

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2009

RFS NO. 2009-01

(To be filled in by WATERMASTER)

TO: Joe Oliver

FROM: Robert Jaques

Monterey Peninsula Water Management District
PROFESSIONAL

WATERMASTER

Services Needed and Purpose:

Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2009 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2009-01 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: \$ 110,600.00 (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: 12/18/08
WATERMASTER Technical Program Manager

Authorized by:  Date: 12/18/2008
WATERMASTER Chief Executive Officer

Agreed to by:  Date: 12/9/2008
PROFESSIONAL

ATTACHMENT 1

Detailed Scope of Work for RFS No. 2009-01

Background:

The Watermaster Board approved the Budget for the 2009 Management and Monitoring Program Scope of Work (hereinafter referred to as the "2009 M&MP Scope of Work") at its Special meeting of October 23, 2008. For reference purposes the complete 2009 M&MP Scope of Work is attached as Exhibit A to this Attachment 1.

This RFS No. 2009-01 authorizes PROFESSIONAL to perform certain work on certain of the Tasks described in the 2009 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. 2008-01 correspond to the Task numbers in the 2009 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. The database will be maintained 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. a. 2	Verify Accuracy of Production Well Meters	To ensure that water production data is accurate, WATERMASTER intends to verify the accuracy of all production well meters during 2009. This work will either be performed by the well owner and submitted to WATERMASTER for review and acceptance, or performed by a Contractor hired by WATERMASTER. PROFESSIONAL will assist WATERMASTER in the performance of this work, by helping to review data, helping to identify meters that need to be verified, assisting the Contractor, and performing other related work as requested by WATERMASTER.
I. 2. b. 1.	Site Representation and Selection	The monitoring well network review that was started in 2008 will be completed to select the specific site where an additional monitoring well will be installed during 2009 to fill a data gap that was identified through the work performed in 2008. The new well will be constructed under subtask I.2.b.5. PROFESSIONAL will assist WATERMASTER with the process of selecting the site for the new well by coordinating with landowners, well owners, and regulatory agencies, and performing other related work as requested by WATERMASTER.
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 and four ASR monitoring wells will be used to measure the levels at those wells. All of the other wells will be manually measured.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 3.	Collect Quarterly Water Quality Samples	The monitoring wells from which water quality data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Quality" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water quality samples, and will perform water quality analyses on these samples. The water quality constituents that will be 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 CaCO 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 2009. The recommendations may be provided in the form of a memorandum.
I. 2. b. 5.	Monitor Well Construction	WATERMASTER will hire a Contractor to design and construct an additional monitoring well to fill a data gap in the existing monitoring well network. During the course of designing and constructing the well, PROFESSIONAL will assist WATERMASTER in working with and coordinating with the Contractor and performing other related work as requested by WATERMASTER.
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: <ol style="list-style-type: none"> <li data-bbox="548 1570 1365 1640">1. Submit four quarterly reports summarizing and analyzing the water quality and water level data. <li data-bbox="548 1646 1409 1824">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.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 3. a	Enhanced Seaside Basin Groundwater Model	During 2009 WATERMASTER intends to hire a Consultant to update the existing groundwater model for the Seaside Basin, and to use the updated model to evaluate various Basin management issues. PROFESSIONAL will assist WATERMASTER with this work by participating in meetings, providing information and data for the Consultant's use, and performing other related work as requested by WATERMASTER.
I. 3. b.	Complete Preparation of Basin Management Action Plan	During 2009 the Consultant hired by WATERMASTER in 2008 will complete preparation of the Basin Management Action Plan (BMAP). PROFESSIONAL will assist WATERMASTER with this work by participating in meetings, providing information and data for the Consultant's use, and performing other related work as requested by WATERMASTER.
I. 4. a, b, and c	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.
I. 4. d.	Complete Preparation of Seawater Intrusion Response Plan	During 2009 the Consultant hired by WATERMASTER in 2008 will complete preparation of the Seawater Intrusion Response Plan (SIRP). PROFESSIONAL will assist WATERMASTER with this work by participating in meetings, providing information and data for the Consultant's use, and performing other related work as requested by WATERMASTER.

