

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

DATE: Wednesday, July 13, 2016

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 (712) 432-1212. 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: Roger Hulbert, California American Water Company
Vice-Chairperson: Joe Oliver, 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 County Water Resources	
Agency	Monterey Peninsula Water Management District	

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7. Set Next Meeting Date	

The next regular meeting will be held on Wednesday August 10, 2016 at 1:30 p.m. at the MRWPCA Board Room.

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

MEETING DATE:	July 13, 2016
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the June 8, 2016 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

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D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
June 8, 2016**

Attendees: TAC Members

City of Seaside – Scott Ottmar (via telephone)
California American Water – Roger Hulbert
City of Monterey – Laurie Williamson (via telephone)
Laguna Seca Property Owners – Bob Costa
MPWMD – Joe Oliver
MCWRA – German Criollo
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

None

The meeting was convened at 1:37 p.m. after a quorum had been established.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the March 9, 2016 Meeting

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

B. Progress Update on Salinas River Groundwater Basin Investigation Model TAC

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

C. Sustainable Groundwater Management Act (SGMA) Update

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

D. Proposed Method of Having the Watermaster's Volunteer Monitoring Well Data Submitted to the State's CASGEM Database

Mr. Oliver reported that MPWMD has started working with the CASGEM system to incorporate the Watermaster's Volunteer Monitoring Wells into their regular CASGEM reports. However, they have encountered some unanticipated complexity with the CASGEM data management system. In spite of this Mr. Oliver was optimistic that they would be able to perform the work and stay within the amount authorized by their RFS No. 2016-01. This would be accomplished by using monies for Item I.4.c of that RFS which will likely not need to be spent on working with HydroMetrics to prepare the 2016 SIAR. He noted that MPWMD currently performs semi-annual CASGEM reporting, whereas for Adjudicated Basin's DWR is requiring quarterly reporting. Mr. Criollo said he concurred with having MPWMD perform the Watermaster's CASGEM data reporting since it would be time-consuming to have the Watermaster do the reporting itself. On a motion by Ms. Williamson, seconded by Mr. Costa, the TAC unanimously approved having MPWMD perform the work by using unspent monies from their RFS No. 2016-01.

3. Request from HydroMetrics LLC for Additional Compensation for RFS No. 2015-04

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

Mr. Oliver asked Ms. King if one option, in the event the TAC felt that additional compensation should be paid for the cost overrun, would be to transfer unspent monies from other HydroMetrics RFSs. Ms. King responded that under the "General Consulting" RFS (RFS No. 2016-10) there may be monies remaining. After checking her records she found that there was approximately \$10,900 remaining unspent under that RFS. She also noted that the SIAR RFS (RFS No. 2016-02) often has unspent monies left in it after the SIAR has been completed. Mr. Oliver asked the TAC if there was any feeling that the complexity and/or pace of getting the modeling work done caused more work to be done than HydroMetrics had anticipated.

Mr. Hulbert commented that when a consultant identifies a potential cost overrun the client should be promptly notified, rather than after the overrun has occurred.

Mr. Ottmar asked if the additional work outlined in Ms. King's March 16, 2016 letter had been performed and if it was beyond the scope of the RFS for this work. Mr. Jaques responded that the Watermaster cannot tell precisely what work the consultant envisioned performing when they prepared their scope and cost proposal, i.e. the scope is generally reasonably broad rather than detailed enough to determine if the work was beyond the scope they envisioned. However, the work described in Ms. King's letter does fall within the description of the work to be performed as set forth in the RFS.

At this point in the discussion Ms. King excused herself and concluded her participation in the meeting.

Mr. Costa noted that over the past number of years HydroMetrics has done a considerable amount of work for the Watermaster and has received considerable compensation for that work. He felt that HydroMetrics should be responsible for absorbing the amount of this cost overrun.

After further brief discussion there was consensus to continue discussion of this matter to the next TAC meeting. In the meantime Mr. Jaques will obtain accounting information on each of HydroMetrics' RFSs for 2016 to determine if there are monies left unspent in any of them, and will provide that information to the TAC when discussion of this matter is continued. He will also contact HydroMetrics to discuss the matter with them and report back to the TAC on the outcome of that discussion.

4. Schedule

With regard to ID Nos. 50 and 51 in the Schedule, Mr. Jaques briefly discussed the upcoming Status Conference with the newly appointed Judge who is overseeing the Adjudication Decision. There was no other discussion of the item.

5. Other Business

Mr. Oliver proposed that MPWMD's Water Quality/Water Level (WQ/WL) Report be streamlined to reduce costs and to avoid redundancy with the SIAR, which covers some of the same material that MPWMD's Report does. He explained that when the Adjudication Decision was issued in 2006 this type of data was not being documented, so it was beneficial to have MPWMD prepare their in-depth WQ/WL Reports. However, now that the SIAR is being prepared annually there is no longer a need for the depth of data analysis that is included in the WQ/WL Reports. He recommended that future WQ/WL Reports contain a compilation of the data, and that only anomalies or unusual findings would be reported in the Reports. The Reports would take the form of simple "letter reports" rather than the more comprehensive reports that have been prepared in the past. The Reports could also be posted to the Watermaster's website so the data would be available to interested parties. He pointed out that the SIAR provides the necessary data analysis to alert the Watermaster of any concerns regarding incipient seawater intrusion. Mr. Oliver said he felt that streamlining the Reports could save the Watermaster approximately \$3,000/year.

Mr. Jaques said he concurred with Mr. Oliver's proposal and will put this topic on the next TAC agenda for discussion and potential TAC approval of a change in scope and cost for this work.

6. Set Next Meeting Date

The next regular meeting will be held on Wednesday July 13, 2016 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 2:43 p.m.

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

MEETING DATE:	July 13, 2016
AGENDA ITEM:	2.B
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager

As reported at prior TAC meetings, MPWMD has submitted a Bulletin 118 boundary modification request pertaining to the Seaside Groundwater Basin, following the procedures set forth by DWR for doing this. DWR recently reported on its website that the request has been approved by DWR. Along with the other approved basin modification requests statewide, it will now be going through a series of public meetings in mid-July to present the Draft Approved Basin Boundary Modifications, provide an overview of the BBRS and technical review process, answer clarifying questions and receive public comments based on new information regarding the Draft Approved Basin Boundary Modification submissions.

