
MPWMD, 5 Harris Court, Monterey CA 93940	
MPRWA, % Jim Cullem 580 Pacific St. Monterey CA 93940	Via Email only: Larry Silver larrysilver@earthlink.net
City of Pacific Grove 300 Forrest Ave., Pacific Grove, CA 93950	Monterey Bay Partisan calkinsroyal@gmail.com
Pebble Beach CSD 3101 Forest Lake Road, Pebble Beach, CA 93953	
Jonas Minton Planning and Conservation League & PCL Foundation 1107 9th St., Suite 901, Sacramento, CA 95814	
Rita Dalessio Larry Silver, Esq. Sierra Club, Ventana Chapter PO Box 5667, Carmel CA 93921	
Roy L. Thomas, DDS 26535 Carmel Rancho Blvd, Ste 5-A Carmel CA 93923	
Kevan Urquhart/David Stoldt MPWMD, PO Box 85, Monterey CA 93942	
Honorable William W. Monning, 17th Senate District Monterey District Office 99 Pacific St., Ste 575-F, Monterey CA 93940	
Coalition of Peninsula Businesses PO Box 223542, Carmel CA 93922	





State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Central Region  
1234 East Shaw Avenue  
Fresno, California 93710  
(559) 243-4005  
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



June 27, 2016

David Chardavoyne  
General Manager  
Monterey County Water Resources Agency  
Post Office Box 930  
Salinas, California 93902

RECEIVED  
JUL 6 2016  
MPWMD

**Subject: Acceptance of Proposed Protest Dismissal Terms for Water Right Applications (WRAs) 32263A&B, and Suspension of Processing for WRA 32263C,**

Dear Mr. Chardavoyne:

The Department of Fish and Wildlife (Department) participated in a conference call on June 9, 2016, with representatives of Monterey County Water Resources Agency (MCWRA), Monterey Regional Water Pollution Control Agency (MRWPCA), Monterey Peninsula Water Management District (MPWMD), and the National Marine Fisheries Service (NMFS) to discuss actions needed for the Department to withdraw its protest of WRAs 32263 A&B. The parties also discussed whether the Department would agree with MCWRA's proposal to suspend processing of WRA 32263C. Formal protest was relayed by the Department in a February 16, 2016, letter to the State Water Resources Control Board (State Water Board) Division of Water Rights.

The Department received the Revised Memorandum from MRWPCA, MPWMD, and MCWRA, dated June 20, 2016, containing the proposed protest dismissal terms and conditions as previously discussed and tentatively agreed to by MCWRA, MPWMD, MRWPCA, NMFS, and the Department. The Revised Memorandum conditioned the terms on the Department's written acceptance of the offer by June 30, 2016, among other things. The Department wishes to provide MCWRA, MRWPCA, and MPWMD with its approval of the proposed terms and conditions. The Department will submit a letter to the State Water Board dismissing its protest of WRAs 32263 A&B assuming the following conditions are met: (1) the Department receives written acceptance of these permit terms and conditions from the MCWRA Board of Directors, the Monterey County Board of Supervisors, the MRWPCA Board of Directors, and the MPWMD Board of Directors; (2) the Department receives written confirmation of acceptance of these terms by NMFS; (3) the parties sign a protest dismissal agreement memorializing the agreed upon protest dismissal terms, including the terms and conditions to be included in any permit issued by the State Water Board on WRAs 32263 A&B.



David Chardavoyne  
June 27, 2016  
Page 2

If you have questions regarding this correspondence please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 243-4014, extension 231, or by writing to the Department at the address listed above.

