

MEETING NOTICE AND AGENDA
TECHNICAL ADVISORY COMMITTEE
OF THE
SEASIDE BASIN WATER MASTER

DATE: Wednesday, March 14, 2018

MEETING TIME: 1:30 p.m.

Monterey Regional Water Pollution Control Agency Offices
5 Harris Court, Building D (Ryan Ranch)
Monterey, CA 93940

If you wish to participate in the meeting from a remote location, please call in on the Watermaster Conference Line by dialing (515) 739-1015. Use the Meeting ID 355890617. Please note that if no telephone attendees have joined the meeting by 10 minutes after its start, the conference call will be ended.

OFFICERS

Chairperson: Nina Miller, California American Water Company
Vice-Chairperson: Jon Lear, MPWMD

MEMBERS

California American Water Company	City of Del Rey Oaks	City of Monterey
City of Sand City	City of Seaside	Coastal Subarea Landowners
Laguna Seca Property Owners	Monterey Peninsula Water Management District	Monterey County Water Resources Agency

Agenda Item

	<u>Page No.</u>
1. Public Comments	
2. Administrative Matters:	
A. Approve Minutes from the February 14, 2018 Meeting	2
B. Sustainable Groundwater Management Act (SGMA) Items	6
C. Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management	7
D. Monterey Peninsula Stormwater Resource Plan (MPSRP)	11
3. Draft Application for Storage of Water from the Pure Water Monterey Project	17
4. New Proposal from MCWD to Sell Water to Replenish the Seaside Basin Schedule	92
5. Schedule	104
6. Other Business	109

The next regular meeting will be held on Wednesday April 11, 2018 at 1:30 p.m. at the MRWPCA Board Room.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the February 14, 2018 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>Draft Minutes from this meeting was emailed to all TAC members. Any changes requested by TAC members have been included in the attached version.</p>
ATTACHMENTS:	Minutes from this meeting
RECOMMENDED ACTION:	Approve the minutes

D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
February 14, 2018**

Attendees: TAC Members

City of Seaside – No Representative
California American Water – Roger Hulbert
City of Monterey – Laurie Williamson (via telephone)
Laguna Seca Property Owners –Bob Costa
MPWMD – Jon Lear
MCWRA – Tamara Voss
City of Del Rey Oaks – No Representative
City of Sand City – Leon Gomez (via telephone)
Coastal Subarea Landowners – No Representative

Watermaster

Technical Program Manager - Robert Jaques

Consultants

None

Others

None

The meeting was convened at 1:34 p.m. after a quorum had been established.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the January 10,2018 Meeting

On a motion by Mr. Costa, seconded by Mr. Hulbert, the minutes from this meeting were unanimously approved as presented.

B. Sustainable Groundwater Management Act (SGMA) Update

Mr. Jaques summarized the agenda packet materials for this item.

Ms. Voss clarified that there are 142 wells within the CSIP operational area. However, only about 6 or 7 are perforated in more than one aquifer. She explained that corrosion of a well's casing in the 180-foot aquifer could cause downward flow of seawater contaminated water and thus contaminate the 400-foot aquifer, even if a well was only perforated in the 400-foot aquifer. The aquitards are discontinuous-this has been known for some time. 2, 000 to 3, 000 acre-feet per year in excess of environmental requirements flows past the Salinas River Diversion Facility's inflatable dam, so that water is lost to the lagoon or to the ocean.

The Salinas Valley Basin Groundwater Sustainability Agency has narrowed to two firms to prepare their Groundwater Sustainability Plan, and their Board plans to make a selection in March.

Mr. Costa asked why there had been an increase in storage in the Seaside Basin aquifers in 2017. Mr. Jaques responded that heavy rainfall likely accounted for this. Mr. Lear also noted that there had been a large amount of water injected via ASR due to the high flows of water in the Carmel River. However, Mr. Lear went on to say that the current year is on track to match 1924 as the driest water year in recorded history.

C. Monterey Peninsula Storm Water Resource Plan

Mr. Jaques summarized the agenda packet materials for this item. There was no further discussion of this item.

3. Letter from MCWD Proposing to Sell Water to Replenish the Seaside Basin for Use in the Ord Community

Mr. Jaques summarized the agenda packet materials for this item.

Ms. Voss reported that MCWRA had not had the opportunity to review with their legal counsel the multiple complex agreements that govern the MCWD water-sales proposal. She also noted that MCWRA has not seen a detailed project description that includes a CEQA analysis. She went on to say further that MCWRA has significant concerns with MCWD's proposal in light of recent recommendations relative to seawater intrusion in the coastal aquifers of the Salinas Valley basin. Mr. Jaques said he would send to Ms. Voss a draft of his comments for her to edit for inclusion with his recommendations to the Watermaster Board.

Mr. Hulbert commented that CPUC settlement conference discussions (Issue number 10) are confidential at this time. It would be better to wait for those to conclude before further considering Marina Coast's water-sales proposal.

Mr. Lear said MPWMD would like to better understand the accounting of water credits under MCWD's water sales proposal. Specifically 1) When the City of Seaside was purchasing water from Marina Coast and not pumping their wells, how was the accounting done to distribute the non-pumped water to the other producers? and 2) If water was purchased again from Marina Coast and the golf course wells were not pumped, could all of the producers in the basin agree to apply the non-pumped volume to Cal Am and effectively increase their amount of Natural Safe Yield from 1,474 to 1,874? Or another way of asking is, would Cal Am be penalized for going over their Natural Safe yield of 1,474 if they were also recovering the 400 AF saved by watering the Golf Course with Marina Coast Water if all of that water was assigned to Cal Am through the allocation process?

A motion by Ms. Voss, seconded by Mr. Hulbert, to accept the recommendations contained in the agenda packet, and to add the additional recommendations discussed at today's meeting, passed unanimously.

4. Schedule

Mr. Jaques highlighted certain items in the 2018 schedule and responded to questions from TAC members about some of the items.

Mr. Lear reported that Cal Am and MPWMD had signed the cost-sharing agreements, and as soon as M1W signs them, they will give notice to proceed to their consultant, Pueblo Water Resources, to begin work on the geochemical modeling.

5. Other Business

There was no Other Business discussed.

The next regular meeting will be held on Wednesday March 14, 2018 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 2:09 p.m.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	2.B
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager

At the State level:

Since my last update, I have not received any new materials from the State that would impact the Watermaster.

At the Monterey County level:

At its March 18, 2018 meeting the Board of the Salinas Valley Basin GSA has numerous actions items on their agenda, including:

- Approve budget adjustment of \$1.5 Million for Groundwater Sustainability Planning Grant.
- Adopt a Resolution and authorize Board Chair to execute an agreement with HydroMetrics Water Resources Inc. to complete Groundwater Sustainability Plans for the Salinas Valley Basin.
- Authorize the General Manager to transmit to the California Department of Water Resources and other interested parties a Notice of Intent to Prepare a Groundwater Sustainability Plan.
- Direct staff to negotiate scope of work and agreement with selected consultant to provide fee/tax/assessment analysis and rate setting service

The SVBGSA also intends to create a TAC to work with their consultant during preparation of their GSP. I have asked to be on that TAC, and the SVBGSA's General Manager has agreed that my being on that TAC would be desirable.

No agenda for the March Advisory Committee meeting had been received as of the date of preparing this Agenda transmittal. No meetings of the new TAC that is to be formed have yet been scheduled.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	2.C
AGENDA TITLE:	Monterey Peninsula Integrated Regional Water Management
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>The Monterey Peninsula Integrated Regional Water Management group met on February 28. Attached are notes provided by Sara Hardgrave from that meeting.</p> <p>I was not able to attend the meeting.</p>
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

Monterey Peninsula, Carmel Bay, and South Monterey Bay

Integrated Regional Water Management

Meeting Notes from February 27, 2018

Attendees:

- Sarah Hardgrave, Big Sur Land Trust (BSLT)
- Laurie Williamson, City of Monterey (Monterey)
- Tricia Wotan, City of Monterey
- Jeff Krebs, City of Monterey
- Andrew Racz, Marina Coast Water District (MCWD)
- Chris Cook, California American Water (CAW)
- Drew Lander, Carmel Area Wastewater District (CAWD)
- Tom Harty, County of Monterey Resource Management Agency (MCRMA)
- Jeff Condit, Monterey Regional Stormwater Management Program (MRSWMP)
- Elizabeth Geisler, Dudek
- Larry Levine, County Service Area 50 (CSA-50)
- Kristen Rice, City of Seaside (Seaside)
- Paul Robins, Monterey County Resource Conservation District (RCD)
- Mike McCullough, Monterey One Water (MIW)

Notes:

1. Summary of site visit to the Monterey area Central Coast regions with DWR IRWM staff last week:
 - The Greater Monterey IRWM hosted 3 members of DWR Staff that oversee the statewide IRWM Program. The meeting included other IRWM regions including Santa Barbara, SLO, and Santa Cruz.
 - Prop I has identified \$43m for the Central Coast region. There are 6 IRWM regions in the Central Coast that recently agreed to a funding agreement to split these funds among themselves. DWR intends to honor that agreement.
 - \$4.3m is slated to come to the Monterey Peninsula IRWM.
 - Of the \$4.3m:
 - 10% is set aside for Disadvantaged Community Outreach
 - 10% is set aside for Disadvantaged Community Projects
 - DWR will be returning later this summer for an education and outreach Workshop to lay the groundwork for upcoming grant rounds.
2. Update on Disadvantaged Communities IRWM grant:
 - 10% of the Prop I funds were set aside for Disadvantaged Communities. Maureen Hamilton from MPWMD has been managing the grant for the MP IRWM (unfortunately Maureen was not at the meeting to give a complete update).

- The Santa Cruz, Greater Monterey, and Monterey Peninsula IRWMs collaborated to award their funds to the Santa Cruz Community Foundation on behalf of the 3 regions.
- These funds will go toward 3 projects:
 - Storm Drain Improvement Project on Fremont St.
 - Seaside Water Rebate Program
 - Needs Assessment of all DACs in the region

3. Update on Stormwater Resource Plan process & schedule:

- There was recently a Stakeholder Meeting to solicit stakeholder feedback on the process and projects.
- The Technical Advisory Committee recently ranked their top 7 projects which will be eligible for 10% Concept Design, with the top project eligible for 30% design and CEQA.
- A draft of the Stormwater Resource Plan will be completed in May with a Public Meeting to be held in June.
- The final draft of the Stormwater Resource Plan will be complete by September 30.
- The Stormwater Resource Plan is meant to be accepted/adopted by the Monterey Peninsula IRWM to ensure projects are eligible for future funding.

4. Discussion of potential projects for Prop I IRWM Implementation Grant, process & schedule for project list update:

- Participants shared potential IRWM projects that may be eligible for this next round of funding and that agencies/organizations might submit to an IRWM project solicitation for a grant application later this year.
- A project prioritization process will be required, and a schedule to do that is yet to be determined.
- Projects, opportunities, or possibilities identified included the following:
 - *RCD*: Carmel Valley upper watershed water conservation on vineyards, ranches and farms; rainwater catchment projects (e.g. opportunity at St. Dunston's Church); fuel break restoration (maintenance, water quality, erosion control)
 - *Seaside*: Del Monte Manor Section 8 Housing Storm Drain Infiltration; upgrades to underground utilities in conjunction with pavement management.
 - *CSA-50*: \$25M in flood control projects identified – Carmel River Floodplain Restoration and Environmental Enhancement (CRFREE) is a major project, but other improvements also needed. Federal EPA grant for water quality/stormwater management project (\$400K grant), but local match needed.
 - *MRSWMP*: Numerous projects have been identified through the Stormwater Resource Plan process. The top 7 will be moved to a concept design (Lake El Estero, Carmel/CAWD, David. Ave. Reservoir, Hartnell Gulch, Del Monte Manor, Del Monte 90-inch stormdrain; Dry Weather Catchment program). These and other projects could be in both the SWRP and the IRWM.
 - *MCRMA*: CRFREE Project; Carmel River Lagoon projects; CSA-50 projects (check to see if any of these should be added to SWRP).
 - *Monterey*: Lake El Estero diversion to sewer system; Hartnell Gulch, Twin 50 storm drain diversions; Cannery Row storm drain diversion; Don Davie Park 303d listed WQ improvements

- CAWD: Excess capacity in wastewater treatment plant but lacking storage for storm water, looking to be able to assist with capture of the 1st flush through treatment system; Rio Park storage; sewer collection system improvements in coordination with CSA-50 projects where possible; rehab of sand filtration for storm water treatment; expansion of sewer collection services.
- MCWD: Recycled water trunk main and service line extensions; stormwater recharge.
- BSLT: CRFREE Project, in partnership with MCRMA & CSA-50.
- MIW: Climate change resiliency for sewer pump stations and transmission facilities; Pure Water Monterey project.

5. Other potential Prop I funding and other funding opportunities for projects

- Sarah shared some additional funding sources currently available:
 - Ocean Protection Council Prop I round
 - Coastal Conservancy Prop I funds - Due March 30
 - Wildlife Conservation Board
 - Ecosystem Restoration Funding through Fish and Wildlife
 - Cal-Am Settlement Funds (discussed at Carmel River Task Force meetings)

6. Discussion on interest and participation in IRWM Regional Water Management Group

- Participants agreed that they see value in continuing the IRWM effort. Particularly as there is currently funding on the table.
- In order to be eligible for the current round of funding, the IRWM needs to be updated to the 2016 IRWM standards. The cost of this plan update is \$30-70,000. The Big Sur Land Trust is uniquely situated to lead the update effort and can assist with keeping costs down due to their non-profit rate.
- Discussion: Are Agencies willing to contribute funds toward the effort? How can we get this funding question to the next phase?

7. Next steps

- Sarah will approach the Community Foundation of Monterey County to understand if there is funding available or a way to work with them to support this effort. The Santa Cruz IRWM is managed through their Community Foundation and may be a model for this region.
- Further discussion needed with MPWMD, who wasn't in attendance. Their local project grant funding may be a potential source of funding but need an update on how that program currently works.
- Start to set up a regular meeting schedule and make a plan for a project solicitation and prioritization process in the next 6 months.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	2.D
AGENDA TITLE:	Monterey Peninsula Stormwater Resource Plan (MPSRP)
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

A study titled the “Monterey Peninsula Stormwater Resource Plan (MPSRP)” has been prepared by Geosyntec for the entities participating in development of the Integrated Regional Water Management Plan for the greater Monterey Bay area. Background information on the study was included in the November 15, 2018 TAC agenda packet.

A Draft version of the study was provided to stakeholders and was discussed at a meeting on February 8th. Attached are notes from that meeting, prepared by the consultant, Lisa Welsh of Geosyntec, as I was not able to attend myself. Nina Miller had planned to attend to represent the Watermaster but was also unable to attend.

The TAC that was created to help guide this study screened a number of potential storm water projects and selected seven of them as their preferred ones. These will have 10% conceptual designs prepared for them. From that list of seven, the most desirable one will be selected for preparation of a 30% design report.

None of the seven projects appear to have any appreciable impact on the Seaside Groundwater Basin in terms of helping to recharge the Basin.

My main comments to the consultant that is preparing the study were as follows:

- Without a much better definition of each project (what it would consist of, how it would be implemented, etc.) it is impossible to ascertain whether the project is either (1) viable/feasible, or (2) going to provide any benefit.
- The three projects that the TAC selected for further consideration and which would potentially benefit the Seaside Groundwater Basin do not have much chance of actually replenishing the domestic supply aquifers in that Basin, and therefore would be poor choices. The two domestic supply aquifers are the Paso Robles and the Santa Margarita. In the areas where the proposed projects are located, the tops of these aquifers are approximately 100-200 feet and 900-1,000 feet below ground surface, respectively. Small quantities of water, especially if they are dispersed over a large area rather than being concentrated, would have little to no benefit in recharging these aquifers, because there are aquicludes above those aquifers that would either prevent, or greatly reduce, any actual infiltration from those projects into those aquifers.
- The lack of sufficient water supplies to meet current and future domestic demands is the most crucial water supply issue facing northern Monterey County. Projects that actually increase domestic water supplies should be given the highest priority. None of the three projects selected by the TAC, and which could potentially impact the Seaside Groundwater Basin, would achieve this.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

AGENDA ITEM:

2.D

I had a teleconference with the consultant on March 6 to discuss potential ways of using storm water to help recharge the Seaside Basin. In that teleconference, which included Lisa Welsh and Judd Goodman of Geosyntec, we discussed opportunities for Geosyntec to explore projects through which storm water from the Seaside area could be effectively percolated into the Paso Robles aquifer of the Seaside Basin. The objective of such projects would be to help recharge the Basin. They have a copy of the HydroMetrics Seaside Basin Groundwater Model and will be looking into identifying projects that could include passive infiltration wells that would extend to just above the top of the Paso Robles aquifer, along with pretreatment and peak flow storage facilities. These will be discussed in the final version of the study.

ATTACHMENTS:

Notes from February 8, 2018 stakeholder meeting

**RECOMMENDED
ACTION:**

None



**Stormwater Resource Plan for the Monterey Peninsula, Carmel Bay, and South Monterey Bay
Integrated Regional Water Management Planning Region**

**Stakeholder Group
Meeting #2**

Thursday, February 8, 2018, 10:00 am – 12:00 pm

MEETING SUMMARY

Participants – Attendance list attached.

1) Welcome/Introductions

Jeff Condit (Monterey One Water) welcomed stakeholders to the meeting. Stakeholders introduced themselves.

2) Background

Jeff updated attendees on the purpose of the Stormwater Resource Plan (SWRP) and the role of Monterey One Water, MRSWMP, Technical Advisory Committee (TAC), consultant team, and stakeholders.

3) Purpose of Stakeholder Meeting #2

Vishakha Atre (EOA) informed stakeholders that the purpose of this meeting is to: 1) present the prioritized list of multi-benefit stormwater capture projects to stakeholders; 2) obtain stakeholder input for identifying the top seven projects for which designs will be developed; and 3) obtain stakeholder input on project characteristics that should be considered for identifying top projects.

4) SWRP Status

Vishakha provided the following overview of the methodology for identifying, evaluating, and prioritizing local and regional stormwater capture projects:

- Over 2,000 planned and potential project opportunities were identified using the list of planned projects submitted by stakeholders, projects identified in the Water Recovery Study, and a GIS-based opportunity analysis.
- The identified project opportunities were preliminarily scored using a metrics-based multi-benefit evaluation consistent with the requirements of the State's SWRP Guidance.
- The scored project lists were submitted to jurisdictions for ranking based on their local priorities.
- A spreadsheet summarizing the overall list of 2,000+ projects, the top 2% of project opportunities identified by each jurisdiction, and the feedback from the jurisdictions was sent to the stakeholders for review.



Vishakha described the prioritized projects spreadsheet in detail and showed attendees a Google Earth map identifying the top 2% projects. Attendees provided the following feedback:

- Consider simplifying the list of prioritized projects so it is easier for the general public to understand. For the SWRP Public Workshop, the list could include the project name/location, type, name of the project owner (jurisdiction), rank/score, and the reason for the ranking.
- Ensure that project implementation is a collaborative effort. Identified projects should not be in conflict with each other.
- The focus of project prioritization should be water supply augmentation, not stormwater infiltration. Lisa noted that grant guidelines require the projects to have multiple benefits. The project list includes over 200 water recovery opportunities identified through the Water Recovery Study.
- Identify State Parks as a separate project owner. Currently, land owned by State Parks is identified under unincorporated County.
- The analysis should include consideration of the geologic feasibility for infiltration.

Lisa Welsh (Geosyntec) and Vishakha provided the following clarifications based on questions from attendees:

- The metrics-based scoring does not take local factors (e.g., a jurisdiction's local planning priorities, funding availability, etc.) into account; therefore, ranking based on local factors is important.
- Project ranks can be elevated based on feedback received from local communities and stakeholders.
- Ability to provide match funds can be a criteria considered during project ranking.
- The Water Recovery Study will be attached to the SWRP. It will be available for public review and comment along with the draft SWRP.
- All identified project opportunities will be included in the SWRP and be eligible to receive future grant funds.
- Project descriptions are not included in the spreadsheet because most of the projects are opportunities identified through GIS-based analysis, or planned projects in preliminary stages.
- The draft SWRP will be posted online for review by the public.

5) Stakeholder Activity to Identify Top Project Characteristics

Attendees participated in an activity to identify the top three project characteristics important to them. Ten poster boards listing project characteristics were placed on a table. Attendees were given three dot stickers each and asked to place one sticker on each project characteristic important to them. The project characteristics are listed below in the order of preference, with #1 being the characteristic that received most votes:



1. Water supply benefits.
2. Synergy of project with upcoming projects.
3. Project is part of larger restoration or watershed improvement plans.
4. Water quality benefits.
5. Location of project in a disadvantaged community, and cost of long-term project maintenance (both received the same number of votes).
6. Cost of project construction.
7. Community support or opposition, and potential for public education (both received the same number of votes).

Action Items:

- Stakeholders will submit comments on the prioritized project list by February 16, 2018.

Monterey Peninsula Stakeholder Group Meeting #2

List of Attendees

	Name	Organization
1	Agnes Topp	City of Carmel
2	Alexander Wade	Presidio of Monterey – Directorate of Public Works/ Military Personnel Division
3	Alison Imamura	Monterey One Water
4	Andrew Racz	Marina Coast Water District
5	Chris Morello	Monterey Airport
6	Diana Staines	Denise Duffy & Associates
7	Drew Lander	Carmel Area Wastewater District
8	Elai Fresco	Geosyntec
9	Elizabeth Payne	State Water Board
10	Frank Pierce	Pacific Grove Resident
11	George T. Riley	Citizen for Public Water
12	Jay Tulley	Presidio of Monterey
13	Jeff Condit	Monterey One Water
14	Jeff Krebs	City of Monterey
15	Joelle Lobo	Presidio of Monterey
16	Leon D. Gomez	CD Engineers
17	Lisa Emanuelson	Monterey Bay Citizen Watershed Monitoring Network
18	Lisa Welsh	Geosyntec
19	Lorin Letendre	Carmel River Watershed Conservancy
20	MaryBeth Dreusike	Naval Support Activity Monterey
21	Mike McCullough	Monterey One Water
22	Milas Smith	City of Pacific Grove
23	Nick Becker	Pebble Beach Community- Service District
24	Rick Boggs	California State University Monterey Bay
25	Sarah Hardgrave	Big Sur Land Trust
26	Scott Ottmar	City of Seaside
27	Tom Harty	Monterey County Resource Management Agency
28	Tom Reeves	Big Sur Land Trust
29	Vishakha Atre	EOA, Inc.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	3
AGENDA TITLE:	Draft Application for Storage of Water from the Pure Water Monterey Project
PREPARED BY:	Robert Jaques, Technical Program Manager

Section III.L.3.j.xx of the Adjudication Decision requires that any party wishing to store water in the Basin must first submit an application for storage, and if that is approved, the Watermaster must issue a Storage and Recovery Agreement.

