

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

DATE: Wednesday, August 15, 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 may be ended.

OFFICERS

Chairperson: Nina Miller, California American Water Company

Vice-Chairperson: Jon Lear, MPWMD

MEMBERS

California American Water Company
Monterey

City of Del Rey Oaks

City of

City of Sand City

City of Seaside

Coastal Subarea Landowners

Laguna Seca Property Owners
Agency

Monterey County Water Resources

Monterey Peninsula Water Management District

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There will be no TAC meetings in September or October. The next regular meeting will be held on Wednesday November 15, 2018 at 1:30 p.m. at the MRWPCA Board Room. Note that this is the 3 allow more time for our consultants to prepare their reports that go into the Annual Report.

<p><i>SEASIDE BASIN WATER MASTER TECHNICAL ADVISORY COMMITTEE * * * AGENDA TRANSMITTAL FORM * * *</i></p>	
MEETING DATE:	August 15, 2018
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the July 11, 2018 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ***

SUMMARY:

Draft Minutes from this meeting was emailed to all TAC members. Any changes requested by TAC members have been included in the attached version.

ATTACHMENTS:

Minutes from this meeting

**RECOMMENDED
ACTION:**

Approve the minutes

D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
July 11, 2018**

Attendees: TAC Members

City of Seaside –Rick Riedl (via telephone)
California American Water – Nina Miller (via telephone)
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

HydroMetrics – Georgina King (via telephone)

Others

MCWD – Patrick Breen

The meeting was convened at 1:31 p.m. after a quorum had been established.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the June 13, 2018 Meeting

On a motion by Ms. Williamson, seconded by Mr. Gomez, the minutes from this meeting were unanimously approved as presented.

B. Sustainable Groundwater Management Act (SGMA) Items

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

C. Progress Report on Geochemical Modeling Work

Mr. Lear gave an oral update report, including this information:

- Collected data is being reviewed
- MPWMD staff is interacting with Trussell Technology (who has also been hired by CAW to look into desalination water affects on their distribution system piping).

- Carmel Valley water and Santa Margarita aquifer water have adequate water quality data for modeling purposes.
- He is awaiting data from the Pure Water Monterey and CAW desalination projects.
- Analyses are being performed on soil matrix samples.
- On July 23 they will begin coring to a depth of 700-feet to obtain samples for Santa Margarita chemical analyses.
- They are considering alternative means of performing the modeling if data gaps are found to exist.

Mr. Jaques asked Mr. Lear how long he expected it would be before Pueblo Water Resources would be able to provide their report on the geochemical modeling work. He said he expected it would be 6 to 8 weeks after all data has been provided to them to perform network.

D. Discuss Making Changes in the Use of the Teleconference Line for Participation in Future TAC Meetings (Note: This item was taken out of order at this meeting at the request of the Chair)

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

Ms. Miller said she supported use of the conference line as an exception, when it is not possible for someone to attend a meeting in person, but otherwise it would be preferable for persons to attend TAC meetings in person.

Mr. Gomez, Ms. Williamson, Mr. Riedl, Mr. Lear, and Ms. Voss concurred with Ms. Miller's comments.

Thus, there was consensus that TAC members would attend meetings in person, rather than routinely using the conference line, and that use of the conference line would be reserved for situations where was impossible for a TAC member to attend in person. The conference line could also be used by consultants and other persons who are geographically located out of the area.

E. Change in Ownership of HydroMetrics

Mr. Jaques summarized the agenda packet materials for this item

Ms. King reported that Montgomery and Associates is relying on Derek Williams for his California contacts and ongoing clients. She said that job titles and other such matters were still in the process of being arranged. She said her title would likely be Senior Hydrogeologist, but she did not know what Mr. Williams new job title would be. She also mentioned that Mr. Williams has moved to the Paso Robles area and that while he will continue to be actively involved in Watermaster work, she would most often be the direct contact with the Watermaster, as she has been on much of the work in recent years.

There was discussion regarding the language suggested by Mr. Riedl to be added to the new Professional Services Agreement with Montgomery and Associates (shown in italics on page 14 of the agenda packet). Following that discussion there was consensus to include Ms. King's name along with Mr. Williams name, in that language, to ensure that they would both continue to be directly and actively involved in all work performed for the Watermaster.

There was unanimous TAC agreement to have the Technical Program Manager carry out the three numbered actions on page 14 of the agenda packet.

F. Update on Monterey Regional Stormwater Resources Plan

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

3. Continued Discussion of Technical Memorandum from HydroMetrics on Updating and Recalibrating the Seaside Basin Groundwater Model

Mr. Jaques summarized the agenda packet materials for this item, and recommended that the TAC approve the Updated Draft Technical Memorandum and to forward the TAC's findings to the Board.

Mr. Lear said he concurred with this recommendation.

On a motion by Mr. Costa, seconded by Ms. Voss, there was unanimous approval of this recommendation.

4. RFS to Update the Basin Management Action Plan

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

Mr. Lear noted that updating the Basin Management Action Plan had been approved by the TAC last year.

Mr. Costa asked Mr. Jaques how often the BMAP was updated. Mr. Jaques responded that this would be the first update since its original preparation in 2009.

On a motion by Ms. Voss, seconded by Mr. Costa, there was unanimous this approval to proceed with issuing the RFS to update the Basin Management Action Plan.

5. Initial Discussion Regarding Scope of Work for Monitoring and Management Program (M&MP) for FY 2019

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

Mr. Lear asked TAC members if they had any comments or additions to the proposed scope of work for the monitoring and management program, and none were offered.

Ms. Voss said she was okay with the version contained in the agenda packet, including the indicated revisions from prior years monitoring management program.

