MEETING NOTICE AND AGENDA

NOTE DIFFERENT DATE AND LOCATION!!!

TECHNICAL ADVISORY COMMITTEE OF THE SEASIDE BASIN WATER MASTER

DATE: Thursday, November 19, 2009
TIME: 1:30 p.m.
LOCATION: Monterey Peninsula Water Management District – Board Room
5 Harris Court, Building G
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.

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	Public Member (John Fischer)	

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	1.A
AGENDA TITLE:	Approve Minutes from October 14, 2009
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Draft Minutes from this meeting were emailed to all TAC members. Proposed changes 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
October 14, 2009

Attendees: **TAC Members**
City of Seaside – Tim O'Halloran
California American Water – Eric Sabolsice
City of Monterey – Norman Green
Laguna Seca Property Owners – No Representative
MPWMD – Joe Oliver
Public Member – John Fischer
MCWRA – Rob Johnson
City of Del Rey Oaks – No Representative
City of Sand City – No Representative
Coastal Subarea Landowners – No Representative

Watermaster
Technical Program Manager - Robert Jaques

Consultants
HydroMetrics LLC - Derrik Williams and Georgina King (by telephone)
Martin Feeney Hydrogeologist - Martin Feeney (by telephone)

Others:
CAW – Tom Bunosky (arrived during Agenda Item 2.C)
MCWD – Brian True

The meeting was called to order at 1:35 p.m.

Note: Since neither Ms. Ingersoll nor Mr. Bunosky was present (Chair and 1st Vice-Chair respectively), Mr. Johnson (2nd Vice-Chair) chaired the meeting.

1. **Administrative Matters:**
   A. Approve Minutes from September 23, 2009 Regular Meeting
   Mr. Fischer thanked Mr. Jaques for editing the minutes to reflect the potential of having to retrofit or even replace some of the wells during the long time period that will be covered by the Protective Water Levels Report. On a motion by Mr. Oliver, second by Mr. Johnson, the minutes were unanimously approved as presented.

2. **Progress Reports**
   A. MPWMD

Mr. Oliver summarized the agenda packet material for this item. He noted that some of the issues under his progress report would be discussed by others.

Mr. Fischer and Mr. Oliver commented that they had difficulty printing portions of today's agenda packet. As a result Mr. O'Halloran had copies of those pages printed up and handed out to the attendees at today's meeting. These were from page 19 of the agenda packet to the end of the agenda. While the copies were being printed, there was some informal discussion with regard to recent large rainstorm events and their impacts in the area.

B. HydroMetrics

Ms. King summarized the agenda packet material for this item. She noted that the calibration work is now complete and that the scenarios are now being prepared. She reported that she has been working on details of the scenarios with assistance from Mr. Oliver. She also reported that she has received some comments on the draft documents from Mr. Jaques.

C. Martin Feeney

Mr. Feeney said he has not heard recently from the BLM regarding the status of getting the new right-of-way documents issued for the new BLM monitoring well site. Mr. Feeney and Mr. Oliver discussed the fact that Bradley (well driller) has indicated they may be available to resume this work after the end of this week. Mr. Jaques said that he would contact Dan Byrne of BLM to get an update on when we can proceed with the work. Mr. Feeney reported that he been contacted by Eric Morgan of the BLM to notify him that they may be having a controlled burn in their area, and if so it could impact the well drilling work schedule.

As a procedural matter at this point in the meeting Mr. Bunosky stated that Mr. Sabolsice has replaced him as the CAW representative to the TAC, and asked that Mr. Sabolsice take over Mr. Bunosky's position as First Vice Chair. Mr. Sabolsice said he was glad to accept. There was consensus among TAC members that Mr. Sabolsice should replace Mr. Bunosky in this position, and at this point in the meeting Mr. Sabolsice took over presiding over the meeting.

Mr. Feeney reported that the Monterey Shale formation is deeper than 1,300 feet as previously expected, based on drilling that has been performed thus far at the BLM monitoring well site, and the E-log from that work. He said that the hydrogeology is different than previously thought. It was originally thought they would hit the Monterey Shale at a depth of about 900 feet. Mr. Bunosky asked Mr. Feeney if this means that the Basin is deeper than previously thought. Mr. Feeney responded that the Basin in this area is deeper than previously thought, and that this would change the storage volume for this portion of the Basin. He said it would be necessary to evaluate the data when the new monitoring well is completed to see what conclusions can be drawn from this.

There was some discussion about the potential significance of these findings, specifically with regard to the issue of inter-basin water issues between the Seaside and Salinas Valley Groundwater Basins.

Mr. Fischer asked Mr. Feeney if he expected to have a better understanding of what is going on in this part of the Basin as result of this work. Mr. Feeney responded that each well provides new information, and in this area this there has historically been very little, if any, drilling data. Mr. Oliver said there is much more data in the Coastal Subarea of the Basin, so that part of the Basin is much better understood.

Mr. True asked Mr. Feeney if this means there is a depression in the bottom of the aquifer in the BLM vicinity of the Basin. Mr. Feeney responded yes, and said the hydrogeologic term for this is "structurally deformed".

D. Technical Program Manager

Mr. Jaques summarized the agenda packet materials for this item. There were no questions or further discussion under this item.

3. Draft Seawater Intrusion Analysis Report

Ms. King briefly summarized the agenda packet material for this item by saying that the 2009 Sea Water Intrusion Analysis Report (SIAR) is very similar in form and findings to the 2008 SIAR. She said there was more data last year, because well owners performed two sampling events to make up for not performing sampling in the preceding year. They are now only doing annual sampling, in accordance with the original monitoring plan.

Mr. Jaques and Ms. King summarized the Recommendations section of the SIAR. In response to a question from Mr. Oliver, Ms. King said that she needed any additional comments or edits from TAC members not later than Wednesday October 21 in order to finalize the SIAR on schedule.

Mr. Fischer asked to have an Executive Summary included in the SIAR. There was some discussion on this leading to consensus to include an Executive Summary containing a lay person's level of overview of what the report covers, and listing the Conclusions and Recommendations. Ms. King will include that section in the final version of the SIAR.

Ms. King then summarized the Conclusions section of the report. She asked Mr. Oliver if the Water Year 2009 production data would be available in time to complete the report on schedule, so it can be included in the Annual Report. Mr. Oliver said he felt optimistic about having the data available in time for this to be accomplished, because much of the missing data has now been received.

Ms. King explained that the SIAR reports on the "health" of the Basin in order to identify any indications of sea water intrusion occurring.

There was discussion that the "snapshots" over time which are presented in the SIARs, along with the modeling work, will all be used in determining what protective water levels should be selected for Basin management purposes.

4. Draft Watermaster Annual Report for 2009

Mr. Jaques briefly provided an overview summary of the agenda packet materials on this item and there were questions and answers on several topics. Mr. Jaques invited TAC members to provide any additional comments or edits they may wish to propose, so he can address those in the final version of the Annual Report.

5. Status Report on City of Seaside Negotiations with MCWD to Obtain Golf Course Water

Mr. True reported that a conceptual design of facilities to deliver MCWD water to the Seaside golf course reservoir, including using automated control equipment, has now been prepared. He anticipated it would take about 45 days to put the system into automatic operation after a signed agreement to proceed is received by MCWD from the City of Seaside.

Mr. O'Halloran reported that the city is now negotiating with their golf course operations contractor for terms and conditions under which the golf course operator would accept the MCWD water. He noted that chlorine has been a concern to the golf course operator, since the well water is not chlorinated, whereas the MCWD water is chlorinated. Mr. True said he anticipated that any residual chlorine would be dissipated from the open-air reservoir into which the MCWD water will be delivered.

There was some discussion with regard to recycled water for future use on the golf courses and issues related to the use of recycled water. Mr. Bunosky questioned whether there could be an issue with the salt content of MCWD water vs. Seaside Basin water for the golf course use, and if so, had this been considered. There was

discussion that the salt content may not be a significant issue, based on a 3-year recycled water demonstration study conducted by MRWPCA at the Fort Ord golf courses. This study showed that salt buildup could be flushed out of the root zone using recycled water itself, and thus periodic fresh water flushes may not be required as was necessary in the CAWD/PBC golf course irrigation project in Pebble Beach. This is due largely to the fact that the soils are very sandy and have a high percolation rate. Also, the Seaside golf course operator has a requirement in their contract with the City of Seaside to accept recycled water for the golf courses when recycled water becomes available.

Mr. Jaques commented that a Draft MOU was included in today's agenda packet, and he understood that it would be presented for Board approval at the November 4th, 2009 Watermaster Board meeting. Mr. O'Halloran reported that the draft MOU is scheduled to go to the Seaside City Council for approval on October 15.

Mr. Bunosky asked if there was a target start-up date for the facilities to deliver MCWD water to the golf courses. Mr. O'Halloran responded that a target date had not yet been established.

6. Schedule

Mr. Jaques briefly summarized the agenda packet materials for this item. Mr. Bunosky asked Mr. Jaques if revisions to the BMAP were needed in 2009, a task shown as a potential activity on the current Schedule. Mr. Jaques responded that no revisions were needed in 2009, and that he would update the Schedule to show this. Mr. Jaques reported that the 2010 M&MP includes a task and funds to prepare BMAP revisions in 2010. There were no further questions or discussion under this item.

7. Set next meeting dates:

- **The next TAC meeting will be a Special TAC Meeting to be held on Wednesday October 28, 2009 at 9:00 a.m. at the MRWPCA Offices Board Room.**
- **The next regular TAC meeting will be held on Thursday November 19, 2009 at 1:30 p.m. at the MPWMD Offices Board Room.**

The meeting adjourned at 3:22 p.m.

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	1.B
AGENDA TITLE:	Approve Minutes from October 28, 2009
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Draft Minutes from this meeting were emailed to all TAC members. Proposed changes 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
Special Meeting
October 28, 2009

Attendees: **TAC Members**
City of Seaside – Rick Riedl
California American Water – Eric Sabolsice
City of Monterey – Norman Green
Laguna Seca Property Owners – Bob Costa
MPWMD – Joe Oliver
Public Member – John Fischer
MCWRA – Rob Johnson
City of Del Rey Oaks – No Representative
City of Sand City – No Representative
Coastal Subarea Landowners – No Representative

Watermaster
Chief Executive Officer – Dewey Evans
Technical Program Manager - Robert Jaques

Consultants
HydroMetrics LLC - Derrik Williams and Georgina King

Others:
CAW – Craig Anthony
MCWD – Brian True
MRWPCA – Bob Holden
MPWMD – Jonathan Lear (arrived at approximately 10:45 a.m.)

The meeting was called to order at 9:07 a.m.
Mr. Williams handed out the attached PowerPoint slide handouts for use during his presentations.

Mr. Sabolsice called the meeting to order and asked Mr. Williams to proceed with his presentations.

1. **Discussion of Issues Pertaining to the Protective Water Level Modeling Work**
   A. Uncertainty Analysis
   Mr. Williams summarized the protective water level development work and compared the initial estimates of the protective water levels with the final ones after doing the uncertainty analysis. He said that the target was for 70 of the 100 simulations to show protection. This is essentially the same as table 13 on page 92 of the Groundwater Basin Modeling Report, and similar to table ES-1. The uncertainty analysis only resulted in a few feet of change in any of the protective water levels.
   B. Other Issues
   There were no other issues to discuss pertaining to Protective Water Levels.

2. Discussion of Issues Pertaining to the Groundwater Modeling Work

A. Results of Modeling of Scenarios

Mr. Williams provided a summary presentation on the Groundwater Basin Modeling Report. The following are some of the key points made during his presentation:

- The calibration results showed good agreement between predicted and measured groundwater levels.
- The northern boundary in the deep aquifer (Santa Margarita) between this Seaside Groundwater Basin and the Salinas Valley Groundwater Basin, as estimated over the past 22 years of data, show that the location of this groundwater divide had moved only slightly and stayed within a fairly compact zone.
- Mr. Jaques asked if under Scenario No. 1, once Cal Am resumes pumping in 2027, will the groundwater levels begin to fall again. Mr. Williams responded that they would.
- Mr. Williams said that even though the Granite Rock and DBO wells, as noted on page 97, have not pumped in the past five years, since they have a Standard Production allocation in the Decision, the Baseline Scenario includes these wells pumping at their fully allocated levels. If desired by the Watermaster in 2010, another scenario could be developed using different assumptions.

- Scenario 1:
  - Showed that recovery in the Santa Margarita aquifer is very slow, because there is little to no recharge near the coast.
  - There is only a small amount of leakage between aquifers near the coast.
  - The triennial reductions reach a total pumping level of 3,000 acre feet per year, the Natural Safe Yield, in 2024.
  - About 4,000 acre feet of storage, mostly in the Santa Margarita aquifer, would occur by about 2030.
  - Issues and questions about basin storage capacity could be evaluated by the model in 2010 to refine the storage capacity of the basin in the BMAP.

- Scenario 2:
  - Mr. Anthony commented that in summer months more of the Coastal Water Project's desalinated water production will occur than in the winter months. He also noted that no supplemental water is currently included in any of the Coastal Water Projects or the Regional alternatives in the Draft EIR.
  - In June 2027 CAW resumes pumping and the 2,000 acre feet per year of supplemental water ceases.
  - This is the best scenario for raising groundwater levels to protective water levels in the Santa Margarita aquifer and also for storing groundwater there.
  - In the Santa Margarita aquifer about 11,000 acre feet of storage will be achieved by 2030.

- Scenario 3:
  - 2.800 acre feet per year of replenishment water would be provided this by this scenario, with about 1/2 to the Paso Robles and 1/2 to the Santa Margarita aquifer.
  - Good water level rise in both of the aquifers as result of this scenario.
  - The Paso Robles aquifer seems to have a limited amount of water level rise that can be achieved near the coast, because the aquifer level is strongly impacted by sea level there.
  - The predicted protective water levels for the MSC-shallow well warrant further evaluation, as they appear to be too high. More information could be obtained by doing pump tests in some of the coastal wells in this area.
  - The greatest increase in groundwater storage of about a18,000 acre feet by 2030 would be achieved by this scenario, with about 62 percent of this being in the Paso Robles aquifer.

- Scenario 4:
  - Even with 2,600 acre feet per year of recharge and 3,000 acre feet per year of natural safe yield (NSY), you cannot pump at 5,600 acre feet per year and get up to Protective Water Levels, due in part to some loss to the ocean, but mainly due to the high rate of pumping.

- Mr. Sabolsice asked why not inject into the Paso Robles aquifer due to its direct connection to the ocean, whereas the Santa Margarita aquifer has very little connection to the ocean. Mr. Williams concurred with this thought, and commented that this might be a better management approach which could be evaluated in 2010 with the Model, if desired.
- Since we do not know how far offshore the Santa Margarita aquifer extends, it is not possible to accurately determine how much protection occurs to the Santa Margarita aquifer if higher and higher water levels are achieved in the Paso Robles aquifer.
- Natural recharge to the Santa Margarita aquifer is slow, but water levels can be raised rapidly by direct injection.
- Achieving protective water levels in the Santa Margarita aquifer in the short-term is less time-critical than achieving protective water levels in the Paso Robles aquifer, because of the Paso Robles aquifer's direct connection to the ocean.
- Only a small amount of water is stored under this scenario.

- Scenario 5:
  - Under this scenario the two Cal Am wells were moved about 1 1/2 miles inland.
  - There is almost no benefit in terms of raising groundwater levels in either the Paso Robles or the Santa Margarita aquifers under this scenario.
  - This is not a cost-effective approach to reaching protective water levels.
  - Mr. Oliver asked if a series of inland injection wells would be effective if it was not feasible to construct injection wells at the coast, for example if right-of-way for wells along the coast was found to be unavailable. Mr. Williams responded that inland injection wells would also be beneficial, as this helps to reach protective water levels and the injected water is closer to the production wells.