The meeting schedule begins with DWR's July 12, 2016 meeting. After the July public meetings, the public comments will be summarized and presented to the California Water Commission, which will hear the modifications and provide the public an opportunity to comment. Following consideration and potential incorporation of comments heard, DWR will publish the final basin boundary modifications. In accordance with SGMA, these new basin definitions will be evaluated under the basin prioritization process and documented in the interim update of Bulletin 118, expected later this year.

The link to view the complete DWR posting on this is:

<http://sgma.water.ca.gov/basinmod/basinrequest/preview/24>.

That link has hotlinks within it to the various attachments MPWMD submitted with the request.

Attached is the summary description of the request as posted on the DWR website. It is consistent with the information previously provided to the TAC on the boundary modification request:

ATTACHMENTS:	Excerpt from DWR website posting of the staff approval of the Seaside Groundwater Basin boundary modification request submitted by MPWMD
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***SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ****

**RECOMMENDED
ACTION:**

None required – information only



Department of Water Resources
Basin Boundary Modification Request System

Monterey Peninsula Water Management District - 3-04,10 SALINAS VALLEY - CORRAL DE TIERRA AREA, 3-04,08 SALINAS VALLEY - SEASIDE AREA

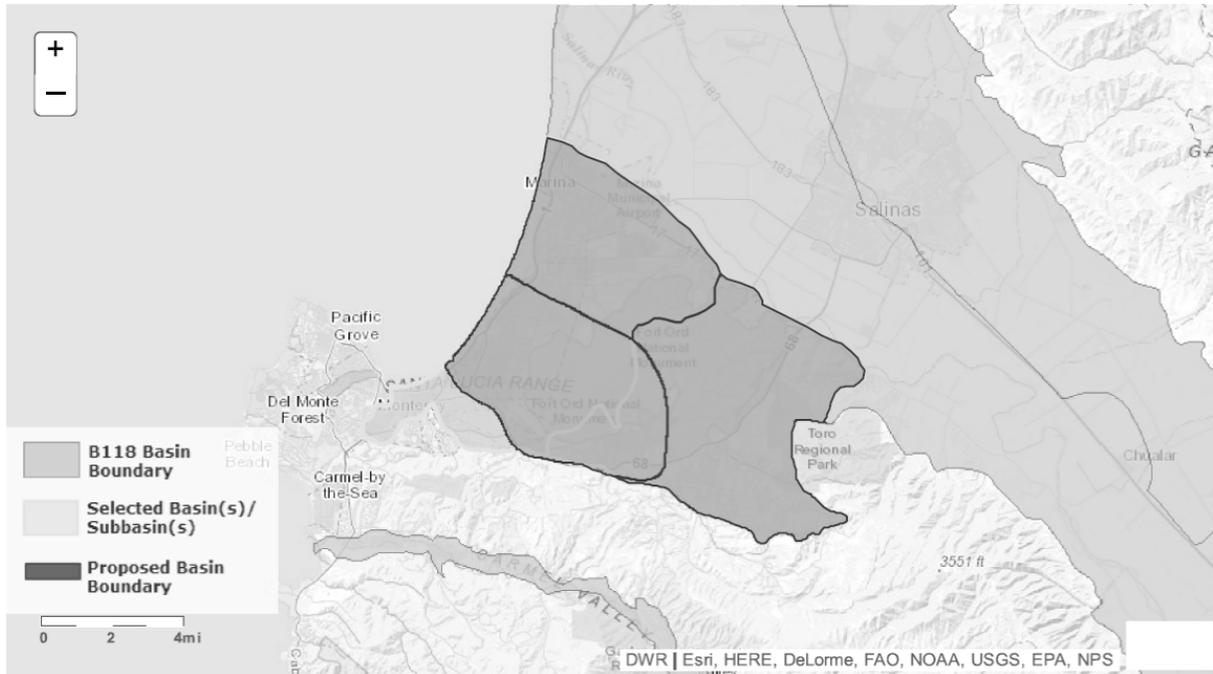
A. Applicant Information

Requesting Agency Information

Agency Name:	Monterey Peninsula Water Management District		
Address:	P.O. Box 85		
City:	Monterey	Zip:	93942-0085
Work Phone:	(831) 658-5600	Cell Phone:	
Email:	joe@mpwmd.net	Fax:	(831) 644-9560

Revision Request Manager Information

Person Name:	Joseph Oliver		
Address:	P.O. Box 85		
City:	Monterey	Zip:	93942-0085
Work Phone:	(831) 658-5640	Cell Phone:	
Email:	joe@mpwmd.net	Fax:	(831) 644-9560



B. Description of Proposed Boundary Modification

1. Short Description

Basin boundary modification request to formally recognize the adjudicated Seaside Groundwater Basin

2. Type of basin boundary revision

Scientific External

3. Provide a narrative overview of the boundary modification request and how the resulting modification would affect likelihood of sustainable management.

The proposed boundary modification is to recognize the adjudicated Seaside Groundwater Basin as a distinct basin boundary, per the Adjudication Decision ("Decision") filed with the Monterey County Superior Court on March 27, 2006 (Case No. M66343, as amended on February 7, 2007). The adjudicated Seaside Groundwater Basin boundary as defined in the Decision more accurately reflects the understanding of hydrogeologic conditions in the basin than that depicted in the existing Bulletin 118 and the Decision sets forth the Physical Solution needed for the basin's sustainable groundwater management.

Attachment(s):

4. List the existing basin(s)/subbasin(s) to be modified by this request

3-04.10 SALINAS VALLEY - CORRAL DE TIERRA AREA
3-04.08 SALINAS VALLEY - SEASIDE AREA

5. Provide the proposed name for the new basin(s) or subbasin(s)

It is proposed that a new Bulletin 118 basin ID number of 3.4-07 be used to name the "Adjudicated Seaside Groundwater Basin" as a distinct basin boundary.

C. Initial Notification and Combination of Requests

1. Was an initial notification submitted to the Department?

Yes

List of submitted initial notification for the selected basin(s)/subbasin(s).

