M E E T I N G N O T I C E AND A G E N D A

TECHNICAL ADVISORY COMMITTEE
OF THE
SEASIDE BASIN WATER MASTER

DATE: Wednesday, November 9, 2011
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 (877)810-9415. Use the Access Code of 4560043. 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: Diana Ingersoll, City of Seaside
1st Vice-Chairperson: Eric Sabolsice, California American Water Company
2nd Vice-Chairperson: Rob Johnson, MCWRA

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

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from September 14, 2011
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Draft Minutes from this meeting were 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
September 14, 2011

Attendees: TAC Members

City of Seaside – Rick Riedl
California American Water – Eric Sabolsice
City of Monterey – Norm Green
Laguna Seca Property Owners – Bob Costa
MPWMD – Joe Oliver
Public Member – No representative
MCWRA – Rob Johnson
City of Del Rey Oaks – Dan Dawson
City of Sand City – Richard Simonitch
Coastal Subarea Landowners – No Representative

Watermaster
Technical Program Manager - Robert Jaques

Consultants
None

Others:
MPWMD – Jon Lear

The meeting was called to order at 1:33 p.m.

1. **Public Comments**

There were no public comments.

2. **Administrative Matters:**

A. **Approve Minutes from August 20, 2011 Meeting**

Mr. Simonitch requested that under item number 10 of the Minutes the second sentence in the first paragraph be revised to read "He reported that nearly 300 acre feet of desalinated water have already been produced since the plant started operation in March 2010."

Mr. Riedl pointed out a typographical error in the 3rd paragraph under item number 10 in the Minutes where the word "Number" should have been "Member."

Mr. Jaques said he would make these corrections to the Minutes. On a motion by Mr. Simonitch, seconded by Mr. Johnson, the minutes were unanimously approved with these corrections.

3. **Progress Report on Implementing Changes to the Inputting and Management of Data in the Watermaster Database**

Mr. Oliver reported that considerable progress has been made on this work, but that some things have been found to be more complicated than originally expected and were therefore taking longer. Sequencing the water level and water quality data, formatting the contact information, and preparing several of the report formats have now been accomplished.

Mr. Lear reported that the water level data has already been input into the new database. Water quality data from the laboratory (MBAS) has been obtained, but there were duplications of some data, and cleanup needed to be done to correct this. It was also found that some of the "test" data that had been included in the original RBF version of the database needed to be removed. He reported that the three newly created reports (Water Level, Water Quality, and Contacts) are now ready for posting to the Watermaster web site. Mr. Lear will email those reports to Mr. Jaques and Ms. Dadiw, so Mr. Paxton can post that information to the web site.

Mr. Jaques will discuss with Mr. Paxton adding clarifying notes to the web site pertaining to the new database.

It was found that moving the hosting location to MPWMD would not have been economical, as originally thought, so the web site will continue being hosted from its current Fremont California location.

Mr. Oliver said that inputting the production data will probably be completed by the end of October. In the middle of October he recommended having a meeting with himself, Mr. Lear, Mr. Jaques, and Ms. Dadiw to finalize arrangements for preparing the Production Report.

4. Report on Wellhead Resurveying

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

Mr. Riedl suggested adding a note to Exhibit "D" with regard to the accuracy limits of the vertical surveying data.

Mr. Johnson suggested having the elevations also shown in the table based on the NGVD-29 datum, for comparison with other historical data that is based on that datum. Mr. Green commented that use of the NGVD-29 datum has largely been discontinued because sea level is not level and NAVD88 is a gravity based datum. He went on to say that the datum difference between the two varies from location to location. Following some additional discussion there was consensus to just report the information based on the NAVD-88 datum.

A motion was made by Mr. Johnson, seconded by Mr. Costa, to accept the Resurvey Report with the additional note to be added to Exhibit "D" and to recommend to the Board that no further surveying work needs to be done unless there is evidence of subsidence occurring, or some other reason arises to perform such work. The motion passed unanimously.

5. Proposed FY 2012 M&MP Work Plan, and Proposed 2012 and 2013 M&MP Operations and Capital Budgets

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

Mr. Lear reported that with regard to the cross-aquifer contamination investigation, approximately 40 percent of the wells for which he did not previously have data have now been field-visited, and all those that have thus far been visited were found to have been abandoned or destroyed.

Mr. Green asked if all of the M&MP Budget costs were paid for by the City of Seaside and California American Water. Mr. Jaques and Mr. Sabolsice responded that they believed that was correct. [Note: Mr. Jaques subsequently researched this and found that the Court Order and the Watermaster's Rules and Regulations show that the M&MP Budgets are to be funded though assessments on the City of Seaside, California American Water, Granite Rock Company, and D.B.O. Development No. 27, which are all of the Standard Producers in the Coastal Subarea.]

Mr. Riedl asked Mr. Jaques why a placeholder dollar value was needed for the cross-aquifer contamination investigation work. Mr. Jaques responded that the current work on this topic was still in progress, so it was not presently known whether additional work would be recommended. Therefore, the placeholder amount was included to provide for additional work to be performed, if the current work led to such a recommendation.

On a motion by Mr. Riedl, seconded by Mr. Johnson, the Management and Monitoring Program budgets were unanimously approved as presented.

6. Set Next Meeting Date

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

On a motion by Mr. Costa, seconded by Mr. Simonitch, there was unanimous agreement to not hold a TAC meeting in October, and to set November 9, 2011 as the date for the next TAC meeting.

7. Schedule

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

Mr. Riedl asked if the SIAR would be provided to the TAC for its review before being presented to the Board at the Board's November meeting. Mr. Jaques responded that it would be provided in draft form for TAC review at the November 9 TAC meeting.

8. Other Business

Mr. Green asked Mr. Sabolsice for brief status report on the Coastal Water Project. Mr. Sabolsice briefly summarized several issues pertaining to this, including the recent conflict of interest issues, approval issues, and dispute resolution issues, all of which he said were being worked on to keep moving the project forward. However, he indicated that as a result of these issues the schedule has been delayed from earlier projections. Mr. Johnson provided some supplementary information on these same issues.

Mr. Sabolsice reported that the Cease and Desist Order which is in effect requires that the ramp-down on CAW production will become more severe in the future. He went on to explain that the CAW distribution system has some limitations in being able to deliver all of the ASR water past the Seaside portion of their system. The Coastal Water Project includes modifications to address this. CAW is currently working to move forward on some of that work to remedy this problem.

There was a brief discussion with regard to CAW water rights and a discussion of the current status of ASR facilities and future plans to expand them to increase ASR capabilities.

The meeting adjourned at 2:32 p.m.

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	2.B
AGENDA TITLE:	Report on Board Action Regarding the Public Member Position
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

At its meeting on October 5, 2011 the Board considered the TAC's recommendations regarding (1) temporarily suspending the Public Member position on the TAC and (2) soliciting applications from interested members of the public to fill that position, which has been vacant since the resignation of Mr. Willis.

It was the Board's determination to temporarily suspend the Public Member position on the TAC, as recommended by the TAC at its September 12, 2011 meeting, but not at this time to solicit applications from members of the public to fill this position.

Consequently, unless and until the Board provides further direction on this matter the number of voting members on the TAC will be 9, and 5 members present will constitute a quorum for conducting TAC meetings.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	2.C
AGENDA TITLE:	Schedule of Board and TAC Meetings for 2012
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Attached is the Schedule of meetings for 2012 as prepared by Dewey Evans, the Watermaster' Chief Executive Officer. All of the TAC meetings are scheduled to occur on the usual 2nd Wednesday of each month, with the exception of July where Mr. Evans proposes to change the meeting dates to the second Wednesday for the Board meeting, July 11th and for the TAC the third Wednesday, July 18th to avoid a conflict with the July 4th holiday which will fall on the first Wednesday.

ATTACHMENTS:	Schedule of Regular Meetings for 2012
RECOMMENDED ACTION:	None required – information only

SEASIDE GROUNDWATER BASIN
WATERMASTER

2012
SCHEDULE OF REGULAR MEETINGS

	BOARD	TAC
JANUARY	4	11
FEBRUARY	1	8
MARCH	7	14
APRIL	4	11
MAY	2	9
JUNE	6	13
JULY	11	18
AUGUST	1	8
SEPTEMBER	5	12
OCTOBER	3	10
NOVEMBER	7	14
DECEMBER	5	12

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	3
AGENDA TITLE:	Discuss and Take Potentially Take Action to Approve the 2011 Seawater Intrusion Analysis Report (SIAR)
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

HydroMetrics has prepared the Draft Seawater Intrusion Analysis Report (SIAR) for Water Year 2011. By separate email to all TAC members, HydroMetrics has recently sent you the SIAR for your review prior to today's TAC meeting. Attached is the Executive Summary of the Draft SIAR. The yellow-highlighted sections are still being finalized as data is being received. HydroMetrics does not expect the conclusions or recommendations of the Draft SIAR to change when that data has been received.

The SIAR examines the "health" of the Basin with regard to whether or not there are any indications that seawater intrusion is either occurring or is imminent. The key Conclusion contained in the SIAR is that depressed groundwater levels, continued pumping in excess of recharge and fresh water inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin, but in spite of these factors, no seawater intrusion is currently observed in existing monitoring wells.

The SIAR does recommend that the preliminary protective water level elevations for the aquifers be refined, to provide more accurate forecasts of the levels necessary to protect against seawater intrusion. Funds for this purpose have been included in the approved FY 2012 Budget. Thus far it has been the TAC's recommendation to defer pursuing such work until the Regional Water Project has become better defined.

A representative from HydroMetrics will attend today's TAC meeting to provide a summary of the report and to respond to questions by TAC members.