Mr. Lear asked TAC members to submit any comments or additions to Mr. Jaques by the close of business today, so he could proceed with preparing the document for final approval by the TAC at its August meeting.

6. Schedule

Mr. Jaques summarized the agenda packet materials for this item, and highlighted that the August TAC meeting would be on the third Wednesday rather than the second Wednesday in order to allow extra

time to prepare the 2019 Monitoring and Management Program and its budgets. There was no other discussion.

7. Other Business

Mr. Costa asked if there had been any news on who would be replacing Mr. Sabolsice at California American Water. Mr. Jaques said he had not heard anything. Ms. Miller had to leave the meeting slightly earlier than this agenda item, so she was not available to provide any update herself.

The meeting adjourned at 2:15 PM

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TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ****

MEETING DATE:	August 15, 2018
AGENDA ITEM:	2.B
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ***

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:

1. SVBGSA Advisory Committee:

At the July 19, 2018 Salinas Valley Basin Groundwater Sustainability Agency Advisory Committee meeting, Derrik Williams made a presentation regarding progress on development of the Groundwater Sustainability Plan. Some of the points he included in his presentation were as follows:

- There will be an upcoming series of public meetings throughout the Salinas Valley Basin to begin getting input on development of Minimum Thresholds (MT) and Minimum Objectives (MO) for each of the six required issues. The MT will be “lines in the sand” i.e. not to be violated. These meetings are scheduled as follows:
 - Thursday July 26 at the Castroville Community Services District office from 5 to 7 p.m.
 - Tuesday July 31 at the City of Salinas Rotunda from 5 to 7 p.m.
 - Wednesday in King City
- The MT and MO will be simultaneously set for each of the subbasins in the basin, in order to ensure that there are no conflicts between MT and MO between the various subbasins. Each subbasin, however, may have its own unique set of MT and MO.
- The MO will be “averages,” recognizing that water levels will fluctuate in wet and dry years.
- At the public meeting these questions will be asked and discussed:
 - How should sustainability be measured in the Groundwater Sustainability Plan
 - What is the range of acceptability for the basin
 - What conditions would be acceptable
 - What is the minimum threshold that should not be crossed

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Modeling done for us by HydroMetrics shows that pumping within the Corral di Tierra area of the Salinas Valley Basin affects water levels in the Laguna Seca Subarea. At an appropriate time it would be good for the TAC to determine what it feels would be good MTs and MOs to establish for the Laguna Seca Subarea, and to have that provided to the SVBGSA so those can be taken into account as they develop their GSP for the adjacent Corral di Tierra area.

2. Remote Sensing Workshop:

I attended a workshop sponsored by the SVBGSA by Aqua Tronic Solutions, a consultant that performs remote sensing of aquifers. Some of the points that were made in their presentation that

AGENDA ITEM:

2.B (Continued)

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
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may be of interest to the Watermaster were:

- They have had 86% success in finding better locations for higher yields from water wells.
- They can measure up to 15,000 feet deep into the ground.
- They can see fluids and geology (e. g. aquifers, clay layers, etc.)
- They can distinguish between fresh and seawater intruded water (if the salt content is 500 ppm TDS or above)
- This is electro-seismic technology, not acoustic-seismic technology.
- They can do small or large areas.
- They can locate and model different types of water in the aquifers.
- They can go through multiple stacked aquifers.
- They are doing some current work in the Bakersfield area geo-thermal projects.
- They can show hydraulic conductivity which means they can find the speed of water movement through the aquifers which means they can show where recharge and outflow is occurring.
- They did a 2016 job in Soledad in order to site a water well for a client.
- Their data can easily be imported into existing modeling programs that others may be using for a client.
- They have “field robot stations” that can record data over time, e. g. tidal and seasonal fluctuations.
- Their cost is \$1.00/USD per meter of depth per field point measured.
- They can do offshore investigations as well. One example was in Wellington, New Zealand. They can work in 50 to 60 meters of water depth and in that depth can go 500 meters deep into the geology below the seabed.
- The more points that are taken means there will be better resolution.
- Well logs that provide geological data help them to calibrate their data to result in better resolution and accuracy.
- Their system has been used after airborne electromagnetic technology has been used to confirm or refute that data.
- In Monterey Bay, to look for the seawater intrusion front offshore they would use a small boat with an air gun at 50-meter sampling point intervals. They could do a transect perpendicular to the shoreline to go offshore to find where the seawater intrusion front is located.

This may be a technology for the Watermaster to consider using as a way of possibly locating the seawater intrusion front that is presumed to be gradually moving inland from Monterey Bay.

ATTACHMENTS:

None

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**RECOMMENDED
ACTION**

None required – information only

***SEASIDE BASIN WATER MASTER
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MEETING DATE:	August 15, 2018
AGENDA ITEM:	3
AGENDA TITLE:	Approve the FY 2018 Monitoring and Management Program (M&MP) and FY 2018 and 2019 M&MP Operations and Capital Budgets
PREPARED BY:	Robert Jaques

The Schedule calls for the TAC to approve the proposed Monitoring and Management Program (M&MP) and Budgets at its August 2018 meeting. Attached are the proposed 2019 M&MP and the proposed M&MP Operations and Capital Budgets for 2019 and 2020. The Board has asked that two-year budgets be developed to alert the Board to potential changes in scope and/or cost in near future years.

The 2019 M&MP which is attached reflects revisions resulting from the TAC's discussion when it reviewed the Draft 2019 M&MP at its July 11, 2018 meeting, as well as subsequent input from HydroMetrics, Montgomery and Associates, Martin Feeney, Todd Groundwater, and MPWMD.