Local Agency	Potential Basin(s)/Subbasin(s)
Monterey Peninsula Water Management District	3-04.10 SALINAS VALLEY - CORRAL DE TIERRA AREA , 3-04.08 SALINAS VALLEY - SEASIDE AREA

2. Does this application include a combination of requests?

No

D. Required Documents for All Modifications

1. A copy of the statutory or other legal authority under which the requesting agency was created with specific citations to the provisions setting forth the duties and responsibilities of the agency.

Attachment(s):
MPWMD-Law.pdf (3.1MB) Uploaded on 03/07/2016 at 03:33PM

2. A copy of the signed resolution adopted by the requesting agency formally initiating the boundary modification request process.

Attachment(s):
MPWMD-Res2016-01.pdf (417.1kB) Uploaded on 03/07/2016 at 03:39PM

3. A map of adequate scale (no greater than 1:24,000; e.g., 1:10,000 is not acceptable) showing the proposed modified basin boundary in relation to the existing Bulletin-118 basin boundary and the local agencies that are within or bordering the existing and proposed basin.

Attachment(s):
Figure 1 Map Appli.pdf (1.2MB) Uploaded on 03/31/2016 at 03:06PM
Figure 2 Map Appli.pdf (1.8MB) Uploaded on 03/31/2016 at 03:06PM

4. A GIS shapefile of the proposed modified groundwater basin boundaries. Download Existing B118 basin shape file | DWR Spatial Data Standards

Attachment(s):
ModifiedBasins.zip (22.7kB) Uploaded on 03/31/2016 at 03:07PM

5. A GIS shapefile of the political boundaries of any affected or adjacent local agency. Download water agency shape file

Attachment(s):
AffectedAgencies.zip (89.6kB) Uploaded on 03/31/2016 at 03:07PM

6. Any information, if necessary, to enable DWR to satisfy the requirements of a responsible agency pursuant to the California Environmental Quality Act.

See attached NOE form.

Attachment(s):
SGB-boundary-mod-CEQA-NOE-020216.pdf (81.5kB) Uploaded on 03/08/2016 at 02:01PM

E. General Information

1. Describe the lateral boundaries of the alluvial aquifer or aquifers that form the groundwater basin and the definable bottom of the basin. The description must be in terms that are clear, definite, and sufficiently detailed to allow an authoritative map of the proposed basin boundaries to be plotted using the given description.

See attached description document. Also see attached report: Muir, 1982, Ground Water in the Seaside Area, Monterey County California, USGS WRI 82-10.

Attachment(s):
sgb-mod-request-Section_E-gen-info.pdf (94kB) Uploaded on 03/31/2016 at 03:43PM
USGS_WRI_82-10_1982.pdf (3.2MB) Uploaded on 04/13/2016 at 10:21AM

F. Notice and Consultation

1. List all local agencies and public water systems affected by the basin(s) modification request.

See attached list.

Attachment(s):
sgb-mod-request-Section_F1-local-agencies(rev).pdf (170kB) Uploaded on 04/13/2016 at 01:34PM

2. Explain the methods used to identify interested local agencies and public water systems in the affected basin(s):

See attached methods explanation.

Attachment(s):
sgb-mod-request-Section_F2-methods-used.pdf (174kB) Uploaded on 03/09/2016 at 04:09PM

3. Provide information regarding the nature of consultations with affected or interested agencies. Attach and cite any copies of correspondences with local agencies and public water systems and/or any other persons or entities consulted.

See attached documents.

Attachment(s):
WM-TAC-Item2D-11182015.pdf (613.2kB) Uploaded on 03/09/2016 at 04:36PM
MPWMD-Resolution_2016-01-012716.pdf (3.7MB) Uploaded on 03/09/2016 at 04:18PM

4. Provide a summary of all public meetings at which the proposed boundary modification was discussed or considered by the requesting agency. Attach and cite any copies of agendas and notices published.

See Item 16 at following url: <http://www.mpwmd.net/asd/board/boardpacket/2016/20160127/Jan-27-Meeting-Agenda.htm> See posting at following url: <http://www.mpwmd.net/SGMA/SeasideBasinModifcatn/SeasideBasinModificationPage.htm>

5. Attach a copy of all comments regarding the proposed boundary modification received by the requesting agency and a summary of any responses made by the requesting agency.

No comments have been received from date of posting of Initial Notification resolution on 1/22/2016 through present (3/31/2016).

H. Local Support

All requests for boundary modification must include the following:

1. Provide any evidence that sufficient information was provided to affected agencies and systems regarding the proposed boundary modification.

See responses to Items F.2., F.3., F.4.

2. Provide a list of all affected agencies and affected systems that submitted comments and/or documents in support or opposition to the proposed boundary. The agency submitting their support or opposition for a boundary modification must provide a copy of a resolution formally adopted by the decision-making body of the affected agency or system or a letter signed by an executive officer or other official with appropriate delegated authority who represents the agency or system. Attach copies of the resolution and/or signed letter detailing the support or opposition submitted.

No affected agency comments and/or documents received from date of posting of Initial Notification resolution on 1/22/2016 through the present (3/31/2016).

3. Provide any evidence that rebuts any opposition to the proposed boundary modification.

Not applicable; no opposition comments received.

I. Hydrogeologic Conceptual Model

Requests for boundary modification, must include a document or text to a clearly defined hydrogeologic conceptual model demonstrating each of the following:

1. Principal aquifer units within requested basin.
2. Lateral boundaries of the proposed basin, including:
 - A. Geologic features that significantly impede or impact groundwater flow.
 - B. Aquifer characteristics that significantly impede or impact groundwater flow.
 - C. Significant geologic and hydrologic features and conditions of the principle aquifer units, as appropriate, including information regarding the confined or unconfined nature of the aquifer, facies changes, truncation of units, the presence of faults or folds that impede groundwater flow, or other groundwater flow restricting features.
 - D. Key surface water bodies, groundwater divides and significant recharge sources.
3. Recharge and discharge areas within the basin.
4. Definable bottom of the basin or subbasin.

The department may waive this requirement for an internal boundary modification if the requesting agency is able to demonstrate that the proposed boundary modification is unlikely to affect sustainable groundwater management.

See document attachment to Item H.1, regarding information relating to basin hydrogeologic conceptual model. It should be noted that the proposed boundary modification request to recognize the adjudicated Seaside Basin boundary is not likely to affect sustainable groundwater management as the area is under a court-ordered ramp-down in production in order to meet the basin's long-term "Natural Safe Yield", per the Physical Solution described in the Adjudication Decision.