- Conclusions:
  - It is difficult to achieve all groundwater management objectives (protective water levels, groundwater storage, maintain pumping rates, etc.) simultaneously.
  - The model should be used to refine groundwater management plans.
  - Injection, and not just natural recharge, will be needed to rapidly or substantially raise water levels in the in the Santa Margarita aquifer.
  - A coastal injection well barrier is only necessary if a rapid rise in coastal groundwater levels is needed, for example if sea water intrusion began to be detected.
  - Mr. Jaques requested that these topics be included in the model report.
  - Injection or recharge alone will not solve all problems without a coordinated pumping plan.
  - Groundwater management objectives should be put defined in order to select the optimum approaches to achieving them.

- Questions and Discussion:
  - Mr. Oliver commented that the Model is showing to be a powerful analytical tool. He commented that decisions on how best to manage the basin will need to be made, so the Model can be used for further evaluations.
  - Mr. Sabolsice asked where the 2,000 and 2,800 acre feet per year of supplemental water would come from. Mr. Williams and Mr. Jaques briefly reviewed the prior TAC discussions on this, which was one of the comments the Watermaster submitted to the Public Utilities Commission for consideration in the final EIR, in terms of needing more water to restore the Seaside Groundwater Basin than just the 2,600 acre feet per year currently proposed by the Coastal Water Project and its alternative projects. There was brief discussion of possible approaches to provide Protective Water Levels as a first step, and then as a second step over time refilling the "hole" caused by overpumping in the Basin.
  - Mr. Riedl asked Mr. Williams several questions pertaining to the uncertainty analysis and the margin of error in the Protective Water Levels. Mr. Williams responded that approximately 70 percent of the

simulations showed Protective Water Levels were achieved, so 70 percent could be considered to represent the level of confidence. Mr. Williams reiterated his belief that the hydrogeologic parameter assumptions for the MSC Well should be revisited in 2010, since the predicted Protective Water Levels for this well seem to be unreasonably high.

- Mr. Jaques asked Ms. King to finalize the full groundwater model report. She said that she needs all comments not later than Friday October 30th in order to be able to have the groundwater report finished by November 6, which is two days after the Watermaster Board meeting.

B. Other Issues

There were no other issues to discuss pertaining to the Groundwater Modeling Work.

The meeting adjourned at 11:45 a.m.

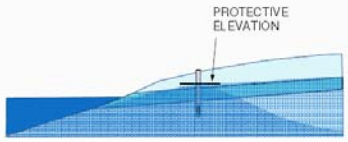
Seaside Groundwater Basin

Groundwater Modeling: Calibration and Model Scenario Results

TAC Presentation

October 28, 2009

Protective Groundwater Elevations



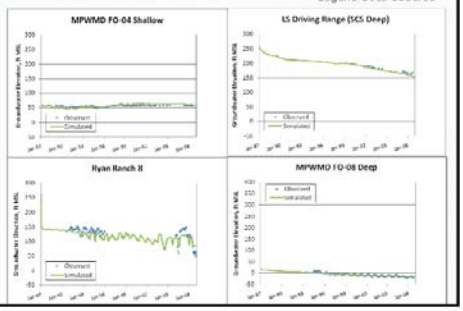
INJECTION BARRIER
INLAND ACTIVITES

Protective Groundwater Elevations

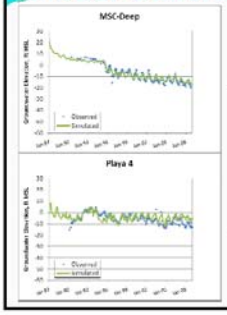
Well	Protected Aquifer	Initial Estimate of Protective Elevation (feet MSL)	Final Estimate of Protective Elevation (feet MSL)
SBWM-3	Purisima	3	4
PCA-W	Paso Robles	2	2
	Santa Margarita	18	17
MSC	Paso Robles	9	11
	Santa Margarita	18	17
CDM MW-4	Paso Robles	2	2

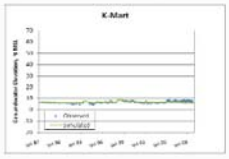
Model Calibration

Laguna Seca Subarea



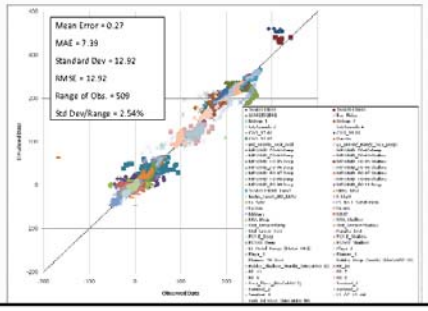
Model Calibration



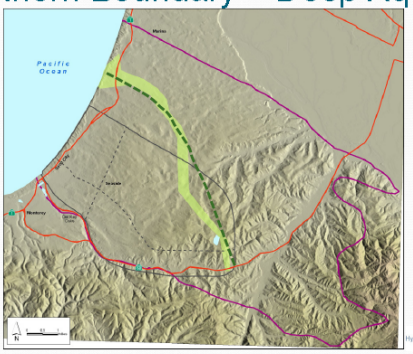


Coastal Subareas

Model Calibration



Northern Boundary – Deep Aquifer



Model Scenarios

- Baseline
- Scenario 1: In-lieu recharge
- Scenario 2: In-lieu recharge and injection
- Scenario 3: Groundwater Replenishment Project
- Scenario 4: Coastal injection barrier
- Scenario 5: Pumping redistribution

Baseline Scenario

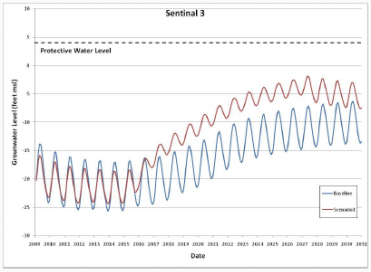
- Used 22 year rainfall and evaporation used in the calibrated model (1987 – 2008)
- Land use changes based on Fort Ord Reuse Plan and County General Plan
- Phased in land use changes: 25% of build-out by 2014 and remainder by 2019
- Water for new developments from outside the Basin
- Standard Allocation pumping reduced triennially in proportion to pumping rates
- Alternative Allocation pumping set at Court ordered rates
- MPWMD ASR program included

Scenario 1: In-Lieu Recharge

- CAW forgoes all pumping between October 2015 and March 2027
- All other Standard Allocation producers pump at the full decision-allocated rates between October 2015 and March 2027

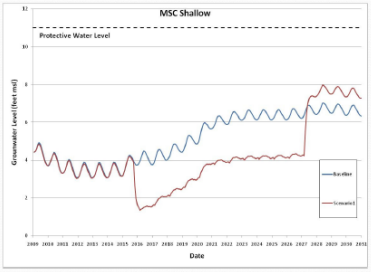
Scenario 1: Results

- Improved groundwater elevations in Santa Margarita, but recharge is slow



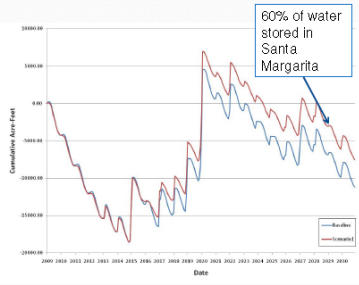
Scenario 1: Results

- Groundwater levels in Paso Robles aquifer impacted by Standard Allocators pumping at full allocations



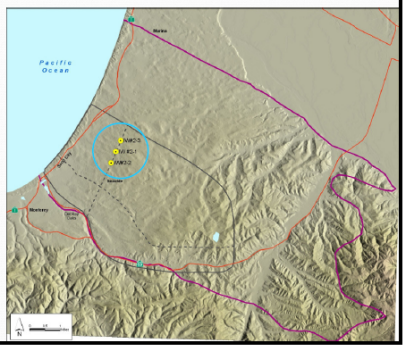
Scenario 1: Results

- Groundwater storage increased by approximately 4,000 acre-feet even after CAW pumping resumes



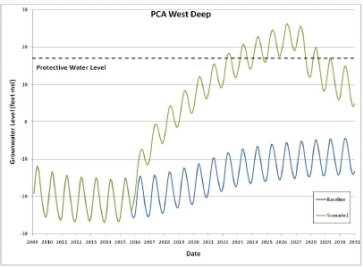
Scenario 2: In-Lieu Recharge & Injection

- Similar to Scenario 1
- With an additional **2,000 acre-feet per year** of recharge along General Jim Moore Boulevard



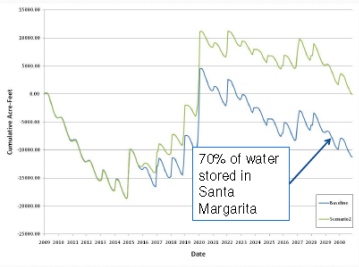
Scenario 2: Results

- Best option for groundwater levels in Santa Margarita Formation
- Significantly improved Paso Robles aquifer after triennial reductions re-established



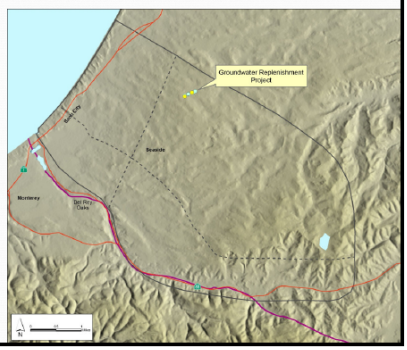
Scenario 2: Results

- Groundwater storage increased by approximately 11,100 acre-feet



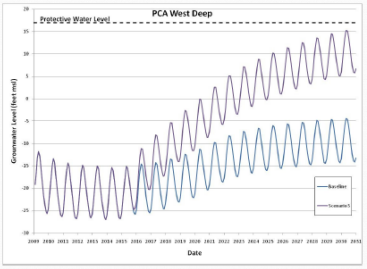
Scenario 3: GWRP

- Both shallow and deep recharge of **2,800 acre-feet per year** from the MRWPCA GWRP
- Pumping includes the triennial 10% reductions



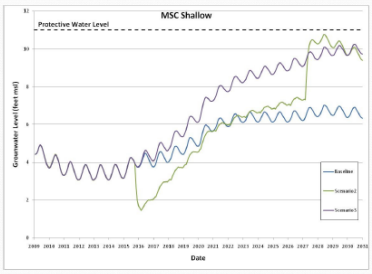
Scenario 3: Results

- Significant rise in groundwater levels in Santa Margarita aquifer



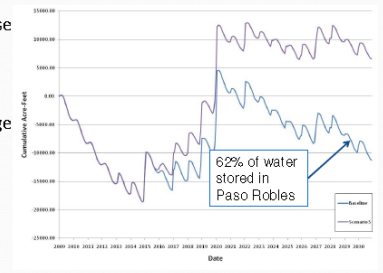
Scenario 3: Results

- Similar Long-term benefits, and more short-term benefits compared to Scenario 2 in the Paso Robles aquifer groundwater levels



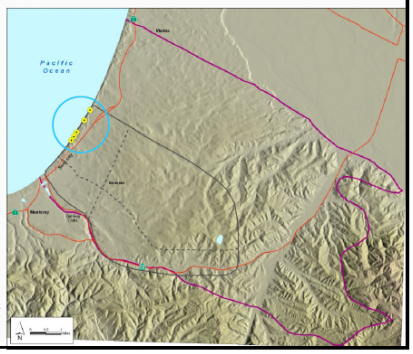
Scenario 3: Results

- The greatest increase in groundwater storage
- Groundwater storage increased by approximately 17,800 acre-feet



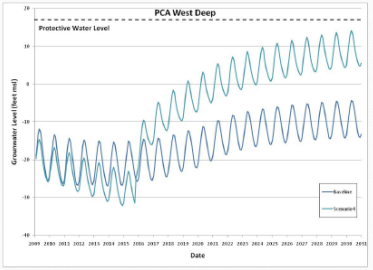
Scenario 4: Coastal Injection Barrier

- Inject **2,600 acre-feet per year** into a line of wells along the coast
- All Standard and Alternative Allocation producer pump at the full decision allocated rates, totaling 5,600 acre-feet per year



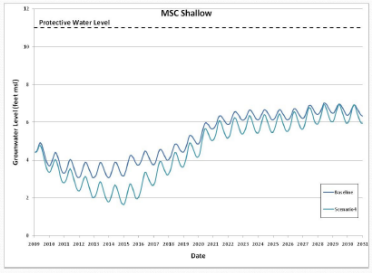
Scenario 4: Results

- Rise in Santa Margarita groundwater levels is almost identical to Scenario 3, but this scenario includes full allocation pumping rates



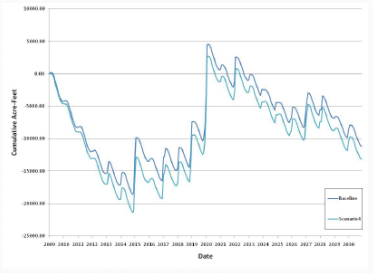
Scenario 4: Results

- Less groundwater rise in the coastal Paso Robles aquifer



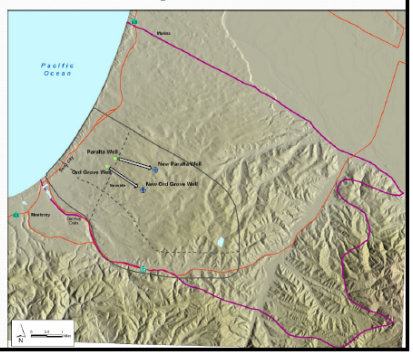
Scenario 4: Results

- Storage increases in the Santa Margarita Fm. from injection are offset by shallow aquifer storage decreases from continued pumping



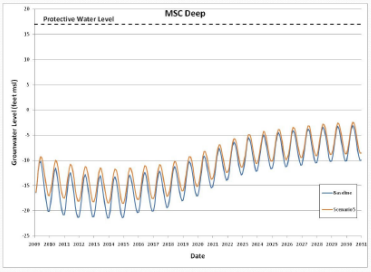
Scenario 5: Pumping Redistribution

- Move CAW's largest pumping wells inland to reduce stress on coastal water levels
- Pumping includes the triennial 10% reductions



Scenario 5: Results

- Almost no benefit to groundwater levels in either the Santa Margarita Formation or Paso Robles aquifer

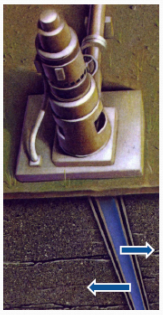


Conclusions

- Most groundwater management objectives can be achieved, but not necessarily simultaneously
- The groundwater model should be used to refine the general management plans

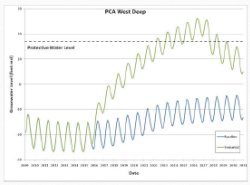
Conclusions

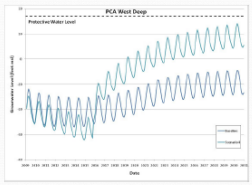
- Scenarios 1 and 2 show that the Santa Margarita aquifer will recover slowly due to limited recharge. Injection is necessary for the Santa Margarita aquifer to recover quickly
- Coastal injection is probably only necessary if an immediate rise in coastal groundwater levels is needed



Conclusions

- Comparing Scenarios 2 and 4 show that injection or recharge will not solve all problems without a coordinated pumping plan





More Conclusions

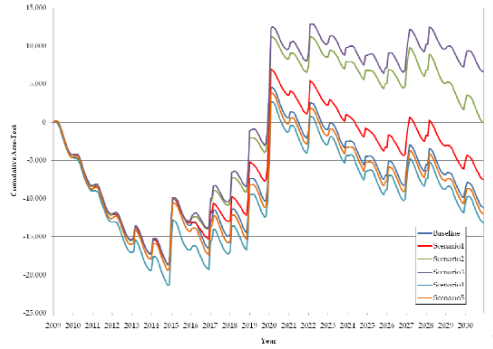
- Moving wells inland (Scenario 5) is not cost effective