ATTACHMENTS:	Executive Summary of Draft WY 2011 Seawater Intrusion Analysis Report (full document was sent directly from HydroMetrics to TAC members, due to its size, and not included within the agenda packet itself)
RECOMMENDED ACTION:	Discuss and either modify or approve the Draft SIAR

EXECUTIVE SUMMARY

This annual report addresses the potential for, and extent of, seawater intrusion in the Seaside Groundwater Basin. Continued pumping in excess of recharge and fresh water inflows, pumping depressions near the coast, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin. Fortunately, no seawater intrusion is currently observed in existing monitoring wells, as demonstrated by the different tools and analyses that were used to investigate for evidence of seawater intrusion:

- Piper diagrams for groundwater samples collected from depth-discreet monitoring wells during Water Year 2011 show no changes towards seawater.

- No groundwater samples analyzed with Stiff diagrams are indicative of incipient seawater intrusion.

- Wells with chloride concentration increases over the past year are: PCA-W deep, MSC deep, sentinel wells SBWM-4 shallow, SBWM-4 deep, SBWM-5 shallow, and SBWM-5 deep. Although the increases mentioned above do not indicate seawater intrusion, their future trends must be continued to be followed. Stiff and Piper diagrams for these wells do not indicate seawater intrusion, and it is likely that the increase is merely a localized fluctuation that is unrelated to seawater intrusion. No additional monitoring is warranted.

- Of the wells from last year's SIAR that had increasing chloride concentrations, the deep PCA-W well is the only monitoring well that continued with an increase over the past year. Stiff and Piper diagrams for this well do not indicate seawater intrusion, and it is likely that the increase is merely a localized fluctuation that is unrelated to seawater intrusion. No additional monitoring is warranted.

- No wells display decreasing sodium/chloride ratios that would indicate seawater intrusion.

- Maps of chloride concentrations do not show chlorides increasing towards the coast.

- Although production wells have a different water quality than the monitoring wells, this is probably as a result of them being screened across both shallow and deep zones. The production well water qualities are not indicative of seawater intrusion.

- Groundwater production in the Seaside Groundwater Basin remained the same as Water Year 2010. The amount pumped, XXXX acre-feet, is less than the Court-mandated operating yield of 5,600 acre-feet per year. The lower than historic pumping is a result of implementing the Court-mandated triennial reduction in an effort to bring the basin closer to hydrologic balance which is necessary to prevent seawater intrusion.

- Groundwater levels continue to be below preliminary protective elevations in all deep coastal target monitoring wells (MSC deep, PCA-W, and Sentinel Well 3). Two of the three shallow wells' groundwater levels are above protective elevations: PCA-W shallow and CDM-MW4. MSC shallow remains below preliminary protective elevations.

Based on the findings of this report, the following recommendations should be implemented to continue to monitor and track potential seawater intrusion.

1. **Semi-Annual Water Quality Sampling in Well SBWM-4**
   Continue to collect semi-annual samples at sentinel well SBWM-4 because chloride concentrations from a depth of 900 feet below surface are still greater than 250 mg/L.

2. **Continue to Analyze and Report on Water Quality Annually**
   Seawater intrusion is a threat, and data must be analyzed regularly to identify incipient intrusion. Maps, graphs, and analyses similar to what are found in this report should continue to be developed every year.

3. **Refine Preliminary Protective Groundwater Elevations**
   It is recommended that the preliminary protective groundwater elevation estimated during modeling (HydroMetrics LLC, 2009b) be refined using final calibrated aquifer properties from the Seaside Basin groundwater flow model. It is expected that the protective elevations will be decreased up to a few feet, which will make them more practical to meet.

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	4
AGENDA TITLE:	Discuss and Provide Input on Preliminary Draft Watermaster 2011 Annual Report
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

The Watermaster submits an Annual Report to the Court after the end of each Water Year to fulfill one of its obligations under the Court Decision that created the Watermaster.

Since many items that must be included in the Annual Report cannot be finished until after the Water Year has ended, e.g. Production, Water Level, and Water Quality Reports, Replenishment Assessments, and the Seawater Intrusion Analysis Report, the Final version of the Annual Report cannot be completed until at least late October or early November. It is at the Board's November Board meeting that the final Annual Report is approved and staff then transmits it through an attorney to the Court.

A Preliminary Draft Annual Report is being presented to the TAC for its review and input, in as complete a form as it can be as of today's TAC meeting. Due to its large file size, a complete copy of the Preliminary Draft 2011 Annual Report cannot be included with the agenda packet. However, a copy of the body of the Preliminary Draft is attached, so only the Attachments to the Annual Report, some of which are still being prepared, are not included. A complete copy of the Preliminary Draft Annual Report will be sent via an ftp service to each TAC member, for those wishing to examine the entire document.

The sections with color highlighting in them are still being completed, as data is received.

The purpose of providing this "work in progress" Preliminary Draft 2011 Annual Report is to provide the TAC an opportunity to examine the entire scope of the document, and to provide input to the Technical Program Manager on any suggestions regarding contents, language, formatting, or other issues, so that this input can be taken into account as the document is finalized for presentation to the Board at its November 30, 2011 meeting. The sections in the Annual Report are prescribed in the Decision and must be reported on each year.

ATTACHMENTS:	Preliminary Draft Body of 2011 Watermaster Annual Report
RECOMMENDED ACTION:	Discuss and provide input to assist in finalizing the Annual Report

SEASIDE BASIN WATERMASTER

PRELIMINARY DRAFT

ANNUAL REPORT – 2011

Integral to the Superior Court Decision (Decision) rendered by Judge Roger D. Randall on March 27, 2006 is the requirement to file an Annual Report. The ruling of the Court originally required that the Annual Report be prepared and filed with the Court and mailed to all the parties on or before the 15th day of November every year for the preceding Water Year. The Court's subsequent Annual Report Review and Order entered on January 7, 2011 revised the deadline for submittal of Annual Reports to December 15. This 2011 Annual Report is being filed on or before December 15, 2011, consistent with the provisions of the Decision, as amended by the Annual Report Review and Order. This Annual Report addresses the specific Watermaster functions set forth in Section III. L. 3. x. of the Decision. In addition this Annual Report includes a section pertaining to Water Quality Monitoring and Basin Management.

A. Groundwater Extractions

The schedule summarizing the Water Year 2011 (WY 2011) groundwater production from all the producers allocated a Production Allocation in the Seaside Groundwater Basin is provided in Attachment 1, "Seaside Groundwater Basin Watermaster, Reported Quarterly and Annual Water Production From the Seaside Groundwater Basin for all Producers Included in the Seaside Basin Adjudication During Water Year 2011." For the purposes of this Annual Report Water Year 2011 is defined as beginning October 1, 2010 and ending on September 30, 2011.

B. Groundwater Storage

Monterey Peninsula Water Management District (MPWMD), in cooperation with California American Water (CAW), operated the Seaside Basin Aquifer Storage and Recovery (ASR) program during WY 2011. During WY 2011, a total of 1,117.5 acre-feet (AF) of water was diverted by CAW from its Carmel River sources during periods of flow in excess of NOAA-Fisheries' recommended bypass flows, transported through the existing CAW distribution system for injection and storage in the Seaside Basin at the MPWMD's Santa Margarita ASR Well Nos. 1 and 2 located on former Fort Ord property. This is the only reported storage of non-native groundwater into the Seaside Basin in WY 2011.

Also during WY 2011, MPWMD and CAW installed pipeline connections from the recently-constructed test ASR well at the nearby Seaside Middle School to the Santa Margarita ASR facility. Installation of these pipeline connections will allow routine backflushing of this well to occur at the Santa Margarita site on an interim basis until a permanent backflush basin can be installed at the Seaside Middle School site. This new well is intended to satisfy one of the requirements of State Water Resources Control Board Order 2009-0060 (i.e., the Cease and Desist Order) that requires CAW to implement one or more "small projects" that total not less than 500 AF per year to reduce unlawful diversions from the Carmel River.

Based upon production reported for WY 2010, the following Standard Producers are entitled to Free and Not-Free Carryover Credits in accordance with the Decision, Section III. H. 5. for WY 2011:

Producer	Free Carryover Credit (Acre-feet)	Not-Free Carryover Credit (Acre-feet)
Granite Rock	72.73	65.83
DBO Development	150.28	128.89
CAW	0	31.84
City of Seaside Muni	0	12.42

C. Amount of Artificial Replenishment, if any, performed by Watermaster

Per the Decision, "Artificial Replenishment" means the act of the Watermaster, directly or indirectly, engaging in contracting for Non-Native Water to be added to the Groundwater supply of the Seaside Basin through Spreading or Direct Injection to offset the cumulative Over-Production from the Seaside Basin in any particular Water Year pursuant to Section III.L.3.j.iii. It also includes programs in which Producers agree to refrain, in whole or in part, from exercising their right to produce their full Production Allocation where the intent is to cause the replenishment of the Seaside Basin through forbearance in lieu of the injection or spreading of Non-Native Water (referred to herein as "In-lieu Replenishment").

The Watermaster has interpreted the above language to mean that the following Artificial Replenishment action was undertaken in WY 2011:

> Watermaster indirectly engaged in In-lieu Replenishment of the Basin during Water Year 2011. Non-native water was made available to the Basin during Water Year 2011 and is foreseeable for Water Year 2012 under a Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water. 411.1 acre-feet were in-lieu replenished to the Basin by the program in Water Year 2011.

D. Leases or sales of Production Allocation and Administrative Actions

No sale of Production Allocation and no actions pertaining to real property and/or water rights occurred during WY 2011.

