SEASIDE GROUNDWATER BASIN WATERMASTER

REGULAR BOARD MEETING AGENDA
WEDNESDAY, OCTOBER 1, 2014 - 2:00 P.M.
MEETING LOCATION
MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY
BOARD ROOM, 5 HARRIS COURT, BUILDING "D"
"RYAN RANCH"
MONTEREY, CALIFORNIA

WATERMASTER BOARD
Coastal Subarea Landowner – Director Paul Bruno, Chair
City of Seaside – Mayor Ralph Rubio, Vice Chair
California American Water – Director Eric Sabolsice
City of Sand City – Mayor David Pendergrass
Monterey Peninsula Water Management District – Director Bob Brower
Laguna Seca Subarea Landowner – Director Bob Costa
City of Monterey – Mayor Chuck Della Sala
City of Del Rey Oaks – Mayor Jerry Edelen
Monterey County/Monterey County Water Resources Agency – Supervisor Dave Potter, District 5

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I. CALL TO ORDER

II. ROLL CALL

III. MINUTES

The minutes of the Regular Board meetings of August 6, 2014 are attached to this agenda.
The Board is requested to consider approving the minutes. *4*

IV. REVIEW OF AGENDA

If there are any items that arose after the 72-hour posting deadline, a vote may be taken to add the item to the agenda pursuant to the requirements of Government Code Section 54954.2(b). (A 2/3-majority vote is required).

V. PUBLIC COMMUNICATIONS

Oral communications is on each meeting agenda in order to provide members of the public an opportunity to address the Watermaster on matters within its jurisdiction. Matters not appearing on the agenda will not receive action at this meeting but may be referred to the Watermaster Administrator or may be set for a future meeting. Presentations will be limited to three minutes or as otherwise established by the Watermaster. In order that the speaker may be identified in the minutes of the meeting, it is helpful if speakers would use the microphone and state their names. Oral communications are now open.

VI. CONSENT CALENDAR

A. Consider Approval of Summary for Payments made during the months of August 1 through September 30, 2014 totaling **$25,702.32.** *8*
B. Consider Approving Fiscal Year 2014 Financial Reports through September 30, 2014. ..... *10*

VII. ORAL PRESENTATION

None Scheduled

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VIII. OLD BUSINESS

A. Modeling of Laguna Seca Subarea (continued) - *14*

IX. NEW BUSINESS

A. Discuss/Consider Approving the Proposed Fiscal Year 2015 Annual Budgets

1. Administrative Fund *19*
2. Monitoring and Management—Operations and Capital Funds *20*
3. Replenishment Fund (No Action Required) *33*

B. Consider Approving the following Professional Services Contracts for Fiscal Year 2015:

1). Two Contracts with Monterey Peninsula Water Management District (MPWMD)—one for **$76,462.00** to cover their normal Management and Monitoring Program (M&MP) tasks as in preceding years and to conduct ongoing data entry/database maintenance. .....*34* The second contract for **$4,788.00** is to perform water level and water quality data collection for specified wells in the Seaside Basin.

2). Two Contracts with HydroMetrics Water Resources, Inc.—one for **$11,600.00** to cover their providing general hydrogeologic consulting services during the year The second contract for **$25,750.00** is to prepare the Seawater Intrusion Analysis Report (SIAR) for 2015.

C. Discuss/Consider Approving the Proposed Replenishment Assessment Unit Cost for Water Year October 1, 2014 through September 30, 2015 .....*56*

D. Discuss/Consider Cancelling the Regular Board Meeting date of November 5, 2014 and scheduling a Special Board Meeting on Wednesday, November 19, 2014. .....*58*

X. INFORMATIONAL REPORTS (No Action Required)

A. Timeline Schedule of Milestone Dates (Critical date monitoring) *60*
B. Technical Advisory Committee (TAC) minutes from August 13th .....*61* and September 10th, 2014 meetings
C. 10% Water cutback in affect October 1, 2014 .....*71*

XI. DIRECTOR'S REPORTS

XII. EXECUTIVE OFFICER COMMENTS

XIII. NEXT MEETING DATE—NOVEMBER 5, 2014 (MRWPCA-Board Room) 2:00 P.M. or if cancelled a Special Meeting date of November 19, 2014 (MRWPCA-Board Room) at 2:00 P.M.

XIV. ADJOURNMENT

This agenda was forwarded via e-mail to the City Clerks of Seaside, Monterey, Sand City and Del Rey Oaks; the Clerk of the Monterey Board of Supervisors, the Clerk to the Monterey Peninsula Water Management District; the Clerk at the Monterey County Water Resources Agency, Monterey Regional Water Pollution Control Agency and the California American Water Company for posting on September 26, 2014 per the Ralph M. Brown Act, Government Code Section 54954.2(a).

ITEM NO. III.

MINUTES

REGULAR MEETING MINUTES
Seaside Groundwater Basin Watermaster (Watermaster)
August 6, 2014

I. **CALL TO ORDER –** Chair Bruno called the meeting to order at 2:05 p.m.

II. **ROLL CALL**
Coastal Subarea Landowner – Director Paul Bruno, Chair
California American Water ("CAW") – Director Eric Sabolsice
City of Seaside – Mayor Ralph Rubio
City of Del Rey Oaks – Mayor Jerry Edelen
Laguna Seca Subarea Landowner – Director Bob Costa
City of Sand City – Mayor David Pendergrass
Monterey Peninsula Water Management District – Director Robert Brower

Absent: Monterey County/Monterey County Water Resources Agency – Supervisor Dave Potter
City of Monterey – Mayor Charles "Chuck" Della Sala

I. **APPROVAL OF MINUTES**

It was moved by Mayor Edelen, seconded by Mayor Rubio, and unanimously carried to approve the minutes of the Watermaster Regular Meetings held April 2, 2014.

III. **REVIEW OF AGENDA**
There were no requested changes to the agenda.

IV. **PUBLIC PARTICIPATION/ORAL COMMUNICATIONS**
There were no public communications.

V. **CONSENT CALENDAR**
A. Consider Approval of Summary for Payments made during the months April 1 through July 31, 2014 totaling **$80,381.82**
B. Consider Approving Fiscal Year 2014 Financial Reports through July 31, 2014
C. Budget and Finance Committee recommendations:
1. Consider ratifying CEO approval of authorizing the additional expenditure of up to $5,000 for HydroMetrics Water Resources, Inc. to redo the statistical analysis of Task 1 of RFS No. 2014-03, using corrected data that will be provided by MPWMD
2. Consider approving a transfer of $1,560 from the contingency account in the Monitoring and Management Fund to RFS 2013-04 to cover a deficit caused by some extra work that was necessary while performing groundwater modeling and preparing certain analysis of the Laguna Seca Subarea

Moved by Mayor Pendergrass, seconded by Mayor Rubio, and unanimously carried, to approve the consent calendar as presented.

VII. **ORAL PRESENTATION**
A. Technical Program Manager, Bob Jaques introduced Derrick Williams of HydroMetrics Water Resources, Inc. who provided printouts of his presentation. The objective of this task was to determine if the Seaside Groundwater Basin Model used for basin analysis continued to accurately estimate water levels since initial calibration in the 1997-2008 simulations. It was determined that the model is still reasonably calibrated. The board took no action on the informational report.

B. Mr. Williams provided printouts of his second presentation to the board on groundwater modeling of the Laguna Seca Subarea (LSSA). Mr. Jaques noted that TAC members felt any action by the board would be in the policy area and therefore the TAC made no board recommendation beyond support of the recommendations made in the Hydrometrics report. Since the modeling focused on the likelihood of Material Injury occurring in the LSSA (as opposed to the occurrence of seawater intrusion), Mr. Williams noted that a working definition of Material Injury had to be developed however he felt the definition used warranted further analysis and legal scrutiny. CAW is recorded as pumping the first few years of the simulation until triennial reductions per the Adjudication reduce its pumping to zero in the LSSA.

Mr. Williams clarified for Director Sabolsice that reducing Corral de Tierra pumping would have less impact on groundwater elevations in the central portion of the LSSA than reducing pumping from wells located in the central area of the LSSA.

Director Sabolsice felt that the Basin was reasonably characterized by numerous modeling scenarios and saw no need for further modeling. He requested staff work with legal representation to craft language notifying the Court that modeling results show the Natural Safe Yield specified in the Adjudication for the LSSA appears to be higher than the actual Natural Safe Yield, and that water levels will continue to drop in the area even after CAW ceases production there. The influence on seawater intrusion by LSSA production is negligible.

Director Brower requested the HydroMetrics report be stamped as a draft to allow the board time to contemplate Watermaster's charge in the matter and allow for revisions to be made. The item was continued to the next Watermaster regular meeting for policy considerations.

VIII. **OLD BUSINESS**

A. Updated information regarding the Board's October 11, 2012 issuance of a Letter of No Objection for a proposed new housing development (the Wang Subdivision) along Highway 68.

Moved by Director Sabolsice, seconded by Mayor Edelen, and unanimously carried to reject the TAC recommendation to write an updated letter and to let the previous letter stand.

IX. **NEW BUSINESS – None**

X. **INFORMATIONAL REPORTS** (No Action Required)

A. Timeline Schedule of Milestone Dates (Critical date monitoring)
B. Technical Advisory Committee (TAC) meeting minutes from April 9th, May 14th, June 4th, and July 9th, 2014 meetings
C. Water Production Report for first two quarters of Water Year 2014
D. The PowerPoint slides of the Laguna Seca Safe Yield Modeling presented by HydroMetrics at the April 2, 2014 Watermaster board meeting can be viewed on the Watermaster web site at *http://seasidebasinwatermaster.org/Other/Laguna%20Seca%20Safe%20Yiled%20Hydrometrics.pdf*
E. The Seaside Groundwater Basin Salt and Nutrient Management Plan prepared by HydroMetrics for MPWMD can be viewed on the Watermaster web site at *http://seasidebasinwatermaster.org/Other/Seaside_Salt_Nutr_Plan_FINAL.PDF*

XI. **DIRECTORS' REPORTS** – Several board members have a conflict with the next regular meeting date of September 3rd. CEO Evans will coordinate an alternative date for the next meeting.

XII. **EXECUTIVE OFFICER COMMENTS**
The next TAC meeting is scheduled for Wednesday, August 13th at 1:30 p.m. in the MRWPCA conference room.

XIII. **NEXT MEETING DATE – It was agreed that the next Regular Meeting will be held in September, on a date yet to be determined, at the Monterey Regional Water Pollution Control Agency (MRWPCA) Board meeting room at 5 Harris Court, Building "D" on Ryan Ranch in Monterey at 2:00 p.m.**

XIV. There being no further business, Chair Bruno adjourned the meeting at 3:32 p.

ITEM NO. VI.

CONSENT CALENDAR

ITEM VI.A.
10-1-2014

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Summary of Payments Authorized to be paid during the months of August and September, 2014

PURPOSE:

To advise the Board of payments authorized to be paid during the months of August and September, 2014 totaling **$25,702.32**.

RECOMMENDATIONS:

Consider approving the payment of bills submitted and authorized to be paid during the months of August and September, 2014.

COMMENTS and FISCAL IMPACT:

AUGUST, 2014

DDEvans Consulting (Professional Services Agreement—CEO)— July 25, 2014 through August 24, 2014 worked on Watermaster business a total of 67.5 hours at $100.00 per hour or **$6,750.00.** Responded to telephone inquiries, e-mail, and other correspondence as needed regarding the Seaside Basin. Received and reviewed water production and water level reports. Worked on August 6th Board meeting agenda and agenda packet, also worked on Budget and Finance Committee agenda meeting scheduled for same day, August 6th. Sent out both Board meeting packet and Budget and Finance Committe to both Board members and Budget and Finance Committee members and others as appropriate. Attended both Budget and Finance Committee and Board meeting on August 6, 2014 and conducted follow-up actions as needed. Discussed Laguna Seca matter with Russ McGlothlin and Don Freeman. Developed remaining meeting calendar for 2014 and sent same to Paul Bruno and others as appropriate; Sent out Board meeting cancellation notice for September 3rd regular meeting date for posting and information. Sent out remaining meeting calendar for 2014 to Board and all other interested parties.

Robert "Bob" Jaques (Technical Program Manager)—July 25, 2014 through August 28, 2014 worked on Watermaster business a total of 40.0 hours at $100.00 per hour or **$4,000.00.** Responded to email, telephone inquiries and other correspondence on a variety of Watermaster issues. Prepared for and attended the August 6th Board meeting and Budget and Finance Committee meeting on same day; prepared for and attended the August 13th TAC meeting and follow-up meetings with Joe Oliver and others. Prepare minutes of August 13th TAC meeting and sent out same to TAC members for comment and corrections. Worked on 2015 Monitoring and Management Plan and TAC agenda

materials; Preparing HydroMetrics and MPWMD RFSs for WY2015. Prepared Monitoring and Management Plan Budget for FY2015.

HydroMetrics Water Resources, Inc.—Two invoices were submitted for payment totaling **$4,952.50** The first invoice of $1,371.25 was for 8.75 hours of work on the Laguna Seca Modeling Update and for General Consulting. The second invoice of $3,581.25 was for 23.25 hours of work preparing for and attending the July 9, 2014 TAC meeting and the follow-up from the meeting, plus expenses for travel.

Total for August, 2014 **$15,702.50**

SEPTEMBER, 2014

DDEvans Consulting (Professional Services Agreement—(CEO)—August 25, 2014 through September 24, 2014 worked on Watermaster business a total of 52.5 hours at $100.00 per hour or **$5,250.00.** Responded to telephone inquiries, email, and other correspondence as needed regarding the Seaside Basin. Received and reviewed water production and water level reports. Scheduled and worked on WM Budget and Finance Committee agenda packet. WM Budget and Finance Committee meeting scheduled for September 17th and will be held at City of Seaside Conference Room. Worked on October 1, 2014 regular Board meeting agenda and agenda packet; Attended and participated in September 17th Budget and Finance Committee meeting. Discussed Laguna Seca Subarea problem with Lori Girard of CalAm; Received and reviewed TAC meeting agenda packet.