The following are the principle revisions since the version contained in the July 11 packet:

Tasks M.1.c, M.1.d, and M.1.e (On-call/as-needed Consulting Services): There have been some hourly rate increases for the Montgomery and Associates staff that will likely be the ones to provide on-call/as-needed hydrogeological consulting services under Tasks M.1.c, M.1.d, and M.1.e (Derrick Williams and Georgina King). However, I have left the budget amounts for those tasks unchanged from 2018. This is because there is often some money left over in those budget line-items at the end of the year, and because the dollar amounts provided for those Tasks are only guesstimates.

Task M.1.g (SGMA Documentation Preparation): In 2018 the amount budgeted for this Task was \$1,900. The proposed scope of work for this task is unchanged from 2018, but the hourly rate for Georgina King (formerly of HydroMetrics, now with Montgomery and Associates) has increased from \$195/hour to \$200/hour, so the amount proposed for 2019 is increased by \$240 to \$2,140.

Task I.2.b.3 (Collect Quarterly Water Quality Samples): In 2018 the total amount budgeted for this Task was \$51,128, comprised of \$24,542 for MPWMD and \$26,686 for Martin Feeney. The proposed scope of work for this task in 2019 is changed from 2018 due to the deletion of water quality sampling of the Sentinel Wells by Mr. Feeney. The hourly rate for the MPWMD staff involved in performing their portion of this task is unchanged from 2018, so there is no change in their portion of the cost. The amount proposed for Martin Feeney's portion of this work in 2019 is decreased to \$17,541 by the deletion of water quality sampling and analyses from the Sentinel Wells. Therefore, the amount proposed for 2018 is reduced by \$9,045 to \$42,083.

Task I.4.c (Annual Report- Seawater Intrusion Analysis): In 2018 the total amount budgeted for this Task was \$22,082, comprised of \$1,192 for MPWMD and \$20,890 for HydroMetrics. The proposed scope of work for this task is unchanged from 2018. The hourly rate for the MPWMD staff involved in

AGENDA ITEM:

3 (Continued)

performing their portion of this task is unchanged, so the amount proposed for 2019 for their portion of this work is unchanged from the amount in 2018. The hourly rates for some of the personnel working on this at Montgomery and Associates (the same personnel who worked on this at HydroMetrics in 2018) have increased slightly. Therefore, the amount proposed for 2019 is increased by \$660 to \$22,742.

As indicated by the right-hand column titled “Comparative Costs from 2018 Budget” in the proposed 2019 M&MP Operations Budget in Attachment 2, the proposed Budget is \$162,552 lower (\$369,473-\$206,921) than the 2018 Budget. This significant reduction in cost is largely because some of the work items in the 2018 budget were completed in 2018 and therefore do not need to be included in the 2019 budget.

Following TAC approval of the 2019 M&MP and Budgets, they will be forwarded to the Budget and Finance Committee and then to the Board for approval at the Board’s October 2018 meeting.

ATTACHMENTS:

1. 2019 M&MP
2. 2019 and 2020 M&MP Operations Budgets
3. 2019 and 2020 M&MP Capital Budgets

RECOMMENDED ACTION:	Approve, or make changes to, the attached M&MP and/or Budgets and then recommend these for approval by the Board
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**Seaside Groundwater Basin
2019 Monitoring and Management Program**

The tasks outlined below are those that are anticipated to be performed during 2019. Some Tasks listed below are specific to 2019, while other Tasks are recurring such as data collection, database entry, and Program Administration Tasks. Within the context of this document the term “Consultant” refers either to a firm providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term “Contractor” refers to a firm providing construction or field services such as well drilling, induction logging, or meter calibration.

M.1 Program Administration

M. 1. a Project Budget and Controls (\$0)	Consultants will provide monthly or bimonthly invoices to the Watermaster for work performed under their contracts with the Watermaster. Consultants will perform maintenance of their internal budgets and schedules, and management of their subconsultants. The Watermaster will perform management of its Consultants.
M. 1. b Assist with Board and TAC Agendas (\$0)	Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.
M. 1. c. & M. 1. d Preparation for and Attendance at Meetings (\$11,500)	<p>The Consultants’ work will require internal meetings and possibly meetings with outside governmental agencies and the public. For meetings with outside agencies, other Consultants, or any other parties which are necessary for the conduct of the work of their contracts, the Consultants will set up the meetings and prepare agendas and meeting minutes to facilitate the meetings. These may include planning and review meetings with Watermaster staff. The costs for these meetings will be included in their contracts, under the specific Tasks and/or subtasks to which the meetings relate. The only meeting costs that will be incurred under Tasks M.1.c and M.1.d will be:</p> <ul style="list-style-type: none"> • Those associated with attendance at TAC meetings (either in person or by teleconference connection), including providing periodic progress reports to the Watermaster for inclusion in the agenda packets for the TAC meetings, when requested by the Watermaster to do so. These progress reports will typically include project progress that has been made, problem identification and resolution, and planned upcoming work. • From time-to-time when Watermaster staff asks Consultants to make special presentations to the Watermaster Board and/or the TAC, and which are not included in the Consultant’s contracts for other tasks. <p>Appropriate Consultant representatives will attend TAC meetings when requested to do so by Watermaster Staff (either in person or by teleconference connection), but will not be asked to prepare agendas or meeting minutes. As necessary, Consultants may provide oral updates to their progress reports (prepared under Task M.1.d) at the TAC meetings.</p>
M. 1. e Peer Review of Documents and Reports (\$7,500)	When requested by the Watermaster staff, Consultants may be asked to assist the TAC and the Watermaster staff with peer reviews of documents and reports prepared by various other Watermaster Consultants and/or entities.
M. 1. f QA/QC (\$0)	A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These costs are included in the other tasks.