During WY 2011 the Watermaster Board was comprised of the following Members and Alternates:

MEMBER	ALTERNATE	REPRESENTING
Director Paul Bruno	Patrick Orosco	Coastal Subarea Landowner
Director Craig Anthony	Eric Sabolsice	California American Water
Director Bob Costa	Gary Cursio	Laguna Seca Subarea Landowner
Director Bob Brower	Judi Lehman	MPWMD
Mayor Dave Pendergrass	Steve Matarazzo	City of Sand City
Supervisor Dave Potter	Jane Parker	Monterey County (MCWRA)
Mayor Jerry Edelen	Kristin Clark	City of Del Rey Oaks
Mayor Chuck Della Sala	Libby Downey	City of Monterey
Mayor Felix Bachofner	Dennis Alexander	City of Seaside

Also during WY 2011 California American Water filed a Notice of Change of Address, a copy of which is contained in Attachment 13.

E. Use of imported, reclaimed, or desalinated Water as a source of Water for Storage or as a water supply for lands overlying the Seaside Basin

The CAW/MPWMD ASR Program occurred in WY 2011 with 1,047.9 acre-feet of water injected into the Basin as Stored Water Credits and 1,040.9 acre-feet extracted. A Storage and Recovery Agreement between Watermaster and California American Water governing the ASR Program storage and recovery was developed and executed in WY 2011 to formalize the terms and conditions of the ASR program. A copy of this Agreement is contained in Attachment 14.

In addition to the water imported from the Carmel Basin for the ASR program described in **Section B** above, during WY 2011 411.1 acre-feet of imported water was used to irrigate golf courses owned by the City of Seaside overlying the Seaside Basin, as discussed above in **Section C**. The terms and conditions under which this in-lieu replenishment water was used to generate a credit to be applied against the City of Seaside's overproduction replenishment assessments is described in the "Memorandum of Understanding Between the Seaside Basin Watermaster and the City of Seaside" which was contained in Attachment 3 to the Watermaster's 2010 Annual Report. This is the only imported, reclaimed or desalinated water used either directly or for storage in the groundwater basin that has been reported to the Watermaster during WY 2011.

As reported in the 2010 Annual Report, the MPWMD, City of Seaside, MCWD, and Watermaster intend to develop an MOU that would add an additional 68.8 acre-fee of in lieu replenishment to the City of Seaside's total in lieu replenishment for Water Year 2009/2010. Although originally expected to be completed before the end of 2010, some delays were encountered, and the MOU is now expected to be

processed through the governing bodies of these entities in late 2011 and early 2012. It is expected that this will result in a revision to the Replenishment Account balance sheet for Water Year 2009/2010.

F. Violations of the Decision and any corrective actions taken

Section III. D. of the Decision enjoins all Producers from any Over-Production beyond the Operating Yield in any Water Year in which the Watermaster declares that Artificial Replenishment is not available or possible. Section III. L. 3. j. iii. requires that the Watermaster declare the unavailability of Artificial Replenishment prior to the beginning of the Water Year so that the Producers are informed of the prohibition against pumping in excess of the Operating Yield.

The Watermaster made a declaration regarding the availability of Artificial Replenishment for WY 2012 at its Board meeting of November 30, 2011. A copy of this declaration is contained in Attachment 2. In WY 2011 the Watermaster continued the 10% water production reduction that was implemented in WY 2010, as required under Section III.B.2 of the Decision. In WY 2012 the Watermaster implemented an additional 10% water production reduction, also as required under Section III.B.2 of the Decision.

Total pumping for WY 2011 did not exceed the Operating Yield (OY) for the Seaside Basin, but it did exceed the Natural Safe Yield (NSY) of the Basin.

CAW and the City of Seaside reported annual pumping quantities that exceeded their Standard Production NSY allocations by 1,130.5 and 67.1 acre-feet, respectively. CAW and the City of Seaside both reported annual pumping quantities that did not exceed their respective OYs. The City of Seaside did not exceed its Alternative Production NSY. The Watermaster will assess CAW and the City of Seaside a Replenishment Assessment for these over productions, as further described in Section H, below.

G. Watermaster administrative costs

The total estimated Administrative costs though the end of Fiscal Year 2011 amounted to $69,645 including a $25,000 dedicated reserve. Costs include maintaining an office and paying a part time administrator and some part time staff to take and transcribe minutes of the Watermaster Board meetings during 2011. The "Fiscal Year 2011 Administrative Fund Report" is provided as Attachment 4.

H. Replenishment Assessments

A Replenishment Assessment of $2,780 per acre-foot was established by the Watermaster Board at its October 7, 2009 meeting for use against WY 2010 pumping. At its meeting of October 5, 2011 the Watermaster Board determined that this same $2,780 per acre-foot Replenishment Assessment unit cost should be used against WY 2012 pumping. The Agenda transmittal from that meeting discussing this determination is contained in Attachment 5.

Alternative and Standard Producers report their production amounts from the Basin to the Watermaster on a quarterly basis. Based upon the reported production for WY 2011, CAW's Replenishment Assessment for Overproduction in excess of its share of the NSY is $3,142,637.46. CAW did not incur any assessment for Operating Yield Over Production in WY 2011. The City of Seaside's Replenishment Assessment for its Municipal System for Overproduction in excess of its share of the NSY is $186,550.45. The City of Seaside did not incur any assessment for Operating Yield Over Production in WY 2011 and did not exceed its Alternative Production Allocation for its Golf Course System production. A summary of the calculations for Replenishment Assessment for WY 2011 is contained in Attachment 6.

I. All components of the Watermaster budget

The Watermaster budget has four separate funds: Administrative Fund; Monitoring & Management–Operations; Monitoring and Management–Capital Fund and; Replenishment Fund. Copies of the Fiscal Year 2012 adopted budgets are contained in Attachment 7. The Chief Executive Officer provides monthly financial status reports to the Watermaster Board on all financial activities for each month with year-to-date totals.

J. Water Quality Monitoring and Basin Management

Water Quality Analytical Results

Groundwater quality data continued to be collected and analyzed on a quarterly basis during WY 2011 from the enhanced network of monitoring wells. As initiated in 2009, a new low-flow sampling method continued to be implemented to improve the efficiency of sample collection, and will continue to be employed during the upcoming year. The concept of purchasing a downhole conductivity probe that could log insitu water quality within the screened zones of the four Watermaster Sentinel wells was considered as a possible means of using conductivity measurements in place of one of the two semi-annual induction logging events that are currently conducted at these wells. However, contrary to initial expectations, it was determined that there would be no appreciable cost savings by reducing the induction logging frequency at the Watermaster Sentinel Wells. Therefore, no modifications to the quarterly data collection frequency at these wells are being proposed for WY 2012, but consideration will be given to reducing the sampling frequency from quarterly to semi-annually at selected monitor wells that continue to exhibit stable water-quality results. Any recommendations for changes in sampling frequency will be included in the 2012 Annual Report. Where feasible, water quality at selected locations may continue to be supplemented with continuous water-quality dataloggers to offset the reduction in sample collection frequency.

In addition, quarterly geophysical (induction) logging continued to be performed at the four Watermaster Sentinel wells that were installed in 2007. The induction logging results have shown very little variations and trends have been steady since this monitoring began, indicating that the coastal water quality conditions are not changing at this sample frequency. Therefore, beginning in WY 2010, as approved by the Court's Order dated February 19, 2010, the induction logging frequency was reduced to semi-annually at these wells. Water samples from these wells continue to be collected on an annual basis.

Beginning in WY 2012 water quality analyses will be 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 will be 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). A determination as to whether or not to continue monitoring these additional parameters in subsequent years will be made at the end of Water Year 2012.

Copies of the sampling results are contained in Attachment 8. Analysis of the results indicate no evidence of water quality changes indicative of seawater intrusion at the locations and depths sampled in the coastal areas of the basin.

All of the recommendations contained in the report in Attachment 8 are being actively pursued by the Watermaster. Funds to pursue these recommendations have been included in the adopted FY 2012 budgets contained in Attachment 7.

Basin Management Database

Pertinent groundwater resource data obtained from a number of sources has been consolidated into the Watermaster's database to allow more efficient organization and data retrieval.

In 2009 initial internal testing and debugging of the Database was completed, and the Database was placed on the Watermaster's website for access by all interested parties. In 2010 a first set of enhancements to the Database were completed to improve its usefulness and user-friendliness. Those enhancements were described in Attachment 10 of the 2010 Annual Report. It was found that further enhancements would be beneficial, and in 2011 those enhancements were made. This second set of enhancements is described in Attachment 15.

Enhanced Monitoring Well Network

The Seaside Basin M&MP uses an Enhanced Monitoring Well Network to fill in data gaps in the previous monitoring well network used by the Monterey Peninsula Water Management District (MPWMD), and others, in order to improve the Basin management capabilities of the Watermaster. The Enhanced Monitoring Well Network has been described in detail in previous Watermaster Annual Reports. It continues to be used to obtain additional data that is useful to the Watermaster in managing the Basin.

Basin Management Action Plan (BMAP)

HydroMetrics LLC was hired by the Watermaster to prepare the BMAP which contains these Sections:

- Executive Summary
- The Background and Purpose of the Plan
- The State of the Basin
- Supplemental Water Supplies (long-term water supply solutions)
- Groundwater Management Actions (to be taken as interim measures while long-term supplies are being developed)
- Recommended Management Strategies
- References

The Final BMAP was approved by the Watermaster Board at its February 2009 meeting, and the Executive Summary from the BMAP was contained in Attachment 9 of the 2009 Annual Report. The complete document may be viewed and downloaded from the Watermaster's website at: http://www.seasidebasinwatermaster.org/.