Robert "Bob" Jaques (Technical Program Manager)—August 29, 2014 through September 23, 2014 worked on Watermaster business a total of 23.5 hours at $100.00 or **$2,350.00.** Responded to email, telephone inquiries and other correspondence on a variety of Watermaster issues. Worked on TAC agenda items; prepared for and attended September 10th TAC meeting and follow-up meetings. Prepared minutes of September 10th TAC meeting and sent out same to TAC members for comment and corrections. Prepared for and attended WM Budget and Finance Committee meeting on September 17th; Worked on Annual Report for WY 2014.

HydroMetrics Water Resources, Inc.—Two invoices were received totaling **$2,667.32**; The first invoice totaling $937.50 was for 7.5 hours of work updating the model with data through 2013, Generate hydrographs and calibration figures; the second invoice totaling $1,729.82 was for 8.0 hours of work traveling to and attending the June 4th TAC meeting and follow-up from the meeting, plus traveling expenses.

Paxton Imaging—(Watermaster Web Site Coordinator)—Monthly Hosting Unix Server for the months of August and September, 2014--**$362.50.**

Total for September, 2014 **$10, 629.82**

Total for August1, 2014 through September 30, 2014 **$25,702.32**

Seaside Groundwater Basin Watermaster

Budget vs. Actual Administrative Fund

Fiscal Year (January 1 - December 31, 2014)
Balance through September 30, 2014

	2014 Adopted Budget	Contract Amount	Year to Date Revenue / Expenses
Available Balances & Assessments			
Dedicated Reserve	19,000.00		19,000.00
FY (Rollover)	-		-
Admin Assessments	66,000.00		66,000.00
Available	**85,000.00**		**85,000.00**
Expenses			
Contract Staff	60,000.00	60,000.00	42,700.00
Legal Advisor	-	-	-
Total Expenses	**60,000.00**	**60,000.00**	**42,700.00**
Total Available	25,000.00		
Dedicated Reserve	25,000.00		
Net Available	**-**		

Seaside Groundwater Basin Watermaster

Budget vs. Actual Monitoring & Management - Operations Fund

Fiscal Year (January 1 - December 31, 2014)

Balance throughSeptember 30, 2014

	2014 Adopted Budget	Contract Encumbrance	Year to Date Revenue/Expenses
Available Balances & Assessments			
Operations Fund Assessment	$ -	$ -	$ -
FY 2013 Rollover	356,385.00	-	359,133.53
Total Available	**$ 356,385.00**	**$ -**	**$ 359,133.53**
Appropriations & Expenses			
GENERAL			
Technical Project Manager	$ 60,000.00	$ 60,000.00	$ 24,741.42
Contingency @ 20% (not including TPM)	38,120.00	$ -	-
Total General	**$ 98,120.00**	**$ 60,000.00**	**$ 24,741.42**
CONSULTANTS (Hydrometrics; Web Site Database)			
Program Administration	$ 10,100.00		
Production/Lvl/Qlty Monitoring	3,900.00	$ 13,600.00	$ 21,844.82
Basin Management Action Plan	80,000.00		
Seawater Intrusion Analysis Report	27,750.00	25,750.00	-
Total Consultants	**$ 121,750.00**	**$ 39,350.00**	**$ 21,844.82**
MPWMD			
Production/Lvl/Qlty Monitoring	$ 66,186.00	62,238.00	17,601.00
Basin Management	-	3,948.00	-
Seawater Intrusion	2,664.00	2,664.00	3,320.00
Direct Costs	-	-	-
Total MPWMD	**$ 68,850.00**	**$ 68,850.00**	**$ 20,921.00**
Reserve			-
Transfer Out to Capital Fund			-
Total Appropriations & Expenses	**$ 288,720.00**	**$ 168,200.00**	**$ 67,507.24**
Total Available	**67,665.00**		**291,626.29**

Footnote 1: The $5,154 contract with MPWMD for data collection services consists of pass through expenditures paid by producers and is not budgeted. For 2014 $3,099 has been collected from producers, and MPWMD has invoiced $1,305.00 for services rendered through June 2014.

Seaside Groundwater Basin Watermaster VI.B.

Replenishment Fund 10/1/2014

Water Year 2014 (October 1 - September 30) / Fiscal Year 2014 (January 1 - December 31)

Balance through September 30, 2014

Replenishment Fund	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Totals Through WY 2013**	**Budget 2014**	**Projected Totals Through WY 2014**
Assessments:	WY 05/06	WY 06/07	WY 07/08	WY 08/09	WY 09/10	WY 10/11	WY 11/12	WY 12/13		WY 13/14	
Unit Cost:	$1,132	$1,132	$16,538	$3,040	$2,780	$2,780	$2,780	$2,780		$2,702	
California American Water Balance Forward	**$ -**	**$ 1,641,004**	**$ 4,206,475**	**$ (2,900,435)**	**$ (2,868,685)**	**$ (3,850,964)**	**$ (6,088,910)**	**$ (8,919,379)**		**$ (6,538,537)**	
Exceeding Natural Safe Yield Considering Alternative Producers	2,106,652	2,484,533	5,164,969	3,773,464	4,112,933	3,187,854	1,661,090	1,656,612	$ 24,148,108	3,242,682	$ 27,390,790
Operating Yield Overproduction Replenishment	-	80,938	34,045	-	-	-	619,853	724,229	1,459,066	600,000	2,059,066
Total California American	**$ 2,106,652**	**$ 2,565,471**	**$ 5,199,014**	**$ 3,773,464**	**$ 4,112,933**	**$ 3,187,854**	**$ 2,280,943**	**$ 2,380,842**	**$ 25,607,174**	**$ 3,842,682**	**$ 29,449,856**
CAW Credit Against Assessment	(465,648)		(12,305,924)	$ (3,741,714)	(5,095,213)	(5,425,799)	(5,111,413)	-	(32,145,711)	(5,000,000)	(37,145,711)
CAW Unpaid Balance	***$ 1,641,004***	***$ 4,206,475***	***$ (2,900,435)***	***$ (2,868,685)***	***$ (3,850,964)***	***$ (6,088,910)***	***$ (8,919,379)***	***$ (6,538,537)***	***$ (6,538,537)***	***$ (7,695,855)***	***$ (7,695,855)***
City of Seaside Balance Forward	**$ -**	**$ 230,671**	**$ 413,454**	**$ 1,106,116**	**$ 1,737,569**	**$ 988,414**	**$ (13,109)**	**$ (678,596)**		**$ (1,507,667)**	
City of Seaside Municipal Production	**332.0 AF**	**287.7 AF**	**294.3 AF**	**293.4 AF**	**282.9 AF**	**240.7 AF**	**233.7 AF**	**257.7 AF**			
Exceeding Natural Safe Yield Considering Alternative Producers	169,200	173,739	385,642	399,211	231,961	141,335	156,752	128,755	$ 1,786,595	150,000	$ 1,936,595
Operating Yield Overproduction Replenishment	50,487	340	16,898	66,090	82,761	-	6,757	108,026	331,358	-	331,358
Total Municipal	219,687	174,079	402,540	465,300	314,721	141,335	163,509	236,782	2,117,953	150,000	2,267,953
City of Seaside - Golf Courses											
Exceeding Natural Safe Yield - Alternative Producer	-	-	131,705	69,701	-	-	-	-	201,406	-	201,406
Operating Yield Overproduction Replenishment	-	-	131,705	69,701	-	-	-	-	201,406	-	201,406
Total Golf Courses	-	-	263,410	139,402	-	-	-	-	402,812	-	402,812
Total City of Seaside*	**$ 219,687**	**$ 174,079**	**$ 665,950**	**$ 604,702**	**$ 314,721**	**$ 141,335**	**$ 163,509**	**$ 236,782**	**$ 2,520,765**	**$ 150,000**	**$ 2,670,765**
City of Seaside Late Payment 5%	10,984	8,704	26,712	26,750	15,737				88,887		88,887
In-lieu Credit Against Assessment*	-		-	$ -	(1,079,613)	(1,142,858)	(828,996)	(1,065,852)	(4,117,319)	(1,000,000)	(5,117,319)
City of Seaside Unpaid Balance	***$ 230,671***	***$ 413,454***	***$ 1,106,116***	***$ 1,737,569***	***$ 988,414***	***$ (13,109)***	***$ (678,596)***	***$ (1,507,667)***	***$ (1,507,667)***	***$ (2,357,667)***	***$ (2,357,667)***
Total Replenishment Fund Balance	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**	**$ (8,046,204)**	**$ (8,046,204)**	**$ (10,053,522)**	**$ (10,053,522)**
Replenishment Fund Balance Forward	-	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**		**$ (8,046,204)**	
Total Replenishment Assessments	2,337,323	2,748,254	5,891,676	4,404,917	4,443,391	3,329,189	2,444,452	2,617,624	28,216,826	3,992,682	**32,209,508**
Total Replenishment Paid and/or Credited	(465,648)	-	(12,305,924)	(3,741,714)	(6,174,826)	(6,568,657)	(5,940,409)	(1,065,852)	(36,263,030)	(6,000,000)	**(42,263,030)**
Grand Total Replenishment Fund Balance	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**	**$ (8,046,204)**	**(8,046,204)**	**$ (10,053,522)**	**$ (10,053,522)**

** 2010 = 319.55 AF golf course in-lieu replenishment and 68.8 AF 4-party agmt in-lieu replenishment*

2011 = 411.1 AF golf course in-lieu replenishment

2012 = 298.2 AF golf course in-lieu replenishment

ITEM NO. VIII.

OLD BUSINESS

ITEM VIII. A.
10-1-14

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Laura Dadiw, Staff
Adapted from 8/6/14 transmittal by Robert S. Jaques, Technical Program Manager
REVIEWED AND APPROVED BY: Dewey D. Evans, Watermaster CEO

DATE: October 1, 2014

SUBJECT: HydroMetrics Modeling of Laguna Seca Subarea (LSSA)

- -

RECOMMENDATIONS:
1) Inform the Court in the 2014 Annual Report that modeling results show the Natural Safe Yield specified in the Adjudication for the LSSA appears to be higher than the actual Natural Safe Yield, and that water levels will continue to drop in the area even after CAW ceases production there, with negligible influence on seawater intrusion by LSSA production, and

2) develop a strategy to stabilize groundwater levels over the long-term.

BACKGROUND:
At its April 2, 2014 meeting the Board authorized having HydroMetrics perform further modeling of the Laguna Seca Subarea (LSSA). This work was undertaken in response to additional questions raised by the TAC and the Board after receiving HydroMetrics' presentation on the initial LSSA modeling work that HydroMetrics completed in early 2014.

There were five objectives for this updated modeling work:
1. Estimate impacts if Cal-Am Discontinues Laguna Seca Pumping
2. Estimate Laguna Seca subarea Natural Safe Yield
3. Estimate Laguna Seca subarea Operational Safe Yield
4. Estimate whether reducing or eliminating pumping by Alternative Producers in the LSSA would appreciably reduce the rate at which groundwater levels are falling in the LSSA.
5. Estimate the impact on groundwater levels in the LSSA of pumping from outside the eastern and southeastern boundaries of the LSSA.

Mr. Williams of HydroMetrics made a PowerPoint presentation describing the modeling work and its findings at the August 6, 2014 Board meeting. From a clearly technical standpoint it is clear that groundwater levels will likely continue to decline in the LSSA even with the Adjudication-imposed 10% triennial cutbacks in pumping, so additional actions will need to be taken to stabilize groundwater levels in the LSSA. The TAC felt that the technical findings of the modeling work speak for themselves and that the actions to be taken are policy issues, not technical issues. Therefore, the TAC deferred to the Board to make decisions on what actions the Watermaster should take to address these issues. The Board continued its consideration of the matter to today's meeting.

DISCUSSION

The Hydrometrics Technical Memorandum on Modeling of the Laguna Seca Subarea provides some significant insights into the LSSA and to the Seaside Basin. It is a lengthy document so it is not attached, but the full report is posted on the Watermaster's website.

The principle conclusions of this work are:

- The Seaside Basin groundwater flow model predicts that if Cal-Am discontinues pumping from the LSSA, groundwater elevations in the subarea will continue to decline during the simulation period of 2009-2041. The eastern side of the subarea suffers the greatest and most persistent declines. Pumping groundwater elevations are predicted to fall below the top of the well screen prior to 2041 in several wells.
- An average annual natural safe yield of 240 acre feet per year was estimated for the LSSA. This is considerably lower than the Adjudication Decision estimated perennial safe yield of 608 acre feet per year. This safe yield is dependent on maintaining current flows into and out of the LSSA. A scenario with the pumping in Laguna Seca reduced to the natural safe yield of 240 acre feet per year failed to achieve stable groundwater levels because of changing flows into and out of the LSSA.
- Modeling shows that eliminating all pumping from the subarea does not completely halt the predicted decline in groundwater elevations in the easternmost well. This suggests that pumping from wells outside of the LSSA prevents the subarea from achieving stable groundwater elevations. This influence was evaluated by running multiple scenarios with varying pumping from wells outside LSSA. As expected, well pumping outside of the LSSA has a significant impact on groundwater levels in the eastern portion of the LSSA.
- Modeling runs reducing and eliminating production from wells within the LSSA show that reducing pumping in the eastern LSSA has limited impact on reducing drawdown, while reducing pumping in the central portion of the LSSA has the largest impact on reducing rates of drawdown. This is because the majority of the subarea's production is concentrated in the central LSSA.
- Given these results, there will need to be significant pumping reductions both inside and outside of the subarea to halt groundwater level declines throughout the LSSA.

The TAC was presented with, and discussed the findings and conclusions of HydroMetrics' modeling work and concurred with them.

ATTACHMENTS

None

ITEM. IX.