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 PROFESSIONAL UNDER THIS RFS ⁽⁴⁾			
	Existing	Enhanced	Level (Monthly)	Quality (Annually)	Level		Monthly	Quarterly	Annually	Quarterly
					Frequency	Quarterly				
					Frequency	Quarterly			Frequency	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				
Paralita Test-Shallow/Deep	X					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		
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	

Southern Coastal Subarea (and vicinity)										
Plumas '90 Test-Deep									X	
K-Mart-Dune/Aromas									X	
CDM MW-3-Dune/Aromas										X
CDM MW-4-Dune/Aromas										X
MW-BW-08A-Dune/Aromas										X
MW-BW-09-180-Shallow										X
Laguna Seca Subarea (and vicinity)										
MPWMD #FO-03-Shallow									X	
MPWMD #FO-03-Deep									X	
MPWMD #FO-04-Shallow (E)									X	
MPWMD #FO-04-Deep (W)									X	
MPWMD #FO-05-Shallow									X	
MPWMD #FO-05-Deep									X	
MPWMD #FO-06-Shallow									X	
MPWMD #FO-06-Deep									X	
Justin Court (RR M2S)-Shallow									X	
LS Pistol Range (Mo Co TH-1)-Deep									X	
York Rd-West (Mo Co MW-1 D)-Deep									X	
Seca Place (Mo Co MW-2)-Deep									X	
Robley Shallow (North) (Mo Co MW-3S)-Shallow									X	
Robley Deep (South) (Mo Co MW-3D)-Deep									X	
LS Driving Range (SCS Deep)-Shallow									X	
LS No. 1 Subdivision-Deep									X	
Blue Larkspur-East-End-Believed to be Deep									X	
York School-Shallow									X	
Laguna Seca Driving Range (SCS-Deep)-Shallow									X	
CAW East Fence-Shallow									X	
Laguna Seca County Park #4-Shallow									X	
CAW Granite Construction-Deep									X	
CAW Ryan Ranch (RR) #7-Deep									X	
Laguna Seca Golf New #12-Deep ⁽⁶⁾									X	
Pasadera Main Gate-Deep									X	
No. of Wells in Each Network⁽⁶⁾	41	20						14	20	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

2009 M&MP Scope of Work

Seaside Groundwater Basin Management and Monitoring Program Anticipated 2009 Scope of Work

(Updated October 9, 2008)

The tasks outlined below are those that are anticipated to be performed during 2009. Some Tasks listed below were included in the Initial Phase 1 Scope of Work that was contained in the Implementation Plan prepared in March, 2007, and the Updated Phase 2 Scope of Work contained in the November, 2007 Annual Report. This is because some Tasks recur throughout the program. For instance, data collection and database entry are continuous activities that will occur throughout the program. Program Administration Tasks will also occur on a day-to-day, as needed basis throughout the program.

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), or to the Monterey County Water Resources Agency (MCWRA). 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	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.
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M. 1. b. Assist with Board and TAC Agendas	Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.
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M. 1. c. Preparation and Attendance of Meetings	The Consultants' work will require internal meetings and possibly 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, and From time-to-time when Watermaster staff asks Consultants to make presentations to the Watermaster Board and/or TAC.
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For TAC meetings appropriate Consultant representatives will attend the TAC meetings, 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	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, and problem identification and resolution.
M. 1. e. Peer Review of Documents and Reports	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	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/ Database Maintenance	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.
I. 2. a. 2 Verify Accuracy of Production Well Meters	To ensure that water production data is accurate, all production well meters will be verified for accuracy during 2009. This work will either be performed by the well owner, and submitted to the Watermaster for review and acceptance, or performed by the Watermaster through a Contractor hired by the Watermaster. Performing this work "...as often as may be reasonable..." is required under the Amended Decision, on page 35, Section L.3.j.vii.
I. 2. b. Data Collection Program	
I. 2. b. 1. Site Representation and Selection.	The monitoring well network review that was started in 2008 will be completed to select the specific site where an additional monitoring well will be installed to fill a data gap that was identified through the work performed in 2008. This new well will be used to develop additional data that will be beneficial to the management of the basin. The new well will be constructed under subtask I.2.b.5.
I. 2. b. 2. Collect Monthly Manual Water Levels.	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, if it is determined that dataloggers are appropriate. It is expected that dataloggers, if used, will only be installed on the Coastal Sentinel monitoring wells, and that the other wells will be manually measured.
I. 2. b. 3. Collect Quarterly Water	Water quality data will be collected quarterly from certain of the monitoring wells. This data may come from water quality samples