Updating of the BMAP was planned for FY 2010, and again in FY 2011, but certain information (coming from other parties) that would be needed to perform that work was still not available. Therefore, updating the BMAP has been rescheduled for FY 2012, as described in the M&MP Work Plan contained in Attachment 12.

Seawater Intrusion Response Plan

HydroMetrics LLC was hired by the Watermaster to prepare a long-term Seawater Intrusion Response Plan (SIRP), as required in the M&MP.

The Final SIRP was approved by the Watermaster Board at its January 2009 meeting, and a summary of the Seawater Intrusion Contingency Actions from the SIRP were contained in Attachment 10 of the 2009 Annual Report. The complete document may be viewed and downloaded from the Watermaster's website at: http://www.seasidebasinwatermaster.org/.

Seawater Intrusion Analysis

The Watermaster retained HydroMetrics LLC to prepare the WY 2011 Seawater Intrusion Analysis Report (SIAR) required by the M&MP. The WY 2011 SIAR provides an analysis of data collected during this Water Year.

The principle conclusions reported in the SIAR are that depressed groundwater levels, continued pumping in excess of recharge and fresh water inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin. However, in spite of these factors, multiple forms of analyses led to the conclusion that no seawater intrusion is currently being observed in existing monitoring wells within the Basin.

The SIAR is lengthy, but the full *Executive Summary Section* from it is provided in Attachment 11. A complete copy of the document may be viewed and downloaded from the Watermaster's website at: http://www.seasidebasinwatermaster.org/.

The Watermaster continues to analyze the data that is being gathered at the various monitoring sites in order to keep a close watch on the conditions within the Basin, as discussed under the "Enhanced Monitoring Well Network" heading above.

Groundwater Modeling

During FY 2009 the previous Groundwater Model of the Basin was updated and a separate Groundwater Model was developed to determine protective water levels within the Basin. The modeling work was performed by HydroMetrics LLC. This Model development work was described in the 2009 Annual Report.

Modeling Scenarios

In FY 2010 one Scenario was modeled using the updated Groundwater Model. This was a scenario to evaluate the potential effects of additional pumping in the Laguna Seca Subarea. A full copy of the Technical Memorandum describing that work was contained in Attachment 14 of the Watermaster's 2010 Annual Report.

A second Scenario was planned for modeling in FY 2011. This scenario was to model the effects of implementing the "Monterey Regional Water Supply Project –Phase 1" as that project is defined in the Final EIR for the Coastal Water Project. A key component of this project will be a Regional Desalination Plant. That scenario (Scenario 2) was described in Section J of the 2010 Annual Report.

However, because the data needed to perform modeling of Scenario 2 was still being developed by others during FY 2011, the Watermaster deferred proceeding with work on Scenario 2. The Scenario 2 modeling work has been included in the Monitoring and Management Program Scope of Work and Budget for FY 2012, so that this work can be performed if the more definitive data necessary to perform this work becomes available.

Protective Water Levels

In FY 2009 the Watermaster completed development of preliminary Protective Water Levels (PWLs) for each of the Basin's production aquifers at the locations of several coastal wells. There was discussion of performing refined analyses and/or to determine how the PWLs would be affected if less than 100% of the Basin was to be protected. Performing these refinements was included as a Task in the 2010 and 2011 M&MP Work Plans, and in their respective M&MP Budgets.

However, water supply information from the Regional Water Supply Project that would be needed to perform that work was still not available in 2011. There was consensus that there was no danger at this time in delaying refining the Protective Water Levels. Therefore, refining the PWLs has been rescheduled and budgeted for FY 2012, as described in the M&MP Work Plan contained in Attachment 12.

Resurvey of Wellheads

In 2008 the Watermaster performed a wellhead elevation and location survey on each of the wells being monitored by the Watermaster. In 2011 a resurvey of these wells was performed to determine whether or not ground subsidence was occurring at any of these sites.

The 2011 Resurvey Report prepared by Central Coast Surveyors is contained in Attachment 16. As noted in the Report, some of the wells surveyed in 2008 no longer exist, and some new wells have been installed since the 2008 work was done. There were a total of 47 wells that were surveyed in both 2008 and 2011. These 47 wells are located throughout the area overlying the Seaside Basin, and therefore provide a representative indication of any generalized subsidence that might be occurring in the Basin.

Exhibit D of the Report contains a summary spreadsheet comparing the elevation data from the 2008 survey to the recently-completed 2011 resurvey of these 47 wells.

Exhibit E of the Report contains photos and location information to document the exact reference points used in the surveying work at each well site. This will be valuable in the event future resurveying is deemed desirable. To reduce the size of Attachment 16, only a representative example of one of the photo sheets was included.

The principal conclusions from the Report are that the data was very repeatable from 2008 to 2011, and that no appreciable subsidence appears to be occurring. Based on the findings in the Report, no further subsidence evaluation needed to be undertaken at this time.

Based on this work, no future resurveying work will be performed unless there is some indication that subsidence is, or has been, occurring, or the Watermaster determines that there is some other reason to perform such work.

K. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. At the Watermaster Board meeting held on October 5, 2011 the Board adopted the budgets contained in Attachment 7, which support carrying out all elements of the "Seaside Groundwater Basin Management and Monitoring Program Anticipated 2012 Work Plan." That Work Plan describes the M&MP activities that will be conducted during Fiscal Year 2012. A copy of this Work Plan is contained in Attachment 12.

As described in **Section J** above, information from the Enhanced Monitoring Well Network is being utilized to detect any seawater intrusion. The response actions described in the Watermaster's Seawater Intrusion Response Plan, which was contained the 2009 Annual Report, will be implemented if seawater intrusion is detected within the Basin.

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

MEETING DATE:	November 9, 2011
AGENDA ITEM:	5
AGENDA TITLE:	Progress Report on Implementing Changes to the Inputting and Management of Data in the Watermaster Database
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY: A meeting was held on November 2 by the parties directly involved in implementing the Database changes previously approved by the TAC and the Board. Based on discussions at that meeting, some refinements in exactly how certain of the changes will be implemented were agreed upon. These are summarized below:

- Two versions of the Well Information Report will be posted to the website. One is sorted by Well Number and the other by Well Owner. Both reports contain essentially the same information, but posting the information in these two forms is expected to make it easier for individuals to locate the information they are seeking. In these reports only the wells that are listed as Producers in the Decision, or are monitoring wells, will be listed. Other wells within the Basin and which are in the Database will not be shown.
- The Water Quality Report will be posted in two formats – a detailed report in Excel and a summary report in pdf. This will provide detailed information in a sortable/manipulatable format to individuals and consultants who may wish to use the data for analysis, and will provide a simplified version of the data that may be more satisfactory to individuals seeking only a general view of water quality in the Basin. "Date Analyzed," "Comments," and "MCL" columns that were considered in the draft layout of the Report will not be included as they do not appear necessary.
- A more robust version of the Production Report, in the form that has historically been prepared by MPWMD, will be posted rather than the version that is contained in the Board agenda packets. The more robust version includes information that may be of interest to individuals visiting the website.
- Access to information contained in the Database, but which will not be posted to the website, consisting mainly of well construction information, will be made available on an as-requested basis to individuals that are entitled to obtain that information in accordance with the requirements set forth in the California State Water Code Section 13752. That Code Section prohibits the release of such information to the public, but does allow it to be released to governmental agencies for use in making studies, and in instances where a known unauthorized release of a contaminant that could affect water quality has occurred. Requests for such information will be directed to the Watermaster office to determine whether release of the information will be in compliance with these requirements.

The new Database is expected to be placed on the Watermaster's website in mid-January, following completion of all of the data inputting and reformatting.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

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

MEETING DATE:	November 9, 2011
AGENDA ITEM:	6
AGENDA TITLE:	Progress Report on Investigating Wells for Cross-Aquifer Contamination Potential
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:
Mr. Lear will provide an oral update on the progress of work on the investigation into cross-aquifer contamination potential.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

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

MEETING DATE:	November 9, 2011
AGENDA ITEM:	7
AGENDA TITLE:	Initial Consultant Contracts for FY 2012: B. MPWMD RFS No. 2012-01 C. MPWMD RFS No. 2012-02 D. HydroMetrics RFS No. 2012-01 E. HydroMetrics RFS No. 2012-02
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY: Attached are the proposed initial contracts for each of the Watermaster's consultants that are expected to work on M&MP activities during 2012. Each of these firms is currently working under a master form of agreement with the Watermaster called a "Professional Services Agreement" (PSA). Actual work assignments are made through the issuance of Requests for Service (RFS) under the umbrella language of the PSA. The attached RFSs constitute the proposed initial 2012 work assignments for MPWMD and HydroMetrics as follows:

- MPWMD RFS No. 2012-01 covering their normal M&MP tasks as in preceding years. This RFS does not include any work to further evaluate the coastal wells for cross-aquifer contamination potential, because the initial portion of that work is still in progress. If MPWMD recommends that further work be performed in 2012, TAC direction will be sought regarding issuing a separate RFS to perform that work.
- MPWMD RFS No. 2012-02 covering their obtaining water quality and water level data from private producers who ask the Watermaster collect this data for them. The costs for this work are reimbursed by the private producers, and there is no net cost to the Watermaster for work performed under this RFS.
- HydroMetrics RFS No. 2012-01 covering their providing general hydrogeologic consulting services.
- HydroMetrics RFS No. 2012-02 covering their preparing the 2012 SIAR.

These consultants are performing a final review of the cost and scope details of these proposed contracts, and may have some final edits to propose to them at today's TAC meeting (some items highlighted in color).