M.1.g Prepare Documents for SGMA Reporting (\$2,140)	Section 10720.8 of the Sustainable Groundwater Management Act (SGMA) requires adjudicated basins to submit annual reports. Most of the documentation that needs to be reported is already generated by the Watermaster in conjunction with preparing its own Annual Reports. However, some information such as changes in basin storage is not currently generated and will require consultant assistance to do so. This task will be used to obtain this consultant assistance, as needed.
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***I. 2 Comprehensive Basin Production, Water Level and Water Quality
Monitoring Program***

I. 2. a. Database Management

I. 2. a. 1 Conduct Ongoing Data Entry and Database Maintenance/ Enhancement (\$17,004)	The database will be maintained by a Consultant (MPWMD) performing this work for the Watermaster. MPWMD will enter new data into the consolidated database, including water production volumes, water quality and water level data, and such other data as may be appropriate. Another Consultant will periodically post database information to the Watermaster's website, so it will be accessible to the public and other interested parties. No enhancements to the database are anticipated during 2019.
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I. 2. a. 2 Verify Accuracy of Production Well Meters (\$0)	To ensure that water production data is accurate, the well meters of the major producers were verified for accuracy during 2009 and again during 2015. No additional work of this type is anticipated during 2019.
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I. 2. b. Data Collection Program

I. 2. b. 1 Site Representation and Selection (\$0)	The monitoring well network review that was started in 2008 has been completed, and sites have been identified where future monitoring well(s) could be installed, if it is deemed necessary to do so in order to fill in data gaps. No further work of this type is anticipated in 2019.
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I. 2. b. 2 Collect Monthly Manual Water Levels (\$3,726)	Each of the monitoring wells will be visited on a regular basis. Water levels will be determined by either taking manual water levels using an electric sounder, or by dataloggers. The wells where the use of dataloggers is feasible or appropriate have been equipped with dataloggers. All of the other wells will be manually measured. This Task includes the purchase of one datalogger and parts for the datalogger to keep in inventory as a spare if needed.
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I. 2. b. 3 Collect Water Quality Samples. (\$42,083)	<p>Water quality data will be collected quarterly from certain of the monitoring wells, but will no longer be collected from the four coastal Sentinel Wells. Discontinuing water quality sampling in those wells is the result of the finding made in 2018 that the water quality samples being extracted from those wells are not representative of the aquifer. Those wells were designed for the purpose of electric induction logging, and will therefore continue to be induction logged twice a year in WY 2019.</p>
	<p>In 2012 water quality analyses were expanded to include barium and iodide ions, to determine the potential benefit of performing these additional analyses. These two parameters have been useful in analyzing seawater intrusion potential in other vulnerable coastal groundwater basins, and are briefly mentioned in the Watermaster's annual Seawater Intrusion Analysis Reports. These parameters were added to the annual water quality sampling list for the four Watermaster Sentinel wells (SBWM-1, SBWM-2, SBWM-3, and SBWM-4), and also for the 3 most coastal MPWMD monitoring wells (MSC, PCA, and FO-09). Barium and iodide analyses will continue being performed on the 3 most coastal MPWMD monitoring wells in 2019, but will no longer be performed on the Watermaster's coastal Sentinel Wells as discussed above.</p>
	<p>Water quality data may come from water quality samples that are taken from these wells and submitted to a State Certified analytic laboratory for general mineral and physical suite of analyses, or the data may come from induction logging of these wells and/or other data gathering techniques. The Consultant or Contractor selected to perform this work will make this judgment based on consideration of costs and other factors.</p>
	<p>Under this Task in 2013 retrofitting to use the low-flow purge approach for getting water quality samples was completed on all of the wells that are sampled. This sampling equipment sits in the water column and may periodically need to be replaced or repaired. Accordingly, an allowance to perform maintenance on previously installed equipment has been included in this Task. Also, in the event a sampling pump is found to be no longer adequate due to declining groundwater levels, or if a sampling pump needs to be installed on a Sentinel Well, an allowance to purchase a replacement sampling pump has been included in this Task.</p>
	<p>Improvements to the QA/QC program for the water quality sampling work were adopted in mid-2017 and will be included in this work in 2019.</p>
I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. (\$0)	<p>All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2019.</p>
I. 2. b. 5 Monitor Well Construction (\$0)	<p>An additional monitoring well was installed in 2009. No further work of this type is anticipated in 2019.</p>

I. 2. b. 6 Reports (\$3,576)	<p>The groundwater level and water quality monitoring will be conducted on a monthly, quarterly, semi-annual or annual basis, as described in the Consultant's Scope of Work. Reports summarizing data collected and analyzed will be submitted to the Watermaster on a schedule to be established during the year, and will consist of:</p> <ol style="list-style-type: none"> 1. A review of the water quality and water level data at the end of each quarter of the Water Year, including tabularized data summaries of the WQ/WL data twice per year, once for the Q1 and Q2 period and once for the Q3 and Q4 period, so this data can be posted to WATERMASTER's website. No reporting on a quarterly basis is required but the Consultant will promptly notify the Watermaster of any missing data or data collection irregularities that were encountered during the quarterly reporting period. 2. An annual report summarizing the water quality and water level data for the Water Year, and containing tables of this data for the complete Water Year. The report will include a brief cover letter describing any missing data or data collection irregularities that were encountered during the reporting period, and any recommendations for changes to be made to the data collection program.
I.2.b.7 CASGEM Data Submittal (\$2,384)	<p>On the Watermaster's behalf MPWMD will compile and submit data on the Watermaster's "Voluntary Wells" into the State's CASGEM groundwater management database. The term "Voluntary Well" refers to a well that is not currently having its data reported into the CASGEM system, but for which the Watermaster obtains data. This will be done in the format and on the schedule required by the Department of Water Resources under the Sustainable Groundwater Management Act.</p>
<p><i>1.3 Basin Management</i></p>	
I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)	<p>The Watermaster and its consultants use a Groundwater Model for basin management purposes.</p>
I.3.a.1 Update the Existing Model (\$0)	<p>The Model, described in the report titled "Groundwater Flow and Transport Model" dated October 1, 2007, was updated in 2009 in order to develop protective water levels, and to evaluate replenishment scenarios and develop answers to Basin management questions. The Model was again updated in 2014.</p> <p>In 2018 the Model was recalibrated and updated. No further work of this type is anticipated in 2019.</p>
I. 3. a. 2 Develop Protective Water Levels (\$0)	<p>A series of cross-sectional models was created in 2009 in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work is discussed in Hydrometrics' "Seaside Groundwater Basin Protective Water Elevations Technical Memorandum." In 2013 further work was started to refine these protective water levels, but it was found that the previously developed protective water levels were reasonable. Protective water levels will be updated, if appropriate, as part of the work of Task 1.3.c.</p>