J. Technical Studies for External Scientific Modifications

Requests for a scientific modification must include a document containing information that demonstrates the extent of the aquifer. Provide the following:

1. A qualified map that depicts the lateral boundaries of the aquifers that define the basin or subbasin.

See Figure 3 of the document attached under Item J.2. below.

2. A technical study that provides subsurface data that demonstrates the vertical thickness and relevant physical properties of the alluvial aquifer or stacked series of alluvial aquifers.

See attached document (Muir, 1982, Ground Water in the Seaside Area, Monterey County, California, US Geological Survey Water Resources Investigations 82-10).

Attachment(s):

USGS_WRI_82-10_1982.pdf (3.2MB) Uploaded on 04/13/2016 at 01:45PM

Created on 03/07/2016 at 3:05PM, last modified on 04/15/2016 at 9:17AM and page generated on 07/03/2016 at 6:38PM

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

MEETING DATE:	July 13, 2016
AGENDA ITEM:	3
AGENDA TITLE:	Amendment to MPWMD RFS No. 2016-01
PREPARED BY:	Robert Jaques, Technical Program Manager

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

SUMMARY:

In earlier TAC meetings this year two issues were discussed with regard to making changes in the Scope of Work and cost for MPWMD’s RFS No. 2016-01. The changes were the result of new conditions which arose after the original Scopes of Work were prepared in the fall of 2015.

Specifically:

1. Under the Sustainable Groundwater Management Act (SGMA) Adjudicated Basins have the requirement to submit their “Voluntary Well” monitoring data to the State for inclusion in their groundwater management database known as “CASGEM.” 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. It was found that MPWMD already submits data to CASGEM on other wells in the Seaside Basin, and could more efficiently submit the Watermaster’s Voluntary Well data, than having Watermaster staff develop the necessary knowledge and inputting skills to do this. The TAC concurred with having MPWMD do this work, and with having it funded from already-approved monies in MPWMD’s RFS No. 2016-01. Item I.4.c in that RFS is for MPWMD to provide data for and review of HydroMetrics Seawater Intrusion Analysis Report. In recent years Item I.4.c has had remaining funds in it at year’s end. Therefore, it is proposed to shift the funds allocated to Item I.4.c to cover this new SGMA work, and that the total amount authorized under this RFS would remain the same.

2. As originally authorized when MPWMD RFS 2016-01 was issued, Item I.2.b.6 is for MPWMD to prepare reports summarizing water quality and water level (WQ/WL) data collected for the Watermaster each year. These reports were to consist of a combined First and Second Quarter (Q1 and Q2) report covering the first half of the Water Year, and an annual report covering the Third and Fourth Quarter (Q3 and Q4) period as well as consolidated data collected for the complete Water Year. Review and evaluation of this data is now being incorporated into the annual Seawater Intrusion Analysis Reports prepared by HydroMetrics. To minimize duplication of effort it was proposed that MPWMD would instead only provide 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. These data summaries would be accompanied by a brief report describing any missing data or data collection irregularities that are encountered during the reporting period. The TAC concurred with making this change. Doing so will result in a cost savings.

The attached Amendment No. 1 to RFS No. 2016-01 will formalize these scope and cost changes to that RFS. If the TAC approves this Amendment No. 1, it will be submitted to the Board for its approval, and the Amendment will then be issued to HydroMetrics.

ATTACHMENTS:	Amendment No. 1 to MPWMD RFS No. 2016-01
RECOMMENDED ACTION:	Approve Amendment No. 1

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: August 4, 2016

RFS NO. 2016-01 Amendment No. 1.

(To be filled in by WATERMASTER)

TO: Joe Oliver
Monterey Peninsula Water Management District
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose:

- (1) Revise the description of the Work to be Performed for Item I.2.b.6, and the Estimated Costs of that Item.
 - (2) Add a new Item I.2.b.7.
 - (3) Reallocate the costs originally allocated to Item I.4.c to Item I.2.b.7.
 - (4) Revise the Total Price of RFS No. 2016-01.
- (See Attachment 1 to this Amendment No. 1 for details of these revisions).

Completion Date: The Completion Date for RFS No. 2016-01 is not changed as a result of this Amendment No. 1 thereto.

Method of Compensation: Time and Expense Payment Method_(As defined in Section V of Agreement.)

Total Price The revised Total Price for RFS No. 2016-01, as authorized by this Amendment No. 1 thereto, is \$79,238.

Total Price may not be exceeded without prior written authorization by WATERMASTER in accordance with Section V. COMPENSATION.

Authorized by: _____ Date: _____
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____
PROFESSIONAL

ATTACHMENT 1

Amendment No. 1 to RFS No. 2016-01

Background

1. Under the Sustainable Groundwater Management Act (SGMA) Adjudicated Basins have the requirement to submit their “Voluntary Well” monitoring data to the State for inclusion in their groundwater management database known as “CASGEM.” 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. MPWMD already submits data to CASGEM on other wells in the Seaside Basin, and could more efficiently submit the Watermaster’s Voluntary Well data, than having Watermaster staff develop the necessary knowledge and inputting skills to do this. Item I.4.c in RFS No. 2016-01 is for MPWMD to provide data for, and review of, HydroMetrics Seawater Intrusion Analysis Report. In recent years Item I.4.c has had remaining funds in it at year’s end. This Amendment No. 1 shifts the funds allocated to Item I.4.c to cover the cost of this new SGMA work, but does leave Item I.4.c in the scope of work with no funds allocated to it. The total amount authorized under this RFS is not changed by making this shift in funds.