At its meeting of June 2, 2010, the Board approved a Storage Application template to be used by any party seeking to store water in the Basin. That template is contained in Attachment A.

The Watermaster recently received from Cal Am a proposed Draft Storage Application and a proposed Draft Storage and Recovery Agreement.

The proposed Draft Storage Application did not contain all of the supporting documentation that the Board-approved template required, so I filled in the missing information from Cal Am's proposed Draft Storage and Recovery Agreement and arrived at the proposed Storage Application contained in Attachment B.

The differences between the proposed Draft Storage Application that was submitted by Cal Am, and the version contained in Attachment B are:

- Cal Am did not include information about:
 1. The proposed quantity of water to be stored
 2. The proposed location(s) where spreading or direct injection would occur
 3. The proposed locations where the stored water would be recovered
 4. The water quality characteristics of the water proposed for storage
 5. Copies of permits or approvals for storage from regulatory agencies.

Rather, Cal Am's submittal referred to its proposed Draft Storage and Recovery Agreement for the information required for items 1, 2, 3, and 4 above, and said with regard to item 5 "Copies of permits will be provided prior to initial injection of water."

The version in Attachment B incorporates the information contained in Cal Am's proposed Draft Storage and Recovery Agreement for items 1, 2, and 3 above into the Storage Application.

The water quality characteristics (item 4 above) of the water being proposed for storage are listed in Section 12.7 of the *Final Engineering Report Volume I: Engineering Report Pure Water Monterey Groundwater Replenishment Project Revised November 2017*, and are also listed in the WDRs and WRRs issued by the RWQCB. Those characteristics have been included in the version in Attachment B. Cal Am (Eric Sabolsice) stated that his desire was to not include the water quality tables as attachments and commented that the Watermaster doesn't monitor or manage those limits (like the RWQCB does through its permit reporting process) so inclusion (beyond a reference to the permit documents) seems overkill and only adds to the bulk of

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

the application document. My feeling is that it is appropriate for the application to include all of the information

AGENDA ITEM:

3 (Continued)

that TAC and Board members may wish to have before considering approval of it. This would be consistent with the Board's approved Storage and Recovery Application template.

The RWQCB has already issued Waste Discharge Requirements (WDR) and Water Reclamation Requirements (WRR) for the Pure Water Monterey Project, so the essential permits and approvals required under item 5 above have already been received by MIW who will be the producer of the water that is being proposed for storage. A copy of the body-only of the WDR/WRR has been included in the version in Attachment B to fulfill the requirements for item 5 above.

ATTACHMENTS:

Attachment A: Board-approved template for Application to Store and Recover Non-Native Water from the Seaside Groundwater Basin.
Attachment B: Proposed Application to Store and Recover Non-Native Water from the Seaside Basin for the proposed storage of PWM water in the Basin.

RECOMMENDED ACTION:

Approve the Application version contained in Attachment B or make changes to that version of the Application so it can be submitted to the Board for approval at its April 2018 meeting.

Attachment A

**APPLICATION TO STORE AND RECOVER NON-NATIVE WATER
FROM THE
SEASIDE GROUNDWATER BASIN**

INSTRUCTIONS: This Application form is for use by Standard Producers in the Seaside Groundwater Basin (Seaside Basin) for the purpose of obtaining approval from the Seaside Basin Watermaster (Watermaster) to store Non-Native water in, and to subsequently recover that stored water from, the Seaside Basin. The application process is as described in Section III.L.3.j.xx of the Amended Decision of the Monterey County Superior Court, Case No. M66343, filed February 9, 2007.

Name of Standard Producer (Applicant)

Contact Information for Applicant:

Contact Person: _____

Address: _____

Telephone: _____

Proposed quantity of non-native water Applicant seeks to store through spreading or direct injection into the Seaside Basin (acre-feet per year):

Proposed location(s) where the spreading or direct injection of non-native water into the Seaside Basin will occur. If injection will be performed using one or more injection wells, provide identifying information for those wells including the aquifer(s) into which the injection will occur. If spreading will be performed, provide coordinate location information, as well as any physical street address information for the proposed location.

Proposed location(s) where the stored water may be recovered. Provide identifying information for each well from which the stored water will be recovered, including the aquifer(s) from which recovery will occur.

Water quality characteristics of the non-native water proposed for spreading or direct injection into the Seaside Basin. Provide sufficient physical, chemical, and microbiological information about the water being proposed for storage, so that the Watermaster can determine whether or not storing such water will have any adverse water quality impacts on the Seaside Basin. Provide this information in the form of analytical results from a properly certified water testing laboratory, attached to this Application.

Also provide sufficient information to demonstrate to the Watermaster that the water quality characteristics of the water being proposed for storage will meet all of the requirements imposed on the Applicant by permits and/or approvals issued to the Applicant by the regulatory agency or agencies with jurisdiction.

Permits and approvals from regulatory agencies. Attach copies of all permits and approvals the applicant has received from regulatory agencies, which relate to the storage of water in the Seaside Basin. Such agencies will likely include some or all of the following:

- California Regional Water Quality Control Board
- California Department of Public Health
- County of Monterey Department of Health
- State Water Resources Control Board

Attachment B

APPLICATION TO STORE AND RECOVER NON-NATIVE WATER FROM THE SEASIDE GROUNDWATER BASIN

INSTRUCTIONS: This Application form is for use by Standard Producers in the Seaside Groundwater Basin (Seaside Basin) for the purpose of obtaining approval from the Seaside Basin Watermaster (Watermaster) to store Non-Native water in, and to subsequently recover that stored water from, the Seaside Basin. The application process is as described in Section III.L.3.j.xx of the Amended Decision of the Monterey County Superior Court, Case No. M66343, filed February 9, 2007.

California-American Water Company (CAWC);
Co-Applicant Monterey Peninsula Water Management District (MPWMD)

Name of Standard Producer (Applicant)

Contact Information for Applicant:

Contact Person: Eric Sabolsice

Address: 511 Forest Lodge Rd. Ste 100, Pacific Grove, CA 93950

Telephone: 831-646-3291

Contact Information for Co-Applicant:

Contact Person: Dave Stoldt

Address: 5 Harris Court – Bldg G, Monterey, CA 93940

Telephone: 831-658-5651

Proposed quantity of non-native water Applicant seeks to store through spreading or direct injection into the Seaside Basin (acre-feet per year):

CAWC wishes to store by means of direct injection 6,000 acre-feet per year of the AWT Water in the Basin, which includes AWT Water used to backflush an injection well that percolates into the ground. MPWMD wishes to use CAWC's Storage Allocation to store by means of direct injection up to 4,000 acre-feet of the AWT Water for CAWC's future use (the "Reserve Water").

Proposed location(s) where the spreading or direct injection of non-native water into the Seaside Basin will occur.

The storage of water will be performed at the location(s) shown in Attachment A.

Proposed location(s) where the stored water may be recovered.

CAWC will recover the AWT Water at the following location(s), or at such other locations as may be approved by the Watermaster. The aquifer from which each of these wells draws is shown in parentheses:

- A. Ord Grove Well #2, 1987 Park Ct., Seaside (Santa Margarita)
- B. Paralta Well, 2104 Paralta Ave., Seaside (Santa Margarita)
- C. Luzern Well #2, 1984 Luzern St., Seaside (Paso Robles)
- D. Playa Well #3, 1237 Playa Ave., Seaside (Paso Robles)
- E. Plumas Well #4, 1453 Plumas Lane, Seaside (Paso Robles)
- F. Santa Margarita ASR-1, 1910 General Jim Moore Blvd, Seaside (Santa Margarita)
- G. Santa Margarita ASR-2, 1910 General Jim Moore Blvd, Seaside (Santa Margarita)
- H. Seaside Middle School ASR-3, 2111 General Jim Moore Blvd, Seaside (Santa Margarita)
- I. Seaside Middle School ASR-4, 2111 General Jim Moore Blvd, Seaside (Santa Margarita)

Water quality characteristics of the non-native water proposed for spreading or direct injection into the Seaside Basin.

The AWT water that CAWC will inject into the Seaside Basin will not exceed the water quality limits contained in the Waste Discharge Requirements and Water Recycling Requirements issued for the Pure Water Monterey Project issued by the Central Coast RWQCB in Order No. R3-2017-0003. These limits are summarized in Attachment B, which is excerpted from the document titled *Final Engineering Report, Volume I: Engineering Report Pure Water Monterey Groundwater Replenishment Project, Revised November 2017*.

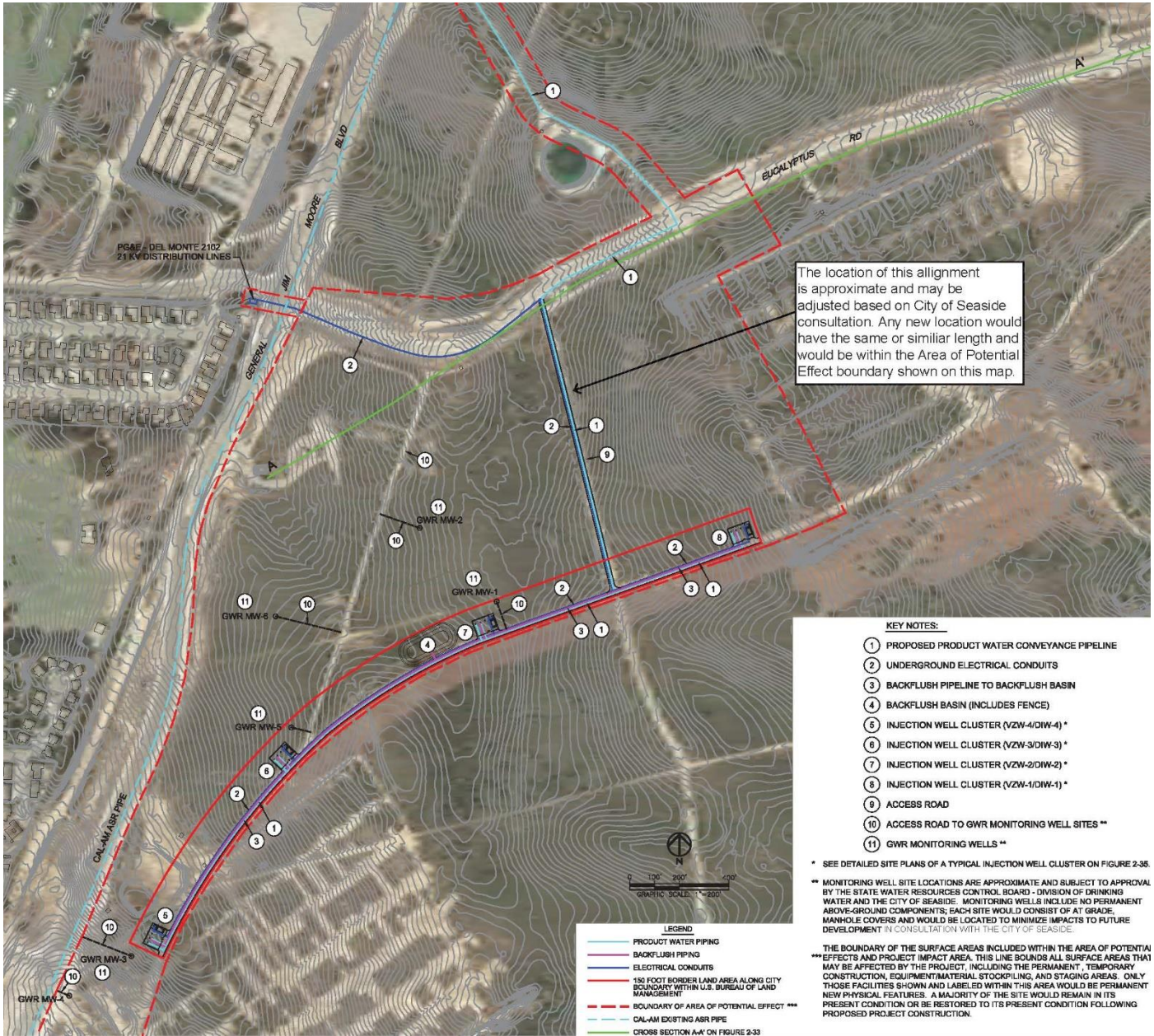
Permits and approvals from regulatory agencies.

The Central Coast RWQCB has issued Waste Discharge Requirements and Water Recycling Requirements for the AWT water under Order No. R3-2017-0003. That document is quite lengthy but a copy of the body of it is contained in Attachment C.

ATTACHMENT A

Delivery Point

AWT Water will be injected into the Seaside Groundwater Basin using new injection wells. The proposed new Injection Well Facilities will be located east of General Jim Moore Boulevard, south of Eucalyptus Road in the City of Seaside, including up to eight injection wells (four deep injection wells, four vadose zone wells, in pairs identified as #5, #6, #7, and #8 in the figure below), six monitoring wells, and back-flush facilities.



ATTACHMENT B

PURE WATER MONTEREY WATER QUALITY CHARACTERISTICS

Primary Maximum Contaminant Levels for Inorganic Chemicals

Analyte	Units	Primary MCL
Aluminum	mg/L	1
Antimony	mg/L	0.0
Arsenic	mg/L	0.
Asbestos	MFL for fibers exceeding 10 microns in length	7
Barium	mg/L	1
Beryllium	mg/L	0.0
Cadmium	mg/L	0.0
Chromium	mg/L	0.
Cyanide	mg/L	0.
Fluoride	mg/L	2
Chromium (Total)	mg/L	0.05
Mercury	mg/L	0.0
Nickel	mg/L	0
Nitrate (as N)	mg/L	1
Nitrite (as N)	mg/L	1
Nitrate + Nitrite	mg/L	1
Perchlorate	mg/L	0.0
Selenium	mg/L	0.
Thallium	mg/L	0.0

Source: Title 22 Section 64431 and the WDR/WRR

Maximum Contaminant Levels for Radionuclides

Analyte	Unit	MCL
Radium-226 and Radium-228	pCi/	5
Gross alpha particle activity (including radium-226 but excluding radon and uranium)	pCi/ l	15
Uranium	pCi/	20
Gross beta particle activity	millirem/year	4
Strontium-90	pCi/	8
Tritium	pCi/	20,000

Source: Title 22 Sections 64442 and 64443 and the WDR/WRR

Maximum Contaminant Levels for Organic Chemicals

Analyte	Units	Primary MCL
a) Volatile Organic Chemicals		
Benzene	mg/L	0.001
Carbon Tetrachloride	mg/L	0.0005
1,2-Dichlorobenzene	mg/L	0.6
1,4-Dichlorobenzene	mg/L	0.005
1,1-Dichloroethane	mg/L	0.005
1,2-Dichloroethane	mg/L	0.0005
1,1-Dichloroethylene	mg/L	0.006
cis-1,2-Dichloroethylene	mg/L	0.006
trans-1,2-Dichloroethylene	mg/L	0.01
Dichloromethane	mg/L	0.005
1,2-Dichloropropane	mg/L	0.005
1,3-Dichloropropene	mg/L	0.0005
Ethylbenzene	mg/L	0.3
Methyl- <i>tert</i> -butyl ether	mg/L	0.013
Monochlorobenzene	mg/L	0.07
Styrene	mg/L	0.1
1,1,2,2-Tetrachloroethane	mg/L	0.001
Tetrachloroethylene	mg/L	0.005
Toluene	mg/L	0.15
1,2,4-Trichlorobenzene	mg/L	0.005
1,1,1-Trichloroethane	mg/L	0.200
1,1,2-Trichloroethane	mg/L	0.005
Trichloroethylene	mg/L	0.005
Trichlorofluoromethane	mg/L	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/L	1.2
Vinyl Chloride	mg/L	0.0005
Xylenes (m,p)	mg/L	1.750
b) Non-Volatile Synthetic Organic Chemicals (SOCs)		
Alachlor	mg/L	0.002
Atrazine	mg/L	0.001
Bentazon	mg/L	0.018
Benzo(a)pyrene	mg/L	0.0002
Carbofuran	mg/L	0.018
Chlordane	mg/L	0.0001
Dalapon	mg/L	0.2
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	0.07
Di(2-ethylhexyl)adipate	mg/L	0.4
Di(2-ethylhexyl)phthalate	mg/L	0.004
Dinoseb	mg/L	0.007
Diquat	mg/L	0.02
Endothall	mg/L	0.1
Endrin	mg/L	0.002
Ethylene Dibromide	mg/L	0.00005
Glyphosate	mg/L	0.7
Heptachlor	mg/L	0.00001

Analyte	Units	Primary MCL
Heptachlor Epoxide	mg/L	0.00001
Hexachlorobenzene	mg/L	0.001
Hexachlorocyclopentadiene	mg/L	0.05
Lindane	mg/L	0.0002
Methoxychlor	mg/L	0.03
Molinate	mg/L	0.02
Oxamyl	mg/L	0.05
Pentachlorophenol	mg/L	0.001
Picloram	mg/L	0.5
Polychlorinated Biphenyls	mg/L	0.0005
Simazine	mg/L	0.004
Thiobencarb	mg/L	0.07
Toxaphene	mg/L	0.003
2,3,7,8-TCDD (Dioxin)	mg/L	3×10^{-8}
2,4,5-TP (Silvex)	mg/L	0.05

Source: Title 22 Section 64444 and the WDR/WRR

Maximum Contaminant Levels for Disinfection Byproducts

Analyte	Units	MCL
Total trihalomethanes (TTHM)	mg/L	0.080
Bromodichloromethane		
Bromoform		
Chloroform		
Dibromochloromethane		
Haloacetic acids (five) (HAA5)	mg/L	0.060
Monochloroacetic Acid		
Dichloroacetic Acid		
Trichloroacetic Acid		
Monobromoacetic Acid		
Dibromoacetic Acid		
Bromate	mg/L	0.010
Chlorite	mg/L	1.0

Action Levels for Lead and Copper

Analyte	Unit	Action Level
Lead	mg/L	0.015
Copper	mg/L	1.3

Source: Title 22 Section 64678 and the WDR/WRR

Secondary Maximum Contaminant Levels and Upper Limits for Consumer Acceptance

Analyte	Units	MCL/Upper
Secondary MCL		
Aluminum	mg/L	0.2
Color	Units	15
Copper	mg/L	1.0
Foaming Agents (MBAS)	mg/L	0.5
Iron	mg/L	0.3
Manganese	mg/L	0.05
Methyl- <i>tert</i> -butyl ether (MTBE)	mg/L	0.005
Odor - Threshold	Units	3
Silver	mg/L	0.1
Thiobencarb	mg/L	0.001
Turbidity	NTU	5
Zinc	mg/L	5.0
Upper Limit		
Total Dissolved Solids	mg/L	1,000
Specific Conductance	µS/cm	1,600
Chloride	mg/L	500
Sulfate	mg/L	500

Source: Title 22 Section 64449

ATTACHMENT C

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
ORDER NO. R3-2017-0003

WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS
FOR THE
PURE WATER MONTEREY
ADVANCED WATER PURIFICATION FACILITY AND
GROUNDWATER REPLENISHMENT PROJECT
ISSUED TO
MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

The California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) finds that:

I. BACKGROUND

1. The Monterey Regional Water Pollution Control Agency (MRWPCA) in partnership with the Monterey Peninsula Water Management District (MPWMD) has developed the “Pure Water Monterey Groundwater Replenishment Project” (Project) to deliver 3,500 acre-feet per year (AFY) of purified recycled water to replenish the Seaside Groundwater Basin (Seaside Basin), in Monterey County.
2. The MRWPCA is a joint powers authority (JPA) operating in the Monterey Bay area, with 11 members including Monterey County, City of Salinas, Boronda County Sanitation District, Castroville Community Services District, City of Del Rey Oaks, City of Monterey, City of Pacific Grove, City of Sand City, City of Seaside, Marina Coast Water District, and Moss Landing County Sanitation District.
3. The MRWPCA is the facility owner and is responsible for complying with all requirements of this Order and the Monitoring and Reporting Program.
4. Each JPA member has had sewage conveyance or treatment responsibilities in the past for its respective area of jurisdiction and is currently responsible for maintaining and operating its own collection system. The collection systems of the 11 member agencies all connect to MRWPCA’s Regional Treatment Plant (RTP).
5. The MRWPCA currently serves a population of approximately 250,000 people and treats approximately 18.5 million gallons per day (MGD) of municipal wastewater at its RTP located two miles north of the City of Marina.
6. The RTP currently has a design capacity of 29.6 MGD.
7. California American Water Company (CalAm) is under a State Water Resources Control Board (SWRCB) cease and desist order (SWRCB Order No. 2009-0060) to secure

replacement water supplies and cease over-pumping of the Carmel River. The Project will help CalAm to comply with the cease and desist order by allowing it to reduce diversions from the Carmel River system by 3,500 AFY by injecting the same amount of purified recycled product water into the Seaside Basin.

8. The Project will also include a drought reserve component by providing for an additional 200 AFY of product water that will be injected in the Seaside Basin in wet and normal years up to a total of 1,000 acre-feet (AF). Thus, the Project will inject up to 3,700 AF of product water into the Seaside Basin in some years, rather than the 3,500 AF needed for CalAm supplies. This will result in a “banked” drought reserve.
9. The Advanced Water Treatment Facility (AWPF) will be located adjacent to the RTP and will consist of ozone pre-treatment, low-pressure membrane filtration, reverse osmosis treatment, advanced oxidation, and product water stabilization.
10. Purified recycled water from the AWPF will be conveyed by pipeline to the Seaside Basin for groundwater recharge using both deep injection and vadose zone wells. The injected water will then mix with existing groundwater and be stored for future urban use, including use as a potable water source.
11. Additional recycled water from the RTP’s tertiary treatment system will augment the existing Castroville Seawater Intrusion Project’s agricultural irrigation supply.
12. The Project will supplement sewage flows to the RTP in order to increase the quantity of secondary effluent available as feed water. The sewage flows will be supplemented with:
 - agricultural wash water from the City of Salinas;
 - storm water flows from the southern part of Salinas;
 - storm water and urban agricultural runoff from the Reclamation Ditch; and □
surface and agricultural tile drain waters from the Blanco Drain.
13. AWPF treated water will be conveyed by pipeline to the Seaside Basin for groundwater recharge using injection and vadose zone wells owned by MRWPCA. The injection wells will be arrayed just east of General Jim Moore Blvd. and south of Eucalyptus Road (see Figure 1).