Sincerely,



Julie A. Vance  
Regional Manager

cc: William Stevens  
NOAA Fisheries West Coast Region  
U.S. Department of Commerce  
777 Sonoma Avenue, Room 325  
Santa Rosa, California 95404  
William.stevens@noaa.gov

✓ David Stoldt  
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Monterey Peninsula Water Management District  
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ec: See Page Three

David Chardavoyne  
June 27, 2016  
Page 3

ec: Shaunna Juarez  
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Julie Vance  
Annee Ferranti  
Annette Tenneboe  
Dave Feliz  
California Department of Fish and Wildlife



 <p><b>PUBLIC WATER NOW</b></p>	<p><b>PUBLIC WATER NOW</b>  P.O. Box 1293, Monterey CA 93942  <a href="http://www.publicwaternow.org">www.publicwaternow.org</a>    <a href="mailto:publicwaternow@gmail.com">publicwaternow@gmail.com</a></p> <p style="text-align: right;">REC.  JUN 30 2016  MPWMD</p>
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State Water Resources Control Board  
Attn: Chair Felecia Marcus, SWRCB Members and Staff  
PO Box 2000  
Sacramento CA 95812-2000

June 28, 2016

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We remind the SWRCB that Cal Am has failed on three occasions to generate a new water supply, and has sent the ratepayers the bill, which totals about \$35 million. Ratepayers have already paid for Cal Am misfeasance, and will pay for Cal Am nonfeasance in the future. We remind you of these costs on ratepayers because we have seen how Cal Am has not been penalized in any way for its past failures, and we continue to pay for these stranded costs. Cal Am (American Water Works) shareholders have paid nothing. Now with the proposed modifications, Cal Am again will pay nothing.

Our primary objection is the cost and hardship exposure to the ratepayers that can be expected from Cal Am failures to meet milestones. The CDO, and your Board's demands for a timeline and deadline, and your threats for penalties, are being tossed aside by the proposed modification that protects Cal Am. We question if the SWRCB means what it says. Cal Am was warned, and then ordered, but still it has diddled away 20 years. Cal Am is the non-performer here, and should bear the brunt of any penalties for missed milestone.

It appears that SWRCB is willing to negotiate a compromise, rather than back up its CDO threat for penalties for non-compliance. For an agency with power, you seem far too willing to let the guilty escape. You seem far too willing to protect the non-performing entity -- Cal Am -- and far too willing to place a further penalty on the innocent -- ratepayers.

Under Cal Am's proposed modification, when milestones are missed, Cal Am will be required to reduce the amount of water delivered to ratepayers by 1000 acre feet for each missed milestone. One problem with this approach is that a substantial amount of the penalty will fall on the hospitality business sector, the major economic driver on the Monterey Peninsula.

The Cal Am 2014 financial report indicates that the commercial customers consumed 24% of the water delivered on the Monterey Peninsula. It is estimated that there are an average of about 19,000 overnight visitors on the Monterey Peninsula, (see chart on last page). The aquarium alone attracts 1.8 million visitors annually averaging approximately 5,000 per day. The 2016 Pebble Beach Pro Am golf tournament attendance was almost 150,000; an estimated 100,000 where non-resident visitors. The water used by Monterey Peninsula visitors will probably not decrease, so the 1,000 acre foot reduction will all fall on residential ratepayers. Consequently the resident ratepayers will be required to reduce more than their fair share of the total water normally used.

This reduction in water availability, this rationing, penalizes the ratepayers of the Monterey Peninsula, especially the residential ratepayers, for Cal Am taking water illegally for 20 years! These 1000 acre foot water cuts do not penalize or incentivize Cal Am because their annual income and profit margins are predetermined and set by the California Public Utilities Commission (CPUC). Nor does it penalize the local hospitality industry because it has a flat rate structure approved by the CPUC that does not incentivize conservation. It incentivizes 'best management practices' but not conservation.

Whenever Cal Am experiences a reduction in income as a result of the reduced water consumption, it submits a request to the CPUC for an increase adjustment to their income. As an example in 2016 Cal Am submitted a request to the CPUC to recover \$50 million due to ratepayers cutting water use over five years and satisfying the state drought mandated water use reductions.

Also, your staff recommendation to reduce the authorized take from 8310 to 7990ac further increases the exposure on residential ratepayers to increased costs, since Cal Am can recover revenue lost from under-pumping.

There needs to be a way for SWRCB to live up to its threat to Cal Am. Imposing a potential penalty on ratepayers falls flat. In an effort to be supportive and relevant to the SWRCB threat, there needs to be a penalty threat to Cal Am. This can only occur if there is a penalty, and only if it is applied to Cal Am, not its ratepayers. In an effort to be helpful, PWN hopes you will consider the following penalty format, and apply it to Cal Am.