<p>I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions (\$20,000)</p>	<p>In 2009 the updated Model was used to evaluate different scenarios to determine such things as the most effective methods of using supplemental water sources to replenish the Basin and/or to assess the impacts of pumping redistribution. This work is described in HydroMetrics' "Seaside Groundwater Basin Groundwater Model Report." In 2010, and again in 2013, HydroMetrics used the updated Model to develop answers to some questions associated with Basin management. Modeling performed in 2014, 2015, and 2016 led to the conclusion that groundwater levels in parts of the Laguna Seca Subarea will continue to fall even if all pumping within that subarea is discontinued, because of the influence of pumping from areas near to, but outside of, the Basin boundary. Additional modeling work may be performed in 2019 to further examine this situation. This Task includes a \$20,000 allowance to perform modeling or other work to develop answers to basin management questions, if so directed by the Watermaster Board.</p>
<p>I. 3. b. Complete Preparation of Basin Management Action Plan (\$0)</p>	<p>The Watermaster's Consultant completed preparation of the Basin Management Action Plan (BMAP) in February 2009. The BMAP serves as the Watermaster's long-term seawater intrusion prevention plan. The Sections that are included in the BMAP are: Executive Summary Section 1 – Background and Purpose Section 2 – State of the Seaside Groundwater Basin Section 3 – Supplemental Water Supplies Section 4 –Groundwater Management Actions Section 5 – Recommended Management Strategies Section 6 – References</p>
<p>I. 3. c. Refine and/or Update the Basin Management Action Plan (\$0)</p>	<p>During 2018 the BMAP was updated based on new data and knowledge that has been gained since it was prepared in 2009.</p> <p>No further work of this type is anticipated in 2019.</p>
<p>I. 3. d. Evaluate Coastal Wells for Cross-Aquifer Contamination Potential (\$0)</p>	<p>If seawater intrusion were to reach any of the coastal wells in any aquifer, and if a well was constructed without proper seals to prevent cross-aquifer communication, or if deterioration of the well had compromised these seals, it would be possible for the intrusion to flow from one aquifer to another. An evaluation of this was completed in 2012 and is described in MPWMD's Memorandum titled "Summary of Seaside Groundwater Basin Cross-Aquifer Contamination Wells Investigation Process and Conclusions" dated August 8, 2012. This Memorandum did not recommend performing any further work on this matter at this time, other than to incorporate into the Watermaster's Database data from wells that were newly identified by the work performed in 2012. That data has now been incorporated into the Database, and no further work by the Watermaster on this matter is anticipated. In late 2017 a request was made to MPWMD to destroy one of its no-longer-used monitoring wells that is perforated in multiple aquifers (Well PCA-East Multiple). MPWMD performed this work in 2018.</p> <p>No further work of this type is anticipated in 2019.</p>

**I. 3. e.
Seaside Basin Geochemical
Model
(\$10,000)**

When new sources of water are introduced into an aquifer, with each source having its own unique water quality, there can be chemical reactions that may have the potential to release minerals which have previously been attached to soil particles, such as arsenic or mercury, into solution and thus into the water itself. This has been experienced in some other locations where changes occurred in the quality of the water being injected into an aquifer. MPWMD's consultants have been using geochemical modeling to predict the effects of injecting Carmel River water into the Seaside Groundwater Basin under the ASR program.

In order to predict whether there will be groundwater quality changes that will result from the introduction of desalinated water and additional ASR water (under the Monterey Peninsula Water Supply Project) and advance-treated wastewater (under the Pure Water Monterey Project) a geochemical model was developed in 2018 and is being used in the areas of the Basin where injection of these new water sources will occur. If the geochemical modeling indicates the potential for problems to occur, then Montgomery and Associates may use the Watermaster's updated groundwater model, and information about injection locations and quantities, injection scheduling, etc. provided by MPWMD for each of these projects, to develop model scenarios to see if the problem(s) can be averted by changing delivery schedules and delivery quantities. This Task includes an allowance of \$10,000 to have Montgomery and Associates perform such modeling, if necessary.

If the modeling predicts that there may be adverse impacts from introducing these new sources of water, measures to mitigate those impacts will be developed under a separate task that will be created for that purpose when and if necessary.

***1. 4 Seawater Intrusion Response Plan (formerly referred to as the
Seawater Intrusion Contingency Plan)***

**I. 4. a.
Oversight of Seawater
Intrusion Detection and
Tracking
(\$0)**

Consultants will provide general oversight over the Seawater Intrusion detection program under the other Tasks in this Work Plan.