2. As originally authorized when MPWMD RFS 2016-01 was issued, Item I.2.b.6 of that RFS included a total of 42 hours labor (@\$112/hr) for a budgeted amount of \$4,704 to prepare reports summarizing water quality and water level (WQ/WL) data collected for the Watermaster each year. These memorandum reports were to consist of a combined First and Second Quarter (Q1 and Q2) report covering the first two quarters of the Water Year, and an annual report covering the Third and Fourth Quarter (Q3 and Q4) period as well as consolidated data collected for the complete Water Year. Comprehensive review and evaluation of this data is now being incorporated into the annual Seawater Intrusion Analysis Reports prepared by HydroMetrics. To minimize duplication of effort and expense associated with analysis and interpretation of the collected data by MPWMD, through this Amendment No. 1 MPWMD will instead only provide 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. These semi-annual data summaries will include similar tabularized WQ/WL data as are contained in the appendices of the previous reports. These data summaries will be accompanied by a brief cover letter report describing any missing data or data collection irregularities that are encountered during the reporting period. These data summaries will be in a format suitable for posting to the Watermaster’s website for the public’s access, similar to the previous reports. By making this change from formal memorandum reports to data summaries, the estimated preparation time will be reduced to a total of 16 hours labor for a revised budgeted amount of \$1,792 for this Item. This results in a budget reduction of \$2,912 for this Item.

Amendment

By this Amendment No. 1 to RFS No. 2016-01:

1. The description of the Work to be Performed for Item I.4.c is unchanged, but the cost allocated to that Item is reduced to zero. A new work item (Item I.2.b.7) is added to the RFS and the \$2,928 originally allocated to Item I.4.c is allocated to Item I.2.b.7. The description of the Work to be performed for Item I.2.b.7 is shown in the table below.
 2. The description of the Work to be Performed for Item I.2.b.6 is revised as shown in the
-

table below. The estimated costs for preparing the first two reports described in that Item are hereby revised as follows:

Original Estimated Cost for the first two reports (Q1/Q2 and Q3/Q4 reports) = \$4,704.

Revised Estimated Cost for the first two reports (Q1/Q2 and Q3/Q4 reports) = \$1,792.

3. The estimated cost of this RFS is hereby revised as follows:

Original Estimated Cost for RFS No. 2016-01 = \$82,150.

Revised Estimated Cost for RFS No. 2016-01 = \$79,238.

There is no change to the Schedule contained in Attachment 2 to RFS No. 2016-01 other than to add Item I.2.b.7 which is to be performed over the course of 2016 and completed by December 31, 2016.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 6	Reports	<p>PROFESSIONAL will prepare and submit reports to WATERMASTER according to the following schedule. The first two of these reports will be accompanied by a brief cover letter describing any missing data or data collection irregularities that are encountered during the reporting period.</p> <ol style="list-style-type: none"> 1. One combined report summarizing the water quality and water level data from the 1st & 2nd Quarters of the Water Year. 2. One annual report summarizing the water quality and water level data from the 3rd & 4th Quarters of the Water Year, and containing tables consolidating the data for the complete Water Year. 3. One report containing a compilation of the available water level records for monitor wells that are part of the Seaside Basin Monitoring & Management Plan (M&MP) in a format to allow assessment of the long-term trends in water levels in each of the wells. This report will contain a table showing pertinent well construction data, existing average annual water level changes, and projected future water level changes. This will be accompanied by a brief description and recommendations regarding those monitor wells for which future monitoring complications may arise due to falling water levels.
I.2.b.7	CASGEM Data Submittal	<p>PROFESSIONAL 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. Monies previously allocated to Item I.4.c are reallocated to Item I.2.b.7 to cover the costs of this work.</p>

***SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
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MEETING DATE:	July 13, 2016
AGENDA ITEM:	4
AGENDA TITLE:	Continued Discussion of Request from HydroMetrics LLC for Additional Compensation for RFS No. 2015-04
PREPARED BY:	Robert Jaques, Technical Program Manager

**SEASIDE BASIN WATER MASTER
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SUMMARY:

At its June 8, 2016 meeting the TAC determined to continue discussion of this item to today's meeting. Background information from the June 8 TAC agenda packet is attached, consisting of an excerpt from the Staff Report and HydroMetrics' letter seeking an increase in compensation for their work on RFS No. 2015-04 which is for work on the Laguna Seca Flow Divide Modeling.

I said I would obtain accounting information on each of HydroMetrics' RFSs for 2016 to determine if there are monies left unspent in any of them, and would provide that information to the TAC when discussion of this matter is continued. I also said I would contact HydroMetrics to discuss the matter with them and report back to the TAC on the outcome of that discussion.

Ms. Dadiw provided the following cost data which summarizes the status of expenditures for each of HydroMetrics' 2016 RFSs:

- RFS No. 2016-01 for \$11,400 for general hydrogeologic consulting services during 2016. Current balance of \$9,921.25 remaining.
- RFS No. 2016-02 for \$20,390 for the 2016 SIAR. Current balance of \$19,950 remaining.
- RFS No. 2015-03 for \$6,000 for assistance as requested in working with MCWRA on the Salinas Basin Model Update. (This RFS started in 2015 but work on it continued into 2016). Current balance of \$5,092.50 remaining.
- RFS No. 2015-04 for LSSA flow divide modeling/analysis, consisting of an initial \$5,500 and an Amendment No. 1 for \$7,500 for an amended RFS total of \$13,000. (This RFS started in 2015 but work on it continued into 2016). Current balance remaining of \$2.50. This is the RFS for which HydroMetrics is requesting additional compensation.

There is expected to be some undetermined amount of further on-going invoicing against RFS No. 2016-01 in the remainder of 2016. However, it would probably be feasible to use some portion of the remaining balance to address HydroMetrics' request if the TAC wished to do so.

The amount authorized for the SIAR (RFS No. 2016-02) needs to remain untouched as that work is essentially not done until the fall.

It is not possible at this time to determine what further assistance the Watermaster may need from HydroMetrics on the Salinas Basin Model Update (RFS No. 2015-03). However, I assume that as the USGS begins to really get into completing the work that B&C started, there will be a need for HydroMetrics to review at least some portion of USGS's work and perhaps to interface directly with them on the Watermaster's behalf to ensure there is good, clean coordination between the model of the Seaside Basin that HydroMetrics has created for the Watermaster, and the model MCWRA/USGS

AGENDA ITEM:

4 (Continued)

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comes up with for the adjacent subbasins of the Salinas Valley Basin. Therefore, I'd like to leave those remaining funds untouched.

This appears to only leave RFS No. 2016-01 as having thus-far unused funds, since RFS No. 2015-04 has been essentially billed-out.