Cal Am has taken thousands of acre feet of water from the Carmel River it had no rights to every year for more than 20 years, paid nothing for it, and sold it to ratepayers at a very substantial profit. Cal Am was given 20 years to provide a new source of water for the Monterey Peninsula by the SWRCB. Cal Am has started and failed to develop a new water source on at least three occasions over the past 20 years. Ratepayers are already paying \$35 million for Cal Am failures, but have never received one drop from a new Cal Am water source.

It is proposed that rather than cutting water to the ratepayers, Cal Am should be required to reduce the cost of water to the ratepayers. With this approach Cal Am is penalized for their failures, not the ratepayers. An example of the proposed water price reductions are displayed in the matrix below. It is an attempt to apply an accelerated tier structure to failures, very similar to the increasing tiered rates Cal Am applies to residential customers using excess water.

Cal Am Milestones	First Miss	Second Miss	Third Miss
Customer water price reduction	0.2 Cent/gal	0.4 Cent/gal	0.8 Cent/Gal
1000 AF =325,851,000 gal.	\$651,706.00	\$1,303,412.00	\$2,606,824.00

If it is determined by the SWRCB that Cal Am has missed the first milestone, Cal Am will reduce water cost to ratepayers by 0.2 cents per gallon until the milestone is achieved. If the first milestone is incomplete on the date the second milestone is also missed, the sum of the first and second milestones reductions, or 0.6 cents (0.2 + 0.4 cents) will be provided the ratepayers. If the first milestone is completed at the time the second milestone is missed the water price reduction would be the second milestone 0.4 cent per gallon amount until that milestone is achieved. In the event the third milestone is missed while the either the first and/or the second milestone are incomplete the sum of the missed milestones will be in effect up to a maximum of 1.4 cents per gallon (0.2 + 0.4 + 0.8) until individual milestones are completed and reduced as each milestone is completed to the satisfaction of the SWRCB.

**Because these proposed reductions in income are penalties for Cal Am missing MPWSP milestones, they should not be recoverable in any way from the ratepayers!**

Should a competing desalination facility or alternative new water source become available and is capable of delivering the required quantity of water to the Monterey Peninsula, the SWRCB would have the option of canceling the CDO and/or discontinuing the proposed ratepayer water price reductions.

Respectfully submitted,

George T. Riley

Charles S. Cech

/s/ George T. Riley

/s/ Charles S. Cech

Public Water Now, 1198 Castro Road, Monterey CA 93940

Public Water Now, PO Box 1293, Monterey, CA 93942

- Attached:     A. Monterey Peninsula Hospitality Industry data  
                   B. CC list

## Attachment A. Monterey Peninsula Hospitality Industry data

**Rough Estimate of Monterey Peninsula Hospitality Sector Annual Water Consumption**Average Total Daily Guest Census

No. of rental rooms on the Monterey Peninsula	12004	Source: <a href="http://www.seemonterey.com">www.seemonterey.com</a>
Average annual national occupancy rate	63%	Per National Occupancy Average
Peninsula Rooms rented per national average	7562.52	Rented Room Calculation
Estimated average number of occupants per room	2.5	Estimated Avg. No. of Occupants
Total number of rental occupants per day	18906.3	Average Overnight Guests

**(The Monterey Aquarium averages 4950 guests per day)**

Estimate Occupant Water Usage

10 minute shower per occupant per day	25.0	gallons per occupant - Estimate
Four uses of 1.2 gallon per toilet per day	4.8	gallons per occupant - Estimate
Bedding Washing Gallons per occupant per day	2.6	gallons per occupant - Guess
Dish Washing Gallons per occupant per day	2.6	gallons per occupant - Guess
miscellaneous/ice/drinks/meals/foilage watering	3.0	gallons per occupant - Guess
Total Consumption/occupant/day	38.0	gallons per occupant per day
<hr/>		
Total guest water consumption per day 18,906.3 X 38	718,439	gallons per day
Estimated annual guest Consumption	262,230,381	gallons per year
Non-resident employees water consumption	18,000,000	Gallons per year
Total non-resident and occupant usage	280,230,381	Gallons per year
Estimated acre feet of water consumed	859.99	Acre Feet

Cal Am reported commercial water use in 2014 was 2601 Acre Feet.