NEW BUSINESS

ITEM NO. IX.A.1.
10/1/2014

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Proposed Fiscal Year 2015 Annual Administrative Fund Budget

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PURPOSE:

To advise the Board of the estimated amount necessary to properly fund the Administrative oversight portion of the Seaside Groundwater Basin Watermaster for Fiscal Year 2015

RECOMMENDATION:

That the Board consider approving the attached proposed Administrative Fund Budget for FY

2015 **DISCUSSION:**

The Watermaster Budget and Finance Committee met on September 17, 2014 and reviewed and unanimously voted to recommend for approval the attached proposed Administrative Fund Budget for FY 2015. During FY 2014 a detailed financial reconciliation from 2006 through 2013 of the Administrative Fund financial records held at the Watermaster office against the Administrative Fund financial records held by the City of Seaside – Watermaster's fiscal agent – resulted in an adjustment to the reserve balance mainly caused by using early estimates which later had to be adjusted to actual figures. That means that in order to bring the reserve back up to $25,000 the Administrative Assessment will be $70,000 for the 2015 fiscal year.

That means the individual assessments for the administrative portion of the budget will be:

California American Water	83%	$58,100
City of Seaside	14.4%	10,080
City of Sand City	2.6%	1,820
Total Assessment for FY 2015		$70,000

The court decision states that the next fiscal year's budgets must be approved by the Board of Directors no later than the end of October each year in order for the tentative budgets to be circulated to each Party to the adjudication "no earlier than November 1 and no later than November 15" of each fiscal year.

FISCAL IMPACT:

Provides sufficient funds for the proposed administrative oversight of the financial spending plan for next fiscal year 2015

ATTACHMENTS

1) Proposed Administrative Fund Budget for FY 2015

Seaside Groundwater Basin Watermaster
Administrative Fund
Adopted Budget
Administrative Year 2015

	2014 Adopted Budget	2014 Estimated Total	2015 Adopted Budget
Assessment Income			
Reserve/Rollover	$ 19,000	$ 6,000 *	$ 12,000
Administrative Assessment	66,000	66,000	70,000
Totals	85,000	72,000	82,000
Expenditures			
Contractual Services - Administrativ	60,000	60,000	60,000
Total Expenses	60,000	60,000	60,000
Total Available	25,000	12,000	22,000
Less Reserve	25,000	12,000	22,000
Net Available	$ -	$ -	$ -

** Note: The reserve balance of $6,000 was determined upon completion by Watermaster staff of a detailed reconciliation from 2006 through July 2014 of the Administrative Fund financial records held at the Watermaster office against the Administrative Fund financial records held by the City of Seaside - the Watermaster fiscal agent.*

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

MODIFIED AND APPROVED BY: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Consider Approval of Proposed FY 2015 M&MP Work Plan, and Proposed 2015 M&MP Operations and Capital Budgets

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RECOMMENDATION:
It is recommended that the Board approve the attached M&MP FY 2015 Work Plan and M&MP O&M and Capital Budgets for FY 2015.

The projected 2016 O&M and Capital Budgets are provided only for information and no action on them is requested at this time.

BACKGROUND:
At its September 10, 2014 meeting the TAC approved the Proposed FY 2015 M&MP Work Plan, and proposed 2015 M&MP Operations and Capital Budgets, and recommended that the Board approve these. On September 17, 2014 the Budget and Finance Committee reviewed the TAC-approved Work Plan and budgets and approved these documents.

DISCUSSION:

The M&MP 2015 Work Plan which is attached reflects revisions resulting from the TAC's discussion on the Work Plan at its August 13 and September 10, 2014 meetings, as well as input from HydroMetrics and MPWMD. The major changes from the 2014 M&MP Work Plan are:

Task I.2.a.2: This task that was first performed in 2009, and the TAC felt it should be again performed in 2015. It consists of verifying the accuracy of production well water meters. The Watermaster's Rules and Regulations state that all parties are required to install water meters and to maintain their meters in good working order. It also states that the Watermaster is to inspect Producers' wells as often as appropriate to ensure they are being properly operated, and to calibrate/test the meters. The TAC felt that, in light of the recent modeling work that has been performed which raised some issues of concern regarding overpumping in the Laguna Seca Subarea, it would be desirable to perform a re-evaluation of the wells to ensure there are no wells where metering data may be inaccurate. The initial reevaluation would be performed at no out-of-pocket cost to the Watermaster in late 2014 or early 2015. If the reevaluation revealed wells where metering data was suspect, follow-up work such as pump testing and/or meter calibration might be performed. The $10,000 allocated to this Task is intended to cover the costs of performing that follow-up work if it becomes necessary.

Task I.2.b.2: MPWMD's hourly rates have increased since 2014, resulting in slightly higher costs for this task. Also, two replacement dataloggers @ $250 each, plus $100 for installation parts, have been included in this task.

Task I.2.b.3: MPWMD's hourly rates have increased since 2014, resulting in slightly higher costs for this task. Also, the induction logging subcontractor that Martin Feeney has used in the past is no longer able to perform that portion of this work, and the cost for the replacement induction logging subcontractor is higher.

Task I.2.b.6: MPWMD's hourly rates have increased since 2014, resulting in slightly higher costs for this task.

Task I.3.a.1: This Task consists of three subtasks as follows:

- Step1: Update the Watermaster's Seaside Basin groundwater model and check its accuracy
- Step 2: Recalibrate the model (if necessary)
- Step 3: Prepare report describing the work that was done (if recalibration is necessary)

Step 1 was completed in 2014, however, because there was no immediate need to do any further modeling, other than perhaps in the Laguna Seca Subarea, Steps 2 and 3 were not performed in 2014. These steps may need to be performed in 2015 and that work is therefore included in the scope of work for this Task in 2015.

Tasks I.4.a and I.4.c: Costs for MPWMD's assistance on Task I.4.a have been moved to Task I.4.c where they are more correctly charged. Also, MPWMD's hourly rates have increased since 2014, resulting in slightly higher costs for this task. Since HydroMetrics has not needed to charge to this Task in the past, it has been deleted from their scope of work.

As indicated by the right-hand column titled "Comparative Costs from 2014 Budget" in the proposed 2015 M&MP Operations Budget in Attachment 2, the proposed Budget is $24,734 higher ($313,454-$288,720) than the 2014 Budget. This increase is largely because (1) the induction logging subcontractor that previously performed work under Task I.2.b.3 is no longer able to perform this work and the new subcontractor's costs are higher by approximately $8,000, (2) money was allocated to verifying the accuracy of production well meters, and (3) MPWMD's hourly rates have increased since 2014. Partially offsetting these increases was a decrease in laboratory analytical costs for some of the Tasks as a result of MPWMD getting a more favorable rate from the laboratory.

The TAC is not recommending that any new monitoring wells be installed in either 2015 or 2016. Consequently, it is proposed that no monies be budgeted in the M&MP Capital Budgets proposed for 2015 or projected for 2016, as shown in Attachment 3.

ATTACHMENTS:

1. Proposed 2015 M&MP Work Plan
2. M&MP Operations Budgets Proposed for 2015 and Projected for 2016
3. M&MP Capital Budgets Proposed for 2015 and Projected for 2016

ATTACHMENT 1

Seaside Groundwater Basin Management and Monitoring Program
Proposed FY 2015 Work Plan

The tasks outlined below are those that are anticipated to be performed during 2015. Some Tasks listed below are specific to 2015, while others Tasks recur throughout the program, such as data collection and database entry, and Program Administration Tasks.

Within the context of this document the term "Consultant" refers either to a firm providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term "Contractor" refers to a firm providing construction or field services such as well drilling, induction logging, or meter calibration.

M.1 Program Administration

M. 1. a Project Budget and Controls ($0)	Consultants will provide monthly or bimonthly invoices to the Watermaster for work performed under their contracts with the Watermaster. Consultants will perform maintenance of their internal budgets and schedules, and management of their subconsultants. The Watermaster will perform management of its Consultants.
M. 1. b Assist with Board and TAC Agendas ($0)	Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.
M. 1. c. & M. 1. d Preparation for and Attendance at Meetings ($7,000)	The Consultants' work will require internal meetings and possibly meetings with outside governmental agencies and the public. For meetings with outside agencies, other Consultants, or any other parties which are necessary for the conduct of the work of their contracts, the Consultants will set up the meetings and prepare agendas and meeting minutes to facilitate the meetings. These may include planning and review meetings with Watermaster staff. The costs for these meetings will be included in their contracts, under the specific Tasks and/or subtasks to which the meetings relate. The only meeting costs that will be incurred under Tasks M.1.c and M.1.d will be: Those associated with attendance at TAC meetings (either in person or by teleconference connection), including providing written monthly progress reports to the Watermaster for inclusion in the agenda packets for the TAC meetings, when requested by the Watermaster to do so. These progress reports will typically include project progress that has been made, problem identification and resolution, and planned upcoming work. and From time-to-time when Watermaster staff asks Consultants to make special presentations to the Watermaster Board and/or the TAC, and which are not included in the Consultant's contracts for other tasks. 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. e Peer Review of Documents and Reports ($3,100)	When requested by the Watermaster staff, Consultants may be asked to assist the TAC and the Watermaster staff with peer reviews of documents and reports prepared by various other Watermaster Consultants and/or entities.
M. 1. f QA/QC ($0)	A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These costs are included in the other tasks.

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 ($13,452)	The database will be maintained by a Consultant (MPWMD) performing this work for the Watermaster. MPWMD will enter new data into the consolidated database, including water production volumes, water quality and water level data, and such other data as may be appropriate. Another Consultant will periodically post database information to the Watermaster's website, so it will be accessible to the public and other interested parties. No enhancements to the database are anticipated during 2015.
I. 2. a. 2 Verify Accuracy of Production Well Meters ($10,000)	To ensure that water production data is accurate, the well meters of the major producers were verified for accuracy during 2009. A reevaluation of the larger producers will be performed in late 2014 to determine if any pump testing or meter calibration work needs to be performed. If that follow-up work is found to be needed, it will be performed under this Task. The amount budgeted for the Task will be used, if necessary, to hire a contractor to perform pump testing or meter calibration.

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 2015.
I. 2. b. 2 Collect Monthly Manual Water Levels. ($5,872)	Each of the monitoring wells will be visited on a monthly basis. Water levels will be determined by either taking manual water levels using an electric sounder, or by dataloggers. All wells where the use of dataloggers is feasible or appropriate have been equipped with dataloggers. Dataloggers wear out over time and need to periodically replaced. This Task budget amount includes the possible replacement of up to 2 dataloggers at a unit price of $750, plus $100 for installation parts.
I. 2. b. 3 Collect Quarterly Water Quality Samples. ($51,906) update if higher price for induction logging	Water quality data will be collected quarterly from certain of the monitoring wells. In 2012 water quality analyses were expanded to include barium and iodide ions, to determine the potential benefit of performing these additional analyses. These two parameters have been useful in analyzing seawater intrusion potential in other vulnerable coastal groundwater basins, and are briefly mentioned in the Watermaster's annual Seawater Intrusion Analysis Reports. These parameters were added to the annual water quality sampling list for the four Watermaster Sentinel wells (SBWM-1, SBWM-2, SBWM-3, and SBWM-4), and also for the 3 most coastal MPWMD monitoring wells (MSC, PCA, and FO-09). Barium and iodide analyses will continue being performed in 2015. Water quality data may come from water quality samples that are taken from these wells and submitted to a State Certified analytic laboratory for general mineral and physical suite of analyses, or the data may come from induction logging of these wells and/or other data gathering techniques. The Consultant selected to perform this work will make this judgment based on consideration of costs and other factors. Under this Task in 2013 retrofitting to use the low-flow purge approach for getting

	water quality samples was completed on all of the wells that are sampled. This sampling equipment sits in the water column and may periodically need to be replaced or repaired. Therefore, this Task budget includes $1,000 for performing maintenance and/or replacement of the sample collection equipment.
I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. ($0)	All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2015.
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 2015.
I. 2. b. 6 Reports ($6,204)	The groundwater level and quality monitoring will be conducted on a monthly, quarterly, and annual basis, as described in the Consultant's Scope of Work. Reports summarizing data collected and analyzed will be submitted to the Watermaster on a schedule to be established during the year, and will consist of: • One combined report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 1st & 2nd Quarters of the Water Year. • One annual report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 3rd & 4th Quarters of the Water Year, and containing tables consolidating the data for the complete Water Year and a narrative summarization of the findings, conclusions, and recommendations for the complete Water Year. This annual report may include, as attachments, additional documentation as needed to support the findings, conclusions and recommendations.
	I. 3 Basin Management
I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)	The Watermaster and its consultants use a Groundwater Model for basin management purposes.

I.3.a.1 **Update the Existing Model ($20,000)**	The existing Model, described in the report titled "Groundwater Flow and Transport Model" dated October 1, 2007, was updated in 2009 in order to develop protective water levels, and to evaluate replenishment scenarios and develop answers to Basin management questions (Tasks I.3.a.2 and I.3.a.3). The scope and budget in 2014 for again updating the Model included the following: Step1: Update the model and check its accuracy - $10,000 Step 2: Recalibrate the model - $15,000 Step 3: Prepare report describing the work that was done - $5,000 Step 1 was completed in 2014 by incorporating recent pumping data, groundwater level data, and rainfall data, and then checking to see if the recently simulated groundwater levels match the recently measured groundwater levels. These are the principle findings and conclusions of this Step 1 work: • The model still provides reliable results in the Laguna Seca Subarea. • Although the performance of the model during the updated period is worsening, the calibration of the model remains within acceptable standards. • The northern boundary condition needs to be updated to reflect real groundwater elevation variations for the model period of 2005-2013. The behavior of the northern boundary will impact flows and the ability to calibrate the model for the area of the model that is adjacent to the northern boundary. An alternative method for defining this boundary condition will have to be developed that does not rely upon simulations from the Salinas Valley Integrated Groundwater Surface Water Model (SVIGSM). • The groundwater model should be updated in a maximum of five years and its calibration reevaluated at that time. However, if groundwater related projects are implemented in the Basin before that time, the update and calibration reevaluation may need to be performed sooner. Because in 2014 there was no immediate need to do any further modeling, other than perhaps in the Laguna Seca Subarea, Steps 2 and 3 were not performed in 2014. However, these steps may need to be performed in 2015 and that work is therefore included in the scope of work for this Task in 2015.
I. 3. a. 2 **Develop Protective Water Levels ($0)**	A series of cross-sectional models was created in 2009 in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work is discussed in Hydrometrics' "Seaside Groundwater Basin Protective Water Elevations Technical Memorandum." In 2013 further work was started to refine these protective water levels, but it was found that the previously developed protective water levels were reasonable. Therefore, no further work of this type is anticipated.
I. 3. a. 3 **Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ($40,000)**	In 2009 the updated Model was used to evaluate different scenarios to determine such things as the most effective methods of using supplemental water sources to replenish the Basin and/or to assess the impacts of pumping redistribution. This work is described in HydroMetrics' "Seaside Groundwater Basin Groundwater Model Report." In 2010, and again in 2013, HydroMetrics used the updated Model to develop answers to some questions associated with Basin management. Some of this modeling led to the conclusion that groundwater levels in parts of the Laguna Seca Subarea will continue to fall even if all pumping within that subarea is discontinued, because of the influence of pumping from areas near to, but outside of, the Basin boundary. Additional modeling work and/or consulting assistance may be required in 2015 to further examine the situation.