Groundwater Management Approach

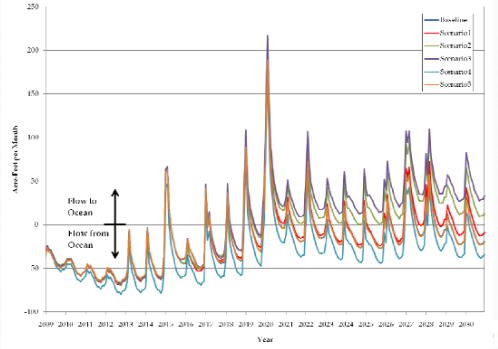
Decide on management objectives, then choose a management approach

- Raise groundwater levels quickly or slowly
- Store groundwater long term or seasonally
  - In the Santa Margarita
  - In the Paso Robles

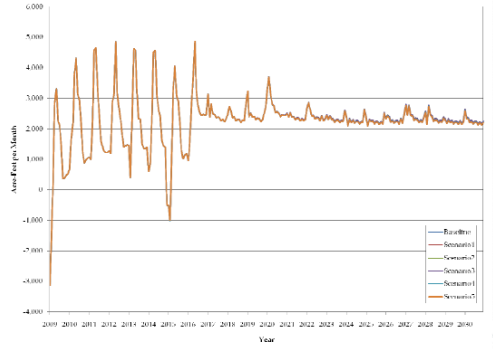
Results: Groundwater in Storage



Results: Outflow to Ocean

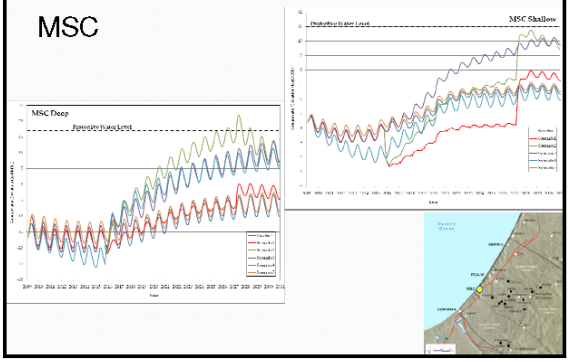


Results: Inflow & Outflow to Salinas Basin



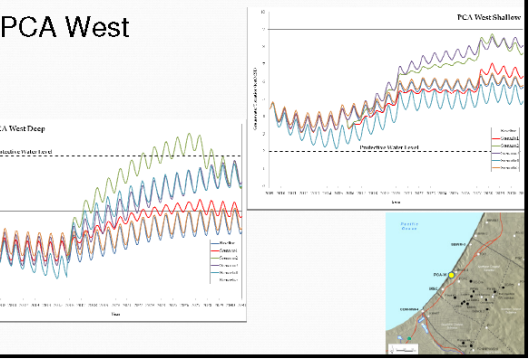
Results: Protective Elevations

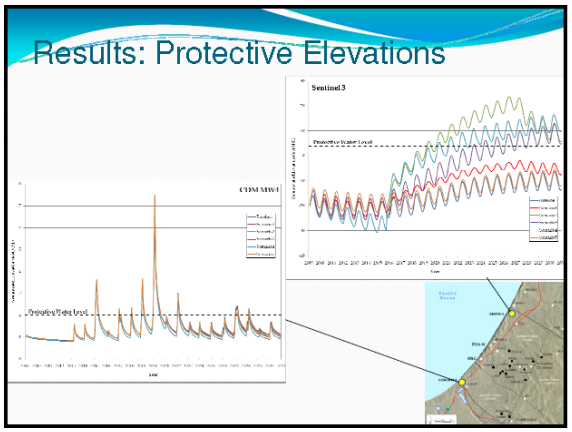
MSC

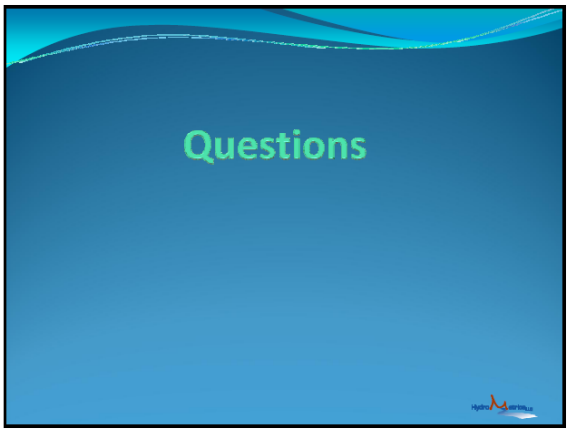


Results: Protective Elevations

PCA West




Results: Protective Elevations
Sentinel 3
CDM MW4


Questions

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

MEETING DATE:	November 19, 2009
AGENDA ITEM:	1.C
AGENDA TITLE:	Consider Request from HydroMetrics for Additional Funds for Performance of Work on the Groundwater Model
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Derrik Williams of HydroMetrics has submitted the attached letter requesting additional funds for the preparation of the Groundwater Model.

In considering the request, it is important to examine the contract language between HydroMetrics and the Watermaster regarding cost overruns. The Request for Service issued to HydroMetrics for this work Used the Time-and-Expense Method of Compensation, and had a Total Price Authorization of $285,840. The RFS states that the*" Total Price may <u>not</u> be exceeded without prior written authorization by WATERMASTER in accordance with Section V. COMPENSATION. "* A subsequent RFS to increase the contract amount by $7,500 was issued to HydroMetrics in June, 2009 in response to their request for additional funds to obtain additional groundwater modeling data from the Salinas Valley Groundwater Basin from MCWRA's consultant, in order to input this data into the updated groundwater model of the Seaside Basin. The basis for that request was that HydroMetrics anticipated being able to obtain that data directly from MCWRA at no cost, whereas HydroMetrics later learned that MCWRA could not provide them the data, and that obtaining it from MCWRA's consultant would require payment of this amount to that consultant.

The following is an excerpt from SECTION V:COMPENSATION of the Professional Services Agreement pertaining to this issue:

<u>Projected Cost Overruns Under Cost-Plus-a-Fixed-Fee or Time-and-Expense Payment Methods</u>
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.

From a contract administration perspective, while HydroMetrics may well indeed have overrun its contract authorization by the $17,000 cited in their letter, submitting the request after the work has been completed is not in accordance with the requirements of their contract, since the overrun had already occurred prior to submitting their letter. By not submitting the letter when the first indication of overrun

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

AGENDA ITEM:	1.C (Continued)

was detected by HydroMetrics, it prevented the Watermaster from being able to help mitigate the overrun, which is primarily why provision (3) in the excerpt from the Contract language is included, i.e. to provide recommendations of how the overrun could be avoided. The letter states that HydroMetrics "…alerted the TAC to these difficulties during the modeling process…" I recall HydroMetrics mentioning numerous times during the course of preparing the Model and developing the Protective Water Levels that they needed data from various parties, but I do not recall being alerted to any cost overruns being anticipated until a phone call was received from Mr. Williams verbally making this request about a week ago. All of the invoices received from HydroMetrics have indicated that all work was proceeding on schedule, with no mention of potential cost overruns.

TAC input in terms of reactions, thoughts, and recommendations are invited to assist the Technical Program Manager in responding to this request.

If any increase in contract authorization were to be made, it would of course require Board approval.

ATTACHMENTS:	HydroMetrics Letter Dated November 11, 2009
RECOMMENDED ACTION:	Provide recommendations to the Technical Program Manager regarding HydroMetrics request

HydroMetrics LLC
519 17th Street, Suite 500
Oakland, CA 94612

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

November 16, 2009

Subject: Request for additional funds

Bob:

HydroMetrics LLC has exceeded its budget on the Regional Groundwater Modeling Project. There are two significant reasons for the overrun:

- Analyzing the basin's geology and converting the geology into model layers required much more work than anticipated. The existing model had no clear justification for the model layer elevations. Most of the geologic elevations for the bottom and Santa Margarita Formation and Paso Robles aquifer obtained from published maps and Lew Rosenberg conflicted with each other. This required an iterative process of re-interpreting and re-contouring the geology to make sure conflicts did not occur. In the end, many iterations were needed over many months.

- The acquisition of pumping data and delivery data took at least two months longer than planned for. An assumption in our proposal read,

  "It is assumed that the Monterey Peninsula Water Management District (MPWMD) will provide historical pumping data."

  While MPWMD was able to provide most of the historical pumping data, significant effort was necessary to check the data and obtain pumping data that was missing from the database.

We alerted the TAC to both of these difficulties during the modeling process. However, because the added work on both the geologic interpretation and pumping data was iterative, we were not able to put a cost on our added time until the project was nearly completed. Our records show that this iterative work has put us at least $17,000 over budget.

We are requesting the Board of Directors consider increasing our budget for the regional groundwater model by $17,000. This would increase the budget for the regional model and report (Tasks 4, 5, and 6) from $255,275.45 to 272,175.45

Sincerely,

Derek Williams

Derrik Williams
HydroMetrics LLC

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	2
AGENDA TITLE:	Progress Reports
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

As a regular part of most monthly TAC meetings, progress reports will be provided by the consultants and entities that are performing work on the Seaside Basin Monitoring and Management Program. From time to time there will also be a progress report from the Technical Program manager on related work. Attached are the progress reports for today's TAC meeting.

The attached Progress Reports cover the time period since the last Regular TAC meeting held on October 14, 2009 to the date when this Agenda packet was prepared.

Under this agenda topic TAC members are encouraged to raise any questions or issues of concern regarding these items.

ATTACHMENTS:	Progress Reports
RECOMMENDED ACTION:	None required – information only

Progress Report from the MPWMD

Work Performed

- Provided technical support for completion of new Watermaster inland monitor well site on Bureau of Land Management property at former Fort Ord.
- Provided data to HydroMetrics to support groundwater model development.
- Compiled WY 2009 quarterly and annual Watermaster producers' production data.
- Conducted follow up regarding discrepancies and questions on WY 2009 Watermaster producers production reporting (CAW, Seaside, Sand City, Monterey County Parks Dept, Pasadera Country Club).
- Provided review for Watermaster 2009 Annual Report.
- Prepared WY 2009 Annual Water Quality and Water Level Monitoring Report.
- Continued water-level data collection under enhanced monitoring program.
- Continued water-level and water-quality data entry into Watermaster database.

Upcoming Work

- Provide support for completion of technical report on installation of Watermaster inland monitor well (BLM site).
- Continue data collection efforts under RFS 2009-01 and 2009-02.
- Update list of fixes/enhancements to Watermaster database.
- Continue support to Watermaster for quarterly production accounting.
- Continue Watermaster database data compilation efforts.
- Support Watermaster technical consultant team on document preparation efforts.
- Work with Zone 24x7 database consultants to refine scope and cost for future database fixes/enhancements.
- Begin data compilation for investigation of coastal wells that may be a threat to cross-aquifer contamination.

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Progress Report from HydroMetrics

Work Performed

This past month's work was focused on completing the Draft and Final Model Reports on schedule. There were also two presentations made: the first to the TAC on October 14 that covered the preliminary results of the model scenarios, and the second to the Board on November 4 describing model scenario findings.

The Draft Report was completed on October 21 on schedule. After comments were received from the TAC, the Final Report was submitted electronically on November 9, 2009. Printed copies of this report will be completed in December 2009.

The Final SIAR was also completed on October 27, 2009. Fifteen copies of this report have been made and are to be mailed to Bob Jaques.

Upcoming Work

None

- - - 0 - - -

Progress Report from Martin Feeney

Work Performed

The modification of the agreement between BLM and the Watermaster for the new location was completed on October 19, 2006. The drilling contractor remobilized on October 23, 2009. Drilling operations commenced on Monday October 26 and continued on an around-the-clock basis through Thursday October 29 reaching the final depth of 1328 feet. The last 50 feet of drilling was extremely hard and slow and rather than risk "twisting-off" the contractor pulled the drill tools from the hole. This provided an opportunity to geophysically log the hole. After review of the geophysical log, project geologists determined, based on proximate geophysical logs, that the bottom of the borehole was within 30-40 feet of the Monterey Shale. Having essentially met the project goal of tagging the Monterey Shale and to avoid the risk of further problems that might result from attempting to drill the last 40 feet, project geologists decided to move ahead with well construction.

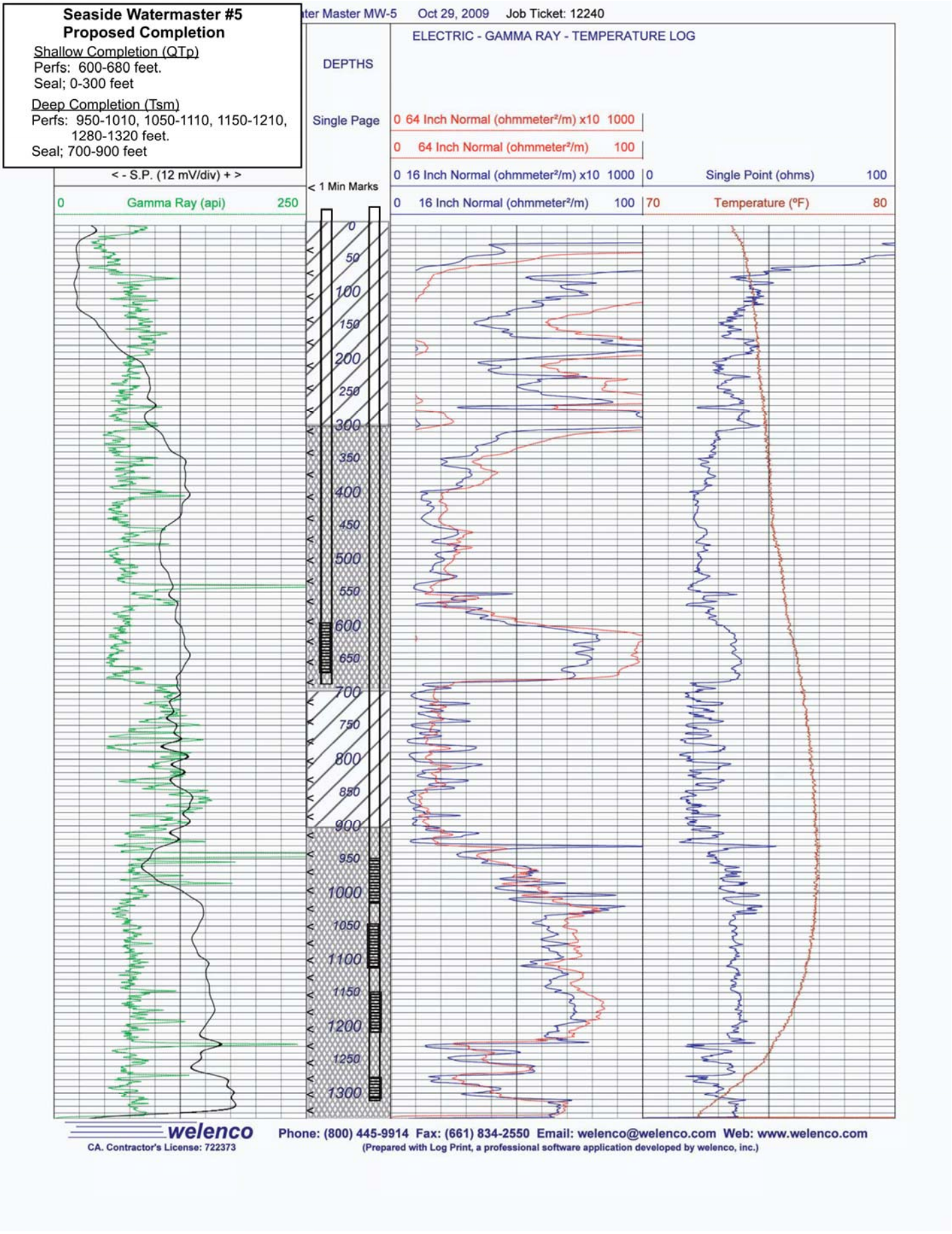
Based on the geophysical and lithologic logs, well designs for both the deep (Santa Margarita) and shallow (Paso Robles) monitor well were developed. These designs were discussed with Monterey County Water Resources Agency and their approval of the design was granted. The contractor initiated well construction on November 1, completing construction on November 3. The as-built designs and the geophysical log are shown below.