If requested by the TAC, I will develop additional RFSs for HydroMetrics during 2012 to perform further groundwater modeling, to refine protective water levels, and/or to update the BMAP. These are shown as unscheduled tasks in the proposed 2012 Work Schedule in Agenda Item No. 8.

These contracts are on today's TAC meeting agenda to provide the TAC with the opportunity to raise questions or make suggestions for changes to the scopes-of-work or costs, before they are presented to the Board for approval at the Board's November 30, 2011 meeting, to ensure the contacts can be in effect at the start of 2012.

ATTACHMENTS:	4 - Proposed Consultant Contracts for FY 2012 (2 -MPWMD & 2-HydroMetrics)
RECOMMENDED ACTION:	Discuss and either modify or approve the proposed contracts

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2012 **RFS NO**. 2012-01 .
(To be filled in by WATERMASTER)

TO: Joe Oliver **FROM**: Robert Jaques .
Monterey Peninsula Water Management District WATERMASTER
PROFESSIONAL

Services Needed and Purpose:
Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2012 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2012-01 shall be completed in accordance with the schedule contained in Attachment 2.

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

Total Price Authorized by this RFS: $ 66,930.00 (See Attachment 3 for a Breakdown of this Total Price. Cost is authorized only when evidenced by signature below.)

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

Requested by: _____ Date: _____.
WATERMASTER Technical Program Manager

Authorized by: _____ Date: _____.
WATERMASTER Chief Executive Officer

Agreed to by: _____ Date: _____.
PROFESSIONAL

ATTACHMENT 1

Detailed Scope of Work for RFS No. 2012-01

Background:

The Watermaster Board approved the Budget for the 2011 Management and Monitoring Program Work Plan (hereinafter referred to as the "2011 M&MP Work Plan") at its meeting of October 5, 2011.

This RFS No. 2012-01 authorizes PROFESSIONAL to perform certain work on certain of the Tasks described in the 2012 M&MP Work Plan. The Task numbers listed in Table 1 of this Detailed Scope of Work for RFS No. 2012-01 correspond to the Task numbers in the 2012 M&MP Work Plan.

Table 1

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. a.1	Conduct ongoing data entry/ database maintenance	PROFESSIONAL will perform water production, water level, and water quality data entry into WATERMASTER's database, and data editing as necessary, and will provide appropriate quality control and quality assurance for this data. Upon request from WATERMASTER, PROFESSIONAL will also enter other data into the database, such as updated information pertaining to well records. WATERMASTER will provide PROFESSIONAL with water production data. PROFESSIONAL will review the water production data provided by WATERMASTER for quality assurance and quality control purposes, and will notify WATERMASTER of any discrepancies PROFESSIONAL observes in this data. WATERMASTER will followup as appropriate with the water producers to resolve any such discrepancies. PROFESSIONAL will also host and maintain the Watermaster's Database. Any changes to WATERMASTER's database will be authorized under a separate agreement for performing such work for WATERMASTER. That agreement will either be with PROFESSIONAL or with another consultant. PROFESSIONAL will prepare quarterly water production, water level, and water quality reports in Excel formats similar to the formats described in RFS No. 2011-04, and will provide those reports to another WATERMASTER Consultant who will post them to the WATERMASTER's website, so it will be accessible to the public and other interested parties.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 2.	Collect Monthly Water Levels	The monitoring wells from which water level data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Level" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water level data. At these visits PROFESSIONAL will measure and record water levels by either taking manual water levels using an electric sounder, or by dataloggers. Dataloggers which have been installed on the four Coastal Sentinel, the four ASR monitoring, and the inland (BLM site) monitoring wells will be used to measure the levels at those wells. All of the other wells will be manually measured.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 3.	Collect Quarterly Water Quality Samples	The monitoring wells from which water quality data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Quality" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water quality samples, and will perform water quality analyses on these samples. The water quality constituents that will measured in these analyses are: Specific Conductance (micromhos/cm), Total Alkalinity (as $CaCO_3$), pH, Chloride, Sulfate, Ammonia Nitrogen (as NH_3), Nitrate Nitrogen (as NO_3), Total Organic Carbon, Calcium, Sodium, Magnesium, Potassium, Iron, Manganese, Orthophosphate, Total Dissolved Solids, Hardness (as $CaC0_3$), Boron, Bromide, and Fluoride. For the following seven wells listed in Table 2, Barium and Iodide will also be measured annually: SBWM MW-1 Deep (from two discrete depth zones), SBWM MW-2 Deep (from two discrete depth zones), SBWM MW-3 Deep (from two discrete depth zones), SBWM MW-4 Deep (from two discrete depth zones), MSC Shallow, MSC Deep, PCA-W Shallow, PCA-W Deep, MPWMD #FO-09 Shallow, and MPWMD #FO-09 Deep. The data may either come from water quality samples that are collected by the airlift method, by the positive displacement method during induction logging of these wells and/or other data gathering techniques, or combinations of these methods, at the discretion of PROFESSIONAL, and will be submitted to a State-certified analytical laboratory for analysis. Under this Task, PROFESSIONAL will also continue retrofitting the wells that are sampled on an annual basis to use the new low-flow purge approach for getting water quality samples. The wells that are sampled quarterly have previously been retrofitted, but only a portion of the wells that are sampled annually have been retrofitted. The dedicated devices sit in the water column and may periodically need to be replaced or repaired. A not-to-exceed amount of $3,500 is included in the costs contained in Attachment 3 for this retrofitting work, as well as to perform ongoing maintenance and/or replacement of the sample pumping equipment.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 6.	Reports	PROFESSIONAL will prepare and submit reports to WATERMASTER summarizing and analyzing the data that is collected, according to the following schedule: 1. One combined report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 1st & 2nd Quarters. 2. One annual report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 3rd & 4th Quarters, 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.
I.3.d	Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	If the work started in 2011 under RFS No. 2011-01 for this Task identifies further work which WATERMASTER wishes to perform under this Task in 2012, WATERMASTER will issue a separate RFS to PROFESSIONAL to perform that work. No work on this Task is authorized under this RFS No. 2012-01.
I. 4. a and b	Review Seawater Intrusion Analyses	WATERMASTER will have a consultant perform analyses and prepare mapping and other documents pertaining to seawater intrusion detection. PROFESSIONAL will participate in meetings with the consultant during the course of its work, and will provide review comments and recommendations to WATERMASTER regarding this work as it is being carried out by the consultant.

Table 2

WELL NAME AND SUBAREA LOCATION[8]	MONITORING NETWORK[1]		MONITORING REQUIRED BY DECISION[2]		MONITORING CURRENTLY BEING PERFORMED BY PROFESSIONAL NOT SUBJECT TO THIS RFS[3]		MONITORING TO BE PERFORMED BY PROFESSIONAL UNDER THIS RFS[4]			
					Level Frequency		Level Frequency		Quality Frequency	
	Existing	Enhanced	Level (Monthly)	Quality (Annually)	Monthly	Quarterly	Monthly	Quarterly	Annually	Quarterly
Northern Coastal Subarea (and vicinity)										
MSC-Shallow	X				X					X
MSC-Deep	X				X					X
PCA-W Shallow	X					X				X
PCA-W Deep	X					X				X
PCA-E (Multiple) Shallow	X				X				X	
PCA-E (Multiple) Deep	X				X				X	
Ord Grove Test-Shallow/Deep	X				X					
Paralta Test-Shallow/Deep	X				X					
Ord Terrace-Shallow	X				X				X	
Ord Terrace-Deep	X				X				X	
MPWMD #FO-09-Shallow	X				X					X
MPWMD #FO-09-Deep	X				X					X
MPWMD #FO-10-Shallow	X				X				X	
MPWMD #FO-10-Deep	X				X				X	
Fort Ord Monitor MW-B-23-180-Dune/Aromas		X					X		X	
CDM MW-1-Dune/Aromas		X					X			
CDM MW-2-Dune/Aromas		X					X			
CAW Del Monte Observation-Shallow		X							X	
SBWM MW-1-Deep (Purisima)[6]		X						X	X	
SBWM MW-2-Deep (Purisima)[6]		X						X	X	
SBWM MW-3-Deep (Purisima)[6]		X						X	X	
SBWM MW-4-Deep (Purisima/Santa Margarita)[6]		X						X	X	
Northern Inland Subarea (and vicinity)										
MPWMD #FO-01-Shallow	X					X				
MPWMD #FO-01-Deep	X					X				
MPWMD #FO-07-Shallow	X					X				
MPWMD #FO-07-Deep	X					X				
MPWMD #FO-08-Shallow	X					X				
MPWMD #FO-08-Deep	X					X				
MPWMD #FO-11-Shallow	X					X				
MPWMD #FO-11-Deep	X					X				
SBWM MW-5-Shallow (Paso Robles)[6]		X						X	X	
SBWM MW-5-Deep (Santa Margarita)[6]		X						X	X	

Table 2 (Continued)