**I. 4. b.
Focused Hydrogeologic
Evaluation
(\$0)**

MPWMD attempted to compile historical and current water quality data in the coastal area to provide more in-depth evaluation of conditions in the shallow Dune Sand/Aromas Sand aquifer in the vicinity of the Sand City Public Works well, where unique water quality conditions and variability have recently been observed as discussed at TAC meetings. However, it was found that no historical water quality data from Cal Am's now-abandoned wells existed, and consequently it was not possible to answer the question of why water quality in the Sand City Public Works well differs from water quality in other wells in the Basin. The Sand City desalination plant could be affecting water quality in this area, but without the prior water quality data from now-abandoned wells, this could not be determined. The results of this work were summarized in 2013 in a brief Technical Memorandum prepared by MPWMD with conclusions and recommendations, and no further work on this matter is planned.

**I. 4. c.
Annual Report- Seawater
Intrusion Analysis
(\$22,742)**

At the end of each water year, a Consultant will reanalyze all water quality data. Semi-annual chloride concentration maps will be produced for each aquifer in the basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. The annual EM logs will be analyzed to identify changes in seawater wedge locations. All analyses will be incorporated into an annual report that follows the format of the initial, historical data report. Potential seawater intrusion will be highlighted in the report, and if necessary, recommendations will be included. The annual report will be submitted for review by the TAC and the Board. Modifications to the report will be incorporated based on input from these bodies, as well as Watermaster staff.

<p>I. 4. d Complete Preparation of Seawater Intrusion Response Plan (\$0)</p>	<p>The Watermaster's Consultant (HydroMetrics) completed preparation of the long-term Seawater Intrusion Response Plans (SIRP) in February 2009. The Sections that are included in the SIRP are: Section 1 – Background and Purpose Section 2 – Consistency with Other Documents Section 3 – Seawater Intrusion Indicators and Triggers Section 4 –Seawater Intrusion Contingency Actions Section 5 - References No further work on the SIRP is anticipated in 2019.</p>
<p>I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan (\$0)</p>	<p>At the beginning of 2009 it was thought that it might be beneficial or necessary to perform work to refine the SIRP and/or to update it based on new data or knowledge that was gained subsequent to the preparation of the SIRP. However, this did not prove to be necessary, and no further work of this type is anticipated in 2019.</p>
<p>I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan (\$0)</p>	<p>The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.</p>

ATTACHMENT 2

Monitoring and Management Program Operations Budget							Comparative Costs from 2018 Budget	
For Tasks to be Undertaken in 2019								
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽⁹⁾				Total
				MPWMD	Private Consultants	Contractors		
Labor								
			Technical Project Manager	\$0	\$50,000	\$0	\$50,000	\$50,000
M.1 Program Administration								
	M.1.a		Project Budget and Controls	\$0	\$0	\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0	\$0	\$0	\$0	\$0
	M.1.c & M.1.d		Preparation for and Attendance at Meetings ⁽⁸⁾	\$0	\$11,500	\$0	\$11,500	\$11,500
	M.1.e		Peer Review of Documents and Reports ⁽⁸⁾	\$0	\$7,500	\$0	\$7,500	\$7,500
	M.1.f		QA/QC	\$0	\$0	\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$2,140	\$0	\$2,140	\$1,900
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)								
I.2 Production, Water Level and Quality Monitoring								
	I. 2. a.		Database Management					
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement	\$14,604	\$2,400	\$0	\$17,004	\$17,004
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0	\$0
		I. 2. b.	Data Collection Program					
		I. 2. b. 1.	Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 2.	Collect Monthly Water Levels ⁽⁶⁾	\$3,726	\$0	\$0	\$3,726	\$3,726
		I. 2. b. 3.	Collect Quarterly Water Quality Samples ⁽¹⁾⁽⁵⁾⁽⁶⁾	\$24,542	\$0	\$17,541	\$42,083	\$51,128
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 5.	Monitor Well Construction ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 6.	Reports	\$3,576	\$0	\$0	\$3,576	\$3,576
		I. 2. b. 7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$2,384	\$0	\$0	\$2,384	\$2,384
I.3 Basin Management								
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)				
		I. 3. a. 1	Update the Existing Model ⁽¹¹⁾	\$0	\$0	\$0	\$0	\$54,370
		I. 3. a. 2	Develop Protective Water Levels ⁽¹²⁾	\$0	\$0	\$0	\$0	\$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ⁽¹⁰⁾	\$0	\$20,000	\$0	\$20,000	\$20,000
		I. 3. b.	Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0	\$0
		I. 3. c.	Refine and/or Update the Basin Management Action Plan	\$0	\$0	\$0	\$0	\$45,260
		I. 3. d	Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	\$0	\$0	\$0	\$0	\$0
		I. 3. e	Seaside Basin Geochemical Model ⁽¹³⁾	\$0	\$10,000	\$0	\$10,000	\$50,000
I.4 Seawater Intrusion Contingency Plan								
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking	\$0	\$0	\$0	\$0	\$0
	I. 4. b.		Provide focused area hydrogeologic investigation for Sand City Public Works	\$0	\$0	\$0	\$0	\$0
	I. 4. c.		Annual Report- Seawater Intrusion Analysis	\$1,192	\$21,550	\$0	\$22,742	\$22,082
	I. 4. d.		Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾	\$0	\$0	\$0	\$0	\$0
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾	\$0	\$0	\$0	\$0	\$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2018. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)				
TOTALS CONSULTANTS & CONTRACTORS				\$50,024	\$125,090	\$17,541		
SUBTOTAL not including Technical Program Manager =							\$142,655	\$290,430
Contingency (not including Technical Program Manager) @ 10% ⁽⁴⁾ =							\$14,266	\$29,043
Technical Program Manager =							\$50,000	\$50,000
TOTAL=							\$206,921	\$369,473