Well development was initiated on November 3 and consisted of air-lifting. Air-lifting continued through November 11 when water quality samples were collected for laboratory analysis. Water level data collected after development indicated depth to water for the shallow and deep wells of 386.5 and 410.2 feet below ground surface, respectively. Although surveying and establishing a wellhead elevation for the well is scheduled for next week, a preliminary estimate of site elevation is approximately 400 feet, msl. Given this reference elevation the static water surface elevations for the shallow and deep wells are +13.5 and – 10.2 feet, msl, respectively.

Upcoming Work

Surveying will be performed next week. In addition, water level data loggers will be installed in each of the monitors.

After receipt of water quality analysis, a summary of operations report will be prepared documenting well construction, hydrogeologic interpretation and initial data. It is anticipated that a draft report can be submitted the first week of December.


Seaside Watermaster #5
Proposed Completion
Shallow Completion (QTp)
Perfs: 600-680 feet.
Seal; 0-300 feet
Deep Completion (Tsm)
Perfs: 950-1010, 1050-1110, 1150-1210, 1280-1320 feet.
Seal; 700-900 feet
ter Master MW-5 Oct 29, 2009 Job Ticket: 12240
ELECTRIC - GAMMA RAY - TEMPERATURE LOG
DEPTHS
Single Page
< - S.P. (12 mV/div) + >
< 1 Min Marks
0 Gamma Ray (api) 250
0 64 Inch Normal (ohmmeter²/m) x10 1000
0 64 Inch Normal (ohmmeter²/m) 100
0 16 Inch Normal (ohmmeter²/m) x10 1000
0 16 Inch Normal (ohmmeter²/m) 100
0 Single Point (ohms) 100
70 Temperature (ºF) 80
0
50
100
150
200
250
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SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	3
AGENDA TITLE:	Proposed Initial Consultant Contracts for FY 2010
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 2010. 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 work assignments for MPWMD and HydroMetrics as follows:

- MPWMD RFS No. 2010-01 covering their normal M&MP tasks as in preceding years, including the newly constructed BLM monitoring well, plus the new task of evaluating the coastal wells for cross-aquifer contamination potential. (These updates are highlighted in yellow in the attachment).
- MPWMD RFS No. 2010-02 covering their obtaining water quality and water level data from private producers who ask the Watermaster collect this data for them.
- HydroMetrics RFS No. 2010-01 covering their providing general hydrogeologic consulting services as they did in 2009.
- HydroMetrics RFS No. 2010-02 covering their preparing the 2010 Seawater Intrusion Analysis Report (SIAR) as they did in 2009.

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. Once the 2010 Schedule is finalized by the TAC under Agenda Item No. 7, it will be inserted into these contracts.

With the TAC's input I anticipate developing additional RFSs for HydroMetrics during 2010 to perform further work to evaluate groundwater replenishment scenarios, refine protective water levels, and to update the BMAP, and for MPWMD (using their consultant) to make enhancements to the Database. These are shown as tasks in the proposed 2010 Work Schedule contained in Agenda Item No. 7.

The intent of placing these on today's TAC meeting agenda is to provide the TAC with the opportunity to raise questions or make suggestions for changes to the scopes-of-work in these contracts, before they are presented to the Board for approval at the Board's December 2, 2009 meeting. Board approval at their December 2 meeting will ensure that the contacts can be signed and be in effect at the start of 2010.

ATTACHMENTS:	4 - Proposed Consultant Contracts for FY 2010 (2 for MPWMD & 2 for HydroMetrics)
RECOMMENDED ACTION:	Discuss and either modify or approve the proposed contracts

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2010

RFS NO. 2010-01 .
(To be filled in by WATERMASTER)

TO: Joe Oliver
Monterey Peninsula Water Management District
PROFESSIONAL

FROM: Robert Jaques .
WATERMASTER

Services Needed and Purpose:
Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2010 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2010-01 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: $ 102,720.00 (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. 2010-01

Background:

The Watermaster Board approved the Budget for the 2010 Management and Monitoring Program Scope of Work (hereinafter referred to as the "2010 M&MP Scope of Work") at its meeting of October 7, 2009. For reference purposes the complete 2010 M&MP Scope of Work is attached as Exhibit A to this Attachment 1.

This RFS No. 2010-01 authorizes PROFESSIONAL to perform certain work on certain of the Tasks described in the 2010 M&MP Scope of Work, as described in Table 1 of this Attachment No. 1. The Task numbers listed in this Detailed Scope of Work for RFS No. 2010-01 correspond to the Task numbers in the 2010 M&MP Scope of Work.

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 level and water quality data entry and data editing as necessary, and will provide appropriate quality control and quality assurance for this data. WATERMASTER will perform water production data entry and data editing as necessary. PROFESSIONAL will review the data entered 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 the Watermaster's Database will be authorized under a separate agreement for performing database maintenance work for WATERMASTER. That agreement will either be with PROFESSIONAL or with another consultant.

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.
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. This 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.
I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures	PROFESSIONAL will conduct periodic reviews of the data collection program and provide to WATERMASTER any recommended improvements or modifications which PROFESSIONAL believes will be beneficial to the program. PROFESSIONAL will conduct these reviews and provide these recommendations at least twice during calendar year 2010. The recommendations may be provided in the form of a memorandum.

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. Submit four quarterly reports summarizing and analyzing the water quality and water level data. 2. Submit one annual report that contains 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 four quarterly reports.
I.3.d	Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	PROFESSIONAL will perform a review of the well construction records for each of the coastal wells to determine whether or not they were properly constructed so as to prevent such cross-aquifer contamination from occurring. As part of that review, PROFESSIONAL will also review records to determine whether there is any indication of well seal deterioration that would lead to the potential for cross-aquifer contamination. PROFESSIONAL will prepare a report summarizing the findings of this review, with recommendations for any field inspection or other followup work that should be done in this regard.
I. 4. a and b	Perform 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. Monitoring Wells

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 PROFESSIONALUNDER 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-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 PROFESSIONALUNDER THIS RFS[4]			
					Level		Level		Quality	
					Frequency		Frequency		Frequency	
	Existing	Enhanced	Level (Monthly)	Quality (Annually)	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 Driving Range (SCS Deep)-Shallow	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	
CAW East Fence-Shallow		X	X						X	
Laguna Seca County Park #4-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]=	41	22			14	20	12	0	15	10

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.

(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.

Exhibit A

2010 M&MP Scope of Work

Seaside Groundwater Basin Management and Monitoring Program
Anticipated 2010 Scope of Work

The tasks outlined below are those that are anticipated to be performed during 2010. Some Tasks listed below are specific to 2010, 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. Preparation and Attendance of Meetings ($5,000)	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 Task M.1.c will be: Those associated with attendance at TAC meetings (either in person or by teleconference connection), and From time-to-time when Watermaster staff asks Consultants to make special presentations to the Watermaster Board and/or the TAC. 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.
M. 1. d. Prepare Board/ TAC Status Updates and Reports ($0)	Consultants will provide written monthly progress reports to the Watermaster for inclusion in the agenda packets for the TAC meetings. These progress reports will typically include project progress that has been made, problem identification and resolution, and planned upcoming work.
M. 1. e. Peer Review of Documents and Reports ($3,000)	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.

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 ($37,600)	The database will be maintained by a Consultant performing this work for the Watermaster. Either one of the other Consultants or the Watermaster staff will enter new data into the consolidated database. Such data will include water production volumes, water quality and water level data, and such other data as may be appropriate. The database programming may be enhanced in 2010 at the direction of the Watermaster to improve the usefulness and "user friendliness" of the database. $25,000 has been included under this task for budgeting purposes in the event such work is deemed necessary.
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. No additional work of this type is anticipated during 2010.

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 2010.
I. 2. b. 2. Collect Monthly Manual Water Levels. ($3,360)	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.
I. 2. b. 3. Collect Quarterly Water Quality Samples. ($71,480)	Water quality data will be collected quarterly from certain of the monitoring wells. This 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.
I. 2. b. 4. Update Program Schedule and Standard Operating Procedures. ($2,000)	The TAC, with assistance from Consultants, will conduct periodic reviews of the data collection program and will recommend to the Watermaster improvements as warranted.
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 2010.
I. 2. b.6 Reports ($6,680)	The groundwater level and quality monitoring will be conducted on a monthly, quarterly, and annual basis, as described in the Contractor'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. Reports will include: • Water Quality and Water Level Quarterly Reports • An Annual Water Quality and Water Level Report

I. 3 Basin Management

I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)	As a result of the data obtained during Phase 1, including constructing new coastal sentinel monitoring wells and developing a consolidated database of groundwater production, water levels, and water quality, it is was concluded that at that time it was not necessary to develop a new Model. Preliminary conclusions from work performed on preparing the Basin Management Action Plan in 2008, along with comments and questions from Technical Advisory Committee and Board members, indicated that it was desirable to update the existing Model during 2009, so that it could be used as more data becomes available.
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). This work was done by a Consultant hired by the Watermaster. No further work of this type is anticipated in 2010.
I. 3. a. 2 Develop Protective Water Levels ($25,000)	A series of cross-sectional models was created in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work was done in 2009 by a Consultant hired by the Watermaster (HydroMetrics), and is discussed in Hydrometrics' "Seaside Groundwater Basin Protective Water Elevations Technical Memorandum." In 2010 further work will be done to refine these protective water levels to find the most cost-effective approach to provide the desired degree of protection.
I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ($25,000)	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 was done in 2009 by a Consultant hired by the Watermaster (HydroMetrics), and is described in HydroMetrics' "Seaside Groundwater Basin Groundwater Model Report." In 2010 if requested by the Watermaster, HydroMetrics may use the updated Model to develop answers to other questions associated with Basin management.
I. 3. b. Complete Preparation of Basin Management Action Plan ($0)	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 is anticipated to be performed on the BMAP in 2010 is discussed under Task I. 3. c.
I. 3. c. Refine and/or Update the Basin Management Action Plan ($25,000)	During 2010 it may be beneficial to update the BMAP based on new data, and/or knowledge that is gained from the work described under Tasks I. 3. a. 2 and/or I. 3. a. 3. Such work might involve issues pertaining to Basin storage capacity, water storage rights, or pumping redistribution strategies. This task is included primarily for budgeting purposes in the event such work is deemed necessary.

I. 3. d. **Evaluate Coastal Wells for Cross-Aquifer Contamination Potential ($5,000)**	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. A review of the well construction records for each of the coastal wells will be made to determine whether or not they were properly constructed so as to prevent such cross-aquifer contamination from occurring. As part of that review, records will also be reviewed to determine whether there is any indication of well seal deterioration that would lead to the potential for cross-aquifer contamination. A report summarizing the findings of this review will be prepared, with recommendations for any field inspection or other followup work that should be done in this regard.

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

I. 4. a. Oversight of Seawater Intrusion Detection and Tracking ($5,600)	A Consultant will provide general oversight over the Seawater Intrusion detection program.
I. 4. b. Analyze and Map Water Quality from Coastal Monitoring Wells (costs included above under Task I. 4. a)	Annual chloride concentration maps will be produced incorporating the data from the coastal wells. Data from the Phase 1 coastal sentinel wells will be used to develop time series graphs.
I. 4. c. Annual Report- Seawater Intrusion Analysis ($25,000)	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.
I. 4. d Complete Preparation of Seawater Intrusion Response Plan ($0)	The Watermaster's Consultant (HydroMetrics) completed preparation of the long-tem 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 2010.
I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan ($0)	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 2010.
I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ($0)	The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.

ATTACHMENT 2
SCHEDULE

(BEING DEVELOPED FOR 2010)

ATTACHMENT 3
COSTS

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: 12 months @ 2 hours/month @ $125/hour = $3,000	$3,000	$12,600
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 @ 24 hrs/event	96	$70	Airlift equip.: 4 events @ $100/site x 3 sites; Fuel: 4 events @ $10/site x 3 sites; Lab costs: 4 events @ $200/well x 6 wells	$6,120	$12,840
	New WQ wells as per Table 2: 2 events @ 24 hrs/event	48	$70	One-time eductor setup: $500 x 2 sites = $1000; Airlift equip.: $100 x 2 sites x 2events = $400; Fuel: $20 x 2 sites x 2 events = $80; Lab cost: $200 x 15 wells x 2 events = $6,000; One-time retrofits: $10,000 x 1 site = $10,000	$17,480	$20,840
	Watermaster Sentinel and Northern Inland wells: download/store dataloggers, 4 events @ 2 hrs/event	8	$70			$560
	Watermaster Sentinel wells: (Induction logging and water quality sampling) 4 events @ 4 wells @ 2 hrs/well	32	$70	Induction logging: $7,000 for 4 sites per event x 4 events (Services subcontracted to induction logging firm)	$28,000	$30,240
	Compile data: 4 events @ 25 hours/event	100	$70	N/A	$0	$7,000
I. 2. b. 4.	Review twice @ 5 hours ea.	10	$100	N/A	$0	$1,000
I. 2. b. 6	4 - quarterly reports @ 12 hrs/report	48	$85	N/A	$0	$4,080
	1- annual report @ 16 hrs	16	$100	N/A	$0	$1,600
I.3.d	Evaluate Coastal Wells for cross-aquifer contamination potential	50	$100	N/A	$0	$5,000
I. 4. a and b	12 mo. @ 3 hrs/mo.	36	$100	N/A	$0	$3,600
					TOTAL ESTIMATED COST =	**$102,720**

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, 2010

RFS NO. 2010-02 .
(To be filled in by WATERMASTER)

TO: Joe Oliver
Monterey Peninsula Water Management District
PROFESSIONAL

FROM: Robert Jaques .
WATERMASTER

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. 2010-02 shall be completed on an as-directed basis from the Watermaster during 2010. All work under this RFS will be completed not later than December 31, 2010.

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

Total Price Authorized by this RFS: $5,760.00 (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. 2010-02

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. 2010-02 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 2010. This sample will be collected in the fall of 2010.

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 @ $540 = $3,240
TOTAL = $5,760

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, 2010 **RFS NO**. 2010-01
(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, 2010, 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 2010 Monitoring and Management Program (M&MP) to which this RFS No. 2010-01 pertains are:

M. 1. c - Preparation and Attendance of Meetings

M. 1. e - Peer Review of Documents and Reports

I. 2. b. 4 - Update Program Schedule and Standard Operating Procedures.

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 = $180.00/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. 2010-01 is $12,000.00.

ATTACHMENT 2
SCHEDULE

(BEING DEVELOPED FOR 2010)

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: 1/1/2010 **RFS NO**. 2010-02
(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 2010. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2010, 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: $ 22,020.00 (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 2010 Seawater Intrusion Analysis Report (SIAR).

To promote efficiency, much of the text and graphics from the 2009 SIAR will be incorporated directly into the 2010 SIAR. Changes that will be incorporated into the 2010 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 newly installed sentinel wells to look for evidence of seawater intrusion.
- Incorporating data from new wells which may be added to WATERMASTER's enhanced monitoring well network.

Preparing the 2010 SIAR will involve analyzing all water quality data at the end of Water Year 2010 (October 1, 2009 to September 30, 2010) and producing semi-annual (2^{nd} and 4^{th} quarters 2010) 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 2010 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 2010 SIAR. A CD containing an electronic version of the entire Final 2010 SIAR in MS Word and 15 printed and bound copies of the Final 2010 SIAR will be provided to WATERMASTER.