WELL NAME AND SUBAREA LOCATION[8]	MONITORING NETWORK[1]		MONITORING REQUIRED BY DECISION[2]		MONITORING CURRENTLY BEING PERFORMED BY PROFESSIONAL NOT SUBJECT TO THIS RFS[3]		MONITORING TO BE PERFORMED BY PROFESSIONAL UNDER THIS RFS[4]			
					Level		Level		Quality	
	Existing	Enhanced	Level (Monthly)	Quality (Annually)	Frequency		Frequency		Frequency	
					Monthly	Quarterly	Monthly	Quarterly	Annually	Quarterly
Southern Coastal Subarea (and vicinity)										
Plumas '90 Test-Deep	X				X					
K-Mart-Dune/Aromas	X				X					
CDM MW-3-Dune/Aromas		X					X			
CDM MW-4-Dune/Aromas		X					X			
MW-BW-08A-Dune/Aromas		X					X			
MW-BW-09-180-Shallow		X					X			
Laguna Seca Subarea (and vicinity)										
MPWMD #FO-03-Shallow	X					X				
MPWMD #FO-03-Deep	X					X				
MPWMD #FO-04-Shallow (E)	X					X				
MPWMD #FO-04-Deep (W)	X					X				
MPWMD #FO-05-Shallow	X					X				
MPWMD #FO-05-Deep	X					X				
MPWMD #FO-06-Shallow	X					X				
MPWMD #FO-06-Deep	X					X				
Justin Court (RR M2S)-Shallow	X					X				
LS Pistol Range (Mo Co TH-1)-Deep	X					X				
York Rd-West (Mo Co MW-1 D)-Deep	X					X				
Seca Place (Mo Co MW-2)-Deep	X					X				
Robley Shallow (North) (Mo Co MW-3S)-Shallow	X					X				
Robley Deep (South) (Mo Co MW-3D)-Deep	X					X				
LS No. 1 Subdivision-Deep	X					X				
Blue Larkspur-East End-Believed to be Deep	X					X				
York School-Shallow		X	X						X	
Laguna Seca Driving Range (SCS-Deep)-Shallow		X						X	X	
Laguna Seca County Park #2-Shallow		X	X						X	
CAW Granite Construction-Deep		X					X			
CAW Ryan Ranch (RR) #7-Deep		X	X						X	
Laguna Seca Golf New #12-Deep[9]		X							X	
Pasadera Main Gate-Deep		X	X						X	
No. of Wells in Each Network[5]=	40	21	4	0	14	26	8	7	20	6

Notes:

(1) The wells within the Existing Monitoring Well Network are the wells that PROFESSIONAL has been monitoring in the recent years as part of PROFESSIONAL's own monitoring program. The wells within the Enhanced Monitoring Well Network are the wells to be monitored under this RFS.

(2) Monitoring required by the Decision is the monitoring described in the Monitoring and Management Program which was incorporated by reference in the Decision of the Court dated February 9, 2007.

(3) Monitoring currently being performed by PROFESSIONAL not subject to this RFS is monitoring work PROFESSIONAL is performing under other monitoring programs. This monitoring is not a part of this RFS.

(4) Monitoring to be performed by PROFESSIONAL is the monitoring to be performed under this RFS.

(5) The Enhanced Monitoring Well Network includes 15 wells recommended in the Enhanced Monitoring Well Network report prepared by PROFESSIONAL, dated October 23, 2007, plus the 4 new Sentinel Wells installed in 2007.

(6) The Seaside Basin Watermaster (SBWM) wells are all equipped with dataloggers that obtain measurements at least daily, but will be manually sounded for water level on a quarterly basis for calibration purposes. SBWM MW-4 Deep is to be sampled for water quality semi-annually.

(7) Not used.

(8) Shallow=Paso Robles; Deep=Santa Margarita or Purisima.

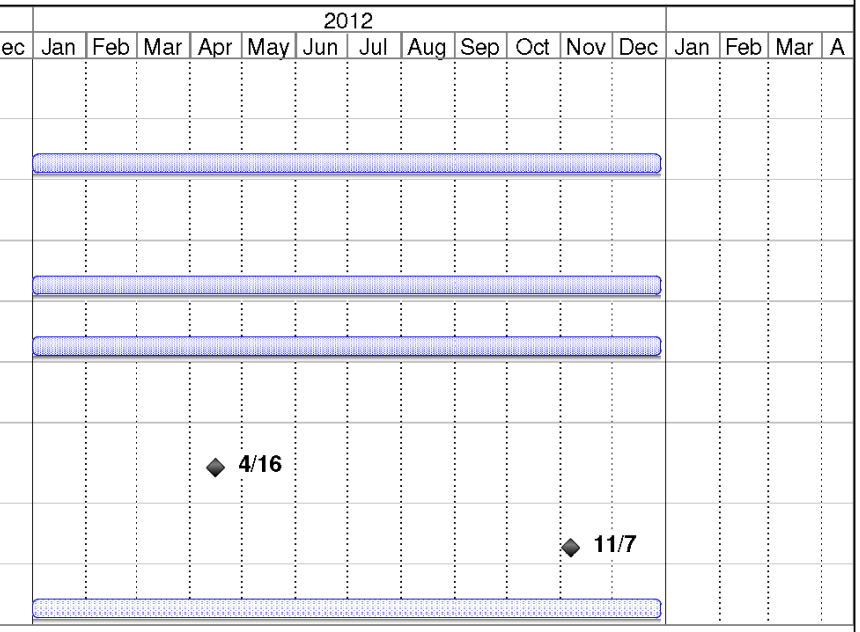
(9) This well is so close to the Laguna Seca Old No. 12 well that no water level monitoring is necessary.

(10) CAW East Fence Shallow well can no longer be sampled and was therefore dropped from this list.

ATTACHMENT 2
SCHEDULE

MPWMD RFS No. 2012-01
Work Schedule

ID	Task Name
1	**I.2.a DATABASE MANAGEMENT**
2	**I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance (MPWMD)**
3	**I.2.b DATA COLLECTION PROGRAM**
4	**I.2.b.2 Collect Monthly Water Levels (MPWMD)**
5	**I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD)**
6	**I.2.b.6 Reports (from MPWMD)**
7	MPWMD Prepares Combined Quarterly Water Production, Water Level, and Water Quality Reports for 1st & 2nd Quarters
8	MPWMD Prepares Annual Water Production, Water Level, and Water Quality Report
9	**I.4.a HydroMetrics & MPWMD Provide Oversight of Seawater Intrusion Detection and Tracking**



Work Schedule for MPWMD RFS No 2012-01 10-9-11 Page 1

ATTACHMENT 3 SUMMARY OF ESTIMATED COSTS

M&MP TASK NO.	LABOR HOURS		HOURLY RATE	SUPPLIES AND MATERIALS		TOTAL
	BREAKDOWN	TOTAL		BREAKDOWN	TOTAL	
I. 2. a. 1	12 mo. @ 8 hrs/mo.	96	$100	Other services needed to host and maintain Watermaster's Database, estimate $300 for the year.	$300	$9,900
I. 2. b. 2.	12 mo. @ 4 hrs/mo.	48	$70	N/A	$0	$3,360
I. 2. b. 3.	Existing Coastal wells (6 wells @ 3 sites): 4 events @ 20 hrs/event	80	$70	Fuel: 4 events @ $10/site x 3 sites = $120; Lab costs: 4 events @ $200/well x 6 wells = $4,800.	$4,920	$10,520
	Annual WQ wells per Table 2: 1 event @ 28 hrs/event = 28 hrs: ~~Quarterly new WQ well per Table 2 (BLM site): 1~~ event ~~@ 4 hr/event = 4 hrs~~	28	$70	Eductor setup (needed for each event at the BLM site): $500 x 1 site = $500; Airlift equip.: $100 x 1 site x 1 event = $100; Fuel: $20 x 1 site x 1 event = $20; Lab cost (annual WQ wells): $200 x 16 wells x 1 event = $3,200 + $1,500 for adding barium and iodide analyses; One-time perm. pump retrofits, and maintenance on previously installed sample collection equipment = $3,500.	$8,820	$10,780
	WM Sentinel and Northern Inland wells: download/store dataloggers, 4 events @ 2 hrs/event	8	$70	N/A	$0	$560
	WM Sentinel wells: Semi-annual induction logging - all 4 sites; annual WQ samples from each aquifer at each site (=2 per well site) - all 4 sites; semi-annual WQ samples - SBWM MW-4 site. Total labor = 2 events @ 4 wells @ 3 hrs/well.	24	$70	Induction logging: $7,200 for all 4 sites/event x 2 events = $14,400; Lab cost (annual): $200 x 4 sites x 2 samples = $1,600; Lab cost (second sampling @ SBWM MW-4): $200 x 1 site x 2 samples = $400.	$16,400	$18,080
	Compile data: 4 events @ 25 hours/event	100	$70	N/A	$0	$7,000
I. 2. b. 6	1 - combined Q1 and Q2 quarterly report @ 18 hrs	18	$85	N/A	$0	$1,530
	1- annual report @ 16 hrs	16	$100	N/A	$0	$1,600
I.3.d	Further evaluation of Coastal Wells for cross-aquifer contamination potential	0	$85	N/A	$0	$0
I. 4. a and b	12 mo. @ 3 hrs/mo.	36	$100	N/A	$0	$3,600
					TOTAL ESTIMATED COST =	**$66,930**

ATTACHMENT 3
COSTS

Notes:

1. Vehicle mileage is included in the labor costs above.
2. Regardless of the use of the term "Estimated Cost" in this RFS, if the work of this RFS is to be compensated for using Lump Sum Payment method, it is understood and agreed to by PROFESSIONAL that the Total Price listed on page A-1 of this RFS is binding and limiting as defined in Section V of the Agreement.

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2012 **RFS NO**. 2012-02 .
(To be filled in by WATERMASTER)

TO: Joe Oliver **FROM**: Robert Jaques .
Monterey Peninsula Water Management District WATERMASTER PROFESSIONAL

Services Needed and Purpose:
Perform water level and water quality data collection for specified wells within the Seaside Basin in accordance with the Scope of Work contained in Attachment 1.

Completion Date: The work of this RFS No. 2012-02 shall be completed on an as-directed basis from the Watermaster during 2012. All work under this RFS will be completed not later than December 31, 2012.

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

Total Price Authorized by this RFS: $4,140.00 (See Attachment 1 for details regarding this Total Price, and how costs will be authorized on an as-directed basis. Cost is authorized only when evidenced by signature below.)