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 may be performed on the BMAP in 2015 is discussed under Task I. 3. c.
I. 3. c. **Refine and/or Update the Basin Management Action Plan ($25,000)**	During 2015 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 work has been scheduled and budgeted in several of the preceding years, but not all of the information needed to update the BMAP was available at those times. Therefore, the updating has been rescheduled to potentially occur in 2015. 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 ($0)**	If seawater intrusion were to reach any of the coastal wells in any aquifer, and if a well was constructed without proper seals to prevent cross-aquifer communication, or if deterioration of the well had compromised these seals, it would be possible for the intrusion to flow from one aquifer to another. An evaluation of this was completed in 2012 and is described in MPWMD's Memorandum titled "Summary of Seaside Groundwater Basin Cross-Aquifer Contamination Wells Investigation Process and Conclusions" dated August 8, 2012. This Memorandum did not recommend performing any further work on this matter at this time, other than to incorporate into the Watermaster's Database data from wells that were newly identified by the work performed in 2012. That data has now been incorporated into the Database, and no further work on this Task is anticipated.
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 ($0)**	Consultants will provide general oversight over the Seawater Intrusion detection program. The cost for this work is included under Task I.4.c.

I. 4. b. Focused Hydrogeologic Evaluation ($0)	MPWMD attempted to compile historical and current water quality data in the coastal area to provide more in-depth evaluation of conditions in the shallow Dune Sand/Aromas Sand aquifer in the vicinity of the Sand City Public Works well, where unique water quality conditions and variability have recently been observed as discussed at TAC meetings. However, it was found that no historical water quality data from Cal Am's now-abandoned wells existed, and consequently it was not possible to answer the question of why water quality in the Sand City Public Works well differs from water quality in other wells in the Basin. The Sand City desalination plant could be affecting water quality in this area, but without the prior water quality data from now-abandoned wells, this could not be determined. The results of this work were summarized in 2013 in a brief Technical Memorandum prepared by MPWMD with conclusions and recommendations, and no further work on this matter is planned.
I. 4. c. Annual Report- Seawater Intrusion Analysis ($28,678)	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. The impacts of sea level change will be taken into account in performing this work, as it will change the protective water levels that are used in the Seawater Intrusion Analysis Report. Climate change would affect how much recharge results from precipitation and would have an impact on predicted groundwater levels in the future. This would not have an impact on anything in the SIAR but could be a change in the predictive groundwater model.
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 2015.
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 2015.
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

Management and Monitoring Plan Operations Budget For Tasks to be Undertaken in 2015								Comparative Costs from 2014 Budget
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS[3]			Total	
				MPWMD	Private Consultants	Contractors		
Labor								
			Technical Project Manager	$0	$60,000	$0	$60,000	$60,000
M.1 Program Administration								
	M.1.a		Project Budget and Controls	$0	$0	$0	$0	$0
	M.1.b		Assist with Board and TAC Agendas	$0	$0	$0	$0	$0
	M.1.c & M.1.d		Preparation for and Attendance at Meetings[8]	$0	$7,000	$0	$7,000	$7,000
	M.1.e		Peer Review of Documents and Reports[8]	$0	$3,100	$0	$3,100	$3,100
	M.1.f		QA/QC	$0	$0	$0	$0	$0
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)								
I.2 Production, Water Level and Quality Monitoring								
	I. 2. a.		Database Management					
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement	$11,052	$2,400	$0	$13,452	$11,724
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	$0	$0	$10,000	$10,000	$0
	I. 2. b.		Data Collection Program					
		I. 2. b. 1.	Site Representation and Selection[7]	$0	$0	$0	$0	$0
		I. 2. b. 2.	Collect Monthly Water Levels[6]	$5,872	$0	$0	$5,872	$5,176
		I. 2. b. 3.	Collect Quarterly Water Quality Samples[1][5][6]	$28,201	$0	$23,705	$51,906	$47,738
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	$0	$0	$0	$0	$0
		I. 2. b. 5.	Monitor Well Construction[7]	$0	$0	$0	$0	$0
		I. 2. b. 6.	Reports	$4,704	$1,500	$0	$6,204	$5,448
I.3 Basin Management								
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)				
		I. 3. a. 1	Update the Existing Model	$0	$20,000	$0	$20,000	$30,000
		I. 3. a. 2	Develop Protective Water Levels	$0	$0	$0	$0	$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions[10]	$0	$40,000	$0	$40,000	$25,000
	I. 3. b.		Complete Preparation of Basin Management Action Plan	$0	$0	$0	$0	$0
	I. 3. c.		Refine and/or Update the Basin Management Action Plan [11]	$0	$25,000	$0	$25,000	$25,000
	I. 3. d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	$0	$0	$0	$0	$0
I.4 Seawater Intrusion Contingency Plan								
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking	$0	$0	$0	$0	$4,664
	I. 4. b.		Provide focused area hydrogeologic investigation for Sand City Public Works	$0	$0	$0	$0	$0
	I. 4. c.		Annual Report- Seawater Intrusion Analysis	$2,928	$25,750	$0	$28,678	$25,750
	I. 4. d.		Complete Preparation of Seawater Intrusion Response Plan[2]	$0	$0	$0	$0	$0
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan[2][9]	$0	$0	$0	$0	$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan[2]	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2015. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)				
TOTALS CONSULTANTS & CONTRACTORS				**$52,757**	**$184,750**	**$33,705**		
SUBTOTAL not including Technical Program Manager =							$211,212	$190,600
Contingency (not including Technical Program Manager) @ 20%[4]=							$42,242	$38,120
Technical Program Manager =							$60,000	$60,000
TOTAL=							**$313,454**	**$288,720**

Footnotes:

(1) An outside contractor would be used to perform the induction logging, and potentially to also collect some water quality samples in conjunction with doing the induction logging. MPWMD is expected to perform portions of the work of this Subtask, and will be the party that subcontracts with the Contractor to perform the induction logging and sample collection work on certain of the wells.

(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.

(3) Within the context of this document the term "Consultant" refers either to a Private Consultant 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.

(4) Due to the uncertainties of the exact scopes of some of the Tasks listed above at the time of preparation of this Budget, e.g. Tasks I.3.a.3 and I.3.c, it is recommended that a 20% Contingency be included in the Budget.

(5) Includes $1,000 to maintain equipment previously installed for this purpose. Also includes lab costs to analyze for barium and iodide ions in certain of these wells as was done in preceding years beginning in 2012.

(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.

(7) No additional monitoring well is expected to be constructed in 2015.

(8) For HydroMetrics to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other Tasks, when requested to do so by the Technical Program Manager.

(9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.

(10) If requested by the Board.

(11) If necessary to reflect knowledge gained from modeling work or other data sources.

Management and Monitoring Plan Operations Budget
For Tasks to be Undertaken in 2016[12]

Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS[3]			Total
				MPWMD	Private Consultants	Contractors	
Labor							
			Technical Project Manager	$0	$60,000	$0	$60,000
M.1 Program Administration							
	M.1.a		Project Budget and Controls	$0	$0	$0	$0
	M.1.b		Assist with Board and TAC Agendas	$0	$0	$0	$0
	M.1.c & M.1.d		Preparation for and Attendance of at Meetings[8]	$0	$7,210	$0	$7,210
	M.1.e		Peer Review of Documents and Reports[8]	$0	$3,193	$0	$3,193
	M.1.f		QA/QC	$0	$0	$0	$0
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)							
I.2 Production, Water Level and Quality Monitoring							
	I. 2. a.		Database Management				
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement	$11,384	$2,472	$0	$13,856
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	$0	$0	$0	$0
	I. 2. b.		Data Collection Program				
		I. 2. b. 1.	Site Representation and Selection[7]	$0	$0	$0	$0
		I. 2. b. 2.	Collect Monthly Water Levels[6]	$6,048	$0	$0	$6,048
		I. 2. b. 3.	Collect Quarterly Water Quality Samples[1][5][6]	$29,047	$0	$24,416	$53,463
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	$0	$0	$0	$0
		I. 2. b. 5.	Monitor Well Construction[7]	$0	$0	$0	$0
		I. 2. b. 6.	Reports	$4,845	$1,545	$0	$6,390
I.3 Basin Management							
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)			
		I. 3. a. 1	Update the Existing Model [13]	$0	$20,600	$0	$20,600
		I. 3. a. 2	Develop Protective Water Levels	$0	$0	$0	$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions[13]	$0	$41,200	$0	$41,200
	I. 3. b.		Complete Preparation of Basin Management Action Plan	$0	$0	$0	$0
	I. 3. c.		Refine and/or Update the Basin Management Action Plan [11][13]	$0	$25,750	$0	$25,750
	I. 3. d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential[14]	$0	$0	$0	$0
I.4 Seawater Intrusion Contingency Plan							
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking	$0	$0	$0	$0
	I. 4. b.		Analyze and Map Water Quality from Coastal Monitoring Wells	(Costs Included Under I.4.a)			
	I. 4. c.		Annual Report- Seawater Intrusion Analysis	$3,016	$26,523	$0	$29,538
	I. 4. d.		Complete Preparation of Seawater Intrusion Response Plan[2]	$0	$0	$0	$0
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan[2][9]	$0	$0	$0	$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan[2]	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2016. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)			
TOTALS CONSULTANTS & CONTRACTORS				**$54,340**	**$188,493**	**$24,416**	
						SUBTOTAL not including Technical Program Manager =	$207,248
						Contingency (not including Technical Program Manager) @ 20%[4]=	$41,450
						Technical Program Manager	$60,000
						TOTAL=	**$308,698**

Footnotes:

(1) An outside contractor would be used to perform the induction logging, and potentially to also collect some water quality samples in conjunction with doing the induction logging. MPWMD is expected to perform portions of the work of this Subtask, and will be the party that subcontracts with the Contractor to perform the induction logging and sample collection work on certain of the wells.

(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.

(3) Within the context of this document the term "Consultant" refers either to a Private Consultant 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.

(4) Due to the uncertainties of the exact scopes of some of the Tasks listed above at the time of preparation of this Budget, e.g. Tasks I.3.a.3 and I.3.c, it is recommended that a 20% Contingency be included in the Budget.

(5) A portion of this cost is for maintaining sampling equipment that was installed in prior years.

(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.

(7) No additional monitoring well is expected to be constructed in 2016.

(8) For HydroMetrics to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager.

(9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.

(10) Not used.

(11) If necessary to reflect knowledge gained from modeling work or other data sources.

(12) Includes a 3% inflation factor on most annually recurring costs in the 2015 Budget, except the Technical Program Manager cost which has no inflation factor applied to it.

(13) Costs included for these Tasks would only be incurred if the Board determined to defer this work from 2015 to 2016, or determined to perform additional work beyond that performed in 2015.

(14) No further work on this Task is anticipated in 2016.

ATTACHMENT 3

Management and Monitoring Plan Capital Budget For Tasks to be Undertaken in 2015

No Capital projects are anticipated to be undertaken in 2015, so this budget is $0.

Management and Monitoring Plan Capital Budget For Tasks to be Undertaken in 2016

No Capital projects are anticipated to be undertaken in 2016, so this budget is $0.