Footnotes:

- (1) Under this Subtask the Watermaster will directly contract with an outside contractor to perform the Sentinel Well induction logging work, and to also collect water level data in conjunction with doing the induction logging. MPWMD will perform the other portions of the work of this Subtask.
- (2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.
- (3) Within the context of this document the term "Consultant" refers either to a Private Consultant providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term "Contractor" refers to a firm providing construction or field services such as well drilling, induction logging, or meter calibration.
- (4) Due to the uncertainties of the exact scopes of some of the larger Tasks listed above at the time of preparation of this Budget it is recommended that a Contingency of approximately 10% be included in the Budget.
- (5) Includes \$1,000 to maintain equipment previously installed for this purpose, and \$2,000 to purchase a new sampling pump if an existing one needs to be replaced. Also includes lab costs to analyze for barium and iodide ions in certain of these wells as was done in preceding years
- (6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks. Includes the purchase and installation of one new and/or replacement datalogger at a price of \$700, plus \$50 for installation parts, to keep in inventory as a spare if needed.
- (7) No additional monitoring well is expected to be constructed in 2019.
- (8) For Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager. This work may include participation in conference calls and reviewing documents prepared by others.
- (9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.
- (10) Since the Model and BMAP were updated in 2018, this Task would only be used if there were other issues the Board wished to evaluate and which were not covered in the updated BMAP.
- (11) The Model was updated and recalibrated in 2018, so no costs for this Task are anticipated in 2019.
- (12) The protective water levels developed in 2009 were examined in 2013 to see if they needed to be updated. It was concluded that the 2009 protective levels were still satisfactory for Basin management purposes, and that no revisions were needed. No work under this Task is anticipated in 2019.
- (13) This was a new Task that was started, and was expected to be completed, in 2018. Funds allocated for this Task in 2019 would only be used if the geochemical modeling performed in 2018 indicated the need to have Montgomery and Associates use the Seaside Basin groundwater model to provide additional information needed by the geochemical model to develop mitigation measures for any adverse water quality impacts the geochemical model predicts could occur from introducing non-native water into the Basin.

Monitoring and Management Program Operations Budget							
For Tasks to be Undertaken in 2020 ⁽¹²⁾							
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽³⁾			Total
				MPWMD	Private Consultants	Contractors	
Labor							
			Technical Project Manager	\$0	\$50,000	\$0	\$50,000
M.1 Program Administration							
	M.1.a		Project Budget and Controls	\$0	\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0	\$0	\$0	\$0
	M.1.c & M.1.d		Preparation for and Attendance of at Meetings ⁽⁸⁾	\$0	\$11,845	\$0	\$11,845
	M.1.e		Peer Review of Documents and Reports ⁽⁸⁾	\$0	\$7,725	\$0	\$7,725
	M.1.f		QA/QC	\$0	\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$2,204	\$0	\$2,204
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)							
I.2 Production, Water Level and Quality Monitoring							
	I.2.a.		Database Management				
		I.2.a.1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement	\$15,042	\$2,472	\$0	\$17,514
		I.2.a.2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0
	I.2.b.		Data Collection Program				
		I.2.b.1.	Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	\$0
		I.2.b.2.	Collect Monthly Water Levels ⁽⁶⁾	\$3,838	\$0	\$0	\$3,838
		I.2.b.3.	Collect Quarterly Water Quality Samples ⁽¹⁾⁽⁵⁾⁽⁶⁾	\$25,278	\$0	\$18,067	\$43,345
		I.2.b.4.	Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0
		I.2.b.5.	Monitor Well Construction ⁽⁷⁾	\$0	\$0	\$0	\$0
		I.2.b.6.	Reports	\$3,683	\$0	\$0	\$3,683
		I.2.b.7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$2,456	\$0	\$0	\$2,456
I.3 Basin Management							
	I.3.a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)			
		I.3.a.1	Update the Existing Model	\$0	\$0	\$0	\$0
		I.3.a.2	Develop Protective Water Levels	\$0	\$0	\$0	\$0
		I.3.a.3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions	\$0	\$20,000	\$0	\$20,000
	I.3.b.		Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0
	I.3.c.		Refine and/or Update the Basin Management Action Plan ⁽¹¹⁾	\$0	\$0	\$0	\$0
	I.3.d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential ⁽¹³⁾	\$0	\$0	\$0	\$0
	I.3.e		Seaside Basin Geochemical Model	\$0	\$0	\$0	\$0
I.4 Seawater Intrusion Contingency Plan							
	I.4.a.		Oversight of Seawater Intrusion Detection and Tracking	\$0	\$0	\$0	\$0
	I.4.b.		Analyze and Map Water Quality from Coastal Monitoring Wells	(Costs Included Under I.4.a)			
	I.4.c.		Annual Report- Seawater Intrusion Analysis	\$1,228	\$22,197	\$0	\$23,424
	I.4.d.		Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾	\$0	\$0	\$0	\$0
	I.4.e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾	\$0	\$0	\$0	\$0
	I.4.f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2019. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)			
TOTALS CONSULTANTS & CONTRACTORS				\$51,525	\$116,443	\$18,067	
SUBTOTAL not including Technical Program Manager =							\$136,035
Contingency (not including Technical Program Manager) @ 10% ⁽⁴⁾ =							\$13,603
Technical Program Manager							\$50,000
TOTAL=							\$199,638