I contacted HydroMetrics to discuss this matter. I asked Ms. King what HydroMetrics' costs were for her to prepare for and attend the extra meeting in January 2016, and she replied that the cost was \$1,110 (6 hours at \$185 per hour). Although from my perspective the additional meeting was necessitated largely by the lack of clear presentation of findings and conclusions in the initial draft of the flow divide modeling report, it is not a meeting that was listed in the scope of work of the RFS, as amended. Thus, it could constitute an out-of-scope item. I believe all of the other items described in Ms. King's letter fall within the scope of work as described in the RFS and its Amendment No. 1. I asked if HydroMetrics would accept payment of this amount as resolution of this matter. Their response was no, and that they would like to continue with their request for \$4,260.

Based on this it is my recommendation that HydroMetrics' request for additional compensation be denied, other than for the \$1,110 amount discussed above. If the TAC feels a different resolution of this matter should be taken, I request that direction from the TAC.

ATTACHMENTS:	<ol style="list-style-type: none"> 1. Excerpt from June 8, 2016 TAC Agenda Staff Report 2. Letter from HydroMetrics LLC dated March 16, 2016 requesting additional compensation for RFS No. 2015-04
RECOMMENDED ACTION:	Deny HydroMetrics' request for additional compensation beyond the \$1,110 amount, or provide other direction to the Technical Program Manager with regard to HydroMetrics' request

EXCERPT FROM STAFF REPORT IN JUNE 8, 2016 TAC AGENDA PACKET

I reviewed the information they submitted in support of their request for additional payment for this work. I also reviewed the language of the Professional Services Agreement (PSA) and RFS No. 2015-04 under which the work was authorized on a Time and Materials basis. There are two sections in the PSA that speak to this issue:

(1) Section V.B which reads:

Projected Cost Overruns Under Cost-Plus-a-Fixed-Fee or Time-and-Expense Payment Methods - If, at any time in the performance of the work of a specific RFS under the Cost-Plus-a-Fixed-Fee or Time-and-Expense payment methods, PROFESSIONAL has reason to believe that the costs which it expects to incur to complete the work of that RFS will exceed the total amount authorized for that RFS, PROFESSIONAL shall notify WATERMASTER in writing to that effect. The notice shall:

- (1) State the reason(s) why PROFESSIONAL anticipates a cost overrun;
- (2) State the estimated amount of additional funds beyond the total amount currently authorized that will be required to complete the work authorized by the RFS; and
- (3) Provide recommendations of how the overrun can be avoided;

If, after such notification, additional funds are not allotted, WATERMASTER will, if required in writing by PROFESSIONAL, terminate the work of that particular RFS pursuant to the provisions in Section VI, TERMINATION.

And

(2) Section V.E the last sentence of which reads: A Total Price, which may not be exceeded without WATERMASTER's prior written approval (emphasis added), will be established for each specific RFS for which this payment method will be used. This same language is contained in Amendment No. 1 to RFS No. 2015-04.

Since the contract language prohibits exceeding the Total Price without obtaining prior written approval to do so, I notified HydroMetrics that I did not feel I could approve their request. The main reason for having this language in the PSA (and in the RFS) is so that the Watermaster will be made aware, in advance, of any potential cost-overrun, so that the Watermaster can be involved in decision-making to mitigate the overrun. For example if the consultant found that the work was taking more time and effort than the consultant originally envisioned when the scope and cost were negotiated, the Watermaster might elect to forgo having some portions of the work done, or to otherwise streamline the work, in order to stay within budget. However, if the Watermaster is not made aware of such a situation until after it has already occurred, the Watermaster has no opportunity to control these costs.

I told HydroMetrics, however, that I was willing to present their request to the TAC for its review and its recommendations, and that if the TAC were to recommend approval, their request would then need to go to

the Board in the form of an amendment to RFS No. 2015-04 in order for the Board to approve increasing the amount authorized for the work.

Mr. Robert S. Jaques
Seaside Groundwater Basin Watermaster
83 Via Encanto
Monterey, CA 93940

March 16, 2016

Subject: Scope and Cost Increase: RFS No. 2015-04 Laguna Seca Flow Divide Modeling

Mr. Jaques:

Additional work necessary to complete the Laguna Seca Flow Divide Technical Memorandum ended up being \$4,260 over the project budget of \$13,000. The reasons for this are:

1. Comments on the report were extensive because of the subject's complexity, and addressing the comments took considerably more effort and analysis than anticipated. Although eight additional flow divide maps were produced within the expected budget, addressing comments and editing the technical memorandum was the greater effort and lead in part to the overrun.
2. We were requested to provide additional work that was not in our scope. Notably, we were asked to compare the flow divide results with the Safe Yield study. This added an extra 4 pages of text and two figures to the memorandum, along with associated analysis.
3. Due to the extended period over which this work was performed, an additional TAC meeting was attended that was not budgeted for with the scope amendment. This meeting was attended on January 13, 2016 and required preparing and presenting the project results.

We completed the above work prior to asking for additional funds because of the time critical nature of the work; our results were necessary to prepare for discussions with the court. We are now requesting funds to cover the work described above. We would like to transfer funds from other RFS' that may not have been exhausted during the year, or request an addition to the Watermaster's 2015/2016 budget.

Please call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Georgina King', with a stylized flourish at the end.

Georgina King, Project Manager
HydroMetrics Water Resources Inc.

***SEASIDE BASIN WATER MASTER
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MEETING DATE:	July 13, 2016
AGENDA ITEM:	5
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
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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.

Attached is the most recent update of the Work Schedule for FY 2016.

Under Item I.2.b.6 of its RFS No. 2016-01, MPWMD is to prepare a report on monitoring wells (see this item in the M&MP which is attached for more details). Regarding this report Joe Oliver said MPWMD would be discussing this some more internally, but due to his pending retirement and MPWMD therefore being subsequently temporarily short-staffed for a period of time before additional technical support staff are available, the ability to complete this work and on this schedule is not yet certain. He noted that current WM tasks are taking priority and include the WM Voluntary Wells processing into CASGEM; monthly/quarterly WL and WQ data collection; annual WQ data collection; and quarterly production, WL, WQ data compilation. Mr. Oliver will provide an oral update on this at today's meeting.