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.	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	Similar to the approach taken in Phase 1 under Task I.1, the Watermaster will hire a Contractor to design and construct an additional monitoring well to fill a data gap in the existing monitoring well network. The work to select the site for this well will be performed under subtask I. 2. b. 1. Budgeting for this Task will be included in the M&MP 2009 Capital Budget.
I. 2. b. 6 Reports	<p>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:</p> <ul style="list-style-type: none"> • 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	<p>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 was concluded that at that time it was not necessary to develop a new Model. The basis for this decision was included in the Phase 1 documents submitted with the November 15, 2007 Annual Report. 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, indicate that it will be desirable to update the existing Model during 2009, so that it can be used as more data becomes available.</p>
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I. 3.a.1 Update the Existing Model	The existing Model is described in the report titled “Groundwater Flow and Transport Model” dated October 1, 2007. The existing Model will be updated to address those issues discussed in the Memorandum from HydroMetrics titled “Ongoing Status of the Seaside Basin Groundwater Model” dated October 4, 2007, which are necessary to use the Model for the purposes described under tasks I.3.a.2 and I.3.a.3. This work will be done by a Consultant hired by the Watermaster. [Note: Both of the referenced documents were either discussed or contained in Attachment 11 of the Watermaster’s “Annual Report – 2007.”]
I. 3. a. 2 Develop Protective Water Levels	Use the updated Model to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work will be done by a Consultant hired by the Watermaster. The general scope of work for this Task is outlined in HydroMetrics letter dated June 4, 2008 titled “Approach and Effort for Estimating Protective Groundwater Levels in the Seaside Basin.”
I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions	Use the updated Model 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. As desired and appropriate, use the updated Model to develop preliminary answers to other questions associated with Basin management. This work will be done by a Consultant hired by the Watermaster. The general scope of work for this Task is included in the scope described in HydroMetrics letter dated June 4, 2008 titled “Approach and Effort for Estimating Protective Groundwater Levels in the Seaside Basin.”

I. 3. b.
Complete Preparation of
Basin Management Action
Plan

The Watermaster's Consultant hired in 2008 to prepare the Basin Management Action Plan (BMAP) has nearly completed preparing this document, and full completion is expected by spring of 2009. The completed BMAP will serve as the Watermaster's long-term seawater intrusion prevention plan. The BMAP addresses the topics described under subtasks I. 3. b. 1 and I. 3. b. 2, as well as other important Basin management topics. The Sections that will be included in the final BMAP are:

- Executive Summary
- Section 1 – Background and Purpose
- Section 2 – State of the Basin
- Section 3 – Supplemental Water Supplies
- Section 4 – Groundwater Management Actions
- Section 5 – Conclusions, Recommendations, and Implementation Plan

Drafts of each of these Sections were prepared in 2008, and will be finalized for inclusion in the Final BMAP in 2009.

The updated Supplemental Water Supplies analysis contained in Section 3 of the BMAP addresses the following:

- Updated status and review Of Monterey Peninsula Water Supply Projects
- Updated costs, schedules, permitting issues, and volumes of water that the Projects can supply
- Distribution and Delivery System/ End Use Consumer Improvements and Mandatory Conservation Efforts
- Non-Potable Water Resources
- Out-of-Basin Imports

Pumping redistribution strategies are discussed in Section 4 of the BMAP, and also in Section 4 of the Seawater Intrusion Response Plan (Section 4 listed under subtask I.4.d). This work addresses the following:

- Basin overdraft, mandatory GW reduction
- Salinity detection, mandatory GW reduction
- Reduced GW delivery impacts and solutions
- In Lieu, Voluntary pumping reductions
- Water Banking
- Salinity barrier system
- Pumping variability
- Storage capacity of the basin

compliance with any CEQA issues which pertain to adoption and/or implementation of the BMAP will be carried out by a Consultant in conjunction with the adoption of the BMAP by the Watermaster Board of Directors. At this point it is assumed that only an Initial Study leading to a Negative Declaration will meet the CEQA requirements. If additional CEQA compliance work will be required, this will be determined once the Initial Study has been completed.