II. PURPOSE OF ORDER

14. This Order authorizes the treatment of recycled water at the AWPF and injection of the treated water into the Seaside Basin aquifer.
15. On February 25, 2016, the MRWPCA submitted a Report of Waste Discharge requesting new waste discharge requirements and water recycling requirements (WDRs/WRRs) to reflect a proposal to operate the AWT facility and inject recycled water into the Seaside Basin.
16. On November 29, 2016, the Water Board sent a letter to MRWPCA notifying it that the Report of Waste Discharge letter was complete.

17. On August 22, 2016, the MRWPCA held a public hearing on the draft Title 22 Engineering Report for this project and on October 21, 2016, submitted a final version the Title 22 Engineering Report (Pure Water Monterey Groundwater Replenishment Title 22 Engineering Report) for operation of the Facility to the Central Coast Water Board and the State Water Resources Control Board Division of Drinking Water (DDW). The final Engineering Report was accepted by DDW on November 7, 2016.
18. MRWQCA has made changes to the project since the final Engineering Report was accepted by DDW.
19. DDW submitted a letter to the Central Coast Water Board with recommendations for conditions to properly regulate the Project on November 10, 2016.
20. The DDW conditions are incorporated into the provisions of this Order.

III. PURE WATER MONTEREY ADVANCED WATER PURIFICATION PROJECT

21. The Monterey Regional Water Pollution Control Agency (hereafter “MRWPCA” or “Discharger”) owns and operates the Advanced Water Purification Facility located at 14811 Del Monte Boulevard, located north east of Marina in Monterey County (see Figure 1). The facility is located just south of the Salinas River.
22. Primary Project Components:
 1. The following source waters will be treated to secondary standards at the RTP:
 - Sewage from the MRWPCA member entities
 - Agricultural wash water from the City of Salinas
 - Storm water flows from the southern part of Salinas
 - Storm water and urban and agricultural runoff from the Reclamation Ditch
 - Surface and agricultural tile drain waters from the Blanco Drain
 2. The Advanced Water Purification Facility (AWPFAWPF) has the following major components:
 - Supply water pump station
 - Ozonation (membrane filtration pretreatment)
 - Membrane filtration feed water pump station
 - Low Pressure Membrane Filtration (MF)
 - Reverse osmosis (RO) feed water pump station
 - RO system
 - Ultraviolet light (UV) with hydrogen peroxide advanced oxidation Process (AOP)
 - Post treatment stabilization
 - Product water pump station
 3. Aquifer recharge by injection of purified recycled water into the Seaside Basin.

Figure 1 - shows the approximate locations of the AWPFAWPF and the injection wells site.

Figure 2 - shows a simplified process flow diagram of the existing RTP and the AWPf.

Figure 3 - is a map of wells associated with and in the vicinity of the Project.

23. AWPf Design Flows and Waste Streams - The proposed AWPf will have a design capacity to produce 4.0 MGD of advanced treated recycled water. The facility will also produce seven waste streams: ozone injection strainer waste, MF backwash waste, neutralized MF enhanced flux maintenance waste, neutralized MF clean-in-place waste, neutralized RO clean-in-place waste, analytical instrument waste, and RO concentrate. The RO concentrate will be piped to MRWPCA's existing ocean outfall along with secondary wastewater effluent, and trucked brine. The other AWPf waste streams will be diverted to the RTP headworks or the RTP sludge thickening process for treatment.

24. Ocean Discharge - The RO concentrate will be sent to the existing ocean outfall regulated by Water Board Order No. R3-2014-0013, NPDES No. CA0048551 for disposal.

Because there will be new waste streams entering the RTP, and these waste streams will have seasonal variations in water quality, the Central Coast Water Board must modify MRWPCA's existing NPDES permit for discharge to the Pacific Ocean prior to project operation.

IV. RECYCLED WATER INJECTION SYSTEM

25. Injection Facilities – Injection facilities will be constructed along a strip of land on the eastern boundary of the City of Seaside, about 1.5 miles inland from Monterey Bay, in an area is located within the Northern Inland Subarea of the Seaside Basin. Each vadose zone well will be paired with a deep injection well (i.e. a well cluster) at each of the four proposed injection well locations. (Figure 3)

26. Vadose Zone Wells - Up to four vadose zone injection wells are planned (VZW-1 through VZW-4) in the Paso Robles aquifer. These wells are targeted to receive 10 percent of the advanced treated recycled water.

27. Deep Injection Wells - Up to four deep water injection wells (DIW-1 through DIW-4) are planned in the Santa Margarita aquifer. These wells are targeted to receive 90 percent of the advanced treated recycled water.

28. Water Supply Wells Near the Injection Area - Most supply wells near the injection facilities are located in the adjacent Northern Coastal Subarea. The closest water supply wells include Seaside No. 4 (operated by the City of Seaside) and two aquifer storage and recovery (ASR) wells, ASR-1 and ASR-2 (operated by the Monterey Peninsula Water Management District for CalAm). Each of these wells is located about 1,000 feet downgradient from a Project injection well (Figure 3).

29. Monitoring Wells - MRWPCA will construct two monitoring wells downgradient of each injection well cluster. One monitoring well must be located between two weeks to six months travel time and at least 30 days upgradient of the nearest drinking water well, and one monitoring well must be located between each well cluster and the nearest downgradient

drinking water well. The monitoring wells will allow for samples to be obtained independently from each aquifer and validated as receiving recharge water from the Project.

30. Recycled Water Retention Time - The SWRCB Division of Drinking Water (DDW - formerly the California Department of Public Health) has adopted groundwater replenishment regulations (June 2014) for the recharge of recycled water. The DDW regulations contain requirements for underground retention time of recycled water that could also potentially affect well spacing. Recycled water must be retained underground for a sufficient period of time to identify and respond to any treatment failure so that inadequately treated recycled water does not enter a potable water system (referred to as the response retention time). The response retention time must be at least two months. The 1,000-ft distance between proposed project wells and the closest downgradient production wells is expected to result in a travel time of approximately one year. MRWPCA will propose a tracer study to DDW and the Central Coast Water Board and when approved, will conduct the study to confirm the underground retention time.

V. SEASIDE GROUNDWATER SUBBASIN

31. Seaside Groundwater Basin - Groundwater Bulletin 118 defines the Salinas Valley Groundwater Basin - Seaside Area Subbasin 3-4.08 as having a surface area of 25,900 acres, or approximately 40 square miles. The subbasin underlies the coastal communities of Seaside and Marina as well as the western portion of the former Fort Ord. The main water-bearing units of the subbasin are the Santa Margarita Formation and the Paso Robles Formation. The Santa Margarita Formation is poorly consolidated marine sandstone, has a maximum thickness of 225 feet, and underlies the Paso Robles Formation. The Paso Robles Formation is the major water-bearing unit in the Seaside area and consists of sand, gravel, and clay interbedded with some minor calcareous beds. The storage capacity of the subbasin is estimated to be 1,000,000 acre-feet.
32. Seaside Groundwater Basin Salt & Nutrient Management Plan - A salt and nutrient management plan (SNMP) was prepared for the Monterey Peninsula Management District, pursuant to the State Water Board's Recycled Water Policy in June of 2014. The SNMP has not been adopted by the Central Coast Water Board and will not be brought before the Board in its current form.

VII. REGULATION OF RECYCLED WATER

33. Legislation was adopted, effective July 1, 2014, that transferred personnel in the California Department of Public Health Drinking Water Program, which includes those working on permitting of recycled water projects, to the State Water Board as the new Division of Drinking Water (DDW). The regional water quality control boards are responsible for issuing water reclamation requirements for the beneficial use of recycled water. The State Water Board and regional water quality control boards are responsible for issuing waste discharge requirements for the production of recycled water.
34. State authority to oversee production and reuse of recycled water use is shared by the State Water Board Division of Drinking Water and the Regional Water Boards. DDW is the division with the primary responsibility for establishing water recycling criteria under Title

22 of the Code of Regulations to protect the health of the public using the groundwater basins as a source of potable water.

35. The State Water Board adopted Resolution No. 77-1, Policy with Respect to Water Reclamation in California, which includes principles that encourage and recommend funding for water recycling and its use in water-short areas of the state. On September 26, 1988, the Central Coast Water Board adopted Resolution No. 88-012, which encourages the beneficial use of recycled water and supports water recycling projects.
36. The State Water Board adopted the Recycled Water Policy (State Water Board Resolution No. 2009-0011) on February 3, 2009, and amended the Policy on January 22, 2013. The purpose of the Recycled Water Policy is to protect groundwater resources and to increase the beneficial reuse of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. The Recycled Water Policy describes the respective authorities of DDW and the regional water quality control boards as follows:

Regional Water Boards shall appropriately rely on the expertise of DDW for the establishment of permit conditions needed to protect human health. (section 5.b)

Nothing in this paragraph shall be construed to limit the authority of a Regional Water Board to protect designated beneficial uses, provided that any proposed limitations for the protection of public health may only be imposed following regular consultation by the Regional Water Board with DDW, consistent with State Water Board Orders WQ 2005-0007 and 2006-0001. (section 8.c)

Nothing in this Policy shall be construed to prevent a Regional Water Board from imposing additional requirements for a proposed recharge project that has a substantial adverse effect on the fate and transport of a contaminant plume or changes the geochemistry of an aquifer thereby causing dissolution of constituents, such as arsenic, from the geologic formation into groundwater. (section 8.d)

In addition, the Policy notes the continuing obligation of the Regional Water Boards to comply with the state's anti-degradation policy, Resolution No. 68-16:

The State Water Board adopted Resolution No. 68-16 as a policy statement to implement the legislature's intent that waters of the state shall be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state. (section 9.a)

37. Section 13523(a) of the Water Code provides that a regional water quality control board, after consulting with and receiving recommendations from DDW, and after any necessary hearing, shall, if it determines such action to be necessary to protect the health, safety, or welfare of the public, prescribe water recycling requirements for water that is used or proposed to be used as recycled water. Pursuant to Water Code section 13523, the Central Coast Water Board has consulted with DDW and received its recommendations. On August

22, 2016, DDW participated in a public hearing to consider the proposed Pure Water Monterey Groundwater Replenishment Project. On October 21, 2016, DDW transmitted to the Central Coast Water Board its conditions concerning the Pure Water Monterey Project. DDW's recommendations are included in this order as requirements.

38. Section 13540 of the Water Code requires that recycled water may only be injected into an aquifer used as a source of domestic water supply if DDW finds the recharge will not degrade the quality of the receiving aquifer as a source of water supply for domestic purposes. DDW determined that as long as the water reclamation requirements meet all of its conditions, the Pure Water Monterey Groundwater Replenishment Project can provide injection recharge water that will not degrade groundwater basins as a source of water supply for domestic purposes. This Order requires that the Discharger comply with all of the recommended DDW conditions.
39. Section 13523(b) of the Water Code provides that reclamation requirements shall be established in conformance with the uniform statewide recycling criteria established pursuant to Water Code section 13521. Section 60320 of Title 22 currently includes requirements for groundwater recharge projects.
40. The State Water Resources Control Board adopted uniform water recycling criteria for groundwater recharge on July 15, 2014. This Order is consistent with those criteria.

VIII. OTHER APPLICABLE PLANS, POLICIES AND REGULATIONS

A. Regional Board Water Quality Control Plan (Basin Plan)

41. The Central Coast Water Board has adopted the Water Quality Control Plan for the Central Coastal Basin (Basin Plan). The Basin Plan designates beneficial uses for surface water and groundwater; establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and to conform with the state's anti-degradation policy; and includes implementation provisions, programs, and policies to protect all waters in the region. In addition, the Basin Plan incorporates applicable State Water Board and Central Coast Water Board plans and policies and other pertinent water quality policies and regulations.
42. The Basin Plan incorporates the California Code of Regulations (CCR) Title 22 primary Maximum Contaminant Levels (MCLs) by reference. This incorporation is prospective, including future changes to the incorporated provisions as the changes take effect. The Basin Plan states that groundwater designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents and radionuclides in excess of the MCLs. The Basin Plan also specifies concentrations that cause nuisance or adversely affect beneficial uses.
43. For the Seaside Basin, the Basin Plan includes general narrative groundwater objectives for taste and odor and radioactivity and numeric objectives for:
 - Bacteria - the median concentration of coliform organisms (i.e., total coliform) over any seven-day period must be less than 2.2/100 mL; and

- Chemical constituents - groundwater shall not contain chemical concentrations in excess of primary and secondary MCLs.:

Table 1 – Water Quality Goals

Receiving Water			Beneficial Uses			
	Seaside Aquifer		Municipal and Domestic Water Supply (MUN) Industrial Service Supply (IND) Agricultural Supply (AGR)			
	Water Quality Goals - Sources					
	WQG	Units	CA Primary MCL	CA Secondary MCL	CA Public Health Goal for Drinking Water	Water Quality for Agriculture (Basin Plan)
Aluminum	1,000	□g/L	X			
Arsenic	10	□g/L	X			
Barium	1,000	□g/L	X			
Boron	750	□g/L				X
Cadmium	10	□g/L				X
Chloride	250	mg/L		X		
Chromium VI	0.02	□g/L			X	
Iron	300	□g/L		X		
Lead	0.2	□g/L			X	
Manganese	50	□g/L		X		
Nitrate - N	10	mg/L	X			
pH	6.5-8.4	pH Units				X
Sodium	69	mg/L	WQ Goals – Marshak, WQ for Ag (Ayers & Wescot)			
Sulfate	250	mg/L		X		
TDS	500	mg/L		X		
Zinc	2.0	mg/L				X

44. Four wells were used to establish existing groundwater water quality and assimilative capacity of the aquifer and sub-aquifers. The most recent five years of data (2011-2016) were analyzed for each well and the data are presented in Table 2. Two of the wells draw their water from both the Paso Robles and Santa Margarita aquifers (Ord Grove No. 2 and Paralta). One well draws water exclusively from the Paso Robles aquifer (City of Seaside No. 4) and one well draws exclusively from the Santa Margarita aquifer (ASR-1).

Table 2 - Existing Groundwater Quality in the Seaside Basin

Constituent	City of Seaside No.4	ASR-1	Ord Grove No. 2	Paralta	Basin-Wide Averages
Aluminum	50	50	26	50	42
Arsenic	1.2	1.8	2.0	2.5	2.1
Barium	28	100	100	100	94
Boron	46	95	132	96	108
Chloride	72	63	129	94	103
Chromium-total	3.6	9.3	10	10	9.1
Chromium VI	-	1.0	0.8	2.3	1.4
Lead	5	3.7	5.0	5.0	4.5
Nitrate as N	1.9	0.1	1.7	0.5	1.1
Sodium	50	60	94	79	79.7
Sulfate	13	77	63	58	54.9
TDS	237	406	524	435	449
TOC	0.5	1.0	0.6	0.6	0.7

*Source: averages of well water quality data submitted by MRPCA on November 9, 2016

*Concentrations are in mg/L except chloride, nitrate, sodium, sulfate, TDS, and TOC, which are in µg/L

45. MRWPCA completed a focused groundwater quality evaluation, utilizing the available groundwater quality data for the four water supply wells named in Table 2, and constructed a three-dimensional solute transport model to predict localized and basin-wide groundwater quality changes resulting from the mixing of injected recycled water and ambient groundwater. The model analyzed the percentage of assimilative capacity consumed by the Project after 25 years. The results of the evaluation are presented in Table 3. MRWPCA also demonstrated that when effluent limits are equal to the applicable water quality objective for each constituent, the percentage of recycled water present in the aquifer equals the percentage of assimilative capacity consumed. This analysis confirms that less than 10% of the basin's assimilative capacity will be utilized by this project and that beneficial uses will be protected.

Table 3. Volume-Weighted Average = % Assimilative Capacity Consumed

Modeled Layer					
	Northern Coastal	Northern Inland	Southern Coastal	Laguna Seca	All Subareas
1	0.1%	0.0%	0.0%	0.0%	0.0%
2	0.5%	2.2%	0.0%	0.0%	1.0%
3	4.0%	2.1%	0.0%	0.0%	1.7%
4	2.1%	0.6%	0.0%	0.0%	0.8%
5	5.3%	7.2%	0.0%	0.0%	3.8%
Paso Robles Aquifer	1.8%	1.7%	0.0%	0.0%	1.1%
Santa Margarita Aquifer	5.3%	7.2%	0.0%	0.0%	3.8%
All Model Layers	3.3%	4.2%	0.0%	0.0%	2.4%

46. Any constituent that currently exceeds its applicable water quality objective in the groundwater basin will see its water quality improved by discharges of recycled water below the water quality objective concentration.

47. The Basin Plan contains the following specific water quality objectives for groundwater:

MUNICIPAL AND DOMESTIC SUPPLY (MUN)

- Bacteria - The median concentration of coliform organisms over any seven- day period shall be less than 2.2/100 mL.
- Organic Chemicals - Ground waters shall not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Chapter 15, Article 5.5, Section 64444.5 Table 5, and listed in Basin Plan Table 3-1.
- Chemical Constituents - Ground waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Article 4, Section 64435, Tables 2 and 3.
Radioactivity - Ground waters shall not contain concentrations of radionuclides in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Article 5, Section 64443, Basin Plan Table 4.

AGRICULTURAL SUPPLY (AGR)

- Ground waters shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Basin Plan Table 3-3.
- In addition, water used for irrigation and livestock watering shall not exceed the concentrations for those chemicals listed in Basin Plan Table 3-4. No controllable water quality factor shall degrade the quality of any ground water resource or adversely affect long-term soil productivity. The salinity control aspects of ground water management will account for effects from all sources.

This Order protects Seaside Basin groundwater water quality objectives and is therefore consistent with the Basin Plan.

B. State Water Resources Control Board Policies

48. The Sources of Drinking Water Policy (Resolution No. 88-63) provides that all waters of the state, with certain exceptions, are to be protected as existing or potential sources of municipal and domestic supply. Exceptions include waters with existing high dissolved solids (i.e., greater than 3,000 mg/L), low sustainable yield (less than 200 gallons per day for a single well), waters with contamination that cannot be treated for domestic use using best management practices or best economically achievable treatment practices, waters within particular municipal, industrial and agricultural wastewater conveyance and holding facilities, and regulated geothermal ground waters. This Order protects existing or potential sources of drinking water and is therefore consistent with Resolution No. 68-63.
49. On October 28, 1968, the State Water Board adopted Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (Resolution 68-16), establishing an anti-degradation policy for the State Water Board and Regional Water Boards. Resolution No. 68-16 requires that existing high quality of waters be maintained unless a change is demonstrated to be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of waters, and will not result in water quality less than that prescribed in applicable policies. Resolution No. 68-16 also requires that waste discharge requirements be prescribed for discharges to high quality waters that will result in the best practicable treatment or control of the discharge necessary to ensure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, the state anti-degradation policy.
50. This order is consistent with Resolution No. 68-16 (anti-degradation policy). Groundwater recharge with recycled water for later extraction and use in accordance with the Recycled Water Policy and state and federal water quality laws is to the benefit of the people of the State of California.

Compliance with this Order will protect present and anticipated beneficial uses of groundwater, ensure attainment of water quality prescribed in applicable policies, and avoid any conditions of pollution or nuisance. Although this Order may allow some degradation to water quality, the Order does not authorize the Project to cause exceedances of applicable water quality goals or objectives for the basin.

51. A goal of the Recycled Water Policy, Resolution No. 2013-0003, is to increase the beneficial use of recycled water from municipal wastewater sources in a manner consistent with state and federal water quality laws and regulations. The Policy directs the Regional Water Boards to collaborate with generators of municipal wastewater and interested parties in the development of salt and nutrient management plans (SNMPs) to manage the loading of salts and nutrients to groundwater basins in a manner that is protective of beneficial uses, thereby supporting the sustainable use of local waters. No SNMP has been adopted by the Central Coast Water Board for the Seaside Basin.

The Recycled Water Policy also states that until such time as a salt and nutrient management plan has been approved by the Water Board and is in effect, compliance with Resolution No. 68-16 for projects that consume less than 10 percent of the available assimilative capacity in a basin/sub-basin may be demonstrated by conducting an antidegradation analysis verifying

the use of assimilative capacity. This Order supports the sustainable use of local waters and ensures that the Project will consume less than 10 percent of available assimilative capacity, which is consistent with the Recycled Water Policy

52. DDW has established a notification level of 10 nanograms per liter (ng/L) for N-nitrosodimethylamine (NDMA). NDMA can be produced by reactions that occur during chlorination and has been determined to be a potent carcinogen. The notification level is the concentration of a contaminant in drinking water delivered for human consumption that DDW has determined, based on available scientific information, does not pose a significant health risk but warrants notification. Notification levels are established as precautionary measures for contaminants that may be considered candidates for establishment of maximum contaminant levels, but have not yet undergone or completed the regulatory standard setting process prescribed for the development of maximum contaminant levels and are not drinking water standards. DDW has established a response level of 300 ng/L for NDMA. The response level is the concentration of a contaminant in drinking water delivered for human consumption at which DDW recommends that additional steps, beyond notification, be taken to reduce public exposure to the contaminant.

C. California Water Code

53. Pursuant to California Water Code (Water Code) section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes.
54. Pursuant to Water Code section 13263(g), discharges of waste into waters of the state are privileges, not rights. Nothing in this order creates a vested right to continue the discharge. Water Code section 13263 authorizes the Central Coast Water Board to issue waste discharge requirements that implement any relevant water quality control plan.
55. Section 13267(b) of the Water Code states, in part:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region shall furnish under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

Section 13267(d) of the Water Code states, in part:

[A] regional board may require any person, including a person subject to waste discharge requirements under section 13263, who is discharging, or who proposes to discharge, wastes or fluid into an injection well, to furnish the state board or regional board with a complete report on the condition and operation of the facility or injection well, or any

other information that may be reasonably required to determine whether the injection well could affect the quality of the waters of the state.

56. The need for the technical and monitoring reports required by this order, including the Monitoring and Reporting Program, is based on the Report of Waste Discharge (ROWD), the DDW's recommended conditions, the California Environmental Quality Act (CEQA) environmental impact report, the Title 22 Engineering Report, and other information in the Central Coast Water Board's files for the facility. The technical and monitoring reports are necessary to ensure compliance with these waste discharge requirements and water recycling requirements. The burden, including costs, of providing the technical reports required by this Order bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
57. This order includes limits on quantities and concentrations of chemical, physical, biological, and other pollutants in the advanced treated recycled water that is injected into groundwater.
58. This order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all applicable requirements of the endangered species acts.