ATTACHMENT 2

(2010 SCHEDULE BEING DEVELOPED)

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 = $180.00 Georgina King = $160.00

Task	Hours		Costs			
	Derrik Williams	Georgina King	Derrik Williams	Georgina King	Expenses	Total Costs
2010 Seawater Intrusion Analysis Report						
Produce 2010 SIAR	16	88	$2,880	$14,080	$3,130	$20,090
Attend One TAC Meeting in Seaside	10	0	$1,800	$0	$130	$1,930
TOTALS	**26**	**88**	**$4,680**	**$14,080**	**$3,260**	**$22,020**

SEASIDE BASIN WATER MASTER TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	4
AGENDA TITLE:	Discuss Issues Pertaining to MPWMD ASR Injection
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Under its Phase 1 Aquifer Storage and Recovery (ASR) Program MPWMD injects excess winter water from the Carmel River into the Seaside Groundwater Basin using its ASR well located near General Jim Moore Boulevard. The water is conveyed to the MPWMD's injection system through CAW pipelines from Carmel Valley.

During the year the injected water is pumped out by CAW through its normal pumping operations in the Seaside Basin.

CAW has recently begun taking credit for the injected water to reduce its net pumping amounts from the Seaside Basin when it does its regular production reporting to the Watermaster.

At the June 8, 2008 TAC meeting there was an agenda item discussing the language in the Amended Decision which states that any Producer wishing to store water in the Basin must first execute a Storage and Recovery Agreement with the Watermaster. There was TAC consensus that any party that is storing water in the Seaside Basin should have a Storage Agreement to assist the Watermaster in properly managing the basin, and to ask for Board direction with regard to whether MPWMD should be required to have a Storage Agreement for the water it injects into the Basin through its ASR Program. The Board tabled the matter, apparently preferring to delay any action on this matter until the BMAP and the Groundwater Model arrived at a refined Basin Storage Capacity figure, so that Storage Allocations (as required under the Amended Decision) could be made to each Producer.

This topic is now ripe for further discussion and action, inasmuch as there needs to be a formalized reporting process that will ensure that any production credits which CAW claims do not exceed the amount of water that MPWMD injects.

ATTACHMENTS:	None
RECOMMENDED ACTION:	Develop recommendations to make to the Board regarding these issues

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	5
AGENDA TITLE:	Update on Environmental Impact Report for CAW Coastal Water Project
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

The Final EIR (FEIR) for CAW's Coastal Water Project (CWP) was recently released by the PUC. The Watermaster's most significant comment on the DEIR was to point out that if the selected project only delivers 2,600 AFY of supplemental water to the Seaside Basin to offset the current level of overpumping above the Natural Safe Yield, the Basin will continue to be at risk of seawater intrusion. The comment went on to request that whatever water supply project is selected by the PUC for implementation include sufficient supplemental water supply capability to bring the Basin up to protective water levels. A preliminary "guesstimate" that 2,000 AFY for up to 10 years might be the quantity required to reach protective water levels. With the recent completion of the Groundwater Model and Protective Water Levels Report, this number could likely be somewhat refined.

As feared, the authors of the FEIR rejected the Watermaster's comment with the following response:

"The commenter's estimate of the water that would be needed to replenish the Seaside Basin is not relevant to the proposed project, the purpose of which is to replace the water to which CalAm has no legal right as a result of SWRCB Order 95-10 and the Seaside Basin Decision."

Consequently, the sizing of the proposed water supply projects was NOT increased to enable them to be able to provide this additional water supply to enable the Basin to be restored to protective ground water levels.

I have sent communications to Mr. McGlothlin and Mr. Laredo, attorneys for the City of Seaside and MPWMD respectively, who are actively involved in water matters that pertain to the CWP, asking them for whatever advice and/or assistance they can offer in terms of trying to get the Watermaster's concerns before the Administrative Law Judge that is overseeing matters regarding the PUC EIR process. When I receive their responses I will report them to the TAC.

In my view if the project selected by the PUC cannot supply this additional water, protective water levels will not be achieved and the Watermaster will have little if any ability to prevent seawater intrusion from eventually coming into the Basin.

ATTACHMENTS:	None
RECOMMENDED ACTION:	Develop actions and/or recommendations pertaining to this matter

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	6
AGENDA TITLE:	Status Report on City of Seaside Negotiations with MCWD to Obtain Golf Course Water
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

At a meeting in mid-2009 the Board asked the TAC to continue to monitor and report on progress being made between the City of Seaside and MCWD to obtain replacement water for Seaside's golf courses from the MCWD distribution system.

At the Board's November 4, 2009 meeting it approved an Agreement between the City of Seaside and the Watermaster containing the terms and conditions under which obtaining water from MCWD for Seaside's use at its golf courses, and in turn helping to replenish the Basin, would be accomplished. A copy of the adopted MOU is attached.

At the September 23, 2009 TAC meeting, Mr. Riedl reported that the City was also going to be drafting agreements with MCWD and with the Golf Course operations contractor pertaining to the use of MCWD water for irrigation of these golf courses.

At today's meeting Mr. Riedl will provide an oral update on the status Seaside's negotiations to obtain this new source of water for irrigation of the Seaside golf courses.

ATTACHMENTS:	MOU between the City of Seaside and the Watermaster regarding the use of MCWD water for supplying the irrigation needs of the City's golf courses
RECOMMENDED ACTION:	None required at this time

MEMORANDUM OF UNDERSTANDING BETWEEN THE SEASIDE BASIN WATERMASTER AND THE CITY OF SEASIDE

This Memorandum of Understanding ("MOU") is entered into between the Seaside Groundwater Basin Watermaster ("Watermaster") and the City of Seaside ("City") (individually a "Party" and together the "Parties") this _____ day of November, 2009 ("Effective Date") with respect to the following:

R E C I T A L S

A. The amended final decision ("Decision") entered in the lawsuit, California American Water v. City of Seaside et al., Monterey Superior Court, (Case No. M 66343) governs groundwater production within the Seaside Groundwater Basin (the "Basin").

B. The City is a party to the lawsuit and received groundwater production allocation pursuant to the Decision as follows: (1) 540 acre-feet of Alternative Production Allocation[1] in relation to the City-owned Blackhorse and Bayonet Golf Courses ("Golf Courses"); and (2) Standard Production Allocation in relation to the City Municipal Water System.[2]

C. The Decision provides that any party that exceeds its allocation of Natural Safe Yield is subject to a Replenishment Assessment for each acre-foot of Over-Production during each Water Year.

D. The City presently owes certain sums to Watermaster for previously accrued Replenishment Assessments.

E. The City projects that it will continue to engage in Over-Production to supply its Municipal Water System, and potentially its Golf Course System, and therefore anticipates that it will continue to incur additional Replenishment Assessment liability.

F. The Decision obligates the Watermaster to procure new sources of water for replenishment of the Basin to offset cumulative Over-Production.

G. The Parties have identified an in lieu replenishment program ("Program") involving the Golf Courses and the City's Alternative Production Allocation associated with the Golf Courses, which is a viable means to obtain some of the replenishment water that Watermaster is obligated to procure.

H. To implement the Program, the City will obtain water supplies from the Marina Coast Water District ("MCWD"),[3] and supply the MCWD water to the City's Golf Courses for

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[1] All capitalized terms used in this MOU are to be given the same meaning as set forth in the Decision, unless otherwise described.

[2] The Standard Production Allocation is set forth as a percentage of Operating Yield of the Coastal Subarea. The City's Standard Production Allocation is roughly 10.47% of the Operating Yield.

[3] The water supply from Marina Coast Water District will initially be derived from Salinas Basin groundwater production and later reclaimed water, once available.

use in lieu of groundwater production from the Basin pursuant to the City's Alternative Production Allocation. The groundwater not produced will be deemed in lieu replenishment water.

I. The City desires to engage in the Program in exchange for a monetary credit against its Replenishment Assessment liability.

J. The Parties desire to enter into this MOU to memorialize the terms upon which the City shall engage in the Program, and the Watermaster shall provide the City with a monetary credit against its Replenishment Assessment liability.

AGREEMENT

The Parties agree as follows:

1. Term. This MOU shall commence upon the Effective Date and continue until the earlier of five (5) years from the Effective Date, or three (3) months following the end of the Water Year in which the Executive Director of Watermaster anticipates that the City shall have provided sufficient in lieu replenishment water pursuant to the Program to offset all of its then- accrued Replenishment Assessment liability.

2. Commencement and Scope of Program. The Program shall commence, if at all, only once the City deems it appropriate to commence the Program, in its sole discretion. The City shall notify the Watermaster CEO in writing of the date it intends to commence the program as far in advance as is feasible. The amount of in lieu replenishment that shall occur in any particular year pursuant to the Program, if at all, shall also be determined by the City in its sole discretion.

3. Accounting and Replenishment Assessment Credit.

3.1 Annual Accounting. During the term of this MOU, the City shall report to the Watermaster an accounting of the amount of water received from MCWD to be used in lieu of groundwater production from the Basin for the preceding calendar quarter, in writing, on or before January 15, April 15, July 15, and October 15 of each Water Year. The City shall record and report the MCWD deliveries based upon accurate meter readings. All meters used for such reporting shall be regularly calibrated and maintained by the City, or the City's representative, and at the City's expense to ensure accuracy. Prior to the commencement of the Program the City shall provide to the Watermaster an initial calibration report certifying the accuracy of the flow meter which will measure the delivery of MCWD water to the City's golf courses. When and if requested by the Watermaster, the City will perform additional calibrations to verify meter accuracy. Such requests by the Watermaster will not be made more often than once every two years, unless metering data are indicative of metering inaccuracies. If the Watermaster disputes the reported quantity of MCWD deliveries, it shall inform the City of the basis of its objection within one (1) month of receipt of the City's accounting, and the Parties shall thereafter engage in good faith negotiations to attempt to resolve the dispute. Any dispute that cannot thereby be settled shall be referred to the Court for resolution.

3.2 Calculating Credit Against City's Replenishment Assessment Liability.
At the end of each Water Year, the Watermaster shall determine the cumulative gross Replenishment Assessment liability owed by the City in accord with Section 6.5 of the Watermaster's Rules and Regulations. The Watermaster shall then apply a credit against the City's gross Replenishment Assessment liability, which shall equal the amount of all MCWD deliveries to the Golf Courses for irrigation during the proceeding Water Year, not to exceed the

City's 540 acre-feet of Alternative Production Allocation, multiplied by the amount of the effective Replenishment Assessment Unit Cost for that Water Year. Watermaster shall then promptly notify the City of the cumulative net Replenishment Assessment liability owed.

4. Stay of Enforcement Proceedings for Unpaid Replenishment Assessments. Watermaster shall not bring any enforcement action against the City for non-payment of Replenishment Assessments during the term of this MOU, provided that the City commences the Program within one (1) year of the Effective Date, and continues thereafter to provide at least two hundred (200) acre-feet of in lieu replenishment water to Watermaster each calendar year thereafter pursuant to the Program.

5. Good Faith Renegotiation of Program Extension. Upon termination of the initial term of this MOU, as set forth in Section 1 above, the Parties shall engage in good faith negotiations to determine whether the Program may be extended pursuant to mutual agreeable terms. No Party shall be obligated to commit to a Program extension or any particular term of a subsequent MOU for a Program extension.

6. Miscellaneous Terms. This Agreement shall be governed by and construed in accordance with the laws of California, without regard to conflicts of law principles, with venue for all purposes to be proper only in the County of Monterey, California. If any actions are required to interpret or enforce the provisions of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and costs. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement constitutes the entire understanding and agreement of the Parties, and there have been no promises, representations, agreements, warranties or undertakings by any of the Parties, either oral or written, of any character or nature hereafter binding except as set forth herein. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the Parties to this Agreement and by no other means. Each Party waives its future right to claim, contest or assert that this Agreement was modified, canceled, superseded, or changed by oral agreement, course of conduct, waiver or estoppel.

IN WITNESS WHEREOF the Parties hereby agree to perform pursuant to the terms set forth herein.

SEASIDE BASIN WATERMASTER	CITY OF SEASIDE
_____	_____
Dewey Evans, Executive Director	Ray Corpuz, City Manager
Date: November _____, 2009	Date: November _____, 2009

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	7
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

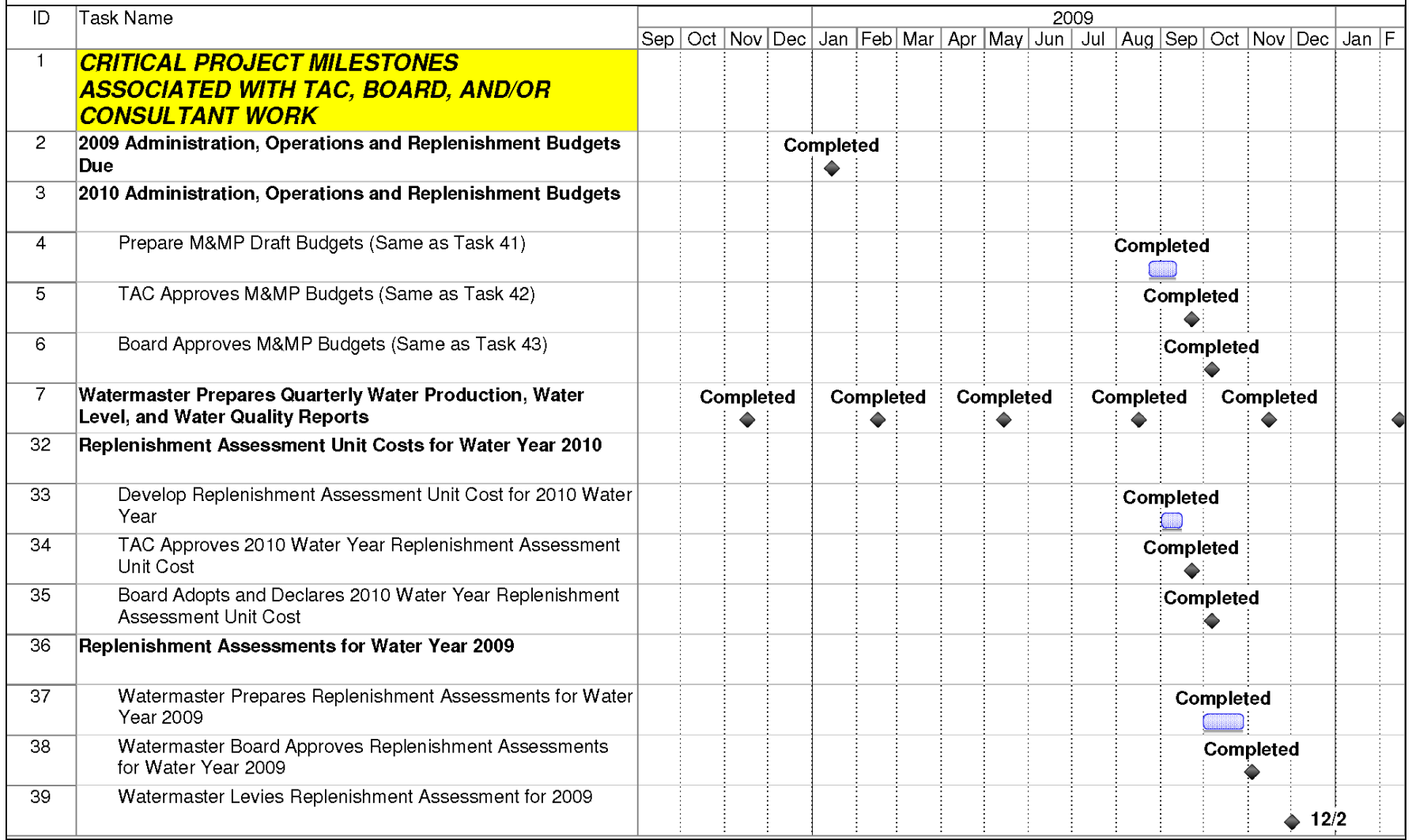
As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Consultants Work Schedule of the activities being performed by the Watermaster's consultants and the public entity, MPWMD, which is performing certain portions of the work, and of the Critical Program Milestones Schedule.