I. 3. c.
Refine and/or Update the
Basin Management Action
Plan

During 2009 it may be found beneficial or necessary to perform further, as yet undefined, work to refine the BMAP and/or to update it based on new data or knowledge that is gained during the year. 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. 4 Seawater Intrusion Response Plan (formerly referred to as the Seawater Intrusion Contingency Plan

I. 4. a.
Oversight of Seawater
Intrusion Detection and
Tracking

A Consultant will provide general oversight over the Seawater Intrusion detection program.

I. 4. b.
Analyze and Map Water
Quality from Coastal
Monitoring Wells

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

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

A detailed draft long-term Seawater Intrusion Response Plan (SIRP) has nearly been completed. The SIRP will be completed and approved by the Watermaster by the spring of 2009. The Sections that will be included in the final SIRP are:

- Executive Summary
- Section 1 – Background and Purpose
- Section 2 – Conformance with Other Documents
- Section 3 – Seawater Intrusion Indicators and Triggers
- Section 4 – Seawater Intrusion Contingency Actions

Compliance with any CEQA issues which pertain to adoption and/or implementation of the SIRP will be carried out in conjunction with the adoption of the SIRP by the Watermaster Board of Directors. At this point it is assumed that only an Initial Study leading to a Negative Declaration will meet the CEQA requirements. If additional CEQA compliance work will be required, this will be determined once the Initial Study has been completed.

I. 4. e.
Refine and/or Update the
Seawater Intrusion Response
Plan

During 2009 it may be found beneficial or necessary to perform further, as yet undefined, work to refine the SIRP and/or to update it based on new data or knowledge that is gained during the year. Such work might involve issues pertaining to seawater intrusion indicators/triggers or pumping redistribution strategies. This task is included primarily for budgeting purposes in the event such work is deemed necessary.

I. 4. f.
If Seawater Intrusion is
Determined to be Occurring,
Implement Contingency
Response Plan

The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.

ATTACHMENT 2
SCHEDULE

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	Feb	
1	CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK																			
2	2009 Administration, Operations and Replenishment Budgets Due																			
3	2010 Administration, Operations and Replenishment Budgets																			
4	Prepare M&MP Draft Budgets																			
5	TAC Approves M&MP Budgets																			
6	Board Approves M&MP Budgets																			
7	Watermaster Prepares Quarterly Water Production, Water Level, and Water Quality Reports																			
32	Replenishment Assessment Unit Costs for Water Year 2010																			
33	Develop Replenishment Assessment Unit Cost for 2010 Water Year																			
34	TAC Approves 2010 Water Year Replenishment Assessment Unit Cost																			
35	Board Adopts and Declares 2010 Water Year Replenishment Assessment Unit Cost																			
36	Replenishment Assessments for Water Year 2010																			
37	Watermaster Prepares Replenishment Assessments for Water Year 2010																			
38	Watermaster Board Approves Replenishment Assessments for Water Year 2009																			
39	Watermaster Levies Replenishment Assessment for 2009																			

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	Feb
40	Monitoring & Management Program (M&MP) Budgets for 2010 and 2011																		
41	Prepare Draft 2010 and 2011 M&MP O&M and Capital Budgets																		
42	TAC approves Draft 2010 and 2011 M&MP O&M and Capital Budgets																		
43	Board approves 2010 and 2011 M&MP O&M and Capital Budgets																		
44	2009 Annual Report																		
45	Prepare Draft 2009 Annual Report																		
46	TAC Provides Input on Draft 2009 Annual Report																		
47	Prepare Revised Draft 2009 Annual Report (Incorporating TAC Input)																		
48	Board Provides Input on Revised Draft 2009 Annual Report																		
49	Prepare Final 2009 Annual Report (Incorporating Board Input)																		
50	Watermaster Submits Final 2009 Annual Report to Judge																		
51	MANAGEMENT																		
52	M.1 PROGRAM ADMINISTRATION (All Work Performed by Watermaster Staff)																		
53	Prepare Consultant Contracts for 2009																		
54	TAC Approval of Consultant Contracts for 2009																		