The 859.99 Acre Feet estimate for hotel visitors only, is very conservative.

This rough estimate does not include thousands of tourists passing through flushing toilets daily.

There are 22,000 fulltime hospitality employees. An estimated 80% are not Peninsula residents using water daily.

Nonresident hospitality employees could add up to an additional 100 acre feet of water consumed per year.

A brief list of Monterey Peninsula major events that attract many thousands of visitors annually:

- Pebble Beach Pro Am
- Pebble Beach Concourse d'Elegance
- Pebble Beach Food and Wine festival
- Pebble Beach TaylorMade golf tournament
- Pebble Beach 1<sup>st</sup> Tee Open juniors golf tournament
- Big Sur Marathon
- Big Sur Half Marathon
- Carmel Bach Festival
- Carmel International Film Festival
- Laguna Seca automobile and motorcycle races
- Sea Otter Classic bicycle competition
- Monterey Jazz, Blues and other festivals

## Attachment B. CC list: PWN Comment Letter of 6/28/16 to SWRCB

Robert MacLean, President California American Water Company 1033 B Avenue, Suite 200, Coronado, CA, 92118	Mathew Quint, SWRCB Division of Water Rights PO Box 2000 Sacramento, CA 95812-2000
Ken Lewis, CA Public Utilities Commission % Environmental Science Associates 550 Kearny St., Suite 800, San Francisco, CA 94108	
MPWMD, 5 Harris Court, Monterey CA 93940	
MPRWA, % Jim Cullem 580 Pacific St. Monterey CA 93940	Via Email only: Larry Silver larrysilver@earthlink.net
City of Pacific Grove 300 Forrest Ave., Pacific Grove, CA 93950	Monterey Bay Partisan calkinsroyal@gmail.com
Pebble Beach CSD 3101 Forest Lake Road, Pebble Beach, CA 93953	
Jonas Minton Planning and Conservation League & PCL Foundation 1107 9th St., Suite 901, Sacramento, CA 95814	
Rita Dalessio Larry Silver, Esq. Sierra Club, Ventana Chapter PO Box 5667, Carmel CA 93921	
Roy L. Thomas, DDS 26535 Carmel Rancho Blvd, Ste 5-A Carmel CA 93923	
Kevan Urquhart/David Stoldt MPWMD, PO Box 85, Monterey CA 93942	
Honorable William W. Monning, 17th Senate District Monterey District Office 99 Pacific St., Ste 575-F, Monterey CA 93940	
Coalition of Peninsula Businesses PO Box 223542, Carmel CA 93922	





Julie Uretsky  
642 Spazier Avenue  
Pacific Grove, CA 93950

June 22, 2016

Monterey Peninsula Water Management District  
Mr. David Stoldt, General Manager  
PO Box 85  
Monterey, CA 93942-0085

JUN 28 2016

MAILED

Dear Mr. Stoldt:

In May of this year I applied for a water conservation rebate after purchasing an energy efficient dishwasher. As a result of that application, I received a letter from MPWMD stating that my property was in violation with the District because a water permit issued in 2006 had not received a final inspection. I called the District and spoke to Debbie Martin. Ms Martin explained the situation and we scheduled an inspection. Today, the inspector (Mary) came by the house at our scheduled appointment time and conducted the inspection.

The purpose of this letter is to tell you that both Ms Martin and Mary provided excellent customer service. I had a lot of questions and concerns, and to be honest with you I was a little upset when I received the original violation letter. They both were extremely knowledgeable and answered all my questions completely in easy to understand terms.

I just want you to know that both of these women represented the District extremely well and I really appreciate their professionalism and positive attitudes. Please thank them for me.

Sincerely,



Julie Uretsky  
Property Owner





Government Finance Officers Association  
203 N. LaSalle Street - Suite 2700  
Chicago, IL 60601

Phone (312) 977-9700 Fax (312) 977-4806

RECEIVED

JUN 28 2016

PAID

June 21, 2016

Jeanne Byrne  
Board Chair  
Monterey Peninsula Water Management District  
5 Harris Court Building G  
Monterey CA 93940

Dear Ms. Byrne:

We are pleased to notify you that your comprehensive annual financial report for the fiscal year ended **June 30, 2015** qualifies for a Certificate of Achievement for Excellence in Financial Reporting. The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.