IX. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND NOTIFICATION

59. An environmental impact report (EIR) was prepared for the proposed Pure Water Monterey Groundwater Replenishment Project with MRWPCA serving as the lead agency. (State Clearinghouse # 2013051094)
 - a. Notices regarding the April 2015 draft EIR were emailed to 700 agencies, interested organizations, and individuals; placed as newspaper advertisements; distributed to state agencies through the State Clearinghouse; placed in public locations such as libraries, MRWPCA's and Monterey Peninsula Water Management District's (MPWMD's) websites and offices and key project sites; and posted with the Monterey County Clerk.
 - b. Public meetings to provide information on the Project and CEQA process were held on May 20 and 21, 2015.
 - c. The public was provided a 45-day comment period for the draft EIR.
 - d. Notices about the availability of the final EIR were distributed in September 2015 to all entities that received the draft EIR, commented on the Draft EIR, or requested a copy or copies.
 - e. The MRWPCA adopted Resolution No. 2015-24 on October 8, 2015, after a public hearing, which certified the final EIR, adopted the CEQA findings, approved mitigation measures and a mitigation monitoring and reporting program, adopted a statement of overriding considerations, and approved the project as modified. This Order, at General

Requirement IV.10, requires that the Discharger comply with the mitigation measures and mitigation monitoring program identified in the final EIR.

- f. The final EIR contains oral and written comments received on the draft EIR and presents responses to environmental issues raised in the comments. In addition to the responses to comments, the final EIR contains revisions, updates, and clarifications in response to public comment on the draft EIR.
- g. A notice of determination (NOD) was filed with the State Clearinghouse and the Monterey County Clerk's office on October 8, 2015. The Project has completed the notification and review process required by CEQA. The Central Coast Water Board is a responsible agency for purposes of CEQA. The Central Coast Water Board, as a responsible agency under CEQA, has considered the EIR and associated documents and concurs with MRWPCA's approval of the relevant CEQA documents. The Central Coast Water Board finds that all environmental effects have been identified for project activities that it is required to approve and that the Project will not have significant adverse impacts on the environment provided that the mitigation presented in the EIR for components of the Project being approved by this Order and the required Operation Optimization Plan are carried out as conditioned in this Order (see General Requirement IV.10 in this Order). In adopting this Order, the Central Coast Water Board has eliminated or substantially lessened the less-than-significant effects on water quality, and therefore approves the project.

60. Any person aggrieved by this action may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, Title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/

61. The Central Coast Water Board has notified the MRWPCA and interested agencies and persons of its intent to issue this Order for the production and use of recycled water and has provided them with an opportunity to submit written comments. The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to these WDRs/WRRs.

THEREFORE, IT IS HEREBY ORDERED that Order No. R3-2017-0003, with MRP No. R3-2017-0003, is effective as of the date of this order, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations and guidelines adopted thereunder, and California Code of Regulations Title 22, division 4, chapter 3, the MRWPCA shall comply with the requirements in this Order.

I. INFLUENT SPECIFICATIONS

The influent to the MRWPCA Advanced Water Treatment Facility shall consist of secondary treated wastewater discharged from the RTP. The wastewater coming into the RTP will be augmented with agricultural wash water from the City of Salinas, storm water flows from the southern part of Salinas, and surface and agricultural tile drain waters from

the Reclamation Ditch and Blanco Drain as described in the approved 2016 Title 22 Engineering Report.

II. RECYCLED WATER TREATMENT SPECIFICATION

Treatment of the recycled water is as described in the findings of this Order and in the recommended conditions issued by DDW.

III. RECYCLED WATER DISCHARGE LIMITS

1. The advanced treated recycled water injected into any well at the injection facility shall not contain pollutants in excess of the following limits:

Table 4 – Recycled Water Reinjection Discharge Limits

Constituents	Units	Concentration	Monitoring Frequency	Compliance Interval
*Arsenic	mg/L	0.01	Monthly	Running Annual Average
*Boron	□g/L	750	Monthly	Running Annual Average
*Chloride	mg/L	250	Monthly	Running Annual Average
*Nitrate as N	mg/L	10	Weekly	Sample Result: no averaging
**Nitrogen - Total	mg/L	10	Twice per Week	Average of Last 4 Results
*Sodium	mg/L	69	Monthly	Running Annual Average
*Sulfate	mg/L	250	Monthly	Running Annual Average
*TDS	mg/L	500	Monthly	Running Annual Average
**Total Organic Carbon (TOC)	mg/L	0.5	Weekly	20-week running average and average of last 4 results
**Total Coliform	MPN/100mL	<2.2	Daily	7-day Median

*Limits equal to Water Quality Objectives, except **TOC, Total Nitrogen, and Total Coliform, which are Title 22 limits

IV. GENERAL REQUIREMENTS

1. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.

2. Bypass, discharge, or delivery to the use area of inadequately treated recycled water, at any time, are prohibited.
3. The AWPf and all injection wells shall be adequately protected from inundation and damage by storm flows.
4. Recycled water use or disposal shall not result in earth movement in geologically unstable areas.
5. Odors of sewage origin shall not be perceivable at any time outside the boundary of the Facility.
6. The MRWPCA shall at all times properly operate and maintain all treatment facilities and control systems (and related appurtenances) that are installed or used by the MRWPCA to achieve compliance with the conditions of this order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls (including appropriate quality assurance procedures).
7. A copy of these requirements shall be maintained at the Facility and available at all times to operating personnel.
8. For any material change or proposed change in character, location, or volume of recycled water or its uses, the MRWPCA shall submit at least 120 days prior to the proposed change an engineering report or addendum to the existing engineering report to the Central Coast Water Board and DDW (pursuant to Water Code Division 7, Chapter 7, Article 4, section 13522.5 and CCR Title 22, Division 4, Chapter 3, Article 7, section 60323) for approval. The engineering report shall be prepared by a qualified engineer registered in California.
9. MRWPCA shall revise the Title 22 Engineering Report to reflect operational choices made and to correct no longer applicable and incorrect information discovered during the permitting process. MRWPCA shall have the revised report approved by DDW and the Water Board prior to commencing groundwater injection discharges to the Seaside Basin.
10. MRWPCA shall comply with the mitigation measures and mitigation monitoring and reporting program described in the final EIR for this project, as described in the findings of this Order. Mitigation measures of concern to and within the jurisdiction of the Central Coast Water Board include BT-1a, BF-1a, BF-1b, BF1c, BF-2a, alternate BF-2a, and HS-4.

V. PROVISIONS

1. Injection of the advanced treated recycled water shall not cause or contribute to an exceedance of water quality objectives in Seaside Basin groundwater.

2. The MRWPCA shall submit to the Central Coast Water Board, under penalty of perjury and signed by a designated responsible party, self-monitoring reports according to the specifications contained in the MRP, as directed by the Executive Officer.
3. The MRWPCA shall notify the Central Coast Water Board, DDW and all water purveyors drawing potable water from the Seaside Basin (immediately following notification to the Water Board and DDW) by telephone or electronic means as soon as MRWPCA becomes aware, but no later than 24 hours after obtaining knowledge of any violations of this order, or any adverse conditions as a result of the use of recycled water from this facility; written confirmation shall follow to the Central Coast Water Board and DDW within five working days from date of notification. The report shall include, but not be limited to, the following information, as appropriate:
 - a. The nature and extent of the violation;
 - b. The date and time when the violation started, when compliance was achieved, and when injection was suspended and restored, as applicable;
 - c. The duration of the violation;
 - d. The cause(s) of the violation;
 - e. Any corrective and/or remedial actions that have been taken and/or will be taken with a time schedule for implementation to prevent future violations; and,
 - f. Any impact of the violation.
4. This Order does not exempt the MRWPCA from compliance with any other laws, regulations, or ordinances which may be applicable, it does not legalize the recycling and use facilities, and it leaves unaffected any further constraint on the use of recycled water at certain sites that may be contained in other statutes or required by other agencies.
5. This Order does not alleviate the responsibility of the MRWPCA to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order, nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
6. This Order may be modified, revoked and reissued, or terminated for cause, including but not limited to, failure to comply with any condition in this Order; endangerment of human health or environment resulting from the permitted activities in this Order; obtaining this Order by misrepresentation or failure to disclose all relevant facts; or acquisition of new information that could have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the MRWPCA for modification, revocation and reissuance, or termination of the Order or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

7. The MRWPCA shall furnish, within a reasonable time, any information the Central Coast Water Board or DDW may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The MRWPCA shall also furnish the Central Coast Water Board, upon request, with copies of records required to be kept under this Order for at least three years.
8. In an enforcement action, it shall not be a defense for the MRWPCA that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the MRWPCA shall, to the extent necessary to maintain compliance with this Order, control production of all discharges until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.
9. This Order includes the attached Standard Provisions and Reporting Requirements for Waste Discharge Requirements. If there is any conflict between the provisions stated in this Order and the Standard Provisions, the provisions stated in this Order shall prevail.
10. This Order includes the attached MRP No. R3-2017-0003. If there is any conflict between provisions stated in the MRP and the Standard Provisions, those provisions stated in the MRP prevail. The MRP may be modified by the Central Coast Water Board's Executive Officer; however, any such modified requirements must still achieve the MRP's primary purpose, which is to detect violations, confirm effective treatment, and to ensure that neither excessive degradation in the aquifer nor adverse impacts to beneficial uses occurs. Excessive degradation is defined as the discharge consuming 10 percent or more of available assimilative capacity.
11. The DDW conditions that are not explicitly included in this Order are incorporated herein by this reference, and are enforceable requirements of this Order. Any violation of a term in this Order that is identical to a DDW condition will constitute a single violation.

VI. STATE WATER RESOURCES CONTROL BOARD DIVISION OF DRINKING WATER (DDW) REQUIREMENTS

1. The Pure Water Monterey Groundwater Replenishment Project (Project) shall comply with Article 5.2 - Indirect Potable Reuse: Groundwater Replenishment- Subsurface Application, sections 60320.200 through 60320.228 of Title 22, California Code of Regulations.
2. The Project's advanced water treatment facility (AWPF) shall conduct startup and commissioning testing that meets the requirement in Title 22 section 60320.201. Advanced Treatment Criteria. A test protocol must be submitted to DDW for approval prior to commencement of testing.
3. The Project AWPF shall be operated to meet the requirements in section 60320.222. Operation Optimization and Plan.
4. As required by Title 22 section 60320.222. (Operation Optimization Plan), prior to operation, MRWPCA shall submit an Operation Optimization Plan for review and approval to DDW and the Central Coast Water Board. At a minimum, the Operation

Optimization Plan shall identify and describe the operations, maintenance, analytical methods, monitoring (grab and online) necessary for the Project to meet the requirements and the reporting of monitoring results. MRWPCA must submit a draft of the Operation Optimization Plan prior to completion of construction and commissioning. The draft Operation Optimization Plan can be amended and finalized after the completion of fullscale commissioning and startup testing. A final Operation Optimization Plan must be submitted to DDW 90 days after completion of startup operations.

5. AWPf commissioning shall validate and confirm the actual setpoints for hydrogen peroxide and UV parameters, demonstrating that the advanced oxidation process (AOP) will provide no less than 0.5-log (69 percent) reduction of 1,4-dioxane.
6. MRWPCA shall follow what is described in the approved Operation Optimization Plan.
7. The Project's Operation Optimization Plan shall, at all times, be representative of the current operations, maintenance, and monitoring.
8. The Project's AWPf shall provide continuous real-time monitoring and reporting of UV dose, UV Transmittance, and power used in the AOP.
9. The Project must have alarms as stated in the approved Title 22 Engineering Report. Commissioning shall validate and confirm the actual setpoints and they shall be specified in the Operation Optimization Plan.
10. For reporting, MRWPCA shall submit to DDW a summary of monthly operational parameters for UV dose and hydrogen peroxide for the AWPf.
11. MRWPCA shall verify that the recycled municipal wastewater used for the Project meets the requirements in Title 22 section 60320.206. Wastewater Source Control.
12. Pursuant to Title 22 section 60320.208 (a) Pathogenic Microorganism Control (a), MRWPCA shall operate the Project such that the recycled municipal wastewater used as recharge water receives treatment that achieves at least 12-log enteric virus reduction, 10-log Giardia cyst reduction, and 10-log Cryptosporidium oocyst reduction.
13. If a pathogen reduction in Title 22 section 60320.208 (a) is not met based on the on-going monitoring required pursuant to subsection (c), within 24 hours of being aware, MRWPCA shall immediately investigate the cause and initiate corrective actions. MRWPCA shall immediately notify the DDW and the Central Coast Water Board if the Project fails to meet the pathogen reduction criteria longer than 4 consecutive hours, or more than a total of 8 hours during any 7day period. Failures of shorter duration shall be reported to the Central Coast Water Board by MRWPCA no later than 10 days after the month in which the failure occurred.
14. Per the approved Title 22 Engineering Report, the initial maximum Recycled Water Contribution (RWC) shall be 1.0, meaning that the Project is approved to use 100% recycled water for recharging the aquifer at the beginning. As long as the Project can demonstrate that it can reliably meet Total Organic Carbon (TOC) requirements, they will be allowed to maintain the RWC of 1.0.
15. The Project contains a multi-barrier treatment facility in order to comply with the Groundwater Replenishment Regulations. The following monitoring (grab and online) and reporting requirements will need to be included in the Operation Optimization Plan and reported to DDW and the Central Coast Water Board monthly.

- a. Membrane integrity testing (MIT) shall be performed on each of the MF membrane units, a minimum of once every 24 hours of operation.
 - i. The log removal value (LRV) for Cryptosporidium shall be calculated and the value reported after the completion of each MIT.
 - ii. The MIT shall have a resolution that is responsive to an integrity breach on the order of 3 μm or less.
 - iii. Calculations of the LRV shall be based on a pressure decay rate (PDR) value with an ending pressure that provides a resolution of 3 μm or less.
 - iv. The MIT shall have a sensitivity to verify a LRV equal to or greater than 4.0.
- b. The Reverse Osmosis (RO) system shall be credited pathogen reduction at this facility in accordance with the amount demonstrated via online monitoring to ensure the integrity of the RO system. MRWPCA must monitor the effluent of each RO train (including each stage) continuously for conductivity at the AWPF. The daily average and maximum conductivity reading, and the percent of time that the reduction of conductivity is less than 1.0 log removal must be reported. The MRWPCA shall calculate the minimum removal achieved at the AWPF. An alternative surrogate may be utilized if approved by the Division of Drinking Water and the Central Coast Water Board.
- c. The RO effluent will be monitored for TOC via grab sample weekly and reported in the monthly report. The RO influent and effluent will be monitored for TOC online and reported in the monthly report. The daily average and maximum TOC reading and the percent of time that the TOC is greater than 0.5 mg/L must be reported.
- d. In accordance with the Recycled Water Policy, NDMA and sucralose are performance surrogates for RO and shall be analyzed quarterly both prior to the RO and after RO prior to the AOP.
- e. The UV/peroxide system shall be operated, as has been designed, to meet the Groundwater Replenishment Regulations, providing a minimum 0.5-log reduction of 1,4- dioxane. AOP commissioning will validate and confirm the actual setpoints for peroxide and UV parameters
- f. The UV system must be operated with online monitoring and built-in automatic reliability features that must trigger automatic diversion of effluent to waste by the following critical alarm setpoints.
 - i. UV dose less than 900 mJ/cm^2 , or a new setpoint approved by DDW after the AOP commissioning.
 - ii. UV transmittance less than 95%
 - iii. Complete UV reactor failure
 - iv. Peroxide residual less than 3.0 mg/L, or a new setpoint approved by DDW after the AOP commissioning.
- g. On-line monitoring of UV dose, UV intensity, flow, and UV transmittance must be provided at all times. Flow meters, UV intensity sensors, and UV transmittance monitors must be properly calibrated.
- h. At least monthly, all duty UV intensity sensors must be checked for calibration against a reference UV intensity sensor.

- i. The UV transmittance meter must be inspected and checked against a reference bench-top unit weekly to document accuracy.
 - j. The monitoring and reliability features, including automatic shutdown capability, shall be demonstrated to DDW during a plant inspection prior to final approval.
 - k. Based on the calculation of log reduction achieved daily by the entire treatment facility, from the WWTP to the public water supply wells, the MRWPCA will report a "Yes" or "No" for each day as to whether the necessary log reductions (12-logs virus, 10-logs for Giardia and Cryptosporidium) have been achieved. An overall log reduction calculation will be provided only for those days when a portion of the treatment facility does not achieve the necessary log reductions.
16. MRWPCA shall submit the required annual and five-year reports per Title 22, section §60320.228 (Reporting).
 17. MRWPCA must submit for approval a draft AOP commissioning and testing protocol, to demonstrate the AOP will provide no less than 0.5-log (69 percent) reduction of 1,4-dioxane.
 18. MRWPCA must submit a draft of the Operation Optimization Plan prior to completion of construction and commissioning. This draft Operation Optimization Plan can be amended and finalized after the completion of fullscale commissioning and startup testing. A final Operation Optimization Plan must be submitted to DDW 90 days after completion of startup operations.
 19. MRWPCA must submit an addendum to the Title 22 Engineering Report to include information on final well configurations and locations (injection wells, vadose zone wells, and monitoring wells). MRWPCA must conduct a Water Board-approved tracer test, and submit a completed tracer study report to DDW and the Central Coast Water Board.

VII. REOPENER

1. This Order may be reopened to include the most scientifically relevant and appropriate limitations for this discharge, including a revised Basin Plan limit based on monitoring results, anti-degradation studies, or other Central Coast Water Board or State Water Board policy, or the application of an attenuation factor based upon an approved site-specific attenuation study.
2. This Order may be reopened to modify limitations for pollutants to protect beneficial uses, based on new information not available at the time this Order was adopted, including additional monitoring, reporting and trend analysis documenting aquifer conditions.
3. After additional monitoring, reporting, and trend analysis documenting aquifer conditions, this Order may be reopened to ensure the groundwater is protected in a manner consistent with state and federal water quality laws, policies and regulations.
4. This Order may be reopened to incorporate any new regulatory requirements for sources of drinking water or injection of recycled water for groundwater recharge to aquifers that are used as a source of drinking water, that are adopted after the effective date of this Order.

5. This Order may be reopened upon a determination by DDW that treatment and disinfection of the Monterey Regional Water Pollution Control Agency advanced treated product water is not sufficient to protect human health.

VIII. ENFORCEMENT

The requirements of this Order are subject to enforcement under Water Code sections 13261, 13265, 13268, 13350, and enforcement provisions in Water Code, Division 7, Chapter 7 (Water Reclamation).

IX. EFFECTIVE DATE OF THE ORDER

This Order takes effect on March 9, 2017.

I, John M. Robertson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the Regional Water Quality Control Board, Central Coast Region on March 9, 2017.

John M. Robertson

Digitally signed by John M.

Date: 2017.03.14 16:22:01 -07'00'

John M. Robertson

Executive Officer



Figure 1 - Location of MRWPCA's RTP, AWPf and Injection Wells

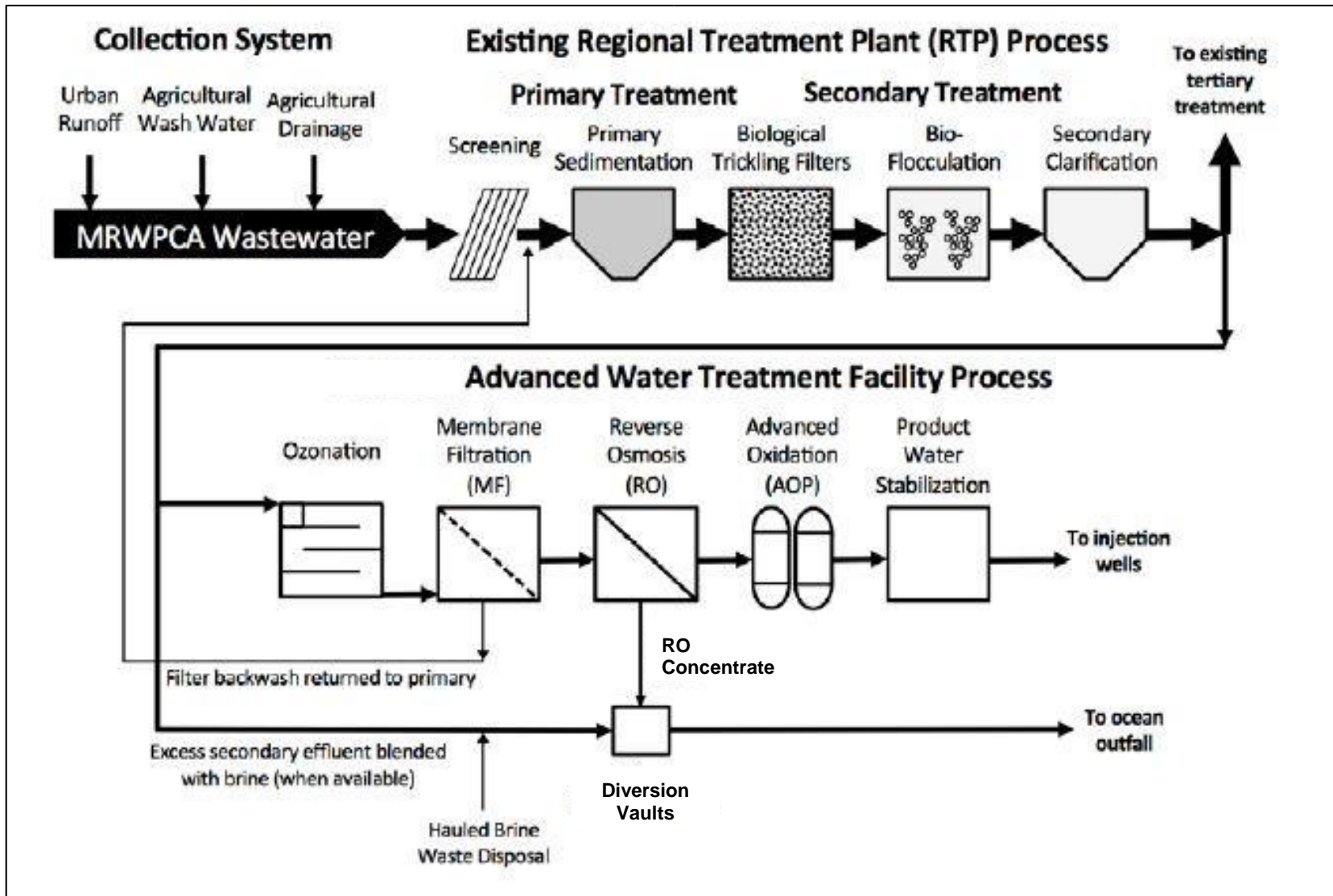


Figure 2 – Simplified Process Flow Diagram of MRWPCA RTP and AWPf



Figure 3- Proposed Injection Wells, Monitoring Wells and Production Wells

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
MONITORING AND REPORTING PROGRAM NO.
R3-2017-0003
FOR THE
PURE WATER MONTEREY
ADVANCED WATER PURIFICATION FACILITY AND
GROUNDWATER REPLENISHMENT PROJECT
ISSUED TO
MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

Table of Contents

I. SUBMITTAL OF REPORTS
..... 3

Table M-1: Quarterly Report Periods and Due Dates
..... 3

II. MONITORING REQUIREMENTS..... 5

III. REPORTING REQUIREMENTS..... 8

IV. MONITORING PROGRAMS..... 12

Table M-2: Influent Monitoring
..... 13

Table M-3: Recycled Water Discharge Limits Monitoring 14

Table M-4: Inorganics with Primary MCLs 15

Table M-5: Constituents/parameters with Secondary MCLs..... 15

Table M-6: Radioactivity..... 15

Table M-7: Regulated Organics..... 16

Table M-8: Disinfection Byproducts 16

Table M-9: General Physical and General Minerals..... 17

Table M-10: Constituents with Notification Levels..... 17

Table M-11: Remaining Priority Pollutants 18

Table M-12: Constituents of Emerging Concern 19

Table M-13: Surrogates..... 19

Table M-14: Groundwater Monitoring 23

Table M-15: Monitoring
Frequency.....24

Table M-16: General Physical and General
Minerals..... 31

V. CERTIFICATION STATEMENT 31

VI. OTHER MONITORING
REQUIREMENTS..... 31

MRP-2

The Monterey Regional Water Pollution Control Agency (MRWPCA) shall implement this Monitoring and Reporting Program (MRP) on the effective date of Order No. R3-2017-0003.