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	Feb	
55	Board Approval of Consultant Contracts for 2009			◆ 12/3																
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	Select New Database Host Site and Database Maintenance Firm																			
61	Prepare and Issue Contract to New Database Maintenance Firm																			
62	Install Database on New Host Site																			
63	Correct Deficiencies in Existing Database																			
64	I.2.a.2 Verify Accuracy of Production Meters																			
65	Determine Which Meters Require Calibration																			
66	Select Contractor to Perform Meter Calibration																			
67	Perform Meter Calibration and Report Results																			
68	I.2.b DATA COLLECTION PROGRAM																			
69	I.2.b.1 Site Selection for New Monitoring Well																			

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	Feb	
70	I.2.b.5 Monitor Well Construction																			
71	Design, Permits, CEQA, And Approvals																			
72	Construction																			
73	I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL																			
74	I.3.a.1 Update the Existing Model																			
75	TAC Identifies Questions to be Answered by Updated Model																			
76	Board Concurs with Questions to be Answered by Updated Model, or Adds Additional Questions																			
77	Develop Scope of Work and Costs to Update the Model and Use it for Basin Management Purposes																			
78	TAC Approves Scope of Work and Costs to Update the Model and Use it for Basin Management Purposes																			
79	Board Approves Scope of Work and Costs to Update the Model and Use it for Basin Management Purposes																			
80	HydroMetrics Updates the Model																			
81	HydroMetrics Makes Summary Report to TAC on Updating of the Model																			
82	I.3.a.2 Develop Protective Water Levels																			
83	HydroMetrics Develops Protective Water Levels																			
84	HydroMetrics Makes Summary Report to TAC on Protective Water Levels																			

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	
99	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)																			
100	I.4.d Complete Preparation of Seawater Intrusion Response Plan (SIRP)																			
101	HydroMetrics Makes Initial Presentation of Final Draft SIRP to Board for Action																			
102	HydroMetrics Makes Second Presentation (if Necessary) of Final Draft SIRP and Board Approves the SIRP																			
103	I.3.c Refine and/or Update the SIRP																			

◆ 1/7

◆ 2/4

◆ 11/4

Only if Refinement or Updating is Necessary

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	N/A	\$0	\$9,600
I. 2. a. 2	Meetings and coordination @ 8 hrs.	8	\$100	N/A	\$0	\$800
I. 2. b. 1.	One time task	16	\$100	N/A	\$0	\$1,600
I. 2. b. 2.	12 mo. @ 4 hrs/mo.	48	\$70	N/A	\$0	\$3,360
	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 @ \$200/well x 6 wells sites; Lab costs: 4 events @ \$10/site x 3 sites; Airlift equip.: \$100 x 2	\$6,120	\$12,840
	New WQ wells as per Table 2: 1 event @ 24 hrs/event	24	\$70	One-time educator setup: \$500 x 2 sites = \$1000; Airlift equip.: \$100 x 2 sites x 1 event = \$200; Fuel: \$20 x 2 sites x 1 event = \$40; Lab cost: \$200 x 15 wells x 1 event = \$3000; One-time retrofits: \$10,000 x 1 site = \$10,000	\$1,680	\$11,840
I. 2. b. 3.	Watermaster Sentinel wells: download/store dataloggers, 4 events @ 2 hrs/event	8	\$70		\$560	\$11,920
	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)	\$2,240	\$14,240
	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. 5.	Meetings and coordination @ 24 hrs.	24	\$100	N/A	\$0	\$2,400
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. a.	Meetings and coordination over 6 months @ 16 hrs./mo.	96	\$100	N/A	\$0	\$9,600
I. 3. b.	4 mo. @ 8 hrs/mo.	32	\$100	N/A	\$0	\$3,200
I. 4. a, b, and c	12 mo. @ 3 hrs/mo.	36	\$100	N/A	\$0	\$3,600
I. 4. d.	4 mo. @ 8 hrs/mo.	32	\$100	N/A	\$0	\$3,200
TOTAL ESTIMATED COST =						\$110,600

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.