Attached is the Updated Consultants Work Schedule for FY 2009.

Also attached is the proposed Schedule for FY 2010. TAC members are asked to provide input to help refine and finalize the FY 2010 Schedule, which will be used to guide the performance of work under the 2010 Monitoring and Management Program, as well as other Watermaster activities during 2010.

ATTACHMENTS:	Updated Schedule of Work Activities for FYs 2009 and 2010
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to These Schedules

Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule



2009 Consultants Work Schedule 11-19-09

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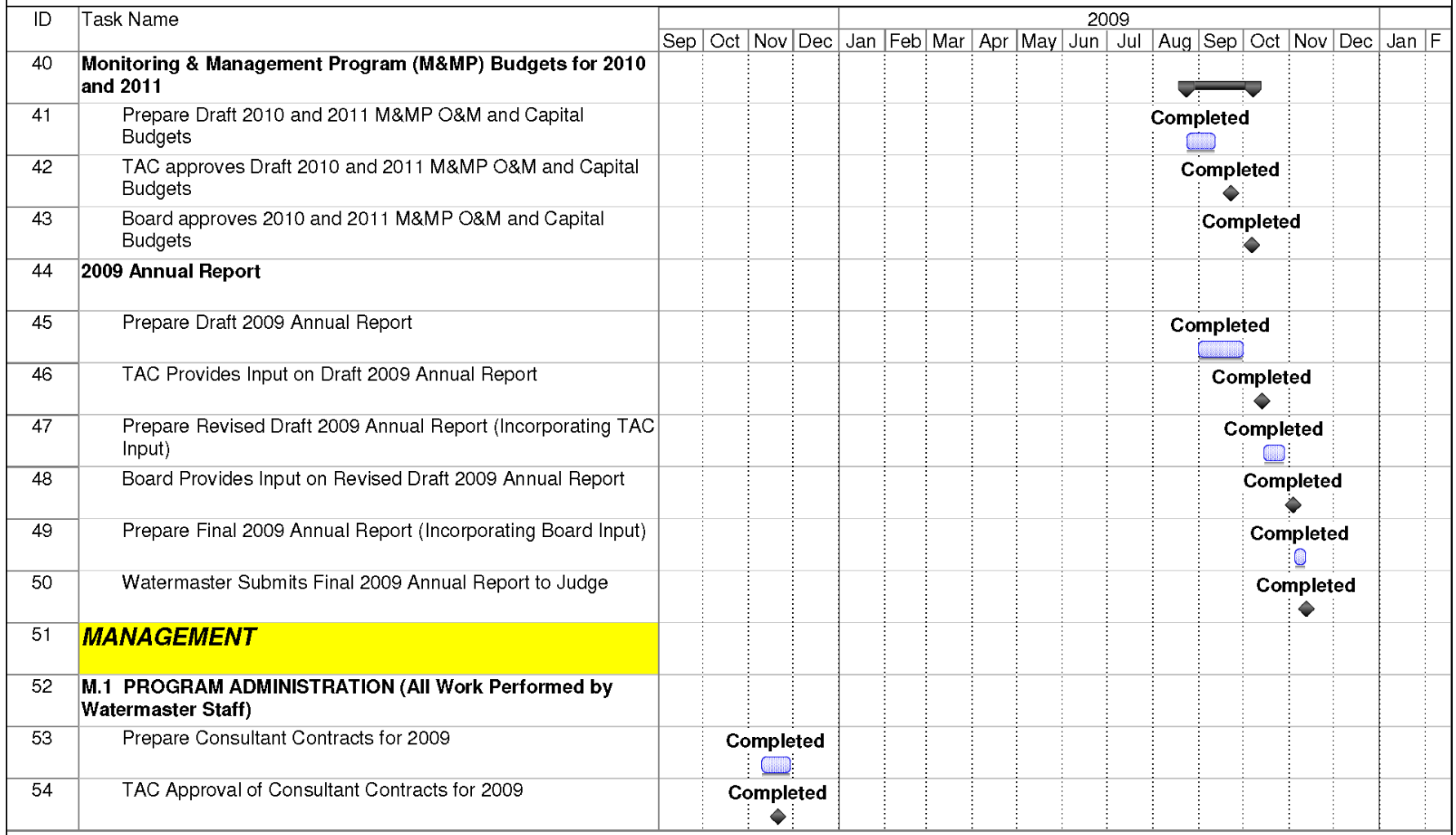
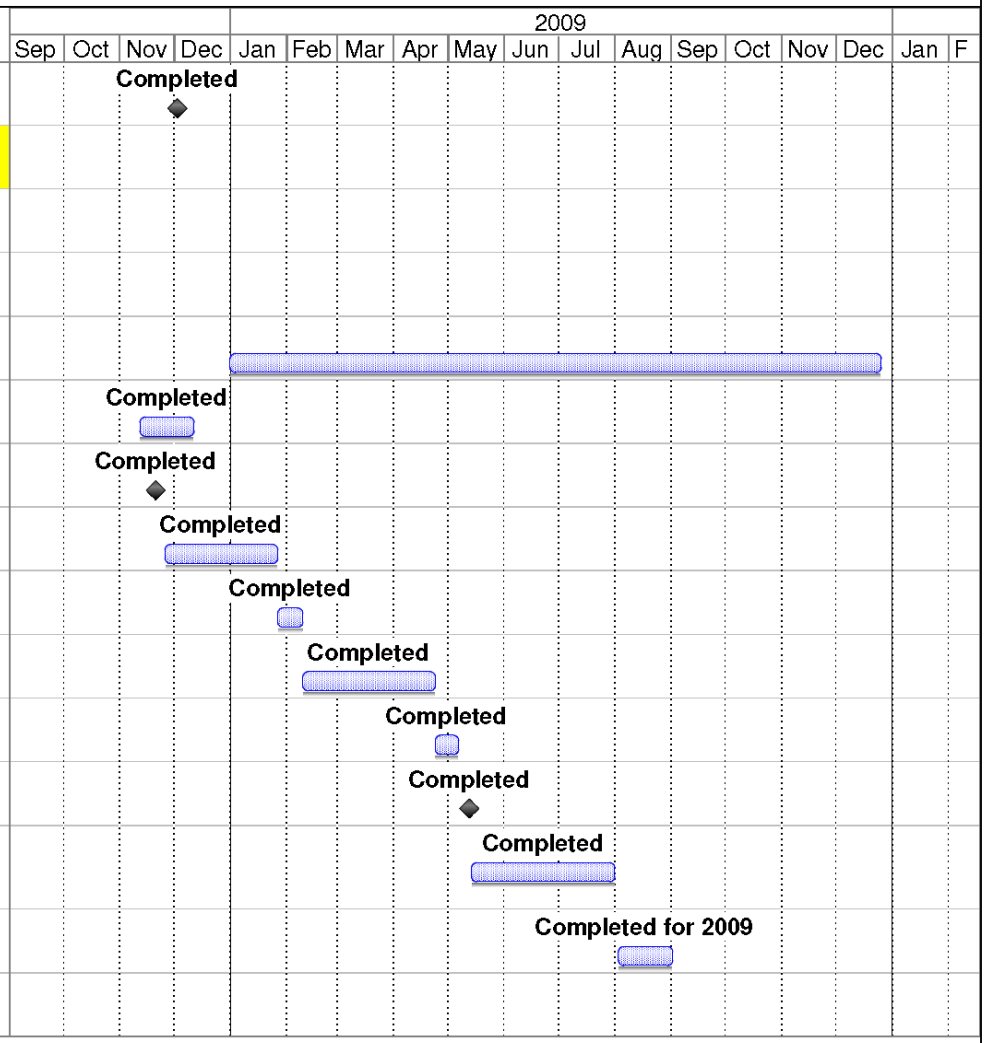
Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule



ID	Task Name	2009																	
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	F
40	**Monitoring & Management Program (M&MP) Budgets for 2010 and 2011**																		
41	Prepare Draft 2010 and 2011 M&MP O&M and Capital Budgets												Completed						
42	TAC approves Draft 2010 and 2011 M&MP O&M and Capital Budgets													Completed					
43	Board approves 2010 and 2011 M&MP O&M and Capital Budgets														Completed				
44	**2009 Annual Report**																		
45	Prepare Draft 2009 Annual Report												Completed						
46	TAC Provides Input on Draft 2009 Annual Report													Completed					
47	Prepare Revised Draft 2009 Annual Report (Incorporating TAC Input)														Completed				
48	Board Provides Input on Revised Draft 2009 Annual Report															Completed			
49	Prepare Final 2009 Annual Report (Incorporating Board Input)															Completed			
50	Watermaster Submits Final 2009 Annual Report to Judge															Completed			
51	***MANAGEMENT***																		
52	**M.1 PROGRAM ADMINISTRATION (All Work Performed by Watermaster Staff)**																		
53	Prepare Consultant Contracts for 2009			Completed															
54	TAC Approval of Consultant Contracts for 2009			Completed															

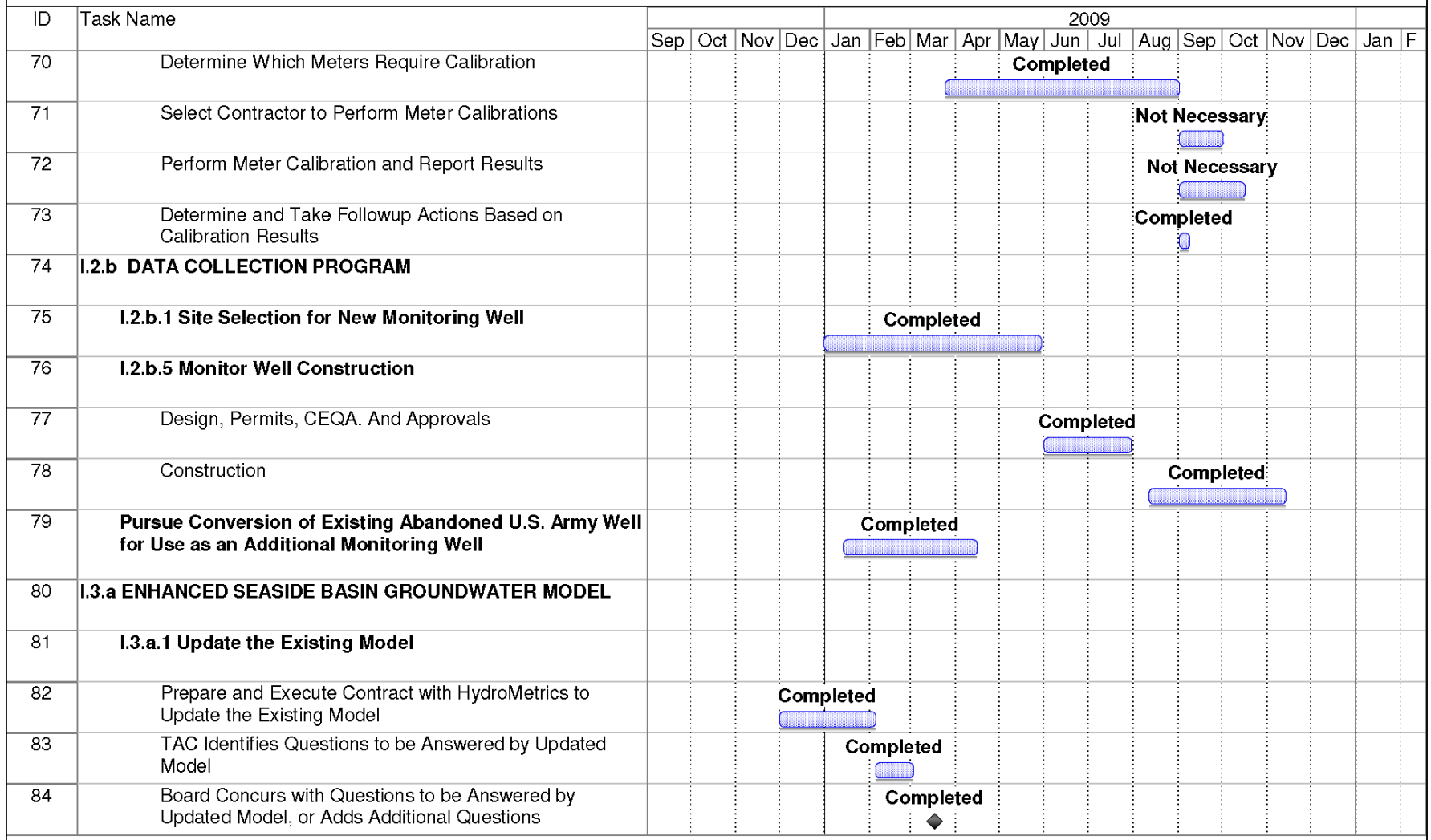
Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule



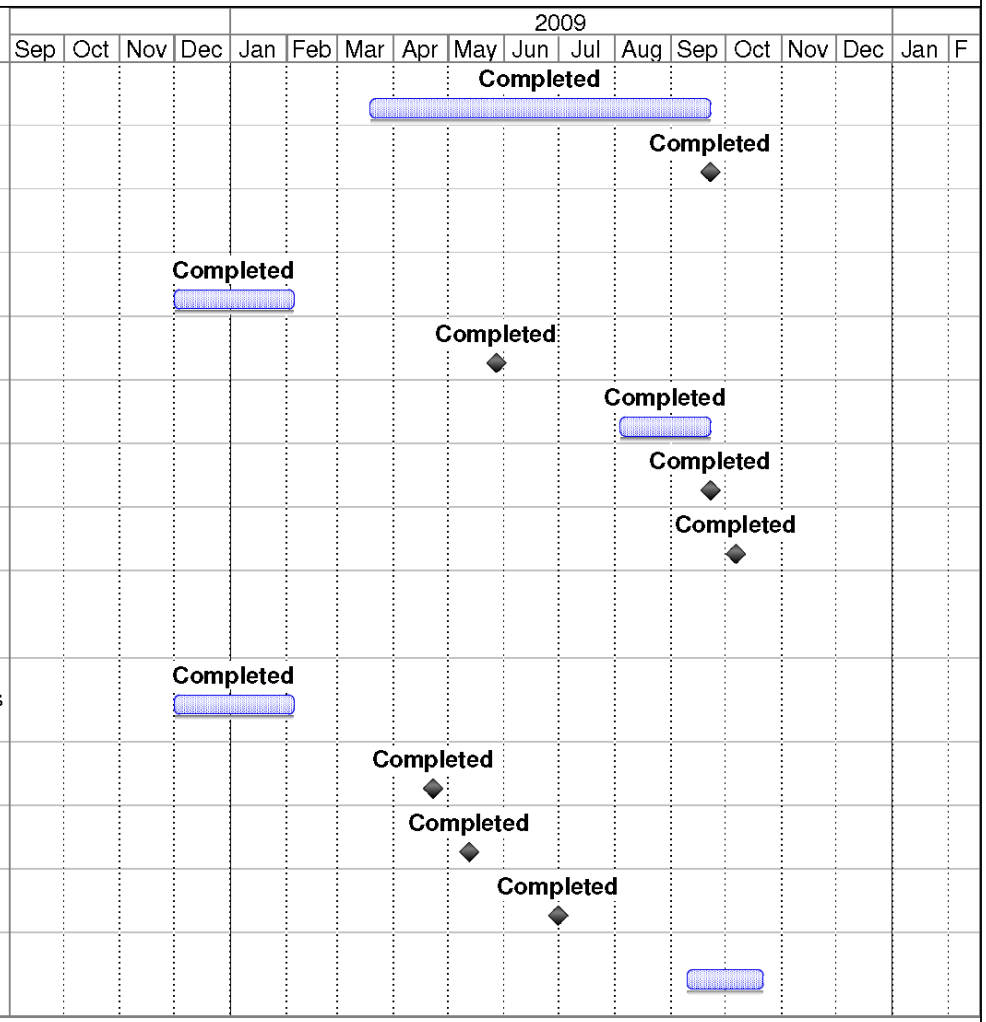
ID	Task Name
55	Board Approval of Consultant Contracts for 2009
56	***IMPLEMENTATION***
57	**I.2.a DATABASE MANAGEMENT**
58	**I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance**
59	Perform Data Entry (Production, Level, and Quality)
60	Correct Known Deficiencies in Existing Database
61	Select New Database Host Site and Database Maintenance Firm
62	Prepare and Issue Contracts to New Database Maintenance Firm
63	Install Database on New Host Site
64	Conduct TAC Test Period
65	Compile Deficiencies in Existing Database Found From TAC Test Period
66	TAC Approves Deficiencies to be Corrected in Database
67	Correct Deficiencies in Existing Database Found From TAC Test Period & Activate Database on WM Website
68	Make Improvements to Existing Database
69	**I.2.a.2 Verify Accuracy of Production Meters**