I. SUBMITTAL OF REPORTS

1. The MRWPCA shall submit the required reports outlined in the following paragraphs in the appropriate electronic format to the State Water Resources Control Board (State Water Board)'s California Integrated Water Quality System (CIWQS¹) program for all monitoring data. Groundwater monitoring data shall also be submitted to the Geotracker database (in Electronic Data Format²) and to the Division of Drinking Water (DDW), Drinking Water Field Operations, by the dates indicated.

AWPF

a. Monthly Reports:

Consistent with section III.REPORTING REQUIREMENTS, monthly reports for monitoring and reporting requirements included in the Operations Optimization Plan shall be received by the 15th day after the end of the month in which monitoring occurred.

b. Quarterly Monitoring:

Quarterly Monitoring Reports shall be received by the 15th day of the second month following the end of each quarterly monitoring period according to Table M-1.

Table M-1: Quarterly Report Periods and Due Dates	
Reporting Period	Report Due
January – March	May 15
April – June	August 15
July – September	November 15
October – December	February 15

¹ For help with CIWQS go to:

http://www.waterboards.ca.gov/water_issues/programs/ciwqs/chc_npdes.shtml

² For help with EDF go to: http://www.waterboards.ca.gov/ust/electronic_submittal/

The contents of the CIWQS and Geotracker Quarterly Monitoring Reports shall include a one-page summary of operational concerns that addresses changes in reporting conditions, including influent, recycled water, and groundwater monitoring results, since the last report.

c. Annual Summary:

The Annual Summary Report shall be received by April 15th of each year. This Annual Summary Report shall contain a discussion of the previous calendar year's analytical results, as well as graphical and tabular summaries of the monitoring analytical data.

Public water systems and owners of small water systems and other active

production wells having downgradient sources potentially affected by the MRWPCA groundwater injection project or within 10 years groundwater travel time from the MRWPCA groundwater injection project shall be notified by direct mail and/or electronic mail of the availability of the annual report.

d. Operations Optimization Plan:

Prior to startup of the AWPF, the MRWPCA shall submit an Operations Optimization Plan (OOP) to DDW and the Central Coast Water Board for approval. After six months of operation of the Plant, the OOP shall be updated as necessary and submitted to the Central Coast Water Board and the DDW for review and approval.

i. The OOP covers critical operational parameters to include routine testing procedures for the ozone pre-treatment, microfiltration (MF), reverse osmosis (RO), and ultraviolet (UV)/advanced oxidation process (AOP) systems, optimization of the UV dose for disinfection and AOP for reduction of light-sensitive contaminants, and all treatment processes, maintenance and calibration schedules for all monitoring equipment, process alarm set points, and response procedures for all alarms in each treatment process of the AWPF, including responses if water quality requirements are not met, start-up, emergency response and contingency plans. During the first year of operation of the AWPF, all treatment processes shall be operated in a manner to provide optimal reduction of microbial, regulated and nonregulated contaminants. Based on this experience and anytime operational changes are made, the OOP shall be updated.

ii. The OOP includes staffing levels with applicable certification levels for Facility operations personnel. Significant changes in the operation of any of the treatment processes shall be reported to the DDW and Central Coast Water Board. Significant changes in the approved OOP must be approved by the DDW and the Central Coast Water Board prior to instituting changes. The MRWPCA is responsible for ensuring that the OOP is, at all times, representative of the current operations, maintenance, and monitoring of the AWPF.

e. Well Installation Reports: No later than two weeks of the completion of a new injection or monitoring well, MRWPCA shall submit a well completion report to both the Central Coast Water Board and DDW detailing the following:

- i. well location;
- ii. well purpose (injection or monitoring);
- iii. well designation (MW-1 etc.);
- iv. well depth;

- v. screened intervals;
- vi. depth to groundwater (below ground surface)

2. Five-Year Engineering Report: MRWPCA shall update the 2016 Title 22 Engineering Report and submit the updated report to the State Water Board's CIWQS and Geotracker databases and to DDW five years from the date of the initial approval of the engineering report, and every five years thereafter.
3. All reports to the State Water Board's Geotracker shall reference Order No. R32017-0003. Compliance monitoring reports shall be submitted separately from other technical reports.
4. All reports shall be submitted as a portable data format file and uploaded electronically to the State Water Board's CIWQS and Geotracker databases and provided via email to the DDW (if the file exceeds 10 MB, either a CD containing the file shall be mailed to DDW, or a link for downloading an electronic copy of the file shall be provided). Upon request the data shall be provided in excel format
5. By the reporting due dates specified in Table M-1, groundwater data shall be uploaded electronically to the State Water Board's Geotracker in an electronic deliverable format specified by the State Water Board. All data shall be uploaded electronically to the CIWQS database. Upon request the data shall be provided in excel format.

II. MONITORING REQUIREMENTS

1. MRWPCA shall monitor the flow and quality of the following according to the manner and frequency specified in this MRP:
 - a. Influent to the AWPf;
 - b. Recycled water from AWPf after all treatment and chemical injection and before injection into the Seaside Basin;
 - c. If potable water is used, blend of recycled water and diluent water;
 - d. Receiving groundwater (monitoring wells associated with each injection well will be installed prior to recharge from associated injection wells); and,
2. Monitoring reports shall include, but not limited to, the following:
 - a. Analytical results;
 - b. Location of each sampling station where representative samples are obtained, including a map, at a scale of 1 inch equals 1,200 feet or less, that

- clearly identifies the locations of all injection wells, monitoring wells, and production wells;
- c. Analytical test methods used and the corresponding minimum reporting levels (MRLs);
 - d. Name(s) of the laboratory, which conducted the analyses;
 - e. Copy of laboratory certifications by the DDW's Environmental Laboratory Accreditation Program (ELAP);
 - f. Quality assurance and control information, including documentation of chain of custody; and,
 - g. Maximum contaminant level (MCL), notification level, response level, DDW Condition or Recycled Water Discharge Limit.
3. Though not required to be submitted in the monitoring reports unless specifically requested by the Central Coast Water Board Executive Officer or the DDW, the MRWPCA shall have in place written sampling protocols. For groundwater monitoring, the sampling protocols shall outline the methods and procedures used for measuring water levels; purging wells; collecting samples; decontaminating equipment; containing, preserving, and shipping samples, and maintaining appropriate documentation. Also, the sampling protocols shall include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.
 4. Where multiple EPA-approved methods are available, drinking water (500 series) or wastewater (600 series) may be used as appropriate.
 5. The samples shall be analyzed using analytical methods described in 40 Code of Federal Regulations (CFR) Part 141, or where no methods are specified for a given pollutant, by methods approved by the DDW, Central Coast Water Board and/or State Water Board. The MRWPCA shall select the analytical methods that provide Minimum Reporting Levels (MRLs) lower than the limits prescribed in this Order or as low as possible that will provide reliable data.
 6. The MRWPCA shall instruct its laboratories to establish calibration standards so that the MRLs (or its equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall analytical data derived from extrapolation beyond the lowest point of the calibration curve be used.
 7. Upon request by the MRWPCA, the Central Coast Water Board, in consultation with the DDW and the State Water Board Quality Assurance Program, may establish MRLs, in any of the following situations:

- a. When the pollutant has no established method under 40 CFR 141;
 - b. When the method under 40 CFR 141 for the pollutant has an MRL higher than the limit specified in this Order; or,
 - c. When the MRWPCA agrees to use a test method that is more sensitive than those specified in 40 CFR Part 141.
8. For regulated constituents, the laboratory conducting the analyses shall be certified by ELAP or approved by the DDW, Central Coast Water Board, or State Water Board, for a particular pollutant or parameter.
9. Samples shall be analyzed within allowable holding time limits as specified in 40 CFR Part 141. All Quality Assurance/Quality Control (QA/QC) analyses shall be run on the same dates that samples are actually analyzed. The MRWPCA shall retain the QA/QC documentation in its files for three years and make available for inspection and/or submit them when requested by the Central Coast Water Board or the DDW. Proper chain of custody procedures shall be followed, and a copy of this documentation shall be submitted with the quarterly report.
10. For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 1 to 800. The detection methods used for each analysis shall be reported with the results of the analyses.
11. Quarterly monitoring for recycled water and groundwater shall be performed during the months of February, May, August, and November. Semiannual monitoring for recycled water shall be performed during the months of February and August. Semiannual monitoring for groundwater shall be performed during the months of May and November. Should there be instances when monitoring cannot be done during these specified months, the MRWPCA shall conduct the monitoring as soon as it can and state in the monitoring report the reason monitoring could not be conducted during the specified month. Results of quarterly analyses shall be reported in the quarterly monitoring report following the analysis.
12. For unregulated chemical analyses, the MRWPCA shall select methods according to the following approach:
 - a. Use the drinking water methods or waste water method sufficient to evaluate all water quality objectives and protect all beneficial uses;
 - b. Use DDW-recommended methods for unregulated chemicals, if available;
 - c. If there is no DDW-recommended drinking water method for a chemical, and more than a single United States Environmental Protection Agency (USEPA)- approved method is available, use the most sensitive of the USEPA-approved methods;

- d. If there is no USEPA-approved method for a chemical, and more than one method is available from the scientific literature and commercial laboratory, after consultation with DDW, use the most sensitive method;
- e. If no approved method is available for a specific chemical, the Project Sponsors' laboratory may develop or use its own methods and should provide the analytical methods to DDW for review. Those methods may be used until DDW-recommended or USEPA-approved methods are available.
- f. For constituents of emerging concern (CECs) subject to the State Water Board Recycled Water Policy as amended January 22, 2013, analytical methods for laboratory analysis of CECs shall be selected to achieve the reporting limits (RLs) presented in Table 1 of Attachment A of the Recycled Water Policy. The analytical methods shall be based on methods published by the USEPA, methods certified by the DDW, or peer review reviewed and published methods that have been reviewed by DDW, including those published by voluntary consensus standards bodies such as the Standards Methods Committee and the American Society for Testing and Materials International. Any modifications to the published or certified methods shall be reviewed by DDW and subsequently submitted to the Central Coast Water Board Executive Officer in an updated quality assurance project plan.

III. REPORTING REQUIREMENTS

1. Monthly Reports: The following monitoring and reporting requirements must be included in the OOP and reported to the DDW and the Central Coast Water Board monthly.
 - a. Membrane Filtration Effluent Monitoring - The MRWPCA will monitor the Membrane Filtration Effluent for turbidity continuously. The turbidity shall not exceed 0.2 nephelometric turbidity units (NTU) more than 5 percent of the time within a 24-hour period and 0.5 NTU at any time. Turbidity measurements shall be recorded every 15 minutes. The daily average, and daily maximum, and whether the 0.2 NTU was exceeded more than 5 percent of the time in any 24Hour period shall be reported monthly.
 - b. The membrane filtration (MF) integrity - Daily pressure decay tests (PDTs) shall be performed on each MF membrane unit a minimum of once every 24 hours of operation based on the criteria described in the Order. Submit the results of the daily Membrane Integrity Testing (MIT) conducted during the month..
 - The PDT will be conducted to confirm no broken fibers or other breach of membrane integrity, based on product-specific minimum test pressure and maximum allowable pressure decay.
 - c. The Reverse Osmosis (RO) system will be credited for virus, Giardia cysts and Cryptosporidium oocysts based upon reduction demonstrated via an approved

surrogate, such as conductivity. MRWPCA shall monitor conductivity continuously in both the RO feed and RO permeate of each RO train, in order to demonstrate membrane integrity and a conductivity. The daily average and maximum conductivity reading and percent of time that the reduction of conductivity is less than 1.0 log removal must be reported. The report shall include calculation of minimum removal achieved at the AWPf. An alternative surrogate may be utilized (e.g., TOC) if approved by the Division of Drinking Water and the Central Coast Water Board. The proposal to change surrogates may also include different monitoring locations (e.g., combined RO permeate instead of train RO permeate), if approved by DDW and the Central Coast Water Board.

- d. On-line continuous monitoring of UV dose, UV intensity, flow, UV transmittance (UVT), and power must be provided at all times. Flow meters UV intensity sensors, and UVT monitors must be properly calibrated to ensure proper disinfection. At least monthly, all duty UV intensity sensors must be checked for calibration against a reference UV intensity sensor. The UVT meter must be inspected and checked against a reference bench-top unit weekly to document accuracy.
 - i. For AOP (UV and hydrogen peroxide at the AWPf), MRWPCA shall report the calculated daily hydrogen peroxide dose (based on the pump speed and bulk feed concentration)
 - ii. For UV, MRWPCA shall report the UVT (daily minimum, maximum, and average), UV dose for each reactor (daily minimum, maximum, and average), and the total flow (daily minimum, maximum, and average).
- e. Based on the calculation of log reduction achieved daily by the entire treatment facility, from the AWPf to the public water supply wells, the MRWPCA will report a "Yes" or "No" for each day as to whether the necessary log reductions (12-logs virus, 10-logs for Giardia and Cryptosporidium) have been achieved. An overall log reduction calculation will be provided only for those days when a portion of the treatment facility does not achieve the credits listed in Table 5-4 of the ER.
- f. MRWPCA shall sample the monitoring wells for general mineral/physicals, inorganics, radioactivity (gross alpha and uranium) and volatile organic chemicals. MRWPCA shall take these samples monthly for the first year of operation. MRWPCA may request, from the Division of Drinking Water, a reduction in this monitoring after the first year.
- g. MRWPCA shall monitor the RO effluent for TOC via grab sample weekly and report in the monthly report. MRWPCA shall also monitor RO influent and effluent for TOC online and report monthly. The daily average and maximum TOC reading and the percent of time that the TOC is greater than 0.5 mg/L must be reported.
- h. MRWPCA shall monitor final effluent daily (7 days per week) for total coliform concentrations. The effluent 7-day median of the analyses for total coliform shall be reported monthly

2. Quarterly Reports: These reports shall include, at a minimum, the following information:
 - a. The volume of:
 - AWPf Influent – Secondary effluent from the RTP.
 - Waste EQ effluent discharged into the RTP.
 - Fully treated recycled water injected into the Seaside Basin.
 - RO concentrate sent to the ocean outfall.
 - If no water was pumped, the report shall so state.
 - i. The date and time of sampling and analyses.
 - ii. All analytical results of samples collected during the monitoring period of the:
 - AWPf Influent,
 - RO feed water,
 - RO recycled water, and
 - Groundwater.
 - iii. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal.
 - iv. Discussion of compliance, noncompliance, or violation of requirements.
 - v. All corrective or preventive action(s) taken or planned with schedule of implementation, if any.
 - vi. Certification by the MRWPCA that no groundwater for drinking purposes has been pumped from wells within the boundary representing the greatest of the horizontal and vertical distances reflecting two months.
 - vii. A summary of operational concerns describing changes in reporting conditions, including influent, MF filtrate, RO permeate, UV/AOP water, and groundwater monitoring results, since the last report.
- b. Monitoring results associated with the evaluation of pathogenic microorganism removal as described in the Order.

- c. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:
 - i. Sample results greater than or equal to the MRL must be reported “as measured” by the laboratory (i.e., the measured chemical concentration in the sample); or
 - ii. Sample results less than the MRL, but greater than or equal to the laboratory’s Minimum Detection Limit (MDL), shall be reported as “Detected, but Not Quantified”, “DNQ”. The laboratory shall write the estimated chemical concentration of the sample next to “DNQ”; or
 - iii. Sample results less than the laboratory’s MDL shall be reported as “Not-Detected”, or ND.
 - d. If the MRWPCA samples and performs analysis on any sample more frequently than required in this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average recycled water, receiving water, etc., limitations.
 - e. The Central Coast Water Board or DDW may request supporting documentation, such as daily logs of operations.
3. Annual Summary Reports: shall include, at a minimum, the following information:
- a. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year;
 - b. A summary of compliance status with all monitoring requirements during the previous calendar year;
 - c. For any non-compliance during the previous calendar year, a description of:
 - i. the date, duration, and nature of the violation;
 - ii. a summary of any corrective actions and/or suspensions of subsurface application of recycled water resulting from a violation; and
 - iii. if uncorrected, a schedule for and summary of all pending and completed remedial actions;
 - d. Any detections of monitored chemicals or contaminants, and any observed trends in the monitoring wells;

- e. Information pertaining to the vertical and horizontal migration of the recharge water plume;
 - f. Title 22 drinking water quality data for the nearest drinking water supply well;
 - g. A description of any changes in the operation of any unit processes or facilities;
 - h. The estimated quantity and quality of the recycled water to be utilized for the next calendar year;
 - i. A list of the analytical methods used for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall identify the laboratories used by the MRWPCA to monitor compliance with this Order, their status of certification, and provide a summary of proficiency test;
 - j. A list of current operating personnel, their responsibilities, and their corresponding grade of certification.
 - k. The Annual Report shall be prepared by a properly qualified engineer registered and licensed in California and experienced in the field of wastewater or water treatment; and
 - l. A summary of monitoring reports, reporting and trend analysis, to describe the changes in water quality and contrast them to background measurements for all constituents exceeding MCLs or where concentration trends increase after the addition of recycled water. Specifically describe studies or investigations made to identify the source, fate and transport path of constituents which exceed the MCL at the monitoring wells.
4. The existing OOP shall be updated to accurately reflect the operations of the AWPF, the date the plan was last reviewed, and whether the plan is valid and current.
 5. Five-Year Engineering Report: Five years from the date of the initial approval of the engineering report and every five years thereafter, the MRWPCA shall update the engineering report to address any project changes and submit the report to the Central Coast Water Board and the DDW. The Five-Year Engineering Report Update shall include, but not be limited to:
 - a. A description of any inconsistencies between previous groundwater model predictions and the observed and/or measured values. For this requirement, the MRWPCA shall summarize the groundwater flow and transport including the injection and extraction operations for the MRWPCA groundwater injection project during the previous five calendar years. This summary shall also use the most current data for the evaluation of the transport of recycled water; such evaluations shall include, at a minimum, the following information:

- i. Total quantity of advanced treated recycled water injected into Seaside Basin, and quantities of water injected into each individual injection well;
 - ii. Estimates of the rate and path of flow of the injected water within the aquifer;
 - iii. Projections of the arrival time of the recycled water at all monitoring and extraction wells and the percent of recycled water at each location.
 - iv. Clear presentation on any assumptions and/or calculations used for determining the rates of flow and for projecting arrival times and dilution levels;
 - v. A discussion of the underground retention time of recycled water, a numerical model, or other methods used to determine the recycled water contribution to each aquifer;
 - vi. A revised flow and transport model to match actual flow patterns observed within the aquifer if the flow paths have significantly changed; and,
 - vii. Revised estimates, if applicable, on hydrogeologic conditions including the retention time and the amount of the recycled water in the aquifers and at the production well field at the end of that calendar year. The revised estimates shall be based upon actual data collected during that year on recharge rates (including recycled water and native water), hydrostatic head values, groundwater production rates, basin storage changes, and any other data needed to revise the estimates of the retention time and the amount of the recycled water in the aquifers and at the production well field. Significant differences, and the reasons for such differences, between the estimates presented in the 2016 Engineering Report and subsequently revised estimates, shall be clearly presented. Additionally, the MRWPCA shall use the most recently available data to predict the retention time of recycled water in the subsurface.
- b. Evaluation of the ability of MRWPCA to comply with all regulations and provisions over the following five years.
 - c. The Five-Year Engineering Report shall be prepared by a properly qualified engineer registered and licensed in California and experienced in the field of wastewater or water treatment.

IV. MONITORING PROGRAMS

1. AWPf Influent Monitoring

- a. Monitoring is required to determine compliance with water quality conditions and standards and assess AWPf performance.

b. The influent sampling station is located before clarified secondary effluent from the RTP enters the ozone pre-treatment system of the AWWPF. Influent samples shall be obtained on the same day that stabilized advanced treated recycled water samples are obtained. The date and time of sampling shall be reported with the analytical values determined. Table M-2 constitutes the influent monitoring program.

Table M-2: Influent Monitoring			
Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Ammonia-N	mg/L	grab	Weekly
CBOD ₅	mg/L	24-hour composite	Weekly
Boron	mg/L	grab	Weekly
Chloride	mg/L	24-hour composite	Weekly
Nitrate-N	mg/L	24-hour composite	Weekly
Nitrite-N	mg/L	24-hour composite	Weekly
Nitrogen - Total	mg/L	grab	Weekly
pH	pH units	Metered	Continuous
Sodium	mg/L	24-hour composite	Weekly
Sulfate	mg/L	grab	Weekly
Total Suspended Solids	mg/L	24-hour composite	Weekly
Total coliform	MPN/100	grab	Weekly
Total Dissolve Solids	mg/L	24-hour composite	Weekly
Total flow	mgd	Metered	Continuous ³
Total Kjeldahl nitrogen-N	mg/L	grab	Weekly
Total nitrogen ⁴	mg/L	grab	Weekly
Total Organic Carbon (TOC)	mg/L	24-hour composite ⁵	Weekly
Turbidity	NTU	Metered	Continuous ⁵

UV transmittance	%	grab	Weekly
------------------	---	------	--------

3

For those pollutants that are continuously monitored, the MRWPCA shall report the monthly minimum and maximum, and daily average values.