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

Requested by: _____ Date: _____.
WATERMASTER Technical Program Manager

Authorized by: _____ Date: _____.
WATERMASTER Chief Executive Officer

Agreed to by: _____ Date: _____.
PROFESSIONAL

ATTACHMENT 1
Scope of Work for RFS No. 2012-02

Background:

The WATERMASTER Board authorized its staff to contract with the PROFESSIONAL to collect water level and water quality data from certain wells located within the Seaside Basin, if the owners/operators of those wells expressed this desire to the WATERMASTER. The procedures for this data collection are described in the January 17, 2008 "Notice to Well Owners" that was sent out by the Watermaster to well owners in the Seaside Groundwater Basin..

This RFS No. 2012-02 authorizes PROFESSIONAL to perform this data collection work on an as-directed basis, with formal authorization from the WATERMASTER to the PROFESSIONAL being required prior to the PROFESSIONAL performing such work on any specified well. This will provide the WATERMASTER with full control over which wells are provided this service, as well as over the costs for having this work performed.

The wells to which these services may be provided are listed in Table 1.

The estimated costs, per well, to perform these services are as follows:

Monthly Water Levels - It is estimated that it will take approximately 0.5 hour/well to perform a water level measurement. This time estimate is based on the assumption that the water level measurements will be performed at the time that a field person is already out and about collecting data from other wells, and the fact that the distance between wells located within the Basin is not that great. This labor would be billed at the field rate of $70/hr, so the estimated cost per water level measurement would be $35.

The total estimated cost would be $420 per year per well for 12 monthly measurements.

Annual Water Quality Sampling - Assuming that annual water sample collection would coincide with water level collection at a well, it is estimated that it will take approximately 0.5 hr to collect the water quality sample, including sampling time, bottle labeling, custody forms, delivery to laboratory, etc. There will also be an estimated 0.5 hr for receipt, review and computer entry of laboratory data, and an estimated $200 per sample for the laboratory analysis. The sampling work would be billed at the field rate of $70/hr, so the estimated cost per annual water quality sample would be $70 for labor, and $200 for laboratory services, for a total cost per sample of $270. Only one sample per well will need to be collected and analyzed in 2012. This sample will be collected in the fall of 2012.

The total estimated cost for collecting and analyzing the sample per well is $270.

Combined Water Level Measurements and Water Quality Sampling: For combined water level and water quality monitoring, the total estimated cost, per well, for the 12-month period is $690.

Of the wells listed in Table 1 it is assumed that not more that 6 will ask to have data collected for them by the WATERMASTER, the total estimated cost would be:

Potential No. of Wells Needing Water Level Data Collected = 6 @ $420 = $2,520
Potential No. of Wells Needing Water Quality Data Collected = 6 @ $270 = $1,620
TOTAL = $4,140

Table 1

APN	DETAILS	COMPANY	Watermaster "Producer" Well?	MPWMD Assigned Well #	Monthly Water Levels Required	Monthly Water Levels Being Collected?	Annual Water Quality Analyses Required?	Annual Water Quality Data Being Collected?
Within MPWMD Boundaries								
012-432-004	CAW - Plumas #4	California American Water Co.	Y	T15S/R1E-27Jg	Y	Y	Y	N
012-843-013	CAW - Darwin	California American Water Co.	Y	T15S/R1E-23Ea	Y	Y	Y	N
011-041-018	CAW - Military	California American Water Co.	Y	T15S/R1E-14Nd	Y	Y	Y	N
011-061-004	CAW - Ord Grove #2	California American Water Co.	Y	T15S/R1E-23Bc	Y	Y	Y	N
011-071-018	CAW - New Luzern	California American Water Co.	Y	T15S/R1E-23De	Y	Y	Y	N
011-091-017	CAW - Playa #3	California American Water Co.	Y	T15S/R1E-22Bc	Y	Y	Y	N
011-091-017	CAW - Playa #4	California American Water Co.	Y	T15S/R1E-22Bf	Y	Y	N	
011-493-028	CAW - Paralta	California American Water Co.	Y	T15S/R1E-14Ra	Y	Y	Y	N
031-151-010	Reservoir Well	City of Seaside	Y	T15S/R1E-13Na	Y	?	Y	N
031-231-062	Coe Avenue Well	City of Seaside	Y	T15S/R1E-14Ma	Y	?	Y	N
011-181-014	Public Works Corp. Yard	City of Sand City	Y	T15S/R1E-22Ed	Y	?	Y	N
011-011-020	Cypress Pacific	Monterey Peninsula Engineering	Y	T15S/R1E-22Dd	Y	N	Y	N
011-236-010	Robinette -Design Ctr.	City of Sand City	Y	T15S/R1E-22Mc	Y	?	Y	N
011-041-043	(in front of Target)	DBO Development	Y	T15S/R1E-22Ce	Y	N	N	
011-061-022	MMP prod well	Mission Memorial Park	Y	T15S/R1E-23Ab	Y	Y	N	
011-061-022	PRTIW -operated by MMP	Mission Memorial Park	Y	T15S/R1E-23Ac	Y	N	Y	N
011-501-014-500		Security National Guaranty, Inc.	Y	T15S/R1E-15K1	Y	N	Y	N
011-532-005		Granite Rock Company	Y	T15S/R1E-22Eb	Y	?	N	
012-511-005	Shea Well	City of Del Rey Oaks	Y	T15S/R1E-26Mc	Y	N	N	
012-115-017	City #4	Seaside Municipal Water System	Y	T15S/R1E-23Gc	Y	?	Y	?
012-653-003	City #2	Seaside Municipal Water System	Y	T15S/R1E-23Pb	Y	?	N	
012-664-017	City #1	Seaside Municipal Water System	Y	T15S/R1E-23Lb	Y	?	N	
012-115-017	City #3	Seaside Municipal Water System	Y	T15S/R1E-23Ga	Y	?	Y	?
173-071-052	East Well (Lot #9)	CAW - Bishop Unit	Y	T16S/R2E-05Fa	Y	N	N	
173-072-034	well lot Bishop #1 (west)	CAW - Bishop Unit	Y	T16S/R2E-05Ea	Y	Y	N	
173-072-041	well lot Bishop #2 (east)	CAW - Bishop Unit	Y	T16S/R2E-05Fb	Y	Y	N	
416-111-002	Mutual	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cb	Y	N	N	
416-111-004	Standex	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cc	Y	N	N	
416-111-004	Bay Ridge	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cd	Y	Y	N	
259-031-011	RR#7	CAW - Ryan Ranch #7	Y	T15S/R1E-36Nb	Y	Y	N	
259-031-012	RR#8	CAW - Ryan Ranch #8	Y	T16S/R1E-01Cb	Y	Y	N	
259-031-012	RR#11	CAW - Ryan Ranch #11	Y	T16S/R1E-01Cd	Y	Y	N	
173-071-056	Old Main Gate (Lot #12)	Pasadera - New Cities Developme	Y	T16S/R2E-05Mg	Y	Y	N	
173-071-051	Paddock #1(Lot #11)	Pasadera - New Cities Developme	Y	T16S/R2E-05Mf	Y	N	N	
203-031-034	01-349	York School	Y	T15S/R1E-36Qa	Y	?	N	
173-071-048	(new #12)	Laguna Seca Golf Resort	Y	T16S/R2E-06Hb	Y	Y	N	
173-071-048	(racetrack)	Laguna Seca Golf Resort	Y	T16S/R2E-06Ga	Y	Y	N	
Outside MPWMD Boundaries								
173-011-025, -026	LS Cnty Park #3	MPRPD	Y	T16S/R2E-05Gd	Y	?	N	
173-011-025, -026	LS Cnty Park #4	MPRPD	Y	T16S/R2E-05Ge	Y	?	N	
					Y = 38	**N or ? = 21**	**Y = 16**	**N or ? = 16**

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2012

RFS NO. 2012-01
(To be filled in by WATERMASTER)

TO: Derrik Williams
HydroMetrics LLC
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2012, and shall be performed in accordance with the Schedule contained in Attachment 2.

Method of Compensation: Time and Materials (As defined in Section V of Agreement.)

Total Price Authorized by this RFS: $ 12,000.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by: _____ Date:_____.
WATERMASTER Technical Program Manager

Authorized by: _____ Date:_____.
WATERMASTER Chief Executive Officer

Agreed to by: _____ Date:_____.
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK

On an ongoing and as-requested basis, PROFESSIONAL will provide general hydrogeologic consulting services to WATERMASTER on a variety of topics. These may include, but not be limited to interpretation of water level and water quality data collected by WATERMASTER, and BMAP and SIRP implementation issues.

Providing these services will likely involve attending certain of WATERMASTER's Technical Advisory Committee (TAC) meetings, most of which will be attended telephonically. These TAC meetings do not include special TAC or other meetings which may be required as part of performing other work which may be authorized under other RFSs issued to PROFESSIONAL by WATERMASTER. Any such other scope and cost proposals will incorporate costs for those meetings.

The Tasks in WATERMASTER's 2012 Monitoring and Management Program (M&MP) to which this RFS No. 2012-01 pertains are:

M. 1. c - Preparation and Attendance of Meetings
M. 1. e - Peer Review of Documents and Reports
I. 2. b. 6 - Reports
I. 4. a. - Oversight of Seawater Intrusion Detection and Tracking

ESTIMATED COSTS

General Consulting Services, including attending some TAC and other meetings either via telephone or in-person in Seaside, as requested by WATERMASTER will be billed at the following hourly rates, including all markups and other direct costs:

Derrik Williams = $190.00/hour Georgina King = $160.00/hour

In addition to hourly labor costs, an allowance of $1,000.00 is included in this RFS to cover travel and other incidental costs associated with the performance of this work.