Completed
Completed
Completed
Completed
Completed
Completed
Completed
Completed
Completed for 2009

Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule

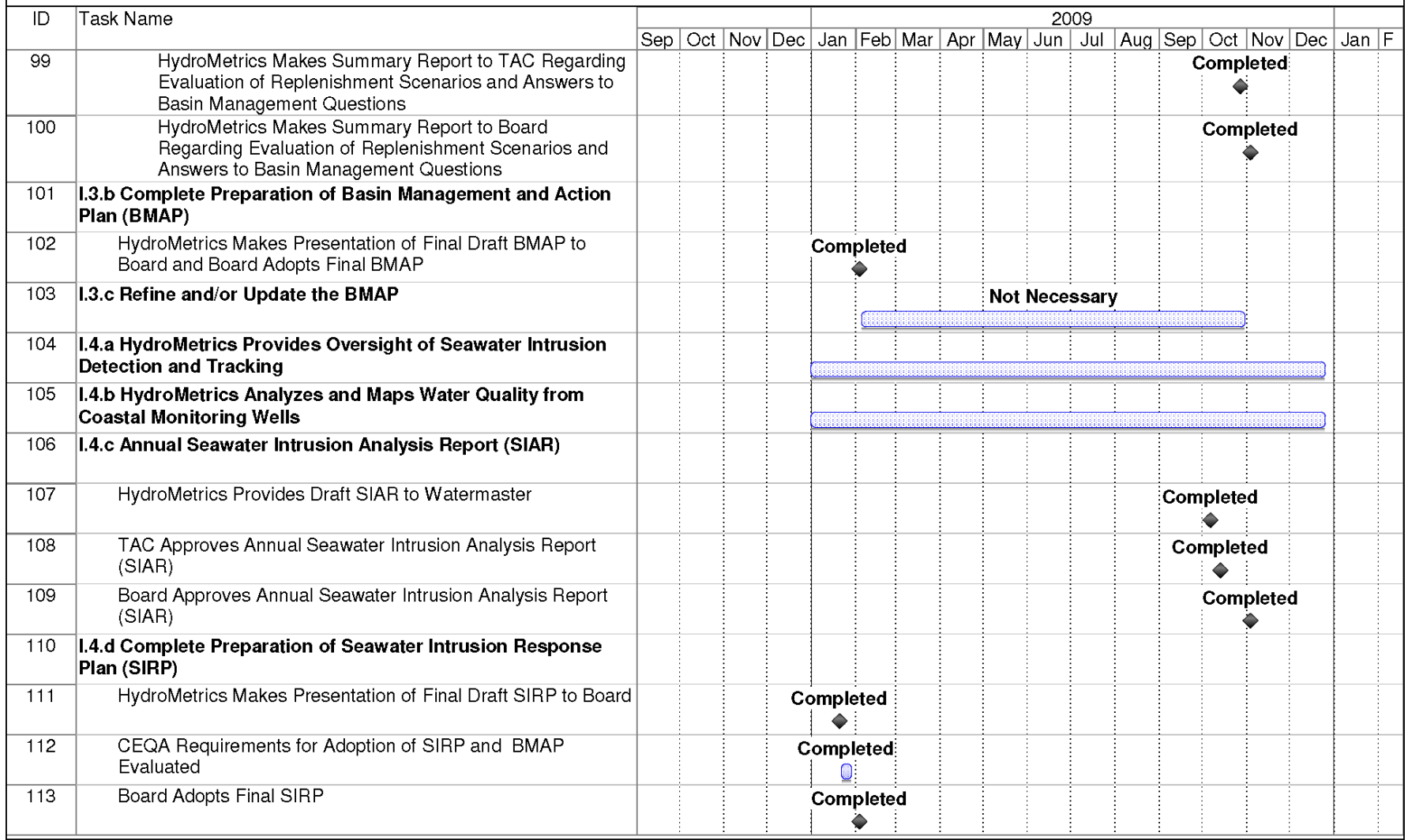


Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule



ID	Task Name
85	HydroMetrics Updates the Model
86	HydroMetrics Makes Summary Report to TAC on Updating of the Model
87	**I.3.a.2 Develop Protective Water Levels**
88	Prepare and Execute Contract with HydroMetrics to Develop Protective Water Levels
89	HydroMetrics Meets with TAC to Discuss Development of Protective Water Levels
90	HydroMetrics Develops Protective Water Levels
91	HydroMetrics Makes Summary Report to TAC on Protective Water Levels
92	HydroMetrics Makes Summary Report to Board on Protective Water Levels
93	**I.3.a.3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions**
94	Prepare and Execute Contract with HydroMetrics to Evaluate Replenishment Scenarios and Develop Answers
95	HydroMetrics Meets with TAC to Select Scenarios to be Evaluated
96	TAC Approves Scenario Selection
97	Board Concurs with Selection of Scenarios to be Evaluated, or Adds Additional Scenarios
98	HydroMetrics Evaluates Replenishment Scenarios and Develops Answers to Basin Management Questions

Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule



2009 Consultants Work Schedule 11-19-09

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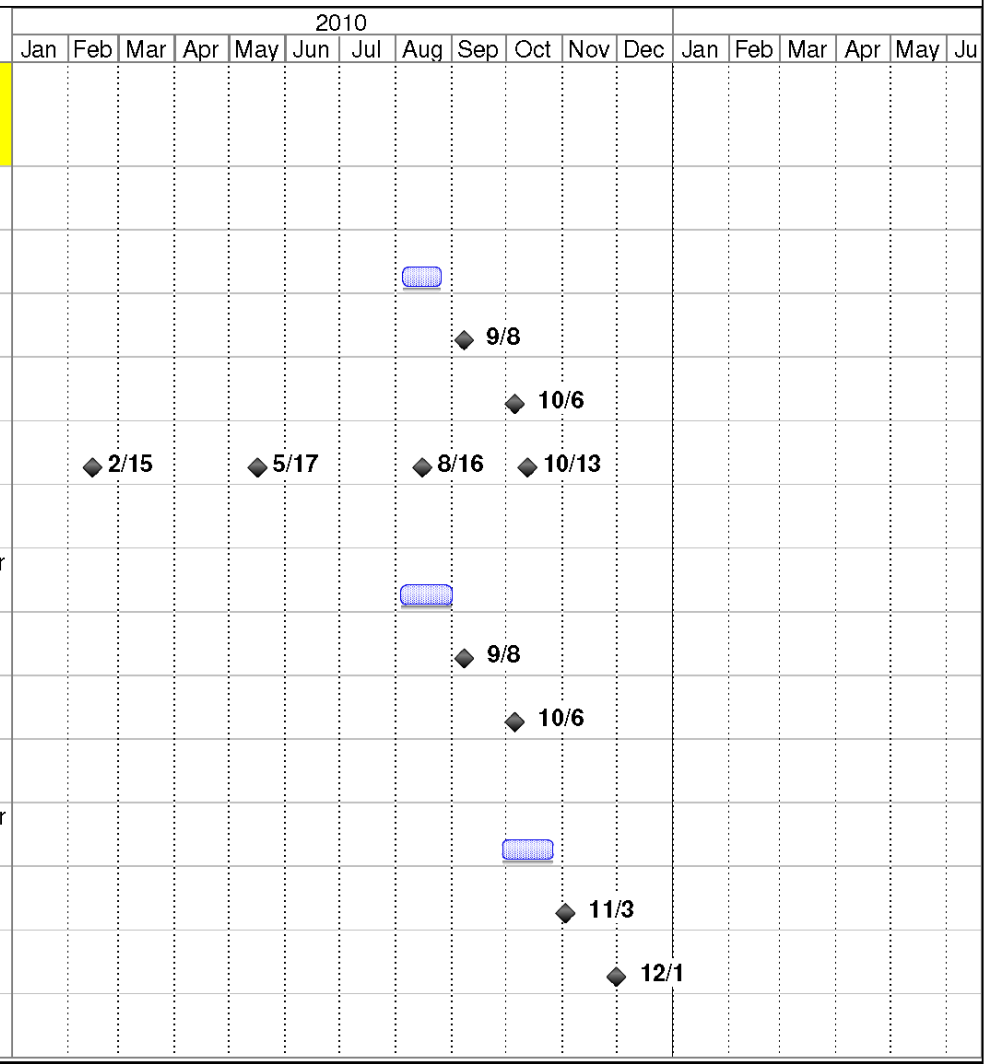
Seaside Basin WaterMaster
Monitoring and Management Program
2009 Work Schedule

ID	Task Name	2009																
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	F
114	**I.4.e Refine and/or Update the SIRP**									**Not Necessary**									

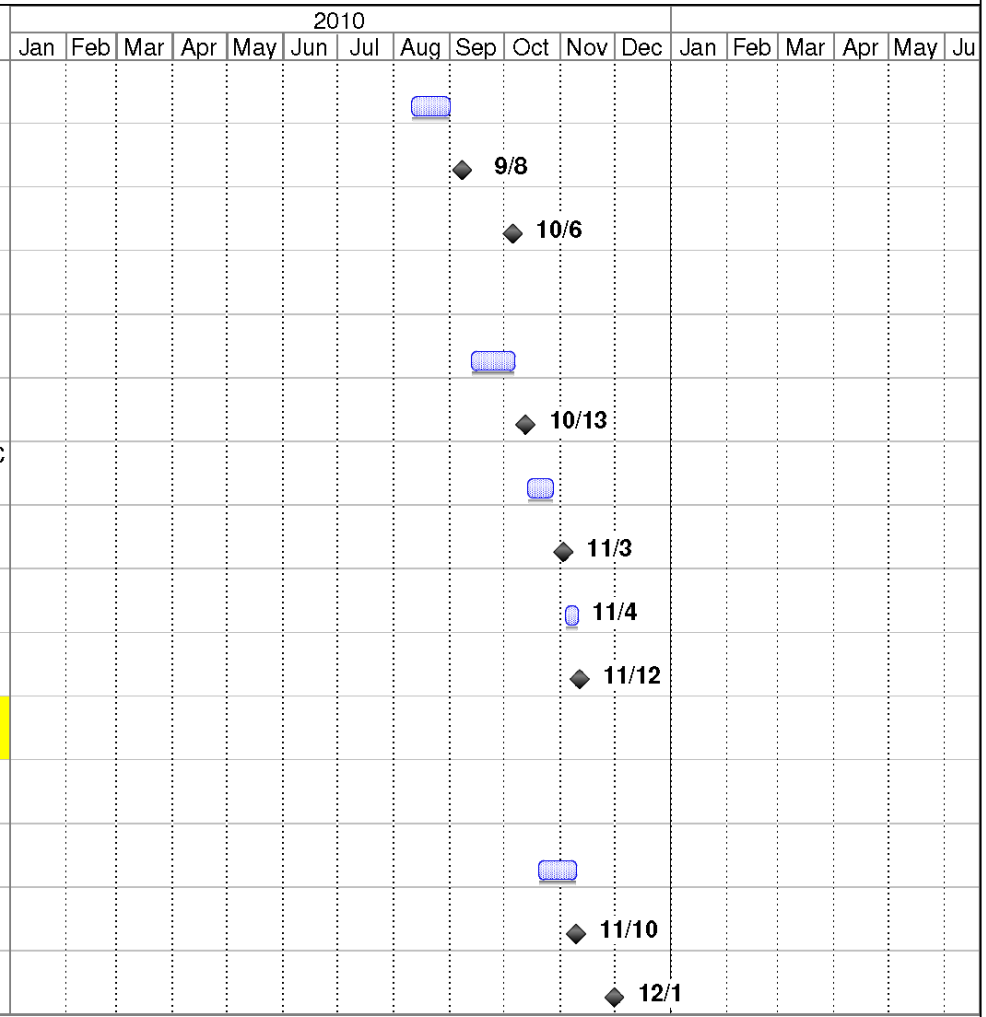
Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule

ID	Task Name
1	***CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK***
2	**2011 Administration, Operations and Replenishment Budgets**
3	Prepare M&MP Draft Budgets (Same as Task 41)
4	TAC Approves M&MP Budgets (Same as Task 42)
5	Board Approves M&MP Budgets (Same as Task 43)
6	**Watermaster Prepares Quarterly Water Production, Water Level, and Water Quality Reports**
26	**Replenishment Assessment Unit Costs for Water Year 2011**
27	Develop Replenishment Assessment Unit Cost for 2011 Water Year
28	TAC Approves 2011 Water Year Replenishment Assessment Unit Cost
29	Board Adopts and Declares 2011 Water Year Replenishment Assessment Unit Cost
30	**Replenishment Assessments for Water Year 2010**
31	Watermaster Prepares Replenishment Assessments for Water Year 2010
32	Watermaster Board Approves Replenishment Assessments for Water Year 2010
33	Watermaster Levies Replenishment Assessment for 2010
34	**Monitoring & Management Program (M&MP) Budgets for 2011 and 2012**