Footnotes:						
(1) An outside contractor would be used to perform the induction logging, and potentially to also collect some water level data in conjunction with doing the induction logging. MPWMD is expected to perform portions of the work of this Subtask, and the Watermaster will be the party that subcontracts with the Contractor to perform the induction logging on certain of the wells.						
(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.						
(3) Within the context of this document the term "Consultant" refers either to a Private Consultant providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term "Contractor" refers to a firm providing construction						
(4) Due to the uncertainties of the exact scopes of some of the Tasks listed above at the time of preparation of this Budget, it is recommended that a 10% Contingency be included in the Budget.						
(5) A portion of this cost is for maintaining sampling equipment that was installed in prior years.						
(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.						
(7) No additional monitoring well is expected to be constructed in 2020.						
(8) For Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager.						
(9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.						
(10) Not used.						
(11) If necessary to reflect knowledge gained from modeling work or other data sources. Since the BMAP was updated in 2018, no work on this Task is anticipated in 2020.						
(12) Includes a 3% inflation factor on most annually recurring costs in the 2019 Budget, except the Technical Program Manager cost which has no inflation factor applied to it.						
(13) No further work on this Task is anticipated in 2020.						

Monitoring and Management Program Capital Budget											
For Tasks to be Undertaken in 2019											

No Capital projects are anticipated to be undertaken in 2019, so this budget is \$0.											
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Monitoring and Management Program Capital Budget											
For Tasks to be Undertaken in 2020											

No Capital projects are anticipated to be undertaken in 2020, so this budget is \$0.											
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**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 15, 2018
AGENDA ITEM:	4
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager
<p>SUMMARY: 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. The attached version:</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
1	CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK													
2	2019 Administration, Operations and Replenishment Budgets													
3	Prepare M&MP Draft Budgets (Same as Task 19)													
4	TAC Approves M&MP Budgets (Same as Task 20)													
5	Board Approves M&MP 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
18	Monitoring & Management Program (M&MP) Budgets for 2019 and 2020													
19	Preliminary Discussion of Potential Scope of Work for 2019 M&MP								Completed					
20	Prepare Draft 2019 M&MP and 2019 and 2020 M&MP O&M and Capital Budgets								Completed					
21	TAC approves Draft 2019 M&MP and 2019 and 2020 M&MP O&M and Capital Budgets													
22	Board approves 2019 M&MP and 2019 M&MP O&M and Capital Budgets									8/15				
23	2018 Annual Report (Note: Schedule Does Not Reflect Court Approval of January Submittal Date for Annual Report)											10/3		
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)													
27	Board Provides Input on Draft 2018 Annual Report (At December Board Meeting)													
28	Prepare Final 2018 Annual Report (Incorporating Board Input)													
29	Watermaster Submits Final 2018 Annual Report to Judge													
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													
35	M.1.g – Sustainable Groundwater Management Act Reporting Requirements													
36	HydroMetrics Prepares Draft Groundwater Storage Analysis													
37	Submit SGMA Documentation to DWR													
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	
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 Feeney to discontinue collecting water quality samples from the Sentinel Wells (if the Court agrees)				Completed										
45	I.2.b.6 Reports (from MPWMD)								Completed						
46	MPWMD provides tabularized data summaries of the WQ/WL data for Q1 and Q2 for posting to Watermaster's website								Completed						
47	MPWMD provides tabularized data summaries of the WQ/WL data for Q3 and Q4 for posting to Watermaster's website												11/14		
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		
49	I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL														
50	Develop HydroMetrics RFS to update and recalibrate the Model	Completed													
51	TAC approves RFS to update and recalibrate the Model		Completed												
52	Board approves RFS to update and recalibrate the Model			Completed											
53	HydroMetrics updates and recalibrates the Model				Completed										
54	TAC receives Model update Technical Memorandum from HydroMetrics								Completed						
55	Board receives report on Model update from HydroMetrics									Completed					
56	Develop draft cost-sharing agreement for Model update	Completed													
57	TAC approves draft cost-sharing agreement for Model update		Completed												
58	Budget and Finance Committee approves draft cost-sharing agreement for Model update			Completed											
59	Board approves cost-sharing agreement for Model update				Completed										
60	Develop Pueblo Water Resources proposal to perform geochemical modeling in the Seaside Basin	Completed													
61	Develop draft cost-sharing agreement for geochemical modeling	Completed													
62	TAC approves draft cost-sharing agreement for geochemical modeling		Completed												
63	Budget and Finance Committee approves draft cost-sharing agreement for geochemical modeling			Completed											
64	Board approves cost-sharing agreement for geochemical modeling				Completed										
65	MPWMD develops contract with Pueblo Water Resources to perform geochemical modeling														

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
66	MPWMD issues contract to Pueblo Water Resources to perform geochemical modeling				Completed									
67	Pueblo Water Resources performs geochemical modeling													
68	TAC receives progress report regarding geochemical modeling work								Completed					
69	TAC receives report from Pueblo Water Resources containing the findings of the geochemical modeling													11/21
70	Board receives report from Pueblo Water Resources containing the findings of the geochemical modeling													12/5
71	I.3.c Refine and/or Update the BMAP													
72	Develop RFS to update the BMAP							Completed						
73	TAC approves RFS to update the BMAP								Completed					
74	Board approves RFS to update the BMAP									Completed				
75	Montgomery and Associates updates the BMAP													
76	TAC receives updated BMAP from Montgomery and Associates													
77	Board receives report on BMAP update from Montgomery and Associates												11/21	
78	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)													12/5
79	Montgomery and Associates Provides Draft SIAR to Watermaster													
80	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)												11/14	
81	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)												11/21	
82	I.4.d Complete Preparation of Seawater Intrusion Response Plan (SIRP)													12/5
83	I.4.e Refine and/or Update the SIRP													

ONLY IF FOUND TO BE NECESSARY

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 15, 2018
AGENDA ITEM:	5
AGENDA TITLE:	Other Business
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: 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.	
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only