4

Total Nitrogen includes nitrate-N, nitrite-N, ammonia-N, and organic-N.

⁵ May change to grab after MRWPCA demonstrates that grab sampling is adequate.

2. Recycled Water (AWPF Product Water) Discharge Limit Monitoring.

a. Advanced treated recycled water monitoring is required to:

i. Determine compliance with the Permit conditions; ii. Identify operational problems and aid in improving facility performance; and,

iii. Provide information on recycled water characteristics and flows for use in interpreting water quality and biological data.

Samples shall be collected downstream of the last chemical injection point, with the exception of constituents specified in Tables M-12 and M-13. Should the need for a change in the sampling station(s) arise in the future, the MRWPCA shall seek approval of the proposed station by the Executive Officer prior to use.

Table M-3 shall constitute the recycled water monitoring program. After the first full year of monitoring, MRWPCA shall compile results and submit a revised monitoring program to DDW and the Central Coast Water Board for review and approval.

Table M-3: Recycled Water Discharge Limits Monitoring				
Constituent/Parameters	Units	Type of Sample	Minimum Frequency of Analysis	Reference Table Number
Conductivity	mmho/c	Metered	Continuous ⁵	M-3
Total chlorine residual	mg/L	Metered	Continuous	M-3
Total recycled water flow	mgd	Metered	Continuous	M-3
UV dose for each reactor	mJ/cm ²	Metered	Continuous	-
UV Transmittance ¹	%	Metered	Continuous	-
pH	pH units	Metered	Continuous	M-3
Arsenic	□g/L	Grab	Monthly	M-3

¹ 8Samples shall be collected at the influent point to the UV system.

Boron	□g/L	Grab	Monthly	M-3
Chloride	mg/L	Grab	Monthly	M-3
Chromium - Total	□g/L	Grab	Monthly	M-3
Total nitrogen ⁶	mg/L	grab	At least two samples per week at least 3 days apart	M-3
Nitrate-N	mg/L	grab	Weekly	M-3
Total Kjeldahl nitrogen-N	mg/L	Grab	Weekly	M-3
Sodium	mg/L	Grab	Monthly	M-3
Sulfate	mg/L	Grab	Monthly	M-3
Total Dissolved Solids - TDS	mg/L	Grab	Monthly	M-3
Total coliform	MPN/100 ml	Grab	Daily	M-3
Total Organic Carbon (TOC)	mg/L	24-hour composite ⁷	Weekly	M-3
Turbidity	NTU	Metered	Continuous	M-3
Inorganics with Primary MCLs	µg/L	Grab	Monthly	M-4

Table M-3: Recycled Water Discharge Limits Monitoring

Constituents/parameters with Secondary MCLs	various	Grab	Monthly	M-5
Radioactivity	pCi/L	Grab	Monthly	M-6
Regulated organic chemicals	µg/L	grab	Monthly	M-7
Disinfection byproducts	µg/L	grab	Monthly	M-8
General physical	various	Grab	Quarterly	M-9
General minerals	µg/L	Grab	Quarterly	M-9
Constituents with Notification Levels	µg/L	Grab	Monthly	M-10
Remaining priority pollutants	µg/L	Grab	Annually	M-11
Constituents of Emerging Concern (CECs)	ng/L	Grab	Varies	M-12
Surrogates	Varies	Varies	Varies	M-13
Lead and Copper	mg/L	Grab	Quarterly	M-3

For those constituents that are continuously monitored, the Project Sponsors shall report the daily minimum, maximum, and average values.

6

If no problem is detected, analysis of nitrogen can be reduced to weekly after 12 months of data collection. ⁷ May change to grab after MRWPCA demonstrates that grab sampling is adequate.

Table M-4: Inorganics with Primary MCLs		
Constituent		
Aluminum	Chromium (Total)	Nitrite (as nitrogen)
Antimony		Nitrate + Nitrite
Arsenic	Cyanide	Perchlorate
Asbestos	Fluoride	Selenium
Barium	Mercury	Thallium
Beryllium	Nickel	
Cadmium	Nitrate (as nitrogen)	

Table M-5: Constituents/parameters with Secondary MCLs		
Constituents		
Aluminum	Manganese	Thiobencarb
Chloride	Methyl-tert-butyl-ether (MTBE)	Total Dissolved Solids
Color	Odor – Threshold	Turbidity
Copper	Silver	Zinc
Foam Agents (MBAS)	Specific Conductance	
Iron	Sulfate	

Table M-6: Radioactivity		
Constituent		
Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and	Combined Radium-226 and Radium-228	Tritium

Uranium)		
Gross Beta Particle Activity	Strontium-90	Uranium

Table M-7: Regulated Organics

Constituents		
(a) Volatile Organic Chemicals	1,1,1-Trichloroethane	Endothal
Benzene	1,1,2-Trichloroethane	Endrin
Carbon Tetrachloride (CTC)	Trichloroethylene (TCE)	Ethylene Dibromide (EDB)
1,2-Dichlorobenzene	Trichlorofluoromethane	Glyphosate
1,4-Dichlorobenzene	1,1,2-Trichloro-1,2,2-	Heptachlor
1,1-Dichloroethane	Vin ^T if ¹ Chloride th	Heptachlor Epoxide
1,2-Dichloroethane (1,2-DCA)	Xylenes (m,p)	Hexachlorobenzene
1,1-Dichloroethene (1,1-DCE)	(b) Non-Volatile synthetic Organic Constituents	Hexachlorocyclopentadiene
Cis-1,2-Dichloroethylene	Alachlor	Lindane
Trans-1,2-Dichloroethylene	Atrazine	Methoxychlor
Dichloromethane	Bentazon	Molinate
1,2-Dichloropropane	Benzo(a)pyrene	Oxamyl
1,3-Dichloropropene	Carbofuran	Pentachlorophenol
Ethylbenzene	Chlordane	Picloram
Methyl-tert-butyl-ether (MTBE)	Dalapon	Polychlorinated Biphenyls
Monochlorobenzene	1,2-Dibromo-3-chloropropane (DBCP)	Simazine
Styrene	2,4-Dichlorophenoxyacetic acid	Thiobencarb
1,1,2,2-Tetrachloroethane	Di(2-eth ^(2 4 D) ylhexyl)adipate	Toxaphene
Tetrachloroethylene (PCE)	Di(2-ethylhexyl)phthalate	2,3,7,8-TCDD (Dioxin)

Toluene	Dinoseb	2,4,5-TP (Silvex)
1,2,4-Trichlorobenzene	Diquat	

Table M-8: Disinfection Byproducts		
Constituent		
Total Trihalomethanes (TTHM)	Haloacetic Acid (five) (HAA5)	Bromate
Bromodichloromethane	Monochloroacetic acid	Chlorite
Bromoform	Dichloroacetic acid	
Chloroform	Trichloroacetic acid	
Dibromochloromethane	Monobromoacetic acid Dibromoacetic acid	

Table M-9: General Physical and General Minerals		
Constituent		
Asbestos	Potassium	Foaming Agents
Calcium	Sodium	Odor
Chloride	Sulfate	Specific Conductance
Copper	Zinc	Total Dissolved Solids
Iron	Color	Total Hardness
Manganese	Corrosivity	

Table M-10: Constituents with Notification Levels			
Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Boron	µg/L	Grab	Quarterly
n-Butylbenzene	µg/L	Grab	Annually
sec-Butylbenzene	µg/L	Grab	Annually
tert-Butylbenzene	µg/L	Grab	Annually
Carbon disulfide	µg/L	Grab	Quarterly
Chlorate	µg/L	Grab	Quarterly

2-Chlorotoluene	µg/L	Grab	Annually
4-Chlorotoluene	µg/L	Grab	Annually
Diazinon	µg/L	Grab	Annually
Dichlorodifluoromethane (Freon 12)	µg/L	Grab	Annually
1,4-Dioxane	µg/L	Grab	Quarterly
Ethylene glycol	µg/L	Grab	Annually
Formaldehyde	µg/L	Grab	Annually
HMX	µg/L	Grab	Annually
Isopropylbenzene	µg/L	Grab	Annually
Manganese	µg/L	Grab	Quarterly

Table M-10: Constituents with Notification Levels

Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Methyl isobutyl ketone (MIBK)	µg/L	Grab	Annually
Naphthalene	µg/L	Grab	Annually
n-Nitrosodiethylamine (NDEA)	µg/L	Grab	Annually
n-Nitrosodimethylamine (NDMA)	µg/L	Grab	Quarterly
n-Nitrosodi-n-propylamine (NDPA)	µg/L	Grab	Annually
Propachlor	µg/L	Grab	Annually
n-Propylbenzene	µg/L	Grab	Annually
RDX	µg/L	Grab	Annually
Tertiary butyl alcohol (TBA)	µg/L	Grab	Quarterly
1,2,3-Trichloropropane (1,2,3-TCP)	µg/L	Grab	Annually
1,2,4-Trimethylbenzene	µg/L	Grab	Annually
1,3,5-Trimethylbenzene	µg/L	Grab	Annually
2,4,6-Trinitrotoluene (TNT)	µg/L	Grab	Annually
Vanadium	µg/L	Grab	Annually

Table M-11: Remaining Priority Pollutants

Constituent		
Pesticides	Metals	Di-n-butyl phthalate

Aldrin	Chromium III	Di-n-octyl phthalate
Dieldrin		Diethyl phthalate
4,4'-DDT	Base/Neutral Extractables	Dimethyl phthalate
4,4'-DDE	Acenaphthene	Benzo(a)anthracene
4,4'-DDD	Benzidine	Benzo(a)fluoranthene
Alpha-endosulfan	Hexachloroethane	Benzo(k)fluoranthene
Beta-endosulfan	Bis(2-chloroethyl)ether	Chrysene
Endosulfan sulfate	2-chloronaphthalene	Acenaphthylene
Endrin aldehyde	1,3-dichlorobenzene	Anthracene
Alpha-BHC	3,3'-dichlorobenzidine	1,12-benzoperylene
Beta-BHC	2,4-dinitrotoluene	Fluorene
Delta-BHC	2,6-dinitrotoluene	Phenanthrene
Acid Extractables	1,2-diphenylhydrazine	1,2,5,6-dibenzanthracene
2,4,6-trichlorophenol	Fluoranthene	Indeno(1,2,3-cd)pyrene
P-chloro-m-cresol	4-chlorophenyl phenyl ether	Pyrene
2-chlorophenol	4-bromophenyl phenyl ether	Volatile Organics
2,4-dichlorophenol	Bis(2-chloroisopropyl) ether	Acrolein

Table M-11: Remaining Priority Pollutants

Constituent		
2,4-dimethylphenol	Bis(2-chloroethoxy)methane	Acrylonitrile
2-nitrophenol	Hexachlorobutadiene	Chlorobenzene
4-nitrophenol	Isophorone	Chloroethane
2,4-dinitrophenol	Nitrobenzene	1,1-dichloroethylene
4,6-dinitro-o-cresol	N-nitrosodiphenylamine	Methyl chloride
Phenol	Bis(2-ethylhexyl)phthalate	Methyl bromide
Chlorodibromomethane	Butyl benzyl phthalate	2-chloroethyl vinyl ether
2,4-Diphenylhydrazine		

Table M-12: Constituents of Emerging Concern

					Monitoring Locations ⁷
--	--	--	--	--	-----------------------------------

Constituent	Relevance/ Indicator Type	Type of Sample	Minimum Frequency of Analysis	Reporting Limit (µg/L)	Prior to RO	Following treatment prior to well injection
17β- estradiol	Health	grab	Annually	0.001		X
Caffeine	Health & Performance	grab	Annually	0.05	X	X
NDMA	Health & Performance	grab	Quarterly	0.002	X	X
Triclosan	Health	grab	Annually	0.05		X
DEET	Performance	grab	Annually	0.05	X	X
Sucralose	Performance	grab	Quarterly	0.1	X	X

Table M-13: Surrogates

Constituent	Type of Sample	Minimum Frequency	Monitoring Locations	
			Prior to RO Treatment	Following Treatment prior to Well Injection
Electrical Conductivity	Online	Continuous	X	X

7

The January 22, 2013 Recycled Water Policy Attachment A makes a distinction between health-based and performance-based CEC indicators for purposes of monitoring locations. For subsurface applications, the health-based CECs are 17β-estradiol, caffeine, NDMA, and triclosan, with monitoring required for final recycled water only. The health-based and performance-based CECs are caffeine, NDMA, DEET, and sucralose, with monitoring required prior to reverse osmosis and post treatment prior to release to the aquifer. Caffeine and NDMA serve both as health-based and performance based indicators.

Table M-13: Surrogates

Constituent	Type of Sample	Minimum Frequency	Monitoring Locations	
			Prior to RO Treatment	Following Treatment prior to Well Injection
Total Organic Carbon (TOC)	24-hour composite	Weekly	X	X

b. Consistent with the January 22, 2013 amended Recycled Water Policy, the MRWPCA may request the removal of specific CECs from the monitoring program if supported by the data.

- i. Analytical methods for CECs shall be selected to achieve the reporting limits presented in Table M-12 in accordance with the Recycled Water Policy. The analytical methods shall be based on methods published by the USEPA, methods certified by DDW, or peer reviewed and published methods that have been reviewed by DDW. Any modifications to the published or certified methods shall be reviewed and approved by the Central Coast Water Board and DDW.
- ii. For performance indicator CECs and surrogates, removal percentages shall be reported in addition to the measured concentrations.

[1] The removal percentage shall be calculated based on the following formula:

$$\text{Removal Percentage} = ([X_{in} - X_{out}] / X_{in}) * 100$$

X_{in} = Concentration in recycled water prior to a treatment process

X_{out} = Concentration in recycled water after a treatment process

[2] The removal percentages for the surrogates shall be determined based on the daily averages for electrical conductivity and weekly values for TOC and included in the quarterly compliance monitoring reports.

[3] The removal percentages for the performance indicator CECs shall be included in the Annual Summary Report.

c. Evaluation of Pathogenic Microorganism Removal

For the purposes of evaluating the performance of the following treatment facilities/units with regards to pathogenic microorganism removal, the

MRWPCA shall include the results of the monitoring specified below in its monthly compliance monitoring reports:

- i. For the purpose of demonstrating that the necessary log reductions are achieved at the AWPF, MRWPCA shall report the daily average and maximum turbidity, percent of time more than 5 nephelometric turbidity units (NTU), and daily coliform results measured in the recycled water (as specified in Table M-3);
- ii. Advanced Oxidation Process (AOP) - (UV and hydrogen peroxide at the AWPF): For each day of operation, MRWPCA shall report the calculated daily peroxide dose (based on the peroxide pump speed and bulk feed concentration). For UV, MRWPCA shall report the UV system dose (expressed as greater than a certain threshold such as 300 millijoules/cm²), UV transmittance (daily minimum, maximum, and average), UV intensity for each reactor (daily minimum, maximum, and average) and the total UV power applied; and
- iii. Based on the calculation of log reduction achieved each day by the entire treatment system, MRWPCA shall report the value and “Yes” or “No” for each day as to whether the necessary log reductions (i.e. 10logs for Giardia, 10-logs for Cryptosporidium, and 12-logs for virus) have been attained. An overall log reduction calculation shall be provided only for those days when a portion of the treatment system does not achieve the credits proposed in Table 5-4 of the engineering report.

3. Treatment Conditions

If a sample of the advanced- treated recycled water is greater than 10 ng/L for NDMA, within 72 hours of knowledge of the result, the MRWPCA shall collect another sample as confirmation. The MRWPCA shall notify DDW and the Central Coast Water Board within 48 hours of knowledge of the exceedance and, if directed by DDW or the Central Coast Water Board, suspend injection of the advanced treated recycled water.

4. Groundwater Monitoring

- a. As required by Title 22, Section 60320.226, prior to operating any injection well, a MRWPCA shall site and construct at least two monitoring wells downgradient of the injection well, such that:
 - (1) at least one monitoring well is located;
 - (A) no less than two weeks but no more than six months of travel time from the injection wells, and
 - (B) at least 30 days upgradient of the nearest drinking water well;

(2) in addition the well(s) in paragraph (1) and after consultation with DDW, at least two monitoring wells will be located between the injection wells and the nearest downgradient drinking water well; and

(3) samples from the monitoring wells in paragraphs (1) and (2) can be;

(A) obtained independently from each aquifer, initially receiving the water used as a source of drinking water supply, that will receive the injection wells recharge water, and

(B) validated as receiving recharge water from the injection well.

b. In addition to the monitoring required pursuant to section 60320.220, from each monitoring well in subsection (a)(1), and each monitoring well in subsection (a)(2) that has recharge water located within one year travel time of the well(s), MRWPCA shall collect two samples prior to injection well operation and at least one sample each quarter after operations begins. Each sample shall be analyzed for nitrogen, nitrate, nitrite and constituents with secondary MCL's.

New monitoring wells will be installed to ensure ongoing project performance and to comply with the Title 22 Criteria. The objectives of the groundwater monitoring well program are to demonstrate compliance with the Title 22 and Basin Plan groundwater criteria and applicable state policies regarding protection of groundwater by:

- Siting one downgradient well with groundwater travel times (underground retention time) no less than two weeks and no more than six months from the injection wells (well also has to be greater than 30 days travel time from the nearest drinking water source).
- Siting an additional downgradient well between the Injection Facilities and the nearest downgradient potable water supply (in addition to the downgradient monitoring well used to demonstrate retention time as described in the bullet point above).
- Monitoring groundwater levels and water quality; the well design will allow for sample collection from each aquifer receiving recycled water.
- Collecting baseline water quality samples prior to startup of the Project operation.

Monitoring well installation will be phased to coincide with the phasing of the deep injection wells and vadose zone wells. Initially, two monitoring well clusters will be installed at the site of the first two deep injection wells, DIW-2 and DIW-3 and vadose zone wells, VZW-2 and VZW-3. These Phase I monitoring wells are labeled MW-1, MW-2, MW-3, and MW-4 on Figure 3 of Waste Discharge Requirements Order No. R3-2017-0003. Phase II monitoring wells will be proposed based on the location of additional injection wells and project operation information. For planning purposes, current locations of the additional Phase II monitoring wells MW-5, MW-6, and MW- 7, are also included on Figure 3.

At each monitoring well location, two adjacent, but separate boreholes will be drilled in close proximity (within about 20 feet) of each other at the same location – one for the Paso Robles Aquifer and one for the Santa Margarita Aquifer (referred to as a monitoring well cluster).

For the injection well cluster at DIW-1, no adjacent monitoring well is proposed. Travel times from this well are very long and one monitoring well is presumed sufficient to document performance of this eastern-most injection well cluster. A tracer test will confirm whether or not one monitoring well is sufficient associated with the DIW-1 injection well cluster.

Representative samples of groundwater shall be collected from all monitoring wells installed for this project. Table M-15 sets forth the minimum constituents and parameters for monitoring groundwater quality in MRWPCA monitoring wells.

The MRWPCA shall implement the following groundwater monitoring program as described in Tables M-14, M-15, and M-16. Some constituents may be eligible for reduced monitoring due to the consistent historic lack of detection, upon approval by the Executive Officer.

If any of the monitoring results indicate that an MCL has been exceeded or coliforms are present in the monitoring wells at the MRWPCA groundwater injection project as a result of the use of the recycled water, the MRWPCA shall notify the DDW and Central Coast Water Board within 72 hours of receiving the results and make note of any positive finding in the next monitoring report submitted to the Central Coast Water Board.

Upon an exceedance of 10 ng/L for NDMA in monitoring samples in groundwater wells and within 30 days, the MRWPCA shall notify DDW and the Central Coast Water Board and begin monthly sampling of groundwater for NDMA from the well with the exceedance. Groundwater sampling may return to the frequency stated in this MRP if the average of three consecutive monthly samples is 10 ng/L or below.

Table M-14: Groundwater Monitoring

Constituents/Parameters	Units	Type of Sample	Minimum Frequency of Analysis	Reference Table Number
Water level elevation ⁸	Feet	---	Quarterly	M-14
Chlorine residual	mg/L	Grab	Quarterly	M-14
Chloride	mg/L	Grab	Quarterly	M-14
Nitrate-N	mg/L	Grab	Quarterly	M-14
Nitrite-N	mg/L	Grab	Quarterly	M-14
Nitrate plus Nitrite	mg/L	Grab	Quarterly	M-14
pH	pH units	Grab	Quarterly	M-14

Sodium	mg/L	Grab	Quarterly	M-14
Sulfate	mg/L	Grab	Quarterly	M-14
TOC	mg/L	Grab	Quarterly	M-14
Total coliform	MPN/100ml	Grab	Quarterly	M-14
BOD ₅ 20°C	mg/L	Grab	Semi-annually	M-14
Oil and grease	mg/L	Grab	Quarterly	M-14
Total nitrogen	mg/L	Grab	Quarterly	M-14
Total Suspended Solids	mg/L	Grab	Semi-annually	M-14
Turbidity	NTU	Grab	Quarterly	M-14
Inorganics with primary MCLs	µg/L	Grab	Monthly	M-4

8

Water level elevations shall be measured to the nearest 0.01 feet, and referenced to mean sea level.