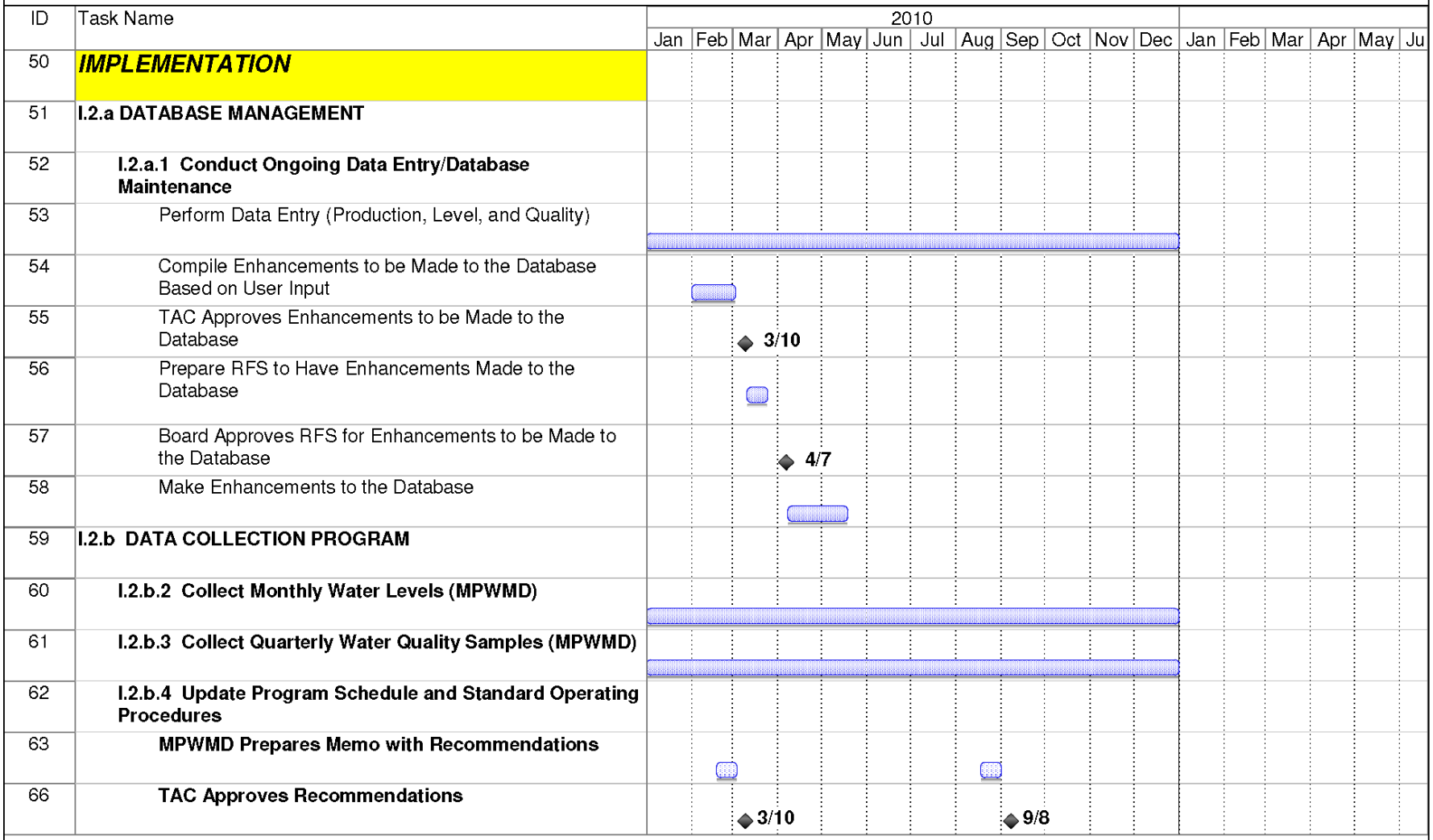


Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule

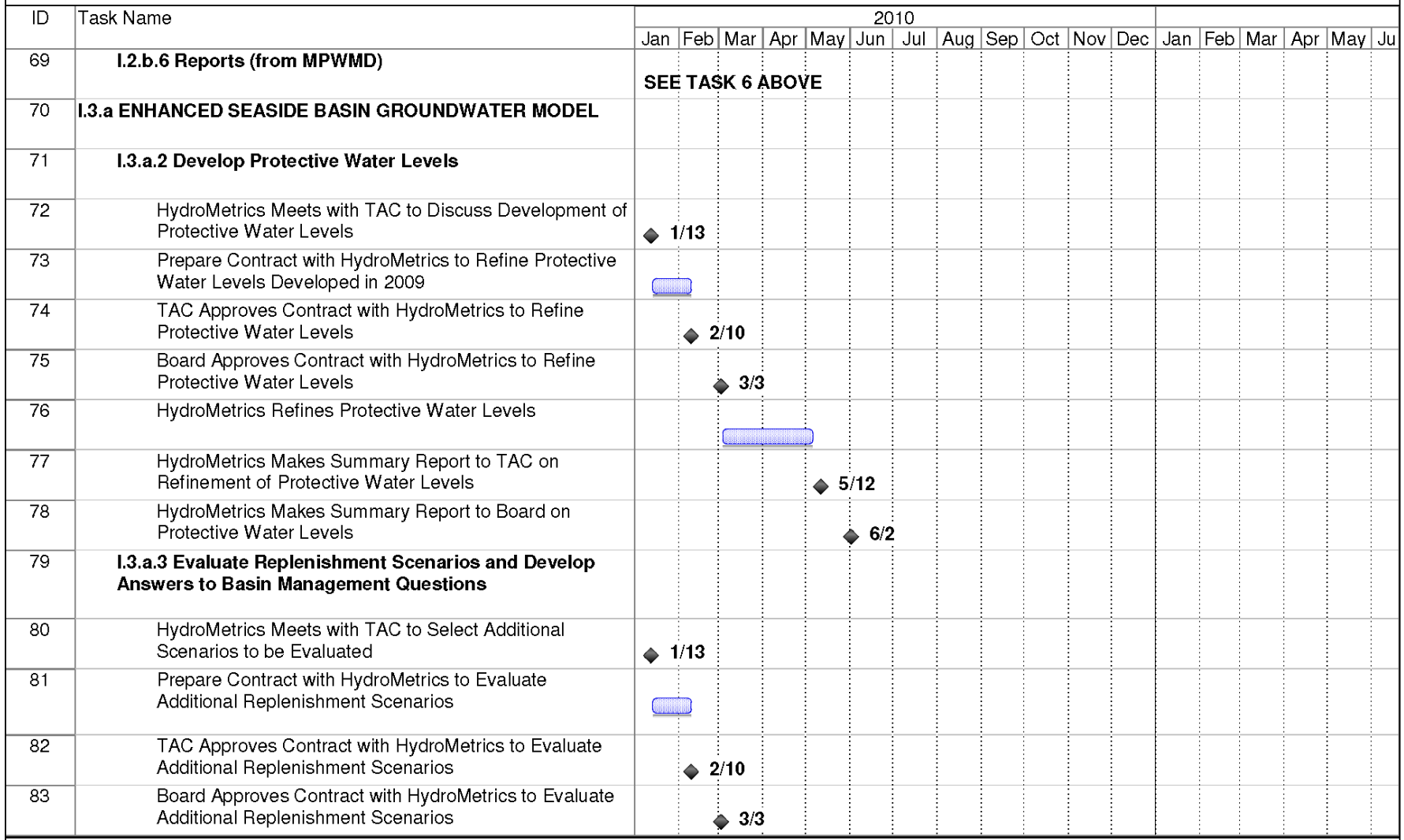
ID	Task Name
35	Prepare Draft 2011 and 2012 M&MP O&M and Capital Budgets
36	TAC approves Draft 2011 and 2012 M&MP O&M and Capital Budgets
37	Board approves 2011 and 2012 M&MP O&M and Capital Budgets
38	**2009 Annual Report**
39	Prepare Preliminary Draft 2010 Annual Report
40	TAC Provides Input on Draft 2010 Annual Report
41	Prepare Revised Draft 2010 Annual Report (Incorporating TAC Input)
42	Board Provides Input on Revised Draft 2010 Annual Report
43	Prepare Final 2010 Annual Report (Incorporating Board Input)
44	Watermaster Submits Final 2010 Annual Report to Judge
45	***MANAGEMENT***
46	**M.1 PROGRAM ADMINISTRATION (All Work Performed by Watermaster Staff)**
47	Prepare Initial Consultant Contracts for 2011
48	TAC Approval of Initial Consultant Contracts for 2011
49	Board Approval of Initial Consultant Contracts for 2011



Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule

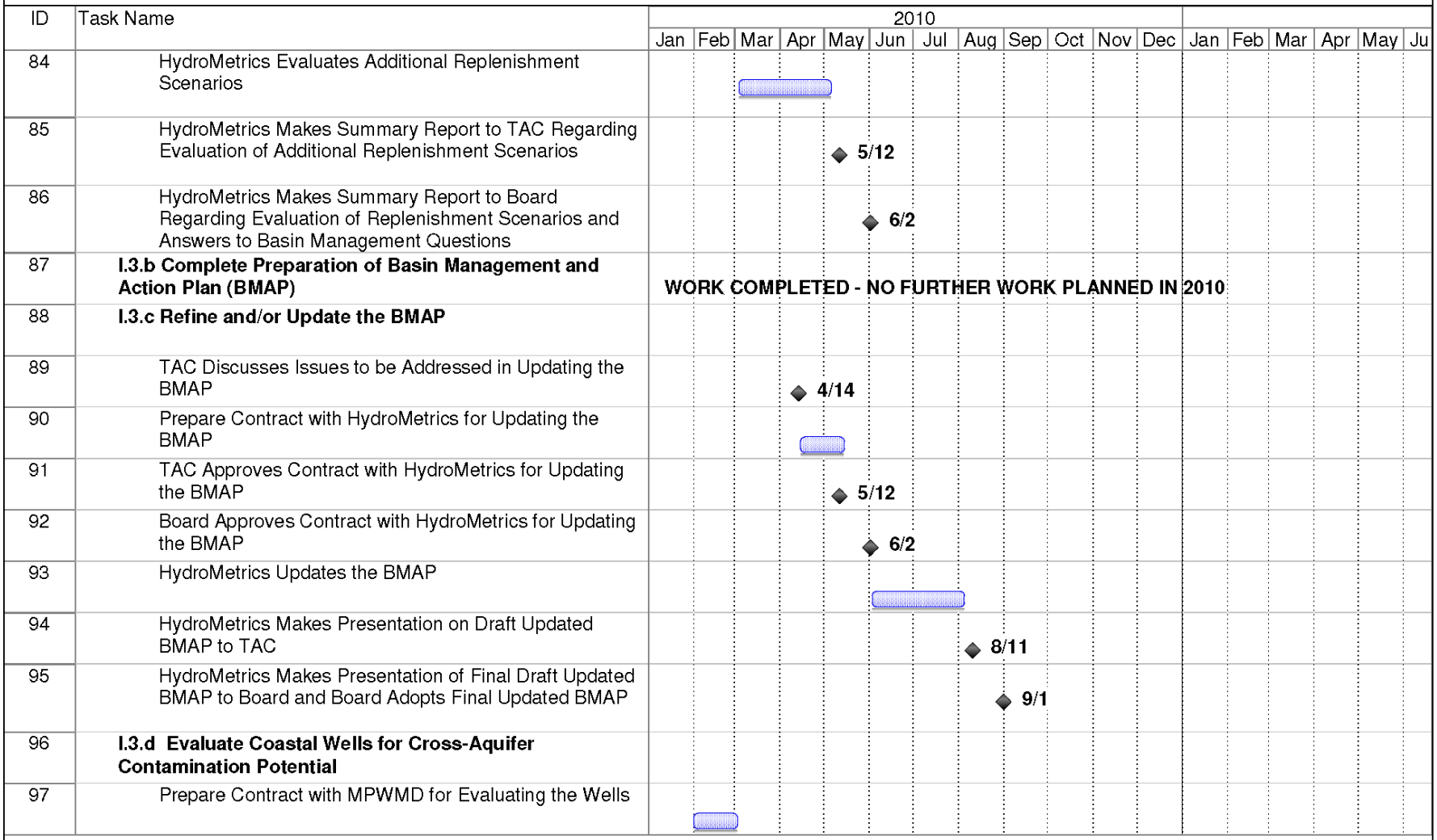


Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule



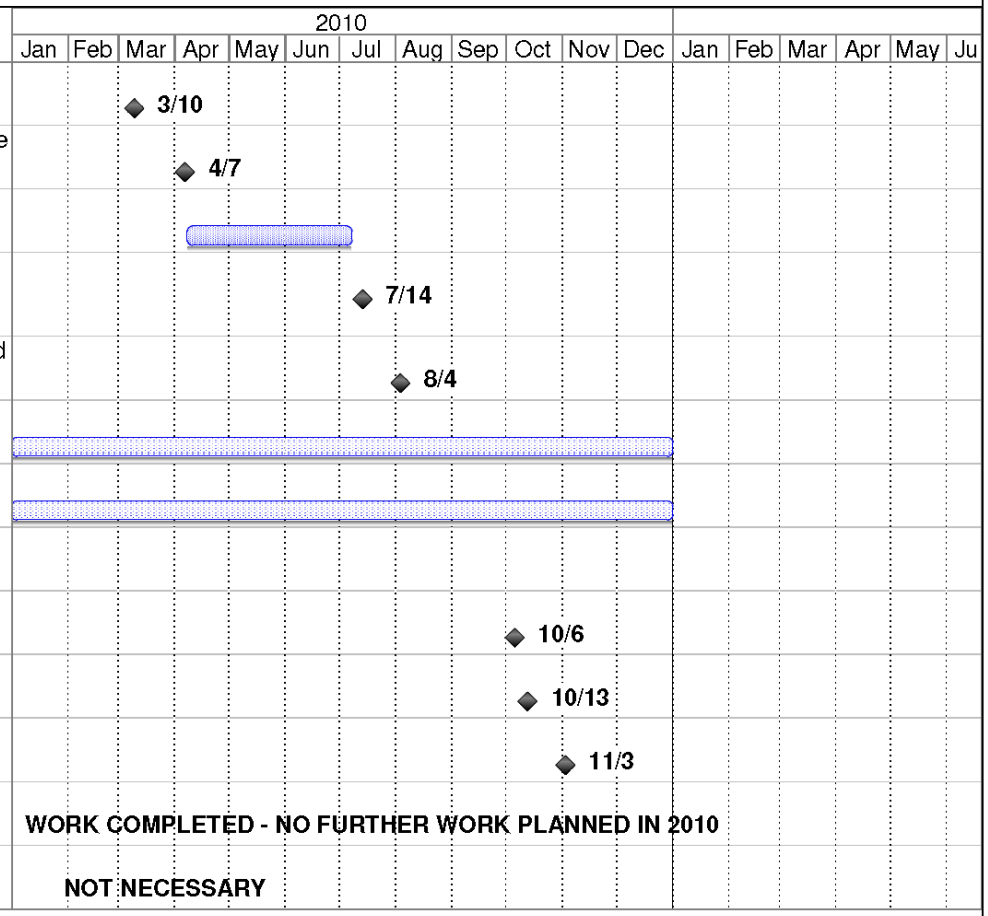
ID	Task Name	2010 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
69	**I.2.b.6 Reports (from MPWMD)**	**SEE TASK 6 ABOVE**																	
70	**I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL**																		
71	**I.3.a.2 Develop Protective Water Levels**																		
72	HydroMetrics Meets with TAC to Discuss Development of Protective Water Levels	**1/13**																	
73	Prepare Contract with HydroMetrics to Refine Protective Water Levels Developed in 2009																		
74	TAC Approves Contract with HydroMetrics to Refine Protective Water Levels		**2/10**																
75	Board Approves Contract with HydroMetrics to Refine Protective Water Levels			**3/3**															
76	HydroMetrics Refines Protective Water Levels																		
77	HydroMetrics Makes Summary Report to TAC on Refinement of Protective Water Levels					**5/12**													
78	HydroMetrics Makes Summary Report to Board on Protective Water Levels						**6/2**												
79	**I.3.a.3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions**																		
80	HydroMetrics Meets with TAC to Select Additional Scenarios to be Evaluated	**1/13**																	
81	Prepare Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios																		
82	TAC Approves Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios		**2/10**																
83	Board Approves Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios			**3/3**															

Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule



Seaside Basin Watermaster
Monitoring and Management Program
2010 Work Schedule

ID	Task Name
98	TAC Approves Contract with MPWMD for Evaluating the Wells
99	Board Approves Contract with MPWMD for Evaluating the Wells
100	MPWMD Evaluates the Wells
101	MPWMD Makes Presentation of Well Evaluation to TAC
102	MPWMD Makes Presentation of Well Evaluation to Board
103	**I.4.a HydroMetrics & MPWMD Provide Oversight of Seawater Intrusion Detection and Tracking**
104	**I.4.b HydroMetrics Analyzes and Maps Water Quality from Coastal Monitoring Wells**
105	**I.4.c Annual Seawater Intrusion Analysis Report (SIAR)**
106	HydroMetrics Provides Draft SIAR to Watermaster
107	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)
108	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)
109	**I.4.d Complete Preparation of Seawater Intrusion Response Plan (SIRP)**
110	**I.4.e Refine and/or Update the SIRP**



SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	November 19, 2009
AGENDA ITEM:	8
AGENDA TITLE:	Other Business
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:
Under this Agenda Item TAC members and others present at the TAC meeting may bring up and discuss other topics of potential interest to the TAC. Since no specific items are listed under this Agenda Item, no formal action by the TAC will normally be taken on such items.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required