SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: JUNE 15, 2012

RFS NO. 2012-03
(To be filled in by WATERMASTER)

TO: Derrik Williams
HydroMetrics LLC
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: Perform groundwater monitoring as described in Attachment 1.
Completion Date: All work of this RFS shall be completed not later than 60 days from the date of execution of this RFS No. 2012-03.

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

Total Price Authorized by this RFS: $ 30,780.00 (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: Robert L. Jaques Date: 6/7/12
WATERMASTER Technical Program Manager

Authorized by: Date: 6/7/12
WATERMASTER Chief Executive Officer

Agreed to by: Derrik Williams Date: 6-15-2012
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK AND COST PROPOSAL FROM HYDROMETRICS

Hydro Metrics WRI

519 17th Street, Suite 500
Oakland, CA 94612

Mr. Robert S. Jaques, Technical Program Manager
Seaside Basin Watermaster
83 Via Encanto
Monterey, CA 93940

April 3, 2012

Subject: Scope and Cost Estimate to Model Sustaining Standard Producer Pumping at 2011 Volumes

Dear Mr. Jaques:

HydroMetrics Water Resources Inc. is pleased to submit this scope and cost estimate for modeling the effects from sustaining Seaside Basin Standard Producer's production at 2011 levels from Water Year 2012 through Water Year 2017. The purpose of the modeling work is to evaluate impacts to Seaside Basin groundwater levels over the short-term, if the Decision-mandated triennial reduction is not implemented from Water Year 2012 through 2017.

Our scope includes providing professional consulting services to the Seaside Groundwater Basin Watermaster for preparing and running a revised baseline scenario and a new model scenario that keeps Standard Producers production at 2011 levels from Water Year 2012 through Water Year 2017.

Task 1. Develop and Run Revised Baseline Scenario

The Seaside Groundwater Basin Watermaster has requested that a Revised Baseline Scenario be modeled reflecting historical pumping rather than the maximum amount any water rights holder could pump. Any baseline model that begins in Water Year 2012 requires use of a calibrated model through 2011. To avoid the need for a full update of the calibrated model, which is only calibrated through December 2008, the Revised Baseline Scenario period will remain the same as the previous baseline period: from 2009 through 2030. The

following two changes to the baseline scenario will allow us to develop the requested new baseline scenario:

1. The Revised Baseline Scenario will be updated to reflect the actual hydrology since the model was completed, i.e., from 2009 to present. For months beyond the present, the same hydrology as the previous baseline will be used.
2. The Revised Baseline Scenario will use reported pumping data for all producers in the groundwater basin from 2009 through 2011. The previous baseline scenario assumed that producers with water rights who were not currently pumping would exercise their right to pump in the future. The Revised Baseline Scenario assumes these producers will not exercise their right to pump in the future, but will instead pump at their 2011 levels. Pumping data from Water Year 2012 to 2030 will reflect Decision-mandated triennial reductions for Standard Producers and keep the other producers' production at 2011 amounts.

After the baseline revisions have been made, the model will be run and outputs generated for tabular and graphical representation.

Task 2. Prepare and Run 2011 Pumping Scenario

The 2011 Pumping Scenario will maintain all Standard Producers' at their 2011 pumping rates through Water Year 2017. All other producers will pump their 2011 Decision-mandated amounts for the full simulation, which goes to 2030. This will simulate not implementing the triennial reduction for Standard Producers until September 2017. After this date, pumping will revert back to triennial reductions for Standard Producers. All other producers will pump their 2011 rates for the full simulation. Specific assumptions that are needed to finalize this scenario will be discussed and agreed to at the first meeting called out in Task 3.

After the scenario has been prepared, the model will be run and outputs generated for tabular and graphical representation of basin-wide impacts to groundwater levels. The Revised Baseline Scenario will be compared against this scenario to assess differences in the impacts to wells and protective elevations between these two scenarios.

Task 3. Meetings

The budget includes time for two meetings. The first meeting will be used to discuss and reach agreement on all the assumptions that will be made in setting up the Revised Baseline Scenario and the 2011 Pumping Scenario. The second meeting will be used to present the final results to the TAC.

Task 4. Reporting

Model assumptions, descriptions of the Revised Baseline Scenario and the 2011 Pumping Scenario, and model results will be summarized in a brief technical memorandum. A draft of the technical memorandum will be provided electronically to the Watermaster's Technical Program Manager in MS Word format for presentation and discussion with the Technical Advisory Committee (TAC) at the second meeting mentioned in Task 3. A final version of the Technical Memorandum, reflecting comments and issues raised by the Technical Program Manager and the TAC will be provided electronically to the Technical Program Manager in MS Word format.

The estimated cost for the work discussed is $30,780, as shown on the attached table.

The TAC should take into account that future model runs may require that the model be updated and re-calibrated. Recalibration is not necessary for the work included in this proposal. However, for future work on predictive modeling scenarios, it may be technically more sound to use a recalibrated, updated model and to start the predictive simulation at the end of the updated calibrated model.

Sincerely,

Derrik Williams

Derrik Williams, President
HydroMetrics Water Resources Inc.

Cost Esimate for Seaside Groundwater Basin Watermaster
Professional Services to Model Sustaining Standard Producer Pumping at 2011 Volumes

Tasks	HydroMetrics WRI Labor				Other Direct Costs	TOTALS
	Derrik Williams	Georgina King	Labor Total			
	Program Manager	Senior Hydrogeologist				
Rates	$190	$160	Hours	($)	($)	($)
Task 1. Develop and Run Revised Baseline Scenario						
1A. Compile All Seaside Basin Pumping from 2009 to 2011	2	8	10	$ 1,660	$ -	$ 1,660
1B. Update Model Hydrology	30	24	54	$ 9,540	$ -	$ 9,540
1C. Run Model and Produce Tabular and Graphical Output	10	8	18	$ 3,180	$ -	$ 3,180
Subtotal Task 1			*82*	*$ 14,380*	*$ -*	*$ 14,380*
Task 2. Develop and Run 2011 Pumping Scenario						
2A. Update Standard Producer Pumping	2	2	4	$ 700	$ -	$ 700
2B. Run Model and Produce Tabular and Graphical Output	10	16	26	$ 4,460	$ -	$ 4,460
Subtotal Task 2			*30*	*$ 5,160*	*$ -*	*$ 5,160*
Task 3. Meetings						
Assume Two Meetings - One to Discuss Model Assumptions, One to Present Model Results	8	20	28	$ 4,720	$ 200	$ 4,920
Subtotal Task 3			*28*	*$ 4,720*	*$ 200*	*$ 4,920*
Task 4. Reporting						
Prepare Technical Memorandum describing Scenarios and Modeling Results	8	30	38	$ 6,320	$ -	$ 6,320
Subtotal Task 4			*38*	*$ 6,320*	*$ -*	*$ 6,320*
TOTAL			*178*	*$ 30,580*	*$ 200*	*$ 30,780*

Notes

Other Direct Costs includes mileage, postage, office supplies