Table M-14: Groundwater Monitoring				
Constituents/parameters with secondary MCLs				
Fluoride	µg/L	Grab	Quarterly	M-4
Radioactivity	pci/L	Grab	Quarterly	M-15
Regulated organics	µg/L	Grab	Quarterly	M-15
Disinfection byproducts (DBPs)	µg/L	Grab	Quarterly	M-15
General physical		Grab	Monthly	M-16
General minerals	µg/L	Grab	Monthly	M-16
Chemicals with NLs	µg/L	Grab	Quarterly or Annually	M-15
N-Nitrosopyrrolidine	µg/L	Grab	Annually	M-14
Remaining priority pollutants	µg/L	Grab	Quarterly	M-15
Silver	mg/L	Grab	Quarterly	M-14

Table M-15: Groundwater Monitoring Frequency	
Constituent	Frequency
Total Suspended Solids (TSS)	Quarterly

Turbidity	Quarterly
Radioactivity	
Gross Alpha Particle Activity (including Radium-226 but excluding radon and uranium)	Quarterly
Gross Beta Particle Activity	Quarterly
Radium-226	Quarterly
Radium-226 & Radium-228 (Combined)	Quarterly
Radium-228	Quarterly
Strontium-90	Quarterly
Tritium	Quarterly
Uranium	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Organic Chemicals	
(a) Volatile Organic Chemicals	
1,1,1-Trichloroethane	Quarterly
1,1,2,2-Tetrachloroethane	Quarterly
1,1,2-Trichloro-	Quarterly
1,2,2- Trifluoroethane	Quarterly
1,1,2-Trichloroethane	Quarterly
1,1-Dichloroethane	Quarterly
1,1-Dichloroethene (1,1 DCE)	Quarterly
1,2,4-Trichlorobenzene	Quarterly
1,2-Dichlorobenzene	Quarterly
1,2-Dichloroethane (1,2 DCA)	Quarterly
1,2-Dichloropropane	Quarterly
1,3-Dichloropropene	Quarterly
1,4-Dichlorobenzene	Quarterly
Benzene	Quarterly
Carbon Tetrachloride (CTC)	Quarterly
cis-1,2-Dichloroethylene	Quarterly
Dichloromethane	Quarterly
Ethylbenzene	Quarterly
Methyl-tert-butyl-ether (MTBE)	Quarterly
Monochlorobenzene	Quarterly
Styrene	Quarterly
Tetrachloroethylene (PCE)	Quarterly
Toluene	Quarterly
trans-1,2-Dichloroethylene	Quarterly
Trichloroethylene (TCE)	Quarterly
Trichlorofluoro-methane	Quarterly
Vinyl Chloride	Quarterly
Xylenes (m, p)	Quarterly
(b) non-volatile synthetic organic chemical	
1,2-Dibromo-3-Chloropropane	Quarterly

(DBCP)	
2,3,7,8-TCDD (Dioxin)	Quarterly
2,4,5-TP (Silvex)	Quarterly
2,4-Dichlorophenoxyacetic acid (2,4-D)	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Alachlor	Quarterly
Atrazine	Quarterly
Bentazon	Quarterly
Benzo (a) pyrene	Quarterly
Carbofuran	Quarterly
Chlordane	Quarterly
Dalapon	Quarterly
Di (2-ethylhexyl) adipate	Quarterly
Di (2-ethylhexyl) phthalate	Quarterly
Dinoseb	Quarterly
Diquat	Quarterly
Endothal	Quarterly
Endrin	Quarterly
Ethylene Dibromide (EDB)	Quarterly
Glyphosate	Quarterly
Heptachlor	Quarterly
Heptachlor Epoxide	Quarterly
Hexachlorobenzene	Quarterly
Hexachlorocyclo-pentadiene	Quarterly
Lindane (Gamma BHC)	Quarterly
Methoxychlor	Quarterly
Molinate	Quarterly

Oxamyl	Quarterly
--------	-----------

Table M-15: Groundwater Monitoring Frequency	
PCB 1016	Quarterly
PCB 1221	Quarterly
PCB 1232	Quarterly
PCB 1242	Quarterly
PCB 1248	Quarterly
PCB 1254	Quarterly
PCB 1260	Quarterly
Pentachlorophenol	Quarterly
Picloram	Quarterly
Simazine	Quarterly
Thiobencarb	Quarterly
Toxaphene	Quarterly
Disinfection Byproducts	
Bromate	Quarterly
Bromodichloro-methane	Quarterly
Bromoform	Quarterly
Chlorite	Quarterly
Chloroform	Quarterly
Dibromoacetic Acid	Quarterly
Dibromochloro-methane	Quarterly
Dichloroacetic Acid	Quarterly
Haloacetic Acid (Five) (HAA5)	Quarterly
Monobromoacetic Acid	Quarterly
Monochloroacetic Acid	Quarterly
Total Trihalomethanes	Quarterly

Trichloroacetic Acid	Quarterly
----------------------	-----------

Table M-15: Groundwater Monitoring Frequency

Chemicals with Notification Levels	
1,2,3-Trichloropropane (1,2,3 TCP)	Quarterly
1,2,4-Trimethylbenzene	Annual
1,3,5-Trimethylbenzene	Annual
1,4-Dioxane	Annual
2-Chlorotoluene	Annual
2,4,6-Trinitrotoluene (TNT)	Annual
4-Chlorotoluene	Annual
Boron	Quarterly
Carbon Disulfide	Annual
Chlorate	Annual
Diazinon	Annual
Dichlorodifluoro-methane (Freon 12)	Annual
Ethylene Glycol	Annual
Formaldehyde	Annual
HMX	Annual
Isopropylbenzene	Annual
Manganese	Annual
Methyl-isobutyl-keytone (MIBK)	Annual
Naphthalene	Quarterly
n-Butylbenzene	Annual
n-Nitrosodiethyl-amine (NDEA)	Annual
n-Nitrosodimethylamine (NDMA)	Quarterly
n-Nitrosodi-n-propylamine (NDPA)	Quarterly
n-Propylbenzene	Annual
Propachlor	Annual
RDX	Annual
sec-Butylbenzene	Annual
tert-Butylbenzene	Annual

Tertiary-butyl-alcohol (TBA)	Annual
Vanadium	Annual

Table M-15: Groundwater Monitoring Frequency	
Remaining Priority Pollutants	
Pesticides	
4,4,4'-DDD	Annual
4,4,4'-DDE	Annual
4,4,4-DDT	Annual
Aldrin	Quarterly
Alpha BHC	Quarterly
Alpha Endosulfan	Quarterly
Beta BHC	Quarterly
Beta Endosulfan	Quarterly
Chromium III	Quarterly
Chromium VI	Quarterly
Delta BHC	Quarterly
Dieldrin	Quarterly
Endosulfan Sulfate	Quarterly
Endrin Aldehyde	Quarterly
Acid Extractables	
2,4,6-Trichlorophenol	Quarterly
2,4-Dichlorophenol	Quarterly
2,4-Dimethylphenol	Quarterly
2,4-Dinitrophenol	Quarterly
2-Chlorophenol	Quarterly
2-Nitrophenol	Quarterly
4,6-Dinitro-o-Cresol (2-Methyl-4,6-Dinitrophenol)	Quarterly
4-Nitrophenol	Quarterly
p-Chloro-m-Cresol (3-Methyl-4-Chlorophenol)	Quarterly
Phenol	Quarterly
Base/Neutral Extractables	
1,12-Benzoperylene ((Benzo(g,h,i)-perylene))	Quarterly
1,2,5,6-Dibenzanthracene ((Dibenzo(a,h) anthracene))	Quarterly
1,2-Diphenylhydrazine	Quarterly
1,3-Dichlorobenzene	Quarterly

2,4-Dinitrotoluene	Quarterly
2,6-Dinitrotoluene	Quarterly
2-Chloronaphthalene	Quarterly
3,3'-Dichlorobenzidine	Quarterly
4-Bromophenyl phenyl ether	Quarterly

Table M-15: Groundwater Monitoring Frequency	
4-Chlorophenyl phenyl ether	Quarterly
Acenaphthene	Quarterly
Acenaphthylene	Quarterly
Anthracene	Quarterly
Benzidine	Quarterly
Benzo(a)anthracene	Quarterly
Benzo(b)fluoranthene	Quarterly
Benzo(k)fluoranthene	Quarterly
Bis(2-chloroethoxyl)-methane	Quarterly
Bis(2-chloroethyl)ether	Quarterly
Bis(2-chloroisopropyl)ether	Quarterly
Butyl benzyl phthalate	Quarterly
Chrysene	Quarterly
Di(2-ethylhexyl) phthalate	Quarterly
Dimethyl phthalate	Quarterly
Di-n-butyl phthalate	Quarterly
Di-n-octyl phthalate	Quarterly
Fluoranthene	Quarterly
Fluorene	Quarterly
Hexachlorobutadiene	Quarterly
Hexachloroethane	Quarterly
Indeno(1,2,3-cd) pyrene	Quarterly
Isophorone	Quarterly
Nitrobenzene	Quarterly

n-Nitrosodi-n-propylamine	Quarterly
n-Nitrosodiphenylamine	Quarterly
Phenanthrene	Quarterly
Pyrene	Quarterly
1,1-Dichloroethylene	Quarterly
2-Chloroethyl vinyl ether	Quarterly
Acrolein	Quarterly
Acrylonitrile	Quarterly
Chlorobenzene	Quarterly
Chloroethane	Quarterly
Methyl bromide	Quarterly
Methyl chloride	Quarterly

6: General Physical and
Table M- General Minerals

Constituent		
Asbestos	Potassium	Foaming Agents
Calcium	Sodium	Odor
Chloride	Sulfate	Specific Conductance
Copper	Zinc	Total Dissolved Solids
Iron	Color	Total Hardness
Manganese	Corrosivity	

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

“I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____ day of _____ at _____ (Signature)

_____ (Title)"

VI. OTHER MONITORING REQUIREMENTS

The MRWPCA shall submit written documentation identifying the responsible party who certifies the perjury document.

The list of parameters and monitoring frequencies may be adjusted by the Executive Officer if the MRWPCA makes a request and the Executive Officer determines that the modification is adequately supported by statistical trends of monitoring data submitted.

VII. CERTIFICATION

John M. Robertson Digitally signed by John M. Robertson Date: 2017.03.14 16:24:37 -07'00'

Ordered by _____ Executive Officer

Date March 9, 2017

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	4
AGENDA TITLE:	New Proposal from MCWD to Sell Water to Replenish the Seaside Basin Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager

At its February 14, 2018 meeting the TAC reviewed and provided final input on a September 27, 2017 proposal from MCWD to sell water to the Watermaster to help replenish the Seaside Basin.

Subsequent to that TAC meeting I was informed by Russ McGlothlin that on March 1 he had received a rough draft of a replacement Proposal from MCWD's legal counsel. The intent of the replacement Proposal is to provide reclaimed water from the Pure Water Monterey (PWM) project (which MCWD would acquire from Monterey One Water under its agreement with them), rather than groundwater, for use by the Seaside Golf Courses. The replacement Proposal was developed by MCWD in order to avoid the problems associated with their September 27 Proposal, and to offer a longer term for the sale of the water.

According to MCWD the replacement Proposal:

- Proposes a long-term sale of up to 453 AFY (with a 400 AFY minimum) of MCWD's PWM Phase 1 water for use on Seaside's two golf courses.
- Would have no Agency Act issues
- Is already covered by the Regional Urban Water Augmentation Project's (RUWAP) Final EIR
- MCWD owns the source water
- The RUWAP pipeline to deliver the Pure Water Monterey water is under construction, and no other new delivery infrastructure is needed.

Because of this new Proposal, Mr. McGlothlin and Watermaster staff will discontinue evaluating the September 27th Proposal, and will instead focus on reviewing the new MCWD Proposal. A report on it and recommendations should be provided to the Watermaster Board at its April 2018 meeting.

I contacted M1W (Robert Holden) who provided this information regarding this topic:

- The Advanced Water Purification Facility (AWPF) for the Pure Water Monterey Project is under construction. M1W hopes to start producing AWT water in May 2019 and be fully operational in August 2019.
- MCWD has rights to 600 AFY of purified water for landscape irrigation. MCWD's maximum daily use (by agreement) is 1.37 million gallons per day (mgd) which is equivalent to 4.20 acre-feet per day.
- MCWD should have a Regional Board permit to utilize the purified water for irrigation in September 2018.
- MCWD is paying a portion of the AWPF construction costs and M1W is paying for most of the RUWAP pipeline costs.
- MCWD has plans for a Phase 2 project that would be 1,427 AFY (827 AFY more than their current Phase 1 project). MCWD needs a new agreement with M1W, CEQA, and design before they could start to get water beyond 600 AFY.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

AGENDA ITEM:

4 (Continued)

- At one point MCWD suggested that some of their purified water would be injected into the Seaside Groundwater Basin. MIW explained to them some of the problems with injection and he thinks they have stopped considering that as an option for the future.

From my review of the attached document I believe the following comments should be provided to the Board:

1. Recital C.b of the Draft Agreement states (from the Adjudication Decision): “The Watermaster has secured reclaimed water in an equivalent amount and has contracted with one or more of the Producers to utilize said water in lieu of their Production Allocation, with the Producer agreeing to forego their right to claim a Stored Water Credit for such forbearance.” Comment: The Board should determine whether this statement requires that the Watermaster itself must secure the reclaimed water, i.e. by direct purchase or through some other mechanism, or whether the reclaimed water must simply be secured (by some other party such as Cal Am or the City of Seaside) in order to fulfill this condition.
2. Section 3.2 states “Any of reclaimed water within the Minimum Annual Amount not actually taken for delivery by the City will be delivered to the Watermaster at the Watermaster’s option and the Watermaster agrees to pay for any additional cost incurred by MCWD to deliver that reclaimed water to the Watermaster for use at other than the Point of Delivery. Any reclaimed water to be delivered to the Watermaster at other than the Point of Delivery is subject to the scheduling requirements in Section 7, Delivery of Water. Comment: If the Seaside Golf Courses do not need all of the water that is scheduled for deliver under the Agreement, would the Watermaster want to take delivery of the unneeded reclaimed water and pay for it?”
3. Section 5 states in part that “The Watermaster and the City shall own the water at the Point of Delivery.” Comment: Per comment No. 1 above, does the Watermaster itself want to become an owner of the reclaimed water, or simply act in a facilitation mode in order for others to be able to acquire and use the reclaimed water, e.g. City of Seaside or Cal Am?”
4. Section 7.1.a states in part “The amounts and rates of delivery of the water during the months of May, June, July, August, and September shall not be greater than twenty percent (20%) more than the average amounts and rates of delivery during the preceding months of that Year unless a greater variation is approved by MCWD.” Comment: The City of Seaside should review the water usage records from its golf courses to determine if this is feasible and acceptable.
5. Section 9.2 states that the price for purchase of the reclaimed water is to be MCWD’s Pure Water Monterey Phase 1 per-acre-foot cost. Comment: This cost apparently is not currently known and should be established before any agreement to purchase water at that price is made.
6. General Provisions. Comment: All of the Sections within the General Provisions appear to be issues that should be reviewed by legal counsel.
7. General Comments:
 - a. Recital E indicates that one purpose of the proposal to sell water to the Watermaster is to help avoid future 10% pumping ramp-downs that are required by the Adjudication Decision. Such ramp-downs can only be avoided if 560 AFY of reclaimed water is secured, and is utilized by a producer in lieu of pumping that quantity of water from the Basin, and if that producer also agrees to forego their right to claim a stored water credit for that forbearance. The MCWD proposal only offers to sell up to 453 AFY. Thus, MCWD’s proposal by itself would not avoid the next ramp-down, which is scheduled to occur in 2020.
 - b. The Watermaster does not currently have funds available to purchase this water. A funding source would need to be identified.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

AGENDA ITEM:	4 (Continued)
<p>c. If the purchase and use of reclaimed water for the Seaside Golf Courses would in some way assist Cal Am in meeting any of its Carmel River Basin Cease and Desist Order milestones or obligations, would it be preferable for MCWD's reclaimed water to be purchased by Cal Am and wheeled to the City of Seaside, rather than trying to have the Watermaster purchase the water?</p> <p>The TAC is invited to provide additional comments so these can be consolidated for presentation to the Board at its April 4th meeting.</p>	
ATTACHMENTS:	Rough Draft Reclaimed Water Sale Agreement from MCWD Received March 1, 2018
RECOMMENDED ACTION:	Provide direction to the Technical Program Manager on what comments to provide to the Watermaster Board on this new Proposal

RECLAIMED WATER SALE AGREEMENT

For Use on City of Seaside Golf Courses

THIS RECLAIMED WATER SALE AGREEMENT (“Agreement”) is made on _____ (“Effective Date”), among the Seaside Groundwater Basin Watermaster (“Watermaster”), the City of Seaside (“City”), and the Marina Coast Water District (“MCWD”), individually “a Party,” collectively “Parties.”

RECITALS

A. In DWR Bulletin 118 Interim Update 2016, the Adjudicated Seaside Basin was recognized by DWR as the Seaside Subbasin within the Salinas Valley Groundwater Basin (SVGB) and the area north of the Seaside Subbasin and south of the 180/400 Foot Aquifer Subbasin was designated the Monterey Subbasin of the SVGB.

B. MCWD’s water service area consists of Central Marina and the Ord Community. MCWD’s Ord Community occupies a substantial portion of the Seaside Basin as shown on the attached Exhibit “A,” which is incorporated herein by reference. The City’s Black Horse and Bayonet golf courses are located within the Ord Community. The City’s golf courses are shown on the attached Exhibit “B,” which is incorporated herein by reference.

C. The Watermaster was established pursuant to the Adjudication Decision. Section III.B.2, page 18 of the Adjudication Decision requires triennial rampdowns in the Operating Yield for both Seaside Basin Subareas of “ten percent (10%) until the Operating Yield is the equivalent of the Natural Safe Yield unless:

“a. The Watermaster has secured and is adding an equivalent amount of Non-Native water to the Basin on an annual basis; or

“b. The Watermaster has secured reclaimed water in an equivalent amount and has contracted with one or more of the Producers to utilize said water in lieu of their Production Allocation, with the Producer agreeing to forego their right to claim a Stored Water Credit for such forbearance; or

“a. (sic) Any combination of a and b which results in the decrease in Production of Native Water required by this decision.”

D. Pursuant to the Adjudication Decision, the triennial rampdown for Water Year 2017/18 of 560 AFY took effect on October 1, 2017.

E. Under this Agreement, MCWD desires to assist the Watermaster to achieve groundwater sustainability within the Seaside Subbasin and in reducing the adverse impacts to the Watermaster from the rampdowns by providing reclaimed water to the City for use on the City’s golf courses.

F. The Fort Ord Reuse Authority (FORA) Board allocated 453 acre-feet per year of reclaimed water to the City pursuant to Resolution 07-10 adopted June 8, 2007.

G. The City desires to take delivery of reclaimed water to irrigate the City’s two golf courses, when the reclaimed water is available for delivery.

H. Delivery of the reclaimed water under this Agreement is covered by the Final Environmental Impact Report for the Regional Urban Water Management Project (RUWAP).

I. The Parties have voluntarily negotiated the terms, including any charges and fees paid by the Parties, for the purchase and sale of the advance treated water, as detailed in this Agreement.

J. The Watermaster and MCWD find that it is in their mutual best interests to enter into this Agreement.

NOW, THEREFORE, the Parties agree as follows:

1. **Incorporation of Recitals.** The above Recitals are incorporated into this Agreement.

2. **Definitions.**

“Adjudication Decision” means the Monterey County Superior Court’s Amended Decision dated February 9, 2007, Court Case No. M66343, adjudicating the Seaside Basin.

“AF” means acre feet.

“Affected Party” means a Party claiming the occurrence of a Force Majeure Event and seeking relief under this Agreement as a result thereof.

“AFY” means acre feet per year.

“Agreement” means this Water Sale Agreement, as the same may be amended from time to time.

“Applicable Law” means any judicial decision, statute, constitution, ordinance, resolution, regulation, rule, administrative order, or other requirement of any municipal, county, state, federal, or other government agency or authority having jurisdiction over the Parties or the services or obligations of any Party in effect either on the Effective Date of this Agreement or at any time during the term of this Agreement.

“DWR” means the California Department of Water Resources.

“Event of Default” means each of the items specified in the General Provisions which may lead to termination of this Agreement upon election by a non-defaulting Party.

“Force Majeure Event” means any act, event, condition or circumstance that (1) is beyond the reasonable control of the Affected Party, (2) by itself or in combination with other acts, events, conditions or circumstances adversely affects, interferes with or delays the Affected Party’s ability to perform its obligations under this Agreement, and (3) is not the fault of, or the direct result of the willful or negligent act, intentional misconduct, or breach of this Agreement by the Affected Party. Examples of a Force Majeure Event, include but are not limited to, failure or refusal of any other person or entity to comply with then-existing contracts, operational emergency, an act of God, fire, flood, explosion, earthquake, strike, sabotage, or civil or military authority including court orders, injections, and orders of a governmental entity.

“MCWD” means the Marina Coast Water District.

“M1W” means Monterey One Water, previously known as the Monterey Regional Water Pollution Control Agency.

“Monterey Subbasin” shall mean that certain groundwater subbasin as shown and designated as Subbasin 3-004.10 in California Department of Water Resources Bulletin 118 Interim Update 2016, which may be found at http://www.water.ca.gov/groundwater/bulletin118/docs/Bulletin_118_Interim_Update_2016.pdf.

“Point of Delivery” means the metered point of delivery owned by MCWD for delivery of reclaimed water to the City’s golf courses. The Point of Delivery is shown on Exhibit “B.”

“PWM Agreement” means that certain Pure Water Delivery and Supply Project Agreement between Monterey Regional Water Pollution Control Agency and MCWD dated April 8, 2016, as amended.

“Reclaimed water” or “advanced treated water” shall mean the non-potable water treated by Monterey One Water for MCWD and sold by MCWD to Watermaster pursuant to this Agreement.

“Seaside Basin” or “Seaside Subbasin” shall mean that certain groundwater subbasin as shown and designated as Subbasin 3-004.08 in California Department of Water Resources Bulletin 118 Interim Update 2016.

“Supervising Court” means the out-of-county Judge assigned to the Monterey County Superior Court who has continuing jurisdiction over the Watermaster pursuant to the Adjudication Decision.

“Watermaster” means the Supervising Court-appointed Watermaster pursuant to the Adjudication Decision for the purpose of executing the powers, duties, and responsibilities assigned under that decision.

“Water Year” means the period October 1 to September 30 of the succeeding year.

“Year” means a calendar year.

3. Quantity of Reclaimed Water Sold.

3.1. MCWD will deliver up to and including 453 AFY of reclaimed water to the Point of Delivery.

3.2. Minimum Annual Amount of Reclaimed Water Sold. The Watermaster and City agree that the Minimum Annual Amount to be delivered by MCWD shall be 400 AFY and the City agrees to pay MCWD at the Section 9 price for that Minimum Annual Amount made available by MCWD at the Point of Delivery whether or not the City actually takes delivery of any reclaimed water. Any of reclaimed water within the Minimum Annual Amount not actually taken for delivery by the City will be delivered to the Watermaster at the Watermaster’s option and the Watermaster agrees to pay for any additional cost incurred by MCWD to deliver that reclaimed water to the Watermaster for use at other than the Point of Delivery. Any reclaimed water to be delivered to the Watermaster at other than the Point of Delivery is subject to the scheduling requirements in Section 7, Delivery of Water

4. **Term of Agreement.** The term of this Agreement shall commence as of the date reclaimed water is first delivered to the Watermaster under this Agreement and shall remain in effect for thirty (30) years, unless earlier terminated as provided in this Agreement.

5. **Points of Delivery; Ownership of Water; Only Contract to Sell Water.** Water shall be delivered to the Point of Delivery. The Watermaster and the City shall own the water at the Point of Delivery. The Parties confirm that this Agreement constitutes a contractual right

to purchase water and that no water right is conferred by MCWD to the Watermaster or to the City.