Seaside Groundwater Basin Watermaster

Replenishment Fund 10/1/2014

Water Year 2015 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2015)

Proposed Budget

Replenishment Fund	2006	2007	2008	2009	2010	2011	2012	2013	Estimated 2014	Estimated Totals WY 2006 Through 2014	Proposed Budget WY 2015	Projected Totals Through WY 2014
Assessments:	WY 05/06	WY 06/07	WY 07/08	WY 08/09	WY 09/10	WY 10/11	WY 11/12	WY 12/13	WY 13/14		WY 14/15	
Unit Cost:	$1,132	$1,132	$2,485	$3,040	$2,780	$2,780	$2,780	$2,780	$2,702		$2,702	
Cal-Am Water Balance Forward	**$ -**	**$ 1,641,004**	**$ 4,206,475**	**$ (2,900,435)**	**$ (2,868,685)**	**$ (3,850,964)**	**$ (6,088,909)**	**$ (8,919,379)**	**$ (6,538,537)**		**$ (9,138,537)**	
Cal-Am Water Production	**3710.0 AF**	**4059.9 AF**	**3862.9 AF**	**2966.0 AF**	**3713.5 AF**	**3416.0 AF**	**3070.9 AF**	**3076.6 AF**				
Exceeding Natural Safe Yield Considering Alternative Producers	2,106,652	2,484,533	5,164,969	3,773,464	4,112,933	3,187,854	1,661,090	1,656,612	1,700,000	$ 25,848,108	1,700,000	$ 27,548,108
Operating Yield Overproduction Replenishment	-	80,938	34,045	-	-	-	619,853	724,229	700,000	2,159,065	700,000	2,859,065
Total California American	**$ 2,106,652**	**$ 2,565,471**	**$ 5,199,014**	**$ 3,773,464**	**$ 4,112,933**	**$ 3,187,854**	**$ 2,280,943**	**$ 2,380,842**	**$ 2,400,000**	**$ 28,007,174**	**$ 2,400,000**	**$ 30,407,174**
CAW Credit Against Assessment	(465,648)		(12,305,924)	$ (3,741,714)	(5,095,213)	(5,425,799)	(5,111,413)	-	(5,000,000)	(37,145,711)	(5,000,000)	(42,145,711)
CAW Unpaid Balance	***$ 1,641,004***	***$ 4,206,475***	***(2,900,435)***	***$ (2,868,685)***	***$ (3,850,964)***	***$ (6,088,909)***	***$ (8,919,379)***	***$ (6,538,537)***	***$ (9,138,537)***	***$ (9,138,537)***	***$ (11,738,537)***	***$ (11,738,537)***
City of Seaside Balance Forward	**$ -**	**$ 230,671**	**$ 413,454**	**$ 1,106,116**	**$ 1,737,569**	**$ 988,414**	**$ (13,109)**	**$ (678,596)**	**$ (1,507,666)**		**$ (2,357,666)**	
City of Seaside Municipal Production	**332.0 AF**	**387.7 AF**	**294.3 AF**	**293.4 AF**	**282.9 AF**	**240.7 AF**	**233.7 AF**	**257.7 AF**				
Exceeding Natural Safe Yield Considering Alternative Producers	169,200	173,739	385,642	399,211	231,961	141,335	156,752	128,755	150,000	$ 1,936,595	150,000	$ 2,086,595
Operating Yield Overproduction Replenishment	50,487	340	16,898	66,090	82,761	-	6,757	108,026	-	331,358	-	331,358
Total Municipal	219,687	174,079	402,540	465,300	314,721	141,335	163,509	236,782	150,000	2,267,954	150,000	2,417,954
City of Seaside - Golf Courses												
Exceeding Natural Safe Yield - Alternative Producer	-	-	131,705	69,701	-	-	-	-	-	201,406	-	201,406
Operating Yield Overproduction Replenishment	-	-	131,705	69,701	-	-	-	-	-	201,406	-	201,406
Total Golf Courses	-	-	263,410	139,402	-	-	-	-	-	402,812	-	402,812
Total City of Seaside*	**$ 219,687**	**$ 174,079**	**$ 665,950**	**$ 604,702**	**$ 314,721**	**$ 141,335**	**$ 163,509**	**$ 236,782**	**$ 150,000**	**$ 2,670,766**	**$ 150,000**	**$ 2,820,766**
City of Seaside Late Payment 5%	10,984	8,704	26,712	26,750	15,737					88,887		88,887
In-lieu Credit Against Assessment	-		-	$ -	(1,079,613)	(1,142,858)	(828,996)	(1,065,852)	(1,000,000)	(5,117,319)	(1,000,000)	(6,117,319)
City of Seaside Unpaid Balance	***$ 230,671***	***$ 413,454***	***$ 1,106,116***	***$ 1,737,569***	***$ 988,414***	***$ (13,109)***	***$ (678,596)***	***$ (1,507,666)***	***$ (2,357,666)***	***$ (2,357,666)***	***$ (3,207,666)***	***$ (3,207,666)***
Total Replenishment Fund Balance	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**	**$ (8,046,204)**	**$ (11,496,204)**	**$ (11,496,204)**	**$ (14,946,204)**	**$ (14,946,204)**
Replenishment Fund Balance Forward	-	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**	**$ (8,046,204)**		**$ (11,496,204)**	
Total Replenishment Assessments	2,337,323	2,748,254	5,891,676	4,404,917	4,443,391	3,329,189	2,444,452	2,617,624	2,550,000	30,766,826	2,550,000	**33,316,826**
Total Paid and/or Credited	(465,648)	-	(12,305,924)	(3,741,714)	(6,174,826)	(6,568,657)	(5,940,409)	(1,065,852)	(6,000,000)	(42,263,030)	(6,000,000)	**(48,263,030)**
Grand Total Fund Balance	**$ 1,871,675**	**$ 4,619,929**	**$ (1,794,319)**	**$ (1,131,116)**	**$ (2,862,551)**	**$ (6,102,019)**	**$ (9,597,976)**	**$ (8,046,204)**	**$ (11,496,204)**	**(11,496,204)**	**$ (14,946,204)**	**$ (14,946,204)**

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager
MODIFIED AND APPROVED BY: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Consider Approving the following Professional Service Contracts for Fiscal Year 2015:

PURPOSE:

1) Two Contracts with MPWMD—one for $76,462 and the second one for $4,788 for continuing monitoring and other work on the Seaside Groundwater Basin Management and Monitoring Program (M&MP)

2) Two Contracts with HydroMetrics Water Resources, Inc. — one for $11,600 for providing ongoing and as-requested general hydrogeologic consulting services during the year and the second for $25,750 to prepare the Seawater Intrusion Analysis Report (SIAR) for 2015.

RECOMMENDATIONS:
It is recommended that the Board approve the attached RFSs No. 2015-01 and 2015-02 with MPWMD, and RFSs No. 2015-01 and 2015-02 with HydroMetrics for FY 2015.

BACKGROUND:
Attached are the proposed initial contracts for each of the Watermaster's consultants that are expected to work on M&MP activities during 2015. 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 TAC reviewed each of these contracts at its September 13, 2014 meeting and recommends that the Board approve each of them.

DISCUSSION
The attached RFSs constitute the proposed initial 2015 work assignments for MPWMD and HydroMetrics as follows:

- MPWMD RFS No. 2015-01 for $76,462 [was $68,850 last year] covering their normal M&MP tasks as in preceding years, including (1) Continuing the barium and chloride testing, which commenced in 2011, under the water quality monitoring program, due to its benefit in helping to detect seawater intrusion, (2) If necessary, replacing some of the previously installed dataloggers on the monitoring wells due to normal wear and tear, (3) If necessary, repairing or replacing some of the previously installed sampling equipment due to normal wear and tear, and (4) Using a new induction logging subcontractor since the prior subcontractor can no longer provide this service. [The increase in cost for this RFS is largely because the new induction logging subcontractor is more expensive than the previous one,

and MPWMD's hourly rates have increased since 2014. These increases are partially offset by somewhat lower laboratory analytical costs.]

- MPWMD RFS No. 2015-02 for $4,788 [was $5,154 last year] covering their obtaining water quality and water level data from private producers who ask the Watermaster collect this data for them. The costs for this work are paid for by the well owners and are at no cost to the Watermaster. [The change in cost from last year is because MPWMD's hourly rates have increased since 2014 but the laboratory analytical costs have decreased.]

- HydroMetrics RFS No. 2015-01 for $11,600 [was $13,600 last year] covering their providing general hydrogeologic consulting services throughout the year. [This was decreased based on the actual amount of these services needed in 2014.]

- HydroMetrics RFS No. 2015-02 for $25,750 [was $25,750 last year] covering their preparing the 2015 Seawater Intrusion Analysis Report. [There was no change in cost from last year.]

If recommended by the TAC, and approved by the Board, additional RFSs will be developed for HydroMetrics during 2015 to perform additional groundwater modeling, and/or update the Basin Management Action Plan. These are all included as tasks in the proposed 2015 M&MP Work Plan and Budget, both of which are on today's agenda for approval. These two tasks are not yet scheduled pending further direction from the TAC and the Board during 2015.

These contracts are being presented to the Board for approval at today's meeting to ensure the contacts can be in effect at the start of 2015.

ATTACHMENTS:

1. MPWMD RFS No. 2015-01
2. MPWMD RFS No. 2015-02
3. HydroMetrics RFS No. 2015-01
4. HydroMetrics RFS No. 2015-02

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2015 **RFS NO**. 2015-01 .
(To be filled in by WATERMASTER)

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

Services Needed and Purpose:
Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2015 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2015-01 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: $ 76,462.00 (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. 2015-01

Background:

The Watermaster Board approved the Budget for the 2015 Management and Monitoring Program Work Plan (hereinafter referred to as the "2015 M&MP Work Plan") at its meeting of October 1, 2014.

This RFS No. 2015-01 authorizes PROFESSIONAL to perform certain work on certain of the Tasks described in the 2015 M&MP Work Plan. The Task numbers listed in Table 1 of this Detailed Scope of Work for RFS No. 2015-01 correspond to the Task numbers in the 2015 M&MP Work Plan.

Table 1

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

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 2	Collect Monthly Water Levels	The monitoring wells from which water level data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Level" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water level data. At these visits PROFESSIONAL will measure and record water levels by either taking manual water levels using an electric sounder, or by dataloggers. Dataloggers which have been installed on the four Coastal Sentinel, the four ASR monitoring, and the inland (BLM site) monitoring wells will be used to measure the levels at those wells. This Task budget amount includes the possible replacement of up to 2 dataloggers at a unit price of $750, plus $100 for installation parts. 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 $CaCO_3$), Bicarbonate (as HCO_3.), pH, Chloride, Sulfate, Ammonia Nitrogen (as NH_3), Nitrate Nitrogen (as NO_3), Total Organic Carbon, Calcium, Sodium, Magnesium, Potassium, Iron, Manganese, Orthophosphate, Total Dissolved Solids, Hardness (as $CaC0_3$), Boron, Bromide, and Fluoride. For the following wells listed in Table 2, Barium and Iodide (Ba + I)will also be measured annually: SBWM MW-1 Deep (from two discrete depth zones), SBWM MW-2 Deep (from two discrete depth zones), SBWM MW-3 Deep (from two discrete depth zones), and SBWM MW-4 Deep (from two discrete depth zones). For the following wells listed in Table 2, Barium and Iodide will also be measured quarterly: MSC Shallow, MSC Deep, PCA-W Shallow, PCA-W Deep, MPWMD #FO-09 Shallow, and MPWMD #FO-09 Deep. The data may either come from water quality samples that are collected by the airlift method, by the positive displacement method during induction logging of these wells and/or other data gathering techniques, or combinations of these methods, at the discretion of PROFESSIONAL, and will be submitted to a State-certified analytical laboratory for analysis. Under this Task in prior years, PROFESSIONAL has completed retrofitting the wells that are sampled quarterly and on an annual basis to use the new low-flow purge approach for collecting water quality samples. No costs are included in this Task to retrofit any additional wells in 2015. The dedicated devices sit in the water column and may periodically need to be replaced or repaired. Therefore, this Task budget includes $1,000 for performing maintenance and/or replacement of the sample collection equipment as reflected in the costs contained in Attachment 3 for performing ongoing maintenance and/or replacement of the sample collection equipment.

M&MP TASK NO.	TASK DESCRIPTION	WORK TO BE PERFORMED
I. 2. b. 6	Reports	PROFESSIONAL will prepare and submit reports to WATERMASTER summarizing and analyzing the data that is collected, according to the following schedule: 1. One combined report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 1st & 2nd Quarters of the Water Year. 2. One annual report summarizing the water production data and summarizing and analyzing the water quality and water level data from the 3rd & 4th Quarters of the Water Year, and containing tables consolidating the data for the complete Water Year and a narrative summarization of the findings, conclusions, and recommendations for the complete Water Year. This annual report may include, as attachments, additional documentation as needed to support the findings, conclusions and recommendations.
I.4.c	Review Seawater Intrusion Analyses	WATERMASTER will have another consultant perform analyses and prepare mapping and other documents pertaining to seawater intrusion detection. PROFESSIONAL will participate in meetings with that 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 that consultant.

Table 2

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

Table 2 (Continued)

WELL NAME AND SUBAREA LOCATION[5]	MONITORING NETWORK[1]		MONITORING REQUIRED BY DECISION[2]		MONITORING CURRENTLY BEING PERFORMED BY PROFESSIONAL NOT SUBJECT TO THIS RFS[3]		MONITORING TO BE PERFORMED BY PROFESSIONAL UNDER THIS RFS[4]			
					Level Frequency		Level Frequency		Quality Frequency	
	Professional's	Watermaster's	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 No. 1 Subdivision-Deep	X					X				
Blue Larkspur-East End-Believed to be Deep	X					X				
York School-Shallow		X	X						X	
Laguna Seca Driving Range (SCS-Deep)-Shallow		X						X	X	
Laguna Seca County Park #2-Shallow		X	X						X	
CAW Granite Construction-Deep		X					X			
CAW Ryan Ranch (RR) #7-Deep		X	X						X	
Laguna Seca Golf New #12-Deep[6]		X							X	
Pasadera Main Gate-Deep		X	X						X	
No. of Wells in Each Network[5]=	32	29	4	0	8	24	14	9	20	6

Notes:

(1) The wells within the Professional's Monitoring Well Network are the wells that PROFESSIONAL monitors as part of PROFESSIONAL's own monitoring program. The wells within the Watermaster's 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 Watermaster's Monitoring Well Network includes the 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 and the BLM well installed in 2011.

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

(7) Not used.

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

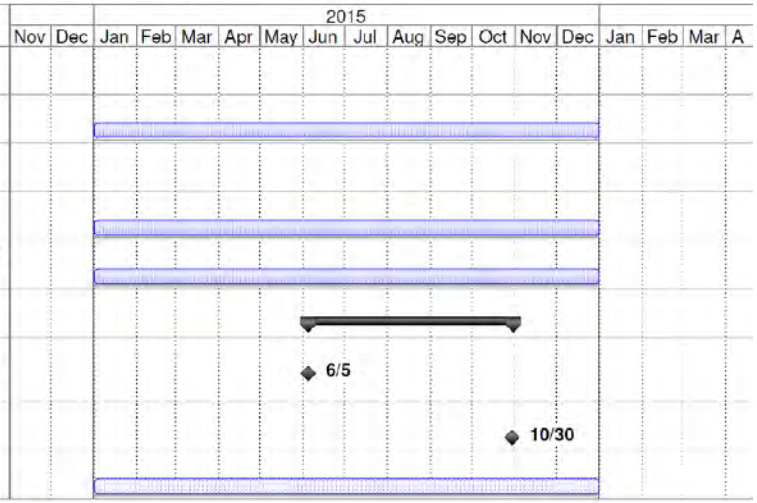
(9) This well is so close to the Laguna Seca Old No. 12 well that no water level monitoring is necessary.