The total cost authorized by this RFS No. 2012-01 is $12,000.00.

ATTACHMENT 2
SCHEDULE

HydroMetrics RFS No. 2012-01
Work Schedule

ID	Task Name	2012															
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	F
1	**M. 1. c - Preparation and Attendance of Meetings**																		
2	**M. 1. e - Peer Review of Documents and Reports**																		
3	**I.2.b.6 Reports (by HydroMetrics)**																		
4	**I.4.a HydroMetrics & MPWMD Provide Oversight of Seawater Intrusion Detection and Tracking**																		

Work Schedule for HydroMetrics RFS No 2012-01 10-7-11 Page 1

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: 1/1/2012

RFS NO. 2012-02
(To be filled in by WATERMASTER)

TO: Derrik Williams
HydroMetrics LLC
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: Prepare the Seawater Intrusion Analysis Report for 2012. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2012, and shall be performed in accordance with the Schedule contained in Attachment 2.

Method of Compensation: Time and Materials (As defined in Section V of Agreement.)

Total Price Authorized by this RFS: $ 22,090.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 3 for Detailed Breakdown of Estimated Costs).

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

Requested by: _____ Date:_____.
WATERMASTER Technical Program Manager

Authorized by: _____ Date:_____.
WATERMASTER Chief Executive Officer

Agreed to by: _____ Date:_____.
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK

The scope consists of providing professional consulting services to WATERMASTER for preparation of the 2012 Seawater Intrusion Analysis Report (SIAR).

To promote efficiency, much of the text and graphics from the 2011 SIAR will be incorporated directly into the 2012 SIAR. Changes that will be incorporated into the 2012 SIAR will include:

- Updating charts, graphs, and maps to reflect the most recent sampling and water level data.
- Analyzing the quarterly electric induction logs (EM logs) from the coastal sentinel wells to look for evidence of seawater intrusion.
- Incorporating data from the new Northern Inland (BLM Site) well which was added to WATERMASTER's enhanced monitoring well network in late 2009.

Preparing the 2012 SIAR will involve analyzing all water quality data at the end of Water Year 2012 (October 1, 2011 to September 30, 2012) and producing semi-annual (2^{nd} and 4^{th} quarters 2012) chloride concentration maps for each aquifer in the Basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. Second and fourth quarter groundwater elevation maps will also be produced. The annual EM logs will be analyzed to identify changes in seawater wedge locations. A determination of whether there is any evidence of seawater intrusion will be made, and recommendations will be included as warranted.

A Draft 2012 SIAR will be provided to WATERMASTER in electronic (not printed) form for review. WATERMASTER will provide its review comments and those of its TAC members through direct discussions with PROFESSIONAL at a TAC meeting. In addition to these oral comments, some TAC members may also provide recommended editorial changes electronically directly to PROFESSIONAL. These comments will be addressed in a Final 2012 SIAR. A CD containing an electronic version of the entire Final 2012 SIAR in MS Word and up to 15 printed and bound copies of the Final 2012 SIAR (quantity to be determined by WATERMASTER) will be provided to WATERMASTER.

ATTACHMENT 2

HydroMetrics RFS No. 2012-02
Work Schedule

ID	Task Name	2012												2013					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
1	**I.4.c Annual Seawater Intrusion Analysis Report (SIAR)**																		
2	HydroMetrics Provides Draft SIAR to Watermaster										◆ **10/31**								
3	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)											◆ **11/7**							
4	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)												◆ **11/28**						

ATTACHMENT 3

DETAILED BREAKDOWN OF ESTIMATED COSTS

Note: Regardless of the use of the term "Estimated Cost" in this RFS, if the work of this RFS is to be compensated for using Lump Sum Payment method, it is understood and agreed to by PROFESSIONAL that the Total Price listed on page 1 of this RFS is binding and limiting as defined in Section V of the Agreement.

DETAILED BREAKDOWN OF ESTIMATED COSTS

HOURLY RATES: Derrik Williams = $190.00 Georgina King = $160.00

Task	Hours		Costs			
	Derrik Williams	Georgina King	Derrik Williams	Georgina King	Expenses	Total Costs
2012 Seawater Intrusion Analysis Report						
Produce 2012 SIAR	16	88	$3,040	$14,080	$3,130	$20,250
Attend One TAC Meeting in Monterey	9	0	$1,710	$0	$130	$1,840
TOTALS	**25**	**88**	**$4,750**	**$14,080**	**$3,260**	**$22,090**

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

MEETING DATE:	November 9, 2011
AGENDA ITEM:	8
AGENDA TITLE:	Set Next Meeting Date
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

All of the work planned for FY 2011 has been completed, with the exception of work still ongoing into investigating coastal wells for cross-aquifer contamination potential. The timing of completion of that work is not critical, and that work will likely not be completed until early 2012.

For this reason there does not appear to be any need to hold a TAC meeting in December. I am therefore recommending that the TAC cancel its December 2011 meeting and have its next meeting on Wednesday January 11, 2012.

ATTACHMENTS:	None
RECOMMENDED ACTION:	Approve recommendation to cancel the December TAC meeting and have the next TAC meeting on January 11, 2012

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	9
AGENDA TITLE:	Progress Report on MRWPCA Groundwater Replenishment Project
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Phyllis Stanin of Todd Engineers, consultants to MRWPCA on their Groundwater Replenishment Project, will make a brief presentation about that Project. She will describe what has been done in the past, and the recent work. She will also ask the TAC some questions about their preferences regarding certain aspects of the Project, such as the proportion of water that should go into the Paso Robles and into the Santa Margarita aquifers.

The presentation will address the following topics:

- Description of the GWR project
- Work completed to date
- Future project work
- Solicitation of Technical Advisory Committee input on target aquifers and recharge methods

ATTACHMENTS:	Background Information on the GWRP
RECOMMENDED ACTION:	None required – information only

GWR PROJECT DESCRIPTION

Since 2006, Todd Engineers has assisted MRWPCA on the development of a safe, reliable source of replenishment water for the Seaside Subarea of the larger Salinas Valley Groundwater Basin (referred to as the Seaside Basin in this document). The groundwater replenishment (GWR) project involves the recharge of approximately 2,700 acre-feet per year (AFY) of highly treated recycled water from an advanced water treatment plant (AWTP) to be located at the MRWPCA Regional Treatment Plant (RTP). The water will be transmitted from the AWTP to the Seaside Basin via the Regional Urban Water Augmentation Project (RUWAP) pipeline. Recycled water is currently anticipated to be delivered over a five month period (October to March). This supply is considered to be highly reliable and available even in dry hydrologic cycles.

HYDROGEOLOGIC STUDIES COMPLETED TO DATE

From 2006 to 2008, Todd Engineers evaluated target aquifers, recharge methods, and favorable locations within the basin for the GWR project. The potential for recharge and associated benefits were analyzed for the Paso Robles Aquifer and the Santa Margarita Aquifer, the two aquifer systems providing water supply in the basin. The shallower Paso Robles Aquifer occurs under unconfined conditions over most of the basin and can be replenished by surface or near-surface recharge methods (e.g., recharge basins or vadose zone wells). The deeper Santa Margarita Aquifer occurs under confined conditions and requires deep injection for recharge.

Both the Paso Robles and Santa Margarita aquifers had exhibited water level declines consistent with basin overdraft. The analysis indicated that it was feasible to provide enhanced recharge to either or both aquifers and both are considered viable targets for GWR. With the assistance of MRWPCA, seven potential sites for a GWR project were identified and evaluated. Site screening resulted in two preferred project areas; an inland location and a coastal location. Both locations provide benefits for groundwater basin replenishment and protection against potential seawater intrusion. However, the inland location was preferred because of the larger available subsurface storage, access to infrastructure, and immediate benefits for water supply. The preferred location is approximately 3,000 feet northeast of the ASR wells operated by Monterey Peninsula Water Management District (MPWMD) in the Northern Inland Subarea. The potential project location is also upgradient of most of the groundwater production in the basin. The GWR project was included in a 2009 Environmental Impact Report as a component of a Regional Water Supply program for Monterey County (ESA, 2009).

FUTURE PROJECT WORK

The next steps for the hydrogeologic portion of the project involve field studies and site evaluation of aquifers and recharge potential. Since the lithology and texture of the thick vadose zone at the site are unknown, a field investigation is planned to characterize the vadose zone. This involves the drilling of a Paso Robles monitoring well using the sonic method and continuously coring (6-inch or 4-inch cores) the vadose zone. Cores will be geologically logged and samples will be selected for laboratory analysis of hydraulic properties. The well will be screened across the water table to allow sampling of recharged (recycled) water as required by California Department of Public Health (DPH) regulations. Baseline sampling will be coordinated with regional groundwater quality sampling in the area. Depending on the results, additional monitoring wells may be drilled to sample the Santa Margarita Aquifer in addition to the Paso Robles Aquifer. The GWR project can be operated in a variety of ways to complement ongoing projects in the basin (such as the MPWMD ASR project) and to meet the goals and objectives of the Watermaster for replenishment water. Accordingly, this project is seeking input from local agencies on how best to integrate the GWR project given current conditions in the basin. Depending on the operation of the ASR project and the priorities of the Watermaster, replenishment of one aquifer system may be more important than the other. Alternatively, replenishment of both aquifers may provide the optimal benefit to the basin. A workplan that considers updated objectives and priorities for the basin will produce a more cost-effective field program and prevent costly collection of unnecessary data.

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 9, 2011
AGENDA ITEM:	11
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