6. **Measurement.** MCWD shall measure all water delivered to Watermaster. MCWD shall keep and maintain accurate and complete measurement records. MCWD will install, operate, and maintain water metering equipment. The meter shall be examined, tested and serviced regularly by MCWD to maintain its accuracy in accordance with the meter manufacturer's written recommendations. Watermaster and the City may inspect the metering equipment and the measurement records during regular business hours upon reasonable notice. Watermaster and City reserve the right to install reciprocal measuring devices that comply with the same standards and procedures set forth above.

7. **Delivery of Water.**

7.1. Delivery Schedules. The amounts, times and rates of delivery of water to Watermaster during any Year shall be in accordance with a water delivery schedule for that Year to be determined as follows:

a. On or before September 1 preceding each new Year, the City shall submit to MCWD a preliminary water delivery schedule indicating the amounts and rates of delivery of the water desired by the City at the Point of Delivery during each month of the next succeeding Years. The amounts and rates of delivery of the water during the months of May, June, July, August, and September shall not be greater than twenty percent (20%) more than the average amounts and rates of delivery during the preceding months of that Year unless a greater variation is approved by MCWD.

b. Upon receipt of a preliminary schedule, MCWD will review it and after consultation with the City shall make such modifications as the MCWD deems necessary. On or before November 1 preceding each new Year, MCWD shall determine and furnish to the Watermaster the water delivery schedule for the coming new Year for the Point of Delivery, which will show the amounts and flow rates of water to be delivered to the Point of Delivery during each month of that Year.

c. MCWD and the City agree that the actual water delivery schedule will vary depending upon the water demand of the golf courses and that the delivery schedule will be amended from time to time by the City and MCWD by mutual agreement, which agreement shall not be unreasonably withheld.

7.2. During the term of this Agreement, MCWD shall use its reasonable best efforts to deliver the water to the Watermaster in accordance with the agreed upon delivery schedules.

8. **Water Quality.** All reclaimed water delivered by MCWD at the Point of Delivery shall meet the water quality requirements set forth in the PWM Agreement. The Parties agree that M1W, and not MCWD, is responsible for meeting the water quality requirements set forth in Applicable Law for all reclaimed water delivered under this Agreement.

9. **Price.**

9.1. The Parties agree that the price for the reclaimed water is a negotiated price and voluntarily agreed to by the Parties.

9.2. [To be MCWD's PWM Phase 1 per-AF advanced treated water costs]

10. **Payments.** MCWD shall bill the Watermaster monthly in accordance with the procedures MCWD has established for billing its Ord Community water customers. Watermaster agrees to pay each bill within the time period specified on each bill and further agrees to be subject to such late charges and interest for late payments set by MCWD for its Ord Community water customers.

GENERAL PROVISIONS

11. **Breach, Event of Default and Termination.**

11.1 Remedies for Breach – The Parties agree that, except as otherwise provided in this section with respect to termination rights, if any Party breaches this Agreement, any other Party may exercise any legal rights it may have under this Agreement and under Applicable Law to recover damages or to secure specific performance. No Party shall have the right to terminate this Agreement for cause except upon the occurrence of an Event of Default. If a Party exercises its rights to recover damages upon a breach of this Agreement or upon a termination due to an Event of Default, such Party shall use all reasonable efforts to mitigate damages. If a Force Majeure Event occurs, the Affected Party shall be entitled to relief from determination of a breach pursuant to the Force Majeure provision of this Agreement.

11.2. Event of Default – The following shall each constitute an “Event of Default” under this Agreement:

a. The failure of any Party to perform any material term, covenant, or condition of this Agreement, and the failure continues for more than thirty (30) days following the defaulting Party’s receipt of written notice of such default from a non-defaulting Party; provided, however, that if and to the extent such default cannot reasonably be cured within such thirty (30) day period, and if the defaulting Party has diligently attempted to cure the same within such thirty (30) day period and thereafter continues to diligently attempt to cure the same, then the cure period provided for herein shall be extended from thirty (30) days to one-hundred twenty (120) days.

b. The failure of MCWD to meet the required water quality for the reclaimed water unless such failure is governed by Section 8 or caused by a Force Majeure Event or Events.

11.3. **Termination for Event of Default.** If an Event of Default occurs, any non-defaulting Party may terminate this Agreement immediately upon written notice to the other Parties. A non-defaulting Party may enforce any and all rights and remedies it may have against a defaulting Party under Applicable Law.

12. **Dispute Resolution.** Representatives from each Party shall meet and use reasonable efforts to settle any dispute, claim, question or disagreement (a “Dispute”) arising from or relating to this Agreement. To that end, the Parties’ representatives 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 the Parties. If the Parties do not reach such a solution within a period of thirty (30) days after the first notice of the Dispute is received by the non-disputing Parties, then the Parties shall pursue non-binding mediation to be completed within one-hundred twenty (120) days after the notice of the Dispute is received by the non-

disputing Parties. The Parties agree to pay equal shares of the cost of the neutral mediator and any related costs incurred by the mediator. If the Parties do not settle the Dispute within the one-hundred twenty (120) day period, unless extended by mutual agreement, any Party may pursue any and all available legal and equitable remedies.

13. **Indemnification**. Except as provided in Section 8, Water Quality, each Party (an “Indemnifying Party”) shall fully indemnify the other Parties and their respective officers, directors, employees, consultants, contractors, representatives and agents (the “Indemnified Persons”) against, and hold completely free and harmless from, all liability and damages including any cost, expense, fine, penalty, claim, demand, judgment, loss, injury and/or other liability of any kind or nature, including personal or bodily injury, death or property damage, that are incurred by or assessed against the Indemnified Persons and directly or indirectly caused by, resulting from, or attributable to the fault, failure, breach, error, omission, negligent or wrongful act of the Indemnifying Party, or its officers, directors, employees, consultants, contractors, representatives and agents, in the performance or purported performance of the Indemnifying Party’s obligations under this Agreement, but only to the extent of and in proportion to the degree of fault, failure, breach, error, omission, negligent or wrongful act of the Indemnifying Party, or its officers, directors, employees, consultants, contractors, representatives and agents.

14. **Force Majeure Event Relief**.

14.1. If a Force Majeure Event occurs, the Affected Party shall be entitled to (1) relief from its performance obligations under this Agreement to the extent the occurrence of the Force Majeure Event prevents or adversely affects Affected Party’s performance of such obligations, and (2) an extension of schedule to perform its obligations under this Agreement to the extent the occurrence of the Force Majeure Event prevents or adversely affects Affected Party’s ability to perform such obligations in the time specified in this Agreement. The occurrence of a Force Majeure Event shall not, however, excuse or delay the other Parties’ obligation to pay monies previously accrued and owing to Affected Party under this Agreement, or for Affected Party to perform any obligation under this Agreement not affected by the occurrence of the Force Majeure Event.

14.2. Upon the occurrence of a Force Majeure Event, Affected Party shall notify the other Parties in accordance with the notice provisions set forth herein promptly after Affected Party first knew of the occurrence thereof, followed within fifteen (15) days by a written description of the Force Majeure Event, the cause thereof (to the extent known), the date the Force Majeure Event began, its expected duration and an estimate of the specific relief requested or to be requested by the Affected Party. Affected Party shall use commercially reasonable efforts to reduce costs resulting from the occurrence of the Force Majeure Event, fulfill its performance obligations under the Agreement and otherwise mitigate the adverse effects of the Force Majeure Event. While the Force Majeure Event continues, the Affected Party shall give the other Parties a monthly update of the information previously submitted. The Affected Party shall also provide prompt written notice to the other Parties of the cessation of the Force Majeure Event.

15. **Amendments**. No change, alteration, revision or modification of the terms and conditions of this Agreement shall be made, and no verbal understanding of the Parties, their officers, agents or employees shall be valid, except through a written amendment to this Agreement duly authorized and executed by the Parties.

16. **Remedies Not Exclusive.** The use by any Party of any remedy for the enforcement of this Agreement is not exclusive and shall not deprive the Party using such remedy of, or limit the application of, any other remedy provided by law.

17. **Mitigation of Damages.** In all situations arising out of this Agreement, the Parties shall attempt to avoid and minimize the damages resulting from the conduct of another Party.

18. **Supervising Court's Approval.**

18.1. If this Water Sale Agreement needs to be submitted to the Supervising Court for approval prior to the delivery of any reclaimed water under this Agreement, the Parties agree to work together and cooperate in good faith to obtain any such approval.

18.2. If this Agreement is not approved by the Supervising Court in a manner acceptable to the Parties, any Party may, within sixty (60) days after the effective date of the decision or order of the Supervising Court not approving this Agreement, give written notice to the other Parties that the Agreement will terminate ten (10) days after receipt of such notice ("Termination Date"). Those acts and obligations that are to be performed on or after the Termination Date shall be discharged and no Party shall thereafter be obligated to continue to perform this Agreement or any provision hereof. Whether this Agreement is approved by the Supervising Court in a manner acceptable to the Parties or not, those acts and obligations performed prior to the Termination Date shall be final and no party shall have any claim to be restored to its pre-Termination Date status with regard to any of those acts or obligations.

19. **No Waiver.** Failure by a Party to insist upon the strict performance of any of the provisions of this Agreement by another Party, irrespective of the length of time for which such failure continues, shall not constitute a waiver of such Party's right to demand strict compliance by such other Party in the future. No waiver by a Party of any default or breach shall affect or alter this Agreement, and each and every covenant, term, and condition hereof shall continue in full force and effect to any existing or subsequent default or breach.

20. **Successors in Interest, Transferees, and Assignees.** This Agreement and all the rights and obligations created by this Agreement shall be in full force and effect whether or not any of the Parties to this Agreement have been succeeded by another entity, or had their interests transferred or assigned to another entity, and all rights and obligations created by this Agreement shall be vested and binding on any Party's successor in interest, transferee, or assignee. If any Party is succeeded by another entity, it shall assign this Agreement to its successor. No succession, assignment or transfer of this Agreement, or any part hereof or interest herein, by a Party shall be valid without the prior written consent of the other Parties, such consent not to be unreasonably withheld.

21. **Covenants and Conditions.** All provisions of this Agreement expressed either as covenants or conditions on the part of any Party shall be deemed to be both covenants and conditions.

22. **Governing Law.** This Agreement and the rights and obligations of the Parties shall be governed, controlled and interpreted in accordance with the laws of the State of California.

23. **Headings.** All headings are for convenience only and shall not affect the interpretation of this Agreement.

24. **Construction of Agreement Language.** The provisions of this Agreement shall be construed as a whole according to its common meaning and purpose of providing a public benefit and not strictly for or against any Party. The Agreement shall be construed consistent with the provisions hereof, in order to achieve the Purposes of this Agreement. Wherever

required by the context, the singular shall include the plural and vice versa, and the masculine gender shall include the feminine or neutral genders or vice versa.

25. **Drafting Ambiguities**. This Agreement is the product of negotiation and preparation between the Parties. The Parties and their counsel have had the opportunity to review and revise this Agreement. The Parties waive the provisions of Section 1654 of the Civil Code of California and any other rule of construction to the effect that ambiguities are to be resolved against the drafting Party, and the Parties warrant and agree that the language of this Agreement shall neither be construed against nor in favor of any Party unless otherwise specifically indicated.

26. **Partial Invalidity; Severability**. If any one or more of the terms, provisions, covenants or conditions of this Agreement are to any extent declared invalid, unenforceable, void or voidable for any reason whatsoever by a court of competent jurisdiction, the finding or order or decree of which becomes final, the Parties agree to amend the terms of this Agreement in a reasonable manner to achieve the intention of the Parties without invalidity. If the terms cannot be amended thusly, the invalidity of one or several terms will not affect the validity of this Agreement as a whole unless the invalid terms are of such essential importance to this Agreement that it can be reasonably assumed that the Parties would not have entered into this Agreement without the invalid terms. In such case, the Party affected may terminate this Agreement by written notice to the other Parties without prejudice to the affected Party's rights in law or equity.

27. **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 their respective permitted successors, transferees and assignees shall be authorized to enforce the provisions of this Agreement.

28. **Relationship of the Parties**. The relationship of the Parties to this Agreement shall be that of independent contractors. Each Party shall be solely responsible for any workers compensation, withholding taxes, unemployment insurance, and any other employer obligations associated with the described work or obligations assigned to them under this Agreement.

29. **Signing Authority**. The representative of each Party signing this Agreement hereby declares that authority has been obtained to sign on behalf of the Party such person is representing.

30. **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.

31. **Opinions and Determinations**. Where the terms of this Agreement provide for action to be based upon opinion, judgment, approval, review or determination of any Party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review or determination to be arbitrary, capricious or unreasonable.

32. **Interpretation of Conflicting Provisions.** If there is any conflict, discrepancy or inconsistency between the provisions of this Agreement and the provisions of any exhibit or attachment to this Agreement, the provisions of this Agreement shall prevail and control.

33. **Integration.** This Agreement, including the exhibits, represent the entire Agreement between the Parties with respect to the subject matter of this Agreement and shall supersede all prior negotiations, representations, or agreements, either written or oral, between the Parties as of the Effective Date.

34. **Counterparts.** All signatures need not appear on the same counterpart of this Agreement and all counterparts of this Agreement shall constitute one and the same instrument.

35. **Notices.** All notices to a Party 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); or (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. Notices to the Parties shall be sent to the following addresses or to other such addresses as may be furnished in writing by one Party to the other Parties:

Watermaster:
Seaside Groundwater Basin Watermaster
P.O. Box 51502
Pacific Grove, CA 93950

City of Seaside:
City of Seaside
Attn: City Manager
440 Harcourt Avenue
Seaside, CA 93955

MCWD:
Marina Coast Water District
Attn: General Manager
11 Reservation Road
Marina, CA 93933-2099

SIGNATURE PAGE FOLLOWS

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	5
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	
<p>As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Schedule of the activities being performed by the Watermaster, its consultants, and the public entity, MPWMD, which is performing certain portions of the work.</p> <p>Attached is the Work Schedule for FY 2018.</p>	
ATTACHMENTS:	Schedule of Work Activities for FY 2018
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to the Schedule

Seaside Basin Watermaster Monitoring and Management Program 2018 Work Schedule

ID	Task Name	Dec '17		Jan '18		Feb '18		Mar '18		Apr '18		May '18		Jun '18		Jul '18		Aug '18		Sep '18		Oct '18		Nov '18		Dec '18														
		26	3	10	17	24	31	7	14	21	28	4	11	18	25	1	8	15	22	29	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16
1	CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK																																							
2	2019 Administration, Operations and Replenishment Budgets																																							
3	Prepare M&P Draft Budgets (Same as Task 19)																																							
4	TAC Approves M&P Budgets (Same as Task 20)																																							
5	Board Approves M&P Budgets (Same as Task 21)																																							
6	Watermaster Prepares Quarterly Water Production, Water Level, and Water Quality Reports																																							
7	Watermaster posts tabularized data summaries of the WQ/WL data for Q1 and Q2 on Watermaster's website (See Task 47)																																							
8	Watermaster posts tabularized data summaries of the WQ/WL data for Q3 and Q4 on Watermaster's website (See Task 48)																																							
9	Watermaster Prepares Annual Water Production Report for 2018																																							
10	Replenishment Assessment Unit Costs for Water Year 2019																																							
11	B&F Committee Develops Replenishment Assessment Unit Cost for 2019 Water Year																																							
12	If Requested, TAC Provides Assistance to B&F Committee in Development of 2019 Water Year Replenishment Assessment Unit Cost																																							
13	Board Adopts and Declares 2019 Water Year Replenishment Assessment Unit Cost																																							
14	Replenishment Assessments for Water Year 2018																																							
15	Watermaster Prepares Replenishment Assessments for Water Year 2018																																							
16	Watermaster Board Approves Replenishment Assessments for Water Year 2018 (At December Meeting)																																							
17	Watermaster Levies Replenishment Assessment for 2018																																							

Seaside Basin Watermaster Monitoring and Management Program 2018 Work Schedule

ID	Task Name	Dec '17	Jan '18	Feb '18	Mar '18	Apr '18	May '18	Jun '18	Jul '18	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18
		26 3 10 17 24	31 7 14 21 28	4 11 18 25	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25	2 9 16 23 30
18	Monitoring & Management Program (M&MP) Budgets for 2019 and 2020													
19	Preliminary Discussion of Potential Scope of Work for 2019 M&MP								◆ 7/11					
20	Prepare Draft 2019 M&MP Work Plan and 2019 and 2020 O&M and Capital Budgets								▬					
21	TAC approves Draft 2019 M&MP Work Plan and 2019 and 2020 O&M and Capital Budgets									◆ 8/15				
22	Board approves 2018 M&MP O&M and Capital Budgets										◆ 10/3			
23	2018 Annual Report (Note: Schedule Does Not Reflect Court Approval of January Submittal Date for Annual Report)													
24	Prepare Preliminary Draft 2018 Annual Report													
25	TAC Provides Input on Preliminary Draft 2018 Annual Report											▬		
26	Prepare Draft 2018 Annual Report (Incorporating TAC Input)												◆ 11/21	
27	Board Provides Input on Draft 2018 Annual Report (At December Board Meeting)													◆ 12/5
28	Prepare Final 2018 Annual Report (Incorporating Board Input)													▬
29	Watermaster Submits Final 2018 Annual Report to Judge													◆ 12/13
30	MANAGEMENT													
31	M.1 PROGRAM ADMINISTRATION													
32	Prepare Initial Consultant Contracts for 2019													
33	TAC Approval of Initial Consultant Contracts for 2019													
34	Board Approval of Initial Consultant Contracts for 2019												◆ 11/21	
35	M.1.g – Sustainable Groundwater Management Act Reporting Requirements													◆ 12/5
36	HydroMetrics Prepares Draft Groundwater Storage Analysis		COMPLETE											
37	Submit SGMA Documentation to DWR		COMPLETE											
38	IMPLEMENTATION													
39	I.2.a DATABASE MANAGEMENT													
40	I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance		▬											
41	I.2.b DATA COLLECTION PROGRAM													

Seaside Basin Watermaster Monitoring and Management Program 2018 Work Schedule

ID	Task Name	Dec '17			Jan '18			Feb '18			Mar '18			Apr '18			May '18			Jun '18			Jul '18			Aug '18			Sep '18			Oct '18			Nov '18			Dec '18																			
		26	3	10	17	24	31	7	14	21	28	4	11	18	25	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16
42	I.2.b.2 Collect Monthly Water Levels (MPWMD)	[Gantt bar from Jan 14 to Dec 30]																																																							
43	I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD)	[Gantt bar from Jan 14 to Dec 30]																																																							
44	Notify Martin Feeny to discontinue collecting water quality samples from the Sentinel Wells (if the Court agrees)	Completed [diamond marker at Feb 11]																																																							
45	I.2.b.6 Reports (from MPWMD)	[Gantt bar from Jan 14 to Dec 30]																																																							
46	MPWMD provides tabularized data summaries of the WQ/WL data for Q1 and Q2 for posting to Watermaster's website	4/11 [diamond marker at Apr 11]																																																							
47	MPWMD provides tabularized data summaries of the WQ/WL data for Q3 and Q4 for posting to Watermaster's website	11/14 [diamond marker at Nov 14]																																																							
48	MPWMD provides annual report summarizing water quality and water level data for the Water Year for inclusion in Watermaster's Annual Report	11/14 [diamond marker at Nov 14]																																																							
49	I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL	[Gantt bar from Dec 26 to Dec 30]																																																							
50	Develop HydroMetrics RFS to update and recalibrate the Model	Completed [Gantt bar from Dec 26 to Dec 30]																																																							
51	TAC approves RFS to update and recalibrate the Model	Completed [diamond marker at Jan 7]																																																							
52	Board approves RFS to update and recalibrate the Model	Completed [diamond marker at Feb 11]																																																							
53	HydroMetrics updates and recalibrates the Model	[Gantt bar from Feb 11 to Mar 18]																																																							
54	TAC receives Model update Technical Memorandum from HydroMetrics	5/9 [diamond marker at May 9]																																																							
55	Board receives report on Model update from HydroMetrics	6/6 [diamond marker at Jun 6]																																																							
56	Develop draft cost-sharing agreement for Model update	Completed [Gantt bar from Dec 26 to Dec 30]																																																							
57	TAC approves draft cost-sharing agreement for Model update	Completed [diamond marker at Jan 7]																																																							
58	Budget and Finance Committee approves draft cost-sharing agreement for Model update	[Gantt bar from Jan 14 to Jan 21]																																																							
59	Board approves cost-sharing agreement for Model update	Completed [diamond marker at Feb 11]																																																							
60	Develop Pueblo Water Resources proposal to perform geochemical modeling in the Seaside Basin	Completed [Gantt bar from Dec 26 to Dec 30]																																																							
61	Develop draft cost-sharing agreement for geochemical modeling	Completed [Gantt bar from Dec 26 to Dec 30]																																																							
62	TAC approves draft cost-sharing agreement for geochemical modeling	Completed [diamond marker at Jan 7]																																																							
63	Budget and Finance Committee approves draft cost-sharing agreement for geochemical modeling	Completed [diamond marker at Jan 14]																																																							
64	Board approves cost-sharing agreement for geochemical modeling	Completed [diamond marker at Feb 11]																																																							
65	MPWMD develops contract with Pueblo Water Resources to perform geochemical modeling	[Gantt bar from Feb 11 to Mar 18]																																																							

Seaside Basin Watermaster Monitoring and Management Program 2018 Work Schedule

ID	Task Name	Dec '17	Jan '18	Feb '18	Mar '18	Apr '18	May '18	Jun '18	Jul '18	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18
		26 3 10 17 24 31	7 14 21 28	4 11 18 25	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25	2 9 16 23 30
66	MPWMD issues contract to Pueblo Water Resources to perform geochemical modeling				Completed									
67	Pueblo Water Resources performs geochemical modeling													
68	TAC receives report from Pueblo Water Resources containing the findings of the geochemical modeling													
69	Board receives report from Pueblo Water Resources containing the findings of the geochemical modeling													
70	I.3.c Refine and/or Update the BMAP													
71	Develop HydroMetrics RFS to update the BMAP													
72	TAC approves RFS to update the BMAP													
73	Board approves RFS to update the BMAP													
74	HydroMetrics updates the BMAP													
75	TAC receives updated BMAP from HydroMetrics													
76	Board receives report on BMAP update from HydroMetrics													
77	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)													
78	HydroMetrics Provides Draft SIAR to Watermaster													
79	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)													
80	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)													
81	I.4.d Complete Preparation of Seawater Intrusion Response Plan (SIRP)													
82	I.4.e Refine and/or Update the SIRP													

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	March 14, 2018
AGENDA ITEM:	6
AGENDA TITLE:	Other Business
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>The "Other Business" agenda item is intended to provide an opportunity for TAC members or others present at the meeting to discuss items not on the agenda that may be of interest to the TAC.</p>
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only