SEASIDE GROUNDWATER BASIN WATERMASTER
REGULAR BOARD MEETING AGENDA
WEDNESDAY, AUGUST 5, 2015 - 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 – Councilmember Libby Downey
City of Del Rey Oaks – Mayor Jerry Edelen
Monterey County/Monterey County Water Resources Agency – Supervisor Dave Potter, District 5

I. CALL TO ORDER

II. ROLL CALL

III. MINUTES
The minutes of the Regular Board meeting of May 6, 2015 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 May, 2015 through July 31, 2015 totaling $30,689.75. ........................................................................................................... 7
B. Consider Approving Financial Reports through July 31, 2015 ............................................................ 10
C. Consider Approval of RFS’s to HydroMetrics and Todd Groundwater for Assistance on Modeling Issues and transfer of $12,000 from the Monitoring and Management-Operations Fund Contingency Account to appropriate consultant accounts to assist in modeling with Monterey County Water Resources Agency................................................................. 13
VII. ORAL PRESENTATION
None Scheduled

VIII. NEW BUSINESS (Informational Only—Late Breaking News)

A. State Department of Water Resources undated list of critically over-drafted basins not include the Seaside Groundwater Basin……………………………………………………………………………………………………….22

IX. OLD BUSINESS

A. COMMITTEE REPORTS

1. TECHNICAL ADVISORY COMMITTEE (TAC)

a). Discussion/Take Action on Technical Advisory Committee’s recommendations from the Peer review accomplished by Todd Groundwater (Mr. Gus Yates) on HydroMetric’s WRI modeling work on Laguna Seca Subarea………………27

X. INFORMATIONAL REPORTS (No Action Required)

A. Timeline Schedule of Milestone Dates (Critical date monitoring)
B. Technical Advisory Committee (TAC) minutes from May 13th, June 10th and July 15, 2015, meetings……………………………………………………………………………………………………48

XI. DIRECTOR’S REPORTS

XII. EXECUTIVE OFFICER COMMENTS

XIII. NEXT BOARD MEETING DATE—September 2, 2015 (MRWPCA-Board Room) 2:00 PM.

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 July 31, 2015 per the Ralph M. Brown Act, Government Code Section 54954.2(a).
ITEM NO. III.

MINUTES
I. CALL TO ORDER – Chair Bruno called the meeting to order at 2:00 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 Monterey – Councilmember Libby Downey
Laguna Seca Subarea Landowner – Director Bob Costa
City of Sand City – Mayor David Pendergrass
City of Del Rey Oaks – Mayor Jerry Edelen
Monterey Peninsula Water Management District – Director Robert Brower
Monterey County/Monterey County Water Resources Agency – Supervisor Dave Potter

Absent: None

III. APPROVAL OF MINUTES
   It was moved by Mayor Pendergrass, seconded by Mayor Rubio, and unanimously carried to approve the minutes of the Watermaster Regular Meeting held December 3, 2014 with correction to the spelling of Director Downey’s first name and a change from alternate to primary representative for the City of Monterey.

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

V. PUBLIC COMMUNICATIONS
   There were no public communications.

VI. CONSENT CALENDAR
   A. Consider Approval of Summary for Payments made during the months of December, 2014 through April, 2015 totaling $108,550.22
   B. Consider Approving Fiscal Year 2014 Financial Reports through December 31, 2014 and Fiscal Year 2015 through April 30, 2015
   C. Consider Approving the Recommendation from the Technical Advisory Committee that No Further Work pertaining to Calibration of Production Well Meters be performed at this time and that the $10,000 allocated for this work in Task 1.2a.2 of the Fiscal Year Management and Monitoring Program Budget be transferred to the Contingency Line Item in that Budget so it will be available for any unbudgeted work the Board may decide to undertake during FY 2015
   D. Consider Approving the Updated Declaration of NO Replenishment Water Available for WY 2015