On the August 10 Agenda we will have a preliminary discussion of the potential Scope of Work for the 2017 Management and Monitoring Program (M&MP). During this year we identified some relatively modest revisions to be made to MPWMD's RFSs, including:

- Having them enter the Watermaster's Volunteer Well data into the State's CASGEM system to fulfill part of the Watermaster's reporting requirements under the SGMA.
- Having them add the Shea Well in Del Rey Oaks to their regular monitoring well list for water level data (requested some months ago by Board member Jerry Edelin). (Note: Joe Oliver provided this update on this: There was initially some difficulty in MPWMD being able to access the site, but the access issue for DRO "Shea" well has now been resolved through additional coordination with DRO manager, so you do not need to follow up on that. There is currently not a need to amend RFS for this.)

We also identified a revision to be made to HydroMetrics' General Consulting RFS to include having them prepare the annual change in groundwater storage estimate, which also fulfills part of the Watermaster's reporting requirements under the SGMA.

Other than incorporating these changes in the scopes of work (and the associated budget changes) for these RFSs for next year, I do not think of any other scope changes that we need to include.

If any TAC members think of any other additions or deletions of work items from the 2016 M&MP I would appreciate hearing about those in advance of the August 10

AGENDA ITEM:

5 (Continued)

**SEASIDE BASIN WATER MASTER
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them in the Staff Report on this item in that Agenda packet. Attached for reference is a copy of the 2016 M&MP.

ATTACHMENTS:	1. 2016 M&MP 2. Schedule of Work Activities for FY 2016
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to the Schedule

Seaside Groundwater Basin Management and Monitoring Program Proposed FY 2016 Work Plan

The tasks outlined below are those that are anticipated to be performed during 2016. Some Tasks listed below are specific to 2016, while others Tasks recur throughout the program, such as data collection and 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 (\$7,000)	<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> <p>Those associated with attendance at TAC meetings (either in person or by teleconference connection), including providing written monthly 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. and</p> <p>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> <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 (\$2,500)	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 (\$1,900)**

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.

***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
(\$11,052)**

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 2016.

**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 2016.

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 2016.

**I. 2. b. 2
Collect Monthly Manual
Water Levels (\$5,872)**

Each of the monitoring wells will be visited on a monthly basis. Water levels will be determined by either taking manual water levels using an electric sounder, or by dataloggers. All wells where the use of dataloggers is feasible or appropriate have been equipped with dataloggers. It is anticipated that no additional dataloggers will need to be purchased in 2016. It is anticipated that installed dataloggers will periodically fail and need replacement. Accordingly, the cost for two replacement dataloggers at \$750 apiece and \$100 for installation parts has been included in this Task for budgeting purposes.

**I. 2. b. 3
Collect Quarterly Water
Quality Samples.
(\$54,906)**

Water quality data will be collected quarterly from certain of the monitoring wells. 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 in 2016.

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 selected to perform this work will make this judgment based on consideration of costs and other factors.

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, the Laguna Seca Driving Range sampling pump is no longer adequate due to declining groundwater levels, so \$2,000 to purchase a replacement sampling pump has been included in this Task.

\$1,000 has been included in this Task to perform additional semi-annual water quality sampling at Sentinel Well SBMW-1 as recommended in the 2014 SIAR.

**I. 2. b. 4
Update Program Schedule
and Standard Operating
Procedures.
(\$0)**

All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2016.

**I. 2. b. 5.
Monitor Well Construction
(\$0)**

An additional monitoring well was installed in 2009. No further work of this type is anticipated in 2016.

**I. 2. b.6
Reports (\$7,392)**

The groundwater level and quality monitoring will be conducted on a monthly, quarterly, and 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:

- One combined report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 1st & 2nd Quarters of the Water Year.
- One annual report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 3rd & 4th Quarters of the Water Year, and containing tables consolidating the data from the quarterly reports and a narrative summarization of the findings, conclusions, and recommendations from the quarterly reports. This annual report may include, as attachments, each of the quarterly reports.
- One report containing a compilation of the available water level records for monitor wells that are part of the Seaside Basin Monitoring & Management Plan (M&MP) in a format to allow assessment of the long-term trends in water levels in each of the wells. This report will contain a table showing pertinent well construction data, existing average annual water level changes, and projected future water level changes. This will be accompanied by a brief description and recommendations regarding those monitor wells for which future monitoring complications may arise due to falling water levels.

I. 3 Basin Management

**I. 3. a.
Enhanced Seaside Basin
Groundwater Model
(Costs listed in subtasks
below)**

The Watermaster and its consultants use a Groundwater Model for basin management purposes.

**I.3.a.1
Update the Existing Model
(\$0)**

The existing 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 (Tasks I.3.a.2 and I.3.a.3). The scope and budget in 2014 for again updating the Model included the following:

- Step 1: Update the model and check its accuracy - \$10,000
- Step 2: Recalibrate the model - \$15,000
- Step 3: Prepare report describing the work that was done - \$5,000

Step 1 was completed in 2014 by incorporating recent pumping data, groundwater level data, and rainfall data, and then checking to see if the recently simulated groundwater levels match the recently measured groundwater levels. These are the principle findings and conclusions of this Step 1 work:

- The model still provides reliable results in the Laguna Seca Subarea.
- Although the performance of the model during the updated period is worsening, the calibration of the model remains within acceptable standards.
- The northern boundary condition needs to be updated to reflect real groundwater elevation variations for the model period of 2005-2013. The behavior of the northern boundary will impact flows and the ability to calibrate the model for the area of the model that is adjacent to the northern boundary. An alternative method for defining this boundary condition will have to be developed that does not rely upon simulations from the Salinas Valley Integrated Groundwater Surface Water Model (SVIGSM).
- The groundwater model should be updated in a maximum of five years and its calibration reevaluated at that time. However, if groundwater related projects are implemented in the Basin before that time, the update and calibration reevaluation may need to be performed sooner.

Modeling of the Laguna Seca Subarea was performed in 2014 and a peer review of that work was performed in 2015. The peer review concluded that the model is a reasonable representation of the Seaside Basin groundwater flow system. No major errors in assumptions, data or results were identified during this peer review, and the simulated water levels generally matched observed water levels for the historical calibration simulation. The peer review recommended some aspects of the model should be explored to try to determine some differences between field-measured conditions and model-predicted conditions in some parts of the Basin, but stated that the model should be used for estimating the operational safe yield of the basin and subareas, and for simulating the effects of possible management measures. It also recommended that some additional simulations should be completed for management measures likely to be implemented. Therefore, Steps 2 and 3 will not be needed and no further work of this type is anticipated in 2016.