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

ATTACHMENT 2
SCHEDULE

MPWMD RFS No. 2015-01
Work Schedule

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



Work Schedule for MPWMD RFS No 2015-01 8-25-14

Page 1

ATTACHMENT 3 SUMMARY OF ESTIMATED COSTS

M&MP TASK NO.	LABOR HOURS		HOURLY	SUPPLIES AND MATERIALS		TOTAL
	BREAKDOWN	TOTAL	RATE	BREAKDOWN	TOTAL	
I. 2. a. 1	12 mo. @ 8 hrs/mo.	96	$112	Other services needed to host and maintain Watermaster's Database, estimate $300 for the year.	$300	$11,052
I. 2. b. 2.	12 mo. @ 4 hrs/mo.	48	$89	2 replacement dataloggers @ $750, plus $100 for installation parts	$1,600	$5,872
I. 2. b. 3.	Quarterly WQ wells (Table 2): MPWMD Coastal wells (6 wells - shallow and deep aquifers @ 3 sites: MSC, PCA-W, FO-09), plus one additional quarterly WQ well sample. Labor: 4 events @ 16 hrs/event	64	$89	Fuel: 4 events @ $10/site x 3 sites = $120; Lab costs: 4 events @ $225/well x 7 wells = $6,300	$6,420	$12,116
	Annual WQ wells (Table 2): 1 event @ 28 hrs/event = 28 hrs	28	$89	BLM site (no sampling required in 2015): Eductor setup (use MPWMD portable unit): $0 x 1 site = $0; Airlift equip.: $100 x 1 site x 0 event = $0; Fuel: $20 x 1 site x 0 event = $0; Lab cost (annual WQ wells): $175 x 15 wells x 1 event = $2625; maintenance on previously installed sample collection equipment = $1000	$3,625	$6,117
	WM Sentinel and Northern Inland wells: download/store dataloggers, 4 events @ 2 hrs/event	8	$89	N/A	$0	$712
	WM Sentinel wells: Semi-annual induction logging -- all 4 sites; annual WQ samples from each aquifer at each site (2 per well site) -- all 4 sites; semi-annual WQ samples -- SBWM MW-4 site only. Total labor = 2 events @ 4 hr/event.	8	$89	Induction logging: 2 events = $23,705 Cost includes semi-annual induction log collection, water sample collection, WQ analyses, misc site maintenance costs; water samples are collected annually except at @ SBWM MW-4 site, which is semi-annually.	$23,705	$24,417
	Compile data: 4 events @ 24 hours/event	96	$89	N/A	$0	$8,544
I. 2. b. 6	1 - combined Q1 and Q2 quarterly report @ 18 hrs	18	$112	N/A	$0	$2,016
	1- annual report @ 24 hrs	24	$112	N/A	$0	$2,688
I. 4. c	Provide SWI supplemental data and review	24	$122	N/A	$0	$2,928
					TOTAL ESTIMATED COST =	**$76,462**

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, 2015 **RFS NO.** 2015-02 .
(To be filled in by WATERMASTER)

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

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

Completion Date: The work of this RFS No. 2015-02 shall be completed on an as-directed basis from the Watermaster during 2015. All work under this RFS will be completed not later than December 31, 2015.

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

Total Price Authorized by this RFS: $4,788.00 (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. 2015-02

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. 2015-02 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 $89/hr, so the estimated cost per water level measurement would be $44.50.

The total estimated cost would be $534 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 $175 per sample for the laboratory analysis. The sampling work would be billed at the field rate of $89/hr, so the estimated cost per annual water quality sample would be $89 for labor, and $175 for laboratory services, for a total cost per sample of $264. Only one sample per well per year will need to be collected and analyzed. This sample will be collected in the fall.

The total estimated cost for collecting and analyzing the sample per well is $264.

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 $798.

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 @ $534 =	$3,204
Potential No. of Wells Needing Water Quality Data Collected	= 6 @ $264 =	$1,584
	TOTAL =	$4,788

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, 2015

RFS NO. 2015-01
(To be filled in by WATERMASTER)

TO: Derrik Williams
HydroMetrics WRI
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, 2015, 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: $ 11,600.00 (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 2015 Monitoring and Management Program (M&MP) to which this RFS No. 2015-01 pertains are:

M. 1. c - Preparation and Attendance of Meetings
M. 1. e - Peer Review of Documents and Reports
I. 2. b. 6 - Reports

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 = $215.00/hour Georgina King = $185.00/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. 2015-01 is $11,600.00.

ATTACHMENT 2
SCHEDULE

HydroMetrics RFS No. 2015-01
Work Schedule

ID	Task Name	2015															
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	A
1	**M. 1. c - Preparation and Attendance of Meetings**																		
2	**M. 1. e - Peer Review of Documents and Reports**																		
3	**I.2.b.6 Reports (by HydroMetrics)**																		

Work Schedule for HydroMetrics RFS No 2015-01 Final 9-2-14 Page 1

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: 1/1/2015

RFS NO. 2015-02
(To be filled in by WATERMASTER)

TO: Derrik Williams
HydroMetrics WRI
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: Prepare the Seawater Intrusion Analysis Report for 2015. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2015, 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: $ 25,750.00 (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 2015 Seawater Intrusion Analysis Report (SIAR).

To promote efficiency, much of the text and graphics from the 2014 SIAR will be incorporated directly into the 2015 SIAR.

Preparing the 2015 SIAR will involve analyzing all water quality data at the end of Water Year 2015 (October 1, 2014 to September 30, 2015) and producing semi-annual (2^{nd} and 4^{th} quarters 2014) 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 2015 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 2015 SIAR. A CD containing an electronic version of the entire Final 2015 SIAR in MS Word and up to 15 printed and bound copies of the Final 2015 SIAR (quantity to be determined by WATERMASTER) will be provided to WATERMASTER.

ATTACHMENT 2

HydroMetrics RFS No. 2015-02
Work Schedule

ID	Task Name	2015												2016					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
1	**I.4.c Annual Seawater Intrusion Analysis Report (SIAR)**																		
2	HydroMetrics Provides Draft SIAR to Watermaster											◆ 11/4							
3	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)											◆ 11/11							
4	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)											◆ 11/18							

Work Schedule for HydroMetrics RFS No 2015-02 8-23-14 Page 1

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 = $215.00 Georgina King = $185.00

Task	Hours		Costs			
	Derrik Williams	Georgina King	Derrik Williams	Georgina King	Expenses	Total Costs
2015 Seawater Intrusion Analysis Report						
Produce 2015 SIAR	16	88	$3,440	$16,280	$3,930	$23,650
Attend One TAC Meeting in Monterey	9	0	$1,935	$0	$165	$2,100
TOTALS	**25**	**88**	**$5,375**	**$16,280**	**$4,095**	**$25,750**

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Budget and Finance Committee and Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Unit Cost for Water Year 2014/15 Over Production Replenishment Assessment Amount

RECOMMENDATION:

Per page 33 of the Decision*, "The per acre-foot amount of the Replenishment Assessments shall be determined and declared by Watermaster in October of each Water Year in order to provide Parties with advance knowledge of the cost of Over-Production in that Water Year."* Thus, the per acre-foot amount determined by the Board in or before October of 2014 will be used to calculate Replenishment Assessments for pumping that occurs during the Water Year which begins on October 1, 2014 and ends on September 30, 2015.

For last Water Year (2013/14) the Budget and Finance Committee updated the basis from which the annual calculation of the Unit Cost of replenishment water is established (Basis attached). Due to the lack of more supportable data the Budget and Finance Committee's recommendation is to continue using $2,702, the average of the Base Unit Cost ($/AF) listed in Table 1 for each project [$3,507+1,800+2,000+3,500)/4], as the Replenishment Assessment Unit Cost for the Water Year 2014/2015.

ATTACHMENTS:

Table 1. Replenishment Project Information for Use in Establishing the Replenishment Assessment Unit Costs for Water Year 2014

Attachment 2: Table 1. Replenishment Project Information for Use in Establishing the Replenishment Assessment Unit Costs for Water Year 2014 (October 1, 2013-September 30, 2014)

WATER YEAR 2014 (October 1, 2013-September 30, 2014)

ANTICIPATED UNIT COSTS OF REPLENISHMENT WATER FOR THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISH-MENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) [1]	LEVEL OF PROJECT DEVELOP-MENT	CONTINGENCY INCLUDED IN BASE UNIT COST [2] (%)	BASE UNIT COST ($/AF)	BASE UNIT COST YEAR	ADDITIONAL CONTINGENCY ADDED TO REFLECT LEVEL OF PROJECT DEVELOPMENT [3] (%)	UNIT COST INCLUDING ADDITIONAL CONTINGENCY ($/AF)	UNIT COST INFLATED @ 3% FROM COST BASIS YEAR TO YEAR REPLENISH-MENT WATER COULD BECOME AVAILABLE ($/AF)	VOLUME-WEIGHTED AVG %
Monterey Peninsula Water Supply Project (Regional Desalination) [4]	2018	9,752	Project Report	30%	$3,507	2012	0%	$3,507	$4,188	56.53%
Seaside Basin ASR Expansion [5]	2015	1,000	Conceptual	11%	$1,800	2012	39%	$2,502	$2,734	5.80%
Regional Urban Water Augmentation Project [6]	2017	3,000	Design	5%	$2,000	2013	10%	$2,200	$2,476	17.39%
Groundwater Replenishment Project (GWRP) [7]	2017	3,500	Conceptual	50%	$3,500	2017	0%	$3,500	$3,500	20.29%

Total Quantity of Replenishment Water (AFY) the Listed Projects Could Cumulatively Potentially be Able to Produce Within the Next 10 Years [8] = 17,252

FOOTNOTES:

(1) For the Monterey Peninsula Water Supply Project this is the total amount of water from this source which could potentially come to the CAW distribution system. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 5). For the RUWAP this is the total amount of water that this project is expected to produce. Only a portion of this amount might be used as in-lieu replenishment of the Seaside Basin. For the GWRP this is the quantity of water that is being considered at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.

(2)(3) The following Contingency percentages were considered reasonable for the indicated levels of project development: Conceptual Level - 50%, Project Report Level - 30%, and Design Level - 15%. The sum of the values in the columns titled "Contingency Included in Base Unit Cost" and "Additional Contingency Added to Reflect Level of Project Development" equals the Contingency appropriate for the project's level of development.

(4) Project data based on documents provided by Cal Am and MPWMD.

(5) Project data provided by MPWMD. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.

(6) Project data provided by MCWD.

(7) Project data provided by MRWPCA. MRWPCA reported that the GWRP quantity being used in the current CEQA documentation is 3,500 AFY, but that the project could potentially supply 6,500 AFY or more. The unit cost would be lower if a quantity larger than 3,500 AFY were produced.

(8) This value is the cumulative production capacity of all of the Potential Sources of Replenishment Water that listed in this table, and is used only to determine the "Volume-Weighted Average." It is not the amount of water that is expected to be available to the Seaside Basin.

ITEM NO. IX.C.
10/1/2014

SEASIDE GROUNDWATER BASIN WATERMASTER

T*O*: Board of Directors

FROM: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Change in November, 2014 Board Meeting Date

PURPOSE:

Schedule the November, 2014 Watermaster Board Meeting at a later date to allow for the Technical Advisory Committee (TAC) to meet and review and make a recommendation to the Board on the Annual Report for WY 2014.

RECOMMENDATION:

Discuss and consider rescheduling the Regular November 5th Board Meeting to a Special Meeting to meet on Wednesday November 19, 2014 at 2:00 PM at the MRWPCA Board Room.

DISCUSSION:

Watermaster is required by the Decision to file an Annual Report to the Court detailing work performed and actions taken during the fiscal year (January 1 through December 31) and the previous water year, (October 1 through September 30). The deadline established by the Court for filing of the report is December 15th.

As the TAC is responsible for developing a major portion of the report, the timing for preparation of the final draft is contingent on the information needed for the report becoming available to the TAC. The TAC is having its next meeting on November 12th where they will be able to review the draft Annual Report and any adjustments or corrections will be incorporated into the final document. This should allow enough time to make the final document ready for the Board to review at the November 19th Special meeting.

FISCAL IMPACT:

None

ATTACHMENTS:

None

ITEM X.