An award for the Certificate of Achievement has been mailed to:

**Suresh Prasad**  
**Administrative Services Manager / Chief Financial Officer**

We hope that you will arrange for a formal presentation of the Certificate and Award of Financial Reporting Achievement, and that appropriate publicity will be given to this notable achievement. A sample news release is enclosed to assist with this effort. In addition, details of recent recipients of the Certificate of Achievement and other information about Certificate Program results are available in the "Awards Program" area of our website, [www.gfoa.org](http://www.gfoa.org).

We hope that your example will encourage other government officials in their efforts to achieve and maintain an appropriate standard of excellence in financial reporting.

Sincerely,  
Government Finance Officers Association

Stephen J. Gauthier, Director

Technical Services Center

SJG/ds



Government Finance Officers Association  
203 N. LaSalle Street - Suite 2700  
Chicago, IL 60601

Phone (312) 977-9700 Fax (312) 977-4806

06/21/2016

NEWS RELEASE

For Information contact:  
Stephen Gauthier (312) 977-9700

(Chicago)--The Certificate of Achievement for Excellence in Financial Reporting has been awarded to **Monterey Peninsula Water Management District** by the Government Finance Officers Association of the United States and Canada (GFOA) for its comprehensive annual financial report (CAFR). The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management

An Award of Financial Reporting Achievement has been awarded to the individual(s), department or agency designated by the government as primarily responsible for preparing the award-winning CAFR. This has been presented to:

**Suresh Prasad, Administrative Services Manager / Chief Financial Officer**

The CAFR has been judged by an impartial panel to meet the high standards of the program including demonstrating a constructive "spirit of full disclosure" to clearly communicate its financial story and motivate potential users and user groups to read the CAFR.

The GFOA is a nonprofit professional association serving approximately 17,500 government finance professionals with offices in Chicago, IL, and Washington, D.C.

# MONTEREY COUNTY



## OFFICE OF THE COUNTY COUNSEL

168 WEST ALISAL STREET, 3<sup>RD</sup> FLOOR, SALINAS, CALIFORNIA 93901-2439  
 (831) 755-5045 FAX: (831) 755-5283

**CHARLES J. McKEE**  
 COUNTY COUNSEL

**Leslie J. Girard**  
 CHIEF ASSISTANT COUNTY COUNSEL

June 24, 2016

RECEIVED

JUN 24 2016

*VIA HAND DELIVERY*

Monterey Peninsula Water Management District  
 Attention: Jeanne Byrne, Chair  
 5 Harris Court, Building G  
 Monterey, CA 93940

Re: 2015-2016 Monterey County Civil Grand Jury Final Report – “Striving for Sustainability”

Dear Monterey Peninsula Water Management District:

By cover letter dated June 15, 2016, you were provided a copy of the 2015-2016 Monterey County Civil Grand Jury Final Report entitled “Striving for Sustainability.” By cover letter dated June 20, 2016, you were informed that the Report provided to you did not include the two Appendices to the Report, which were enclosed with that letter.

This is to inform you that the 90-day period within which you are to provide responses to the Findings and Recommendations in the Report started on the day you received the Appendices (which should have been on or about June 23), and not the earlier date you received the body of the Report. Please also note that the version of the Report you received incorrectly included the “Monterey Regional Wastewater Management District” as a respondent. The correct respondent is the Monterey Regional Water Pollution Control Agency and the Report has been corrected in that regard.

Sincerely,

CHARLES J. McKEE, County Counsel

  
 By: LESLIE J. GIRARD  
 Chief Assistant County Counsel

LJG:ljk/kz

cc: Hon. Mark Hood, Presiding Judge  
 Brandon Hill, Foreperson, 2015-2016 Civil Grand Jury  
 Jeanne Krenner, Foreperson Pro Tem

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PH.D. THESIS

IN THE FIELD OF

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JOHN H. SCHUBERT

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