**I. 3. a. 2
Develop Protective Water
Levels (\$0)**

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. Therefore, no further work of this type is anticipated.

<p>I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions (\$40,000)</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 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 2016 to further examine this situation.</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 The only work which may be performed on the BMAP in 2016 is discussed under Task I. 3. c.</p>
<p>I. 3. c. Refine and/or Update the Basin Management Action Plan (\$27,300)</p>	<p>During 2016 it may be beneficial to update the BMAP based on new data, and/or knowledge that is gained from the work described under Task I. 3. a. 3. Such work might involve issues pertaining to Operational and Natural Safe Yields or pumping redistribution strategies. Updating the BMAP has been scheduled and budgeted in several of the preceding years, but was not deemed to be necessary. This task is included primarily for budgeting purposes in the event such work is deemed necessary during 2016.</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 on this matter is anticipated.</p>
<p><i>1. 4 Seawater Intrusion Response Plan (formerly referred to as the Seawater Intrusion Contingency Plan)</i></p>	
<p>I. 4. a. Oversight of Seawater Intrusion Detection and Tracking (\$0)</p>	<p>Consultants will provide general oversight over the Seawater Intrusion detection program.</p>

<p>I. 4. b. Focused Hydrogeologic Evaluation (\$0)</p>	<p>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.</p>
<p>I. 4. c. Annual Report- Seawater Intrusion Analysis (\$23,318)</p>	<p>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>
<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 2016.</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 2016.</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>

Seaside Basin Watermaster Monitoring and Management Program 2016 Work Schedule

ID	Task Name	2016												2017									
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK																						
2	2016 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 Prepares Combined Quarterly Water Production, Water Level, and Water Quality Reports for 1st & 2nd Quarters (Same as Task 41)																						
8	Watermaster Prepares Annual Water Production, Water Level, and Water Quality Report for 2016 (Same as Task 42)																						
9	Replenishment Assessment Unit Costs for Water Year 2017																						
10	B&F Committee Develops Replenishment Assessment Unit Cost for 2017 Water Year																						
11	If Requested, TAC Provides Assistance to B&F Committee in Development of 2017 Water Year Replenishment Assessment Unit Cost																						
12	Board Adopts and Declares 2017 Water Year Replenishment Assessment Unit Cost																						
13	Replenishment Assessments for Water Year 2016																						
14	Watermaster Prepares Replenishment Assessments for Water Year 2016																						
15	Watermaster Board Approves Replenishment Assessments for Water Year 2016 (At December Meeting)																						
16	Watermaster Levies Replenishment Assessment for 2016																						
17	Monitoring & Management Program (M&MP) Budgets for 2017 and 2018																						

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ID	Task Name	2016												2017									
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
18	Preliminary Discussion of Potential Scope of Work for 2017 M&MP												◆ 8/10										
19	Prepare Draft 2017 M&MP Work Plan and 2017 and 2018 O&M and Capital Budgets												■										
20	TAC approves Draft 2017 M&MP Work Plan and 2017 and 2018 O&M and Capital Budgets												◆ 9/14										
21	Board approves 2017 M&MP O&M and Capital Budgets												◆ 10/5										
22	2015 Annual Report (Note: Schedule Reflects Court Approval of Later Submittal Date for Annual Report)																						
23	Prepare Preliminary Draft 2016 Annual Report													■									
24	TAC Provides Input on Preliminary Draft 2016 Annual Report																						
25	Prepare Draft 2016 Annual Report (Incorporating TAC Input)													◆ 11/16									
26	Board Provides Input on Draft 2016 Annual Report (At December Board Meeting)													◆ 12/7									
27	Prepare Final 2016 Annual Report (Incorporating Board Input)													◆ 12/15									
28	Watermaster Submits Final 2016 Annual Report to Judge																						
29	MANAGEMENT																						
30	M.1 PROGRAM ADMINISTRATION																						
31	Prepare Initial Consultant Contracts for 2017																						
32	TAC Approval of Initial Consultant Contracts for 2017																						
33	Board Approval of Initial Consultant Contracts for 2017																						
34	M.1.g – Sustainable Groundwater Management Act Reporting Requirements																						
35	HydroMetrics Prepares Draft Groundwater Storage Analysis																						
36	TAC Reviews HydroMetrics Draft Storage Analysis																						

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ID	Task Name	2016												2017									
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
37	HydroMetrics Revises Draft Storage Analysis if Necessary																						
38	Submit SGMA Documentation to DWR																						
39	IMPLEMENTATION																						
40	I.2.a DATABASE MANAGEMENT																						
41	I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance																						
42	I.2.b DATA COLLECTION PROGRAM																						
43	I.2.b.2 Collect Monthly Water Levels (MPWMD)																						
44	I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD)																						
45	I.2.b.6 Reports (from MPWMD)																						
46	Watermaster Prepares Combined Quarterly Water Production, Water Level, and Water Quality Reports for 1st & 2nd Quarters																						
47	Watermaster Prepares Annual Water Production, Water Level, and Water Quality Report for 2016																						
48	Watermaster Prepares Report Regarding Long-Term Trends in Water Levels in Monitoring Wells																						
49	I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL																						
50	TAC Assists Board in Developing Work Plan to Address LSSA Modeling Results																						
51	Develop and Schedule Additional Tasks as Directed by Board																						
52	I.3.c Refine and/or Update the BMAP																						
53	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)																						
54	HydroMetrics Provides Draft SIAR to Watermaster																						
55	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)																						

Seaside Basin Watermaster Monitoring and Management Program 2016 Work Schedule

ID	Task Name	2016												2017									
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
56	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)																						
57	I.4.d Complete Preparation of Seawater Intrusion Response Plan (SIRP)																						
58	I.4.e Refine and/or Update the SIRP																						

◆ 12/7

WORK COMPLETED - NO FURTHER WORK PLANNED IN 2016

ONLY IF FOUND TO BE NECESSARY

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

MEETING DATE:	July 13, 2016
AGENDA ITEM:	6
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