INFORMATIONAL REPORTS

(NO ACTION REQUIRED)

ANNUAL MILESTONES Water Ye	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	10/1/2014	
Alternative Producers may change to Standard Production by March 27, 2009 *(see amendment at right)* by filing a declaraton with the Court and with the other parties.	27-Mar-06	30-Sep-07	APA to SPA election amended to in-perpetuity 12/12/2009						Cypress portion APA to SPA 2/5/14				
Commencing with the fourth Water Year and Triennially thereafter, the Operating Yield for both Subareas will be decreased by 10% until the Operating Yield is equivalent to the Natural Safe Yield unless by recharge or reclaimed water use results in a decrease in production of Native Water as required by the decision.				75% of the Operating Yield of 5,600 decreased 10%	Jan 1, 2009; and 100% of 5,600 acre feet decreased 10/1/09		100% of the Operating Yield of 5,040 decreased another 10% of 5,600 on Oct 1, 2011, and again on October 1, 2014			X.A	1-Oct		
After the close of each Water Year, the Watermaster will determine and levy a Replenishment Assessment against all Producers that incurred Operating Yield Over Production during the Water Year, with payment due from Producer 40 days after the mailing of a statement for the assessment by Watermaster.			15-Nov	30-Nov	30-Nov	23-Jan	30-Nov	30-Nov	30-Nov	30-Nov	30-Nov		
California American Water to submit annually to Watermaster any augmentation to water supply for possible credit toward Repl Assessment	**Annually**	15-Nov	CAW Credit Request Granted (signed MOU) January 15, 2009		CAW Credit Req Granted 2/3/10	CAW Credit Req Granted 2/2/11	1-Feb	15-Nov	15-Nov	15-Nov	15-Nov		
Water level monitoring - monthly data collection *from all members for inclusion in the consolidated database.*	**Reported Annually**	**Monthly**	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly		
Water quality yearly data collection *from all members for entry in consolidated database*	**Reported Annually**	15-Nov	28-Feb & 15-Nov	15-Nov	15-Nov	15-Nov	31-Aug	15-Nov	15-Nov	15-Nov	15-Nov		
Summary report of water resources data *to all members/parties* the 15th each quarter month:	**Quarterly**		Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th	Jan, Apr, Jul, Oct 15th		
Annual Report to Court	**15-Jan**	15-Nov	15-Nov	15-Nov	23-Dec	8-Dec	15-Dec	15-Dec	15-Dec				

ADMINISTRATIVE MILESTONES Calendar Yea	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Adjudicaton ordered by Court and filed	27-Mar-06										
Board Directors Terms		**7-Nov**					1-Feb-12	1-Feb-12	1-Feb-14	1-Feb-14	
Budget (Administrative) Adopted / distributed					15-Jan-10	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan
Budget (Operations) Adopted/distributed					15-Jan-10	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan
Budget (Replenishment) Adopted / distributed					15-Jan-10	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan	15-Jan
Administrative Assessments	15-Jan-06	15-Jan-07	15-Jan-08	15-Jan-09	15-Jan-10	15-Jan-11	**NONE**	15-Jan-13	15-Jan	15-Jan-15	15-Jan-16
Operations Assessments	15-Jan-07	15-Jan-07	15-Jan-08	15-Jan-09	15-Jan-10	15-Jan-11	**NONE**	**NONE**	**NONE**	15-Jan-15	15-Jan-16
Capital Assessments	15-Jan-07	15-Jan-07	**NONE**	15-Jan-09	**NONE**	NONE	**NONE**	**NONE**	**NONE**	15-Jan-15	15-Jan-16
Replenishment Assessments	CAW credit	CAW credit	CAW credit	CAW credit	CAW credit	23-Jan-12	1-Feb-12	15-Jan-14	15-Jan-15	15-Jan-16	15-Jan-17
Annual Report to Court	15-Nov-06	15-Nov-07	15-Nov-08	15-Nov-09	23-Dec-10	8-Dec-11	15-Dec	15-Dec	15-Dec	15-Dec	15-Dec
Answers to Judge's Questions re: Annual Report		30-Jan-09	28-Feb-08	1-Feb-09	5-Feb-10	1-Aug-12	None	None			
Declaration of Replenishment Water Availability	Feb-06	Dec-06	Dec-07	18 Mar	2-Dec-09	1-Dec-10	30-Nov-11	4-Dec-13	Dec-14	Dec-15	Dec-16

MONTHLY MILESTONES	2006-13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14
Tentative budgets distribution to all parties													
Operating Yield of 5,600 to be decreased 10% end of 2014 WY; Declaration of Repl Water Available	18-Mar-09												
Administrative Assessments		15-Jan-14											
Operations Assessments		None											
Capital Assessments		None											
Replenishment Assessments		N/A											
Develop Repl Assessment Unit Cost		$2,702									$2,702		

SPECIAL ISSUES	2006-13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14
Cal-Am CWP / Alt. Projects EIR / Basin Repl MOU					MOU Amendment 2/5/14 signed by all parties								
SWRCB Cease Desist Order Cal-Am	In Effect												
Storage and Recovery Application and Agreement	Complete												
Watermaster Board Regular Meeting Schedule 2013		8-Jan - cncl'd	5-Feb	5-Mar - cncl'd	2-Apr	7-May - cncl'd	4-Jun- cncl'd	2-Jul- cncl'd	6-Aug	3-Sep-cncld	1-Oct	5-Nov	3-Dec

SUMMARY PROJECT SCHEDULE *(See detailed project schedule for more information)*	***Monitoring and Management Program 2014***
Program Administration, Database Management (MPWMD)	1/1/14 - 12/31/14
Salt and Nutrient Management (MPWMD)	3/31/14
Enhanced Groundwater Model; LSSA Modeling [Hydrometrics]	Further Discussion 10/1/14
Potential Replenishment Projects [TAC]	1/1/14 - 12/31/14
Seawater Intrusion Detection & Tracking/ Analysis & SIAR (Hydrometrics & MPWMD)	1/1/14 - 12/31/14

Complete or deferred =
Yet to be completed =
Scheduled for Board or TAC meeting =
Imminent Critical Deadline =
Revised September 24, 2014

D-R-A-F-T
MINUTES

Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
August 13, 2014

Attendees: **TAC Members**
City of Seaside – Rick Riedl
California American Water – Roger Hulbert
City of Monterey – Norm Green
Laguna Seca Property Owners – No Representative
MPWMD – Joe Oliver
MCWRA – German Criollo
City of Del Rey Oaks – No Representative
City of Sand City – Leon Gomez (by telephone)
Coastal Subarea Landowners – No Representative

Watermaster
Technical Program Manager - Robert Jaques

Consultants
None

Others
None

The meeting was convened at 1:36 p.m. after a quorum had arrived.

1. Public Comments
There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the July 9, 2014 Meeting

On a motion by Mr. Riedl, seconded by Mr. Oliver, the Minutes were unanimously approved as presented.

B. Report on Board Meeting of August 6, 2014

Mr. Jaques briefly summarized the agenda packet materials for this item, highlighting some of the key points of discussion at the Board meeting. There were no questions.

3. Preliminary Discussion of Potential Scope of Work for 2015 M&MP
Mr. Jaques summarized the agenda packet materials for this item. The following Tasks within the proposed Work Plan were discussed:

I.2.a.2: Mr. Oliver said he concurred with Mr. Jaques recommendations and felt that would begin to keep this task opened in case something came up that warded meter calibration, but that no budget would

be needed for this in the upcoming year. He said if anything came up it would probably only apply to wander perhaps a few meters not all of them. Mr. Criollo asked how many meters there were in what would cost to calibrate them. Mr. Oliver said he recalled error on the order of 35 meters, and Mr. Riedl indicated there were perhaps 10 or 12 major meters. No one present could recall the cost for the prior calibration work that was undertaken several years ago. Mr. Riedl pointed out that the well owners were required to perform the calibration, not the Watermaster.

Mr. Hulbert asked if the budget included money for this work. Mr. Jaques responded that the Contingency, which in the past has been on the order of $35,000, would be available if calibration work needed to be performed.

Mr. Riedl asked Mr. Hulbert how often Cal Am calibrates its wells. Mr. Hulbert responded he was not sure, but believed it was about once per year.

Mr. Oliver said MPWMD looks at annual production trends for each well, so any significant anomalies should be detected. He noted that production in the Basin has been going down since the Decision was issued, in the cumulative amount of about 1, 000 acre feet per year.

Mr. Oliver said several meters have been replaced since the last calibration work was performed.

Mr. Oliver suggested that a survey of well owners to determine when their meters were last replaced or calibrated could be performed, and with that information the TAC could further judge whether more calibration work needed to be done. There was consensus to have Mr. Jaques include this in the Management and Monitoring Program for next year.

I.2.b.2: There was agreement to include possible replacement of two data loggers under this task.

I.2.b.3: There was agreement to continue performing barium and iodine analyses on an ongoing basis.

There was also agreement to include $1, 000 in this Task for performing ongoing maintenance and/or repair or replacement of the sample collection equipment.

I.2.b.5: There was consensus that no additional monitoring wells need to be installed in 2015, but the TAC may wish to discuss planning for future monitoring wells sometime during 2015 if the Board indicates that they want more monitoring well data.

I.3.a.3: There were a number of questions and answers on this Task.

Mr. Oliver suggested it might be desirable to examine possible ways of recharging the Laguna Seca subarea in order to mitigate falling groundwater levels there. There were questions about where the water for recharge might come from.

Mr. Jaques proposed revising the final sentence of the description for this Task to read "Additional modeling work and/or consulting assistance may be required in 2015 to further examine the situation." By keeping the language this broad, issues such as this could be studied under this Task.

I.3.c: There was consensus that although at this point in time it did not appear the BMAP will need to be updated in 2015, it would be prudent to set aside funds under this Task to update it if the Board determines that it wishes to have that done.

I.4.c: Mr. Jaques explained that HydroMetrics had informed him that they could take into account impacts from sea level change in the SIAR at no additional cost, and that accounting for climate change in terms of changing the precipitation assumptions would be addressed in the model itself, not the SIAR.

With these revisions Mr. Jaques will prepare a proposed final version of the Work Plan and an accompanying Budget for presentation to the TAC for its final review and approval at its September meeting.

4. Schedule

Mr. Jaques summarized the agenda packet materials for this item and highlighted a number of upcoming items on the schedule. One of these was the plan to have no TAC meeting in the month in October, and try to flip-flop the sequence of meetings in November so that the TAC would meet first and the Board after the TAC in order for the draft annual report to be reviewed by the TAC before going to the Board.

5. Other Business

Mr. Oliver asked if there been any recent communication with the Court with regard to the Laguna Seca subarea modeling work. Mr. Jaques said he was not aware of any, but anticipated that the Board will approve hiring an attorney to prepare a submittal to the Court on this matter.

Mr. Riedl and Mr. Green asked if an update on the Groundwater Replenishment Project could be scheduled for a future TAC meeting. Mr. Oliver said that he or someone from MPWMD could provide input on questions regarding financing. Mr. Jaques said he would contact MRWPCA to have someone attend to make a presentation on the status negotiations and other issues such as the draft environment impact report, permit processing, etc.

Mr. Jaques said he would like to try using a no-cost telephone conferencing service starting with the next meeting to see if it works satisfactorily. If so, he would discontinue using the current AT&T service which has a fee associated with it. There was consensus to make this change.

6. Set Next Meeting Date

The next regular meeting was set for Wednesday September 10, 2014 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 2:32 p.m.

D-R-A-F-T
MINUTES

Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
September 10, 2014

Attendees: **TAC Members**
City of Seaside – Rick Riedl (by telephone)
California American Water – Eric Sabolsice
City of Monterey – Norm Green
Laguna Seca Property Owners – Bob Costa
MPWMD – Joe Oliver
MCWRA – German Criollo
City of Del Rey Oaks – No Representative
City of Sand City – Leon Gomez (by telephone)
Coastal Subarea Landowners – No Representative

Watermaster
Technical Program Manager - Robert Jaques

Consultants
None

Others
MPWMD – Dave Stoldt

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

1. Public Comments
There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the August 13, 2014 Meeting

On a motion by Mr. Criollo, seconded by Mr. Gomez, the Minutes were unanimously approved as presented.

3. Update on Status and Schedule for MRWPCA-MPWMD Groundwater Replenishment Project

Mr. Jaques introduced Mr. Israel who made a presentation regarding the Groundwater Replenishment Project.

Mr. Israel introduced Paul Scudo who is the new Deputy General Manager for MRWPCA, replacing Brad Hageman. Using the attached PowerPoint slides, Mr. Israel proceeded with his presentation.

The Regional Treatment Plant flow has been dropping over the years and from 2010 to 2014 it has dropped to less than 17 million gallons per day.

A trial diversion of flows from the Salinas Industrial Wastewater Treatment Plant, which was started in April and will continue through mid-October, is now providing 3.5 to 4.0 million gallons per day of extra flow to the Regional Treatment Plant, bringing the flow to the Regional Treatment Plant to over 21 million gallons per day. The diversion occurs in the industrial waste pipeline where it passes adjacent to MRWPCA's Salinas pump station. The industrial waste consists mainly of produce wash water. The Industrial Wastewater Treatment Plant was starting to exceed its treatment capacity, so the diversion was beneficial to the city of Salinas. The Industrial Wastewater Treatment Plant summertime flow is approximately 4.0 million gallons per day, with an average annual flow of about 2.4 million gallons per day. Flows to the Industrial Wastewater Treatment Plant have been increasing about 10 percent per year in recent years. UniCool may start to discharge to the Industrial Wastewater Treatment Plant sometime in the near future, and this has the potential to double the flow to the Industrial Wastewater Treatment Plant. Mr. Israel explained that ideally industrial wastewater would be stored in the winter and then diverted to the Salinas pump station in the summer when the maximum demand for recycled water occurs.

The CEQA process for the Groundwater Replenishment Project Draft Environmental Impact Report has been delayed until approximately March of 2015 to allow time to complete the Memorandum of Understanding with MCWRA, but its schedule will still coordinate with the California American Company's Monterey Peninsula Water Supply Project schedule. He said he is hopeful of getting an updated Memorandum of Understanding approved by MCWRA and MRWPCA by the end of September. The new Memorandum of Understanding may be a four-way agreement with MCWD, MRWPCA, MPWMD, and MCWRA.

The CPUC has been contacted by MRWPCA with a request to make some revisions to the Groundwater Replenishment Project's schedule to coordinate with the overall Monterey Peninsula Water Supply Project schedule. The proposed revised schedule is as follows:

CPUC testimony-11/15
Hearings-1/16
Proposed Decision-5/16
Final Groundwater Replenishment Project Decision-6/16.

Based on this schedule it is projected that the Groundwater Replenishment Project could be operational by late 2017. It would be constructed using a design-build contract, similar to California American Water's approach on the desalination plant. Groundwater replenishment would provide about one-third of the needed water.

Mr. Sabolsice asked if there had been any clarification on how long recycled water has to reside in the basin before it is withdrawn for potable use. Mr. Israel responded that the State is using the National Water Research Institute to evaluate groundwater replenishment projects on these types of issues. That body will provide a report to the State with its recommendations on this and other regulatory technical issues. Conceptual approval for the Groundwater Replenishment Project was given by the State in June of 2014. The technical issues are straight-forward. The State has waived its former dilution requirement for groundwater recharge.

Mr. Sabolsice asked if there was an updated cost estimate. Mr. Israel responded that this is being worked on and it is realized that the project cost needs to be less than $18 million in order to be cost-effective.

The energy requirement for groundwater replenishment treatment is about 1/6 of the energy requirement for desalination, so groundwater replenishment will provide a long-term power cost savings.

Mr. Criollo asked how much water the Groundwater Replenishment Project will provide. Mr. Israel responded that it will provide about 3,500 acre feet per year. Also, the brine produced by the groundwater replenishment treatment process will have a much lower total dissolved solids level than the brine from the desalination plant. Better dilution at the outfall into Monterey Bay will be achieved if the two brine flows are combined.

Mr. Oliver asked Mr. Sabolsice if he felt the two project schedules were satisfactorily coordinated. Mr. Sabolsice responded he believed the Groundwater Replenishment Project schedule and the California American schedule are about the same. Mr. Israel noted that with the Groundwater Replenishment Project the desalination plant would be smaller, and it could become operational sooner than a larger desalination plant.

Mr. Oliver asked Mr. Israel if any delays in the Monterey Peninsula Water Supply Project schedule would result in corresponding delays in the Groundwater Replenishment Project schedule. Mr. Israel said he did not know if the CPUC would allow the Groundwater Replenishment Project to be implemented ahead before the desalination project, if the desalination project experienced delays. Mr. Stoldt noted that it may not be possible to obtain State Revolving Fund money until the CPUC decision on the Groundwater Replenishment Project is made. He also commented that a water purchase agreement may not be possible in the time frame needed to maintain the schedule, unless certain financing obstacles can be overcome.

Mr. Sabolsice asked Mr. Israel how much money would be needed before the State Revolving Fund money comes in. Mr. Israel responded that this is still being evaluated. He went on to say that a 10 percent design submittal is being prepared for use in the design-build Request for Proposals, but that a 30 percent design document would be better, if possible.

Mr. Green asked Mr. Israel what other water sources were being pursued. Mr. Israel responded that Tembladero Slough and Blanco Drain waters are other possible sources for the Groundwater Replenishment Project. He said it would be desirable to be able to "bank" some additional replenishment water in the Seaside basin as a water reserve. Replenishment water would be produced by a new Advanced Water Treatment Plant located at the Regional Treatment Plant site. Source water for the Advanced Water Treatment Plant would be secondary effluent from the Regional Treatment Plant, and the Advanced Water Treatment Plant would be separate from the Salinas Valley Reclamation Project Plant. MRWPCA is seeking to partner with MCWD for joint use of the Regional Urban Water Augmentation Project transmission line.

Mr. Sabolsice commented that it appears the Salinas Industrial Wastewater Treatment Plant flow has provided the additional water that is needed, but wondered if growers might allege a claim to this water. Mr. Israel said the city of Salinas owns the rights to this water.

4. Discuss Calibration of Water Meters

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

Mr. Sabolsice said that due to modeling results it would be desirable to do well-site inspections and possibly pump tests. He noted that Mr. Craig Evans of California American Water Company can perform this type of work to see if wells appear to be properly metered. Mr. Oliver suggested doing a small sample of wells to see if more should be inspected, but Mr. Sabolsice said he was thinking of

having all wells inspected to see if anything looks like it is not working properly such that it would affect the accuracy of metered production data.

There was discussion about checking the repair condition, making an additional assessment, and determining if any follow-up action should be taken.

Mr. Costa asked Mr. Oliver if any external technique for metering flow existed. Mr. Oliver and Mr. Jaques responded that clamp-on types of flow meters are often used when performing pump tests. Mr. Oliver said it is also possible to check the meter installation piping configuration to see whether that is having an effect on metering accuracy.

Mr. Sabolsice noted that California American Water already does this type of evaluation on its own wells, and that he could have Mr. Evans check other well site installations in October.

Mr. Sabolsice suggested budgeting $10,000 in 2015 for possible meter calibration or pump testing work, if the initial evaluation indicated that this would be desirable. If the initial evaluation is performed later this year, the results of those inspections would be available for any work needed in 2015. California American Water and MPWMD said they will coordinate on doing this work in October 2014.

Mr. Oliver asked Mr. Jaques if it would be possible to include in the next production data reminder notice that the Watermaster sends out, a brief statement that this type of work will be undertaken so that well-owners will be alerted.

Mr. Sabolsice made a motion to include $10,000 for testing services in the 2015 M&MP Budget, if such services are found to be needed based on the initial evaluation. The motion was seconded by Mr. Oliver and passed unanimously.

At this point in the meeting Mr. Costa had to depart for another commitment.

5. Approve Work Plan for FY 2015 Management and Monitoring Program (M&MP) and FY 2015 and 2016 M&MP Operations and Capital Budgets

Mr. Jaques summarized the agenda packet material for this item. He said he would put $10,000 in the Budget for the work discussed under the previous agenda item.

Mr. Oliver recapped some of the August 2014 TAC meeting discussions with regard to the possible future benefit of having an additional monitoring well installed in the eastern part of the Basin in the future.

Mr. Sabolsice commented that California American Water will have no production from the Laguna Seca subarea after its allocation goes to zero due to the ramp-down.

Mr. Sabolsice made a motion to approve the Work Plan and Budgets. The motion was seconded by Mr. Criollo and passed unanimously.

6. Approve Initial RFSs for MPWMD and HydroMetrics for 2015

Mr. Jaques and Mr. Oliver summarized the agenda packet material for this item.

A motion was made by Mr. Sabolsice to approve these consultant contracts. It was seconded by Mr.Criollo, and passed unanimously.

7. Schedule

Mr. Jaques reported that no October TAC meeting will be necessary and that the next TAC meeting would be on its normal date of November 12, 2014.

8. Other Business

There were no Other Business items to discuss.

9. Set Next Meeting Date

The next meeting date was set for November 12, 2014.

The meeting adjourned at 3:14 p.m.

Pure Water Monterey

Groundwater Replenishment Project
Update to Seaside Basin Water Master Technical Advisory Committee

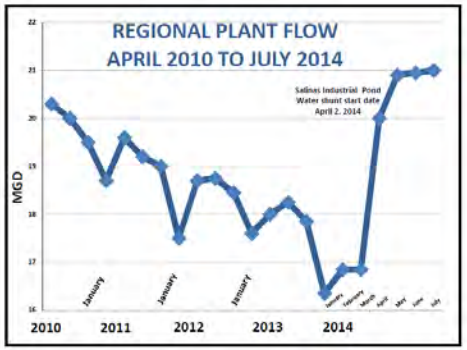
September 10, 2014

Keith Israel, MRWPCA General Manager

Partners for Pure Water Solutions

General Topics

- General background
- Update on MOU negotiations with growers/MCWRA
- Status of CEQA activities
- Requested schedule adjustment to CPUC
- Overall Project Schedule



Status of CEQA Activities

- Continued preparation of materials needed for Draft EIR
- Coordination of GWR CEQA with those for overall water project
- Need finalized MOU so that GWR Draft EIR will be complete
- Anticipate draft EIR distribution in March 2015

Update on GWR MOU Negotiations

Late 2012	• General Public Discussions
August 2013-April 2014	• Discussions with MCWRA Board Negotiators
April 2014-July 2014	• Discussions with expanded group to include selected growers
August 2014	• Discussion with four Agency Managers to refine MOU
Early Sept 2014	• Updated MOU to MCWRA/ Growers for consideration

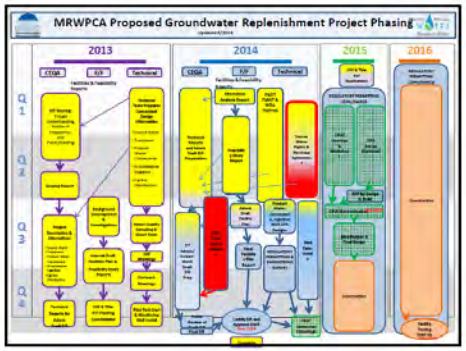
Requested CPUC Schedule Adjustment for GWR

- CPUC ALJ has approved two schedule changes to allow time for preparation of overall water project EIR
- Aug CPUC Schedule change allows for overall draft EIR to be completed by end of Jan 2015
- GWR parties requesting revised schedule to CPUC by Sept 15 to allow for GWR coordination with overall draft EIR

PROPOSED GWR SCHEDULE

- CPUC Testimony Nov 2015
- Evidentiary Hearings – Jan 2016
- Proposed Decision – May 2016
- Final GWR Decision – June 2016

Note: Expected GWR Operational by 2017



Questions?

For more information contact:
Keith Israel, General Manager

Monterey Regional Water Pollution Control Agency
(831) 645-4603

www.mrwpca.org
www.mpwaterreplenishment.org

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Board of Directors

FROM: Laura Dadiw, Staff
Approved by: Dewey D Evans, CEO

DATE: October 1, 2014

SUBJECT: Water Production Informational Report

PURPOSE:
Provide the Board a comparative Water Year (WY) basin production analysis in preparation for the triennial 10% reduction in pumping to become effective October 1, 2014.

RECOMMENDATIONS:
None, information only

DISCUSSION:
Below are two tables listing the acre feet (AF) of water produced from the Seaside Basin. The first table shows annual production for WYs 2006 (partial) through 2013. WY 2014 had not been completed at the time of this analysis. The second table contains a comparison of the first three quarters for WYs 2007 through 2014, with the right-hand column showing how much less was pumped in that respective year than in the year previous.

Water Year Production Totals	**AF Less Than Previous Year**
WY 2013—October 1, 2012 through September 30, 2013---3,895.8	-62.9
WY 2012—October 1, 2011 through September 30, 2012---3,832.9	318.6
WY 2011—October 1, 2010 through September 30, 2011---4,151.5	396.2
WY 2010—October 1, 2009 through September 30, 2010---4,547.7	26.9
WY 2009—October 1, 2008 through September 30, 2009---4,574.6	697.3
WY 2008—October 1, 2007 through September 30, 2008---5,271.9	112.7
WY 2007—October 1, 2006 through September 30, 2007---5,384.6	- - -
WY 2006 – March 6, 2006 through September 30, 2006 ----5,020.1 (Partial WY)	- - -

Basin Production Totals During First Three-quarters of Each Water Year	
WY 2014—October 1, 2013 through June 30, 2014----------2,830.3	1.4
WY 2013—October 1, 2012 through June 30, 2013----------2,831.7	-978.4
WY 2012—October 1, 2011 through June 30, 2012----------1,853.3	294.9
WY 2011—October 1, 2010 through June 30, 2011----------2,148.2	498.4
WY 2010—October 1, 2009 through June 30, 2010----------2,646.6	151.4
WY 2009—October 1, 2008 through June 30, 2009----------2,798.0	394.4
WY 2008—October 1, 2007 through June 30, 2008----------3,192.4	375.2
WY 2007—October 1, 2006 through June 30, 2007----------3,567.6	- - -

The initial annual pumping limit for the Basin, established by the March 2006 Court Order that created the Watermaster, was 5,600 acre-feet. Production in WY 2007 was 4% less (215.4 AF) than this limit, and in WY 2008 was 6% less (328.1 AF).

The Court Order directs that every 3 years, starting from WY 2006, there must be a 10% reduction in pumping unless certain conditions are met. The initial reduction was to begin on January 1, 2009, which was 25% of the way into WY 2009, so only 75% of the 10% reduction was required for the remaining 75% of WY 2009. This resulted in a required pumping reduction for the period January 1 through September 30, 2009 of 75% x 10% x 5,600 = 420 AF. The Court Order also required that subsequent triennial pumping reductions were to start at the beginning of the WY, i.e. on October 1.

Therefore, in WY 2010, beginning on October 1, 2009, the full 10% annual pumping reduction (560 AF) was imposed.

For WY 2009, 75% of the 10% reduction was required for the remaining 75% of the year. The total of 4,574.6 acre feet of pumping for WY 2009 was 12% less (605.4 AF) than the reduced pumping limit of 5,180 AF. The achievement of significant reduction in pumping in WY 2009 appears to be partially due to California American Water experiencing mechanical difficulties with a production well that did not pump from the Basin for a portion of the year.

For WY 2010, 100% of the 10% reduction was required for the year. The total of 4,547.7 acre feet of pumping for was 10% less (492.3 AF) than the reduced pumping limit of 5,040 AF for WY 2010.

For WY 2011 the pumping limit remained at 5,040 AF. The total of 4,151.5 acre feet of pumping for WY 2011 was 18% less (888.5 AF) than the reduced pumping limit of 5,040 AF.

For WY 2012 the pumping limit was reduced to 4,480 AF. The total of 3,832.9 acre feet of pumping for WY 2012 was 14% less (647.1 AF) than the reduced pumping limit of 4,480 AF.

For WY 2013 the pumping limit remained at 4,480 AF. The total of 3,895.8 acre feet of pumping for WY 2013 was 13% less (584.2 AF) than the reduced pumping limit of 4,480AF.

For WY 2014 the pumping limit remained at 4,480 AF. Pumping during the first three quarters of WY 2014 totaled 2,830.3 AF. This is 1.4 AF less than the total amount pumped during the first three quarters of 2013.

The trend in water production appears to be a continued reduction by producers yearly, with the exception of water year 2013, over the history of the Court Order toward achieving a total annual Basin production level of 3,000 AF which is considered to be the Natural Safe Yield for the Basin per the Court Order.

The Declaration of Replenishment Water Availability for Water Year 2011 stated, “The Watermaster and the City of Seaside have, however, entered into a Memorandum of Understanding for Seaside’s In-lieu Replenishment Program which may, in future water years, provide sufficient water to avoid an Operating Yield reduction.” Water Year 2014 through September 24th has seen a total of 552.4 AF accounted for by Watermaster under the In-lieu Replenishment Project. If in-lieu replenishment water in the amount of 7.6 AF is accounted for in the last four days of September, the 560-acre foot 10% triennial reduction in pumping effective October 1, 2014 could be avoided. The City of Seaside estimates 2 AF in-lieu replenishment per day for the last six days of September, 4.4 AF more than required to avoid the reduction.

ATTACHMENT:
None

ITEM NO. XI.

DIRECTOR'S REPORTS

ITEM NO. XII.

EXECUTIVE OFFICER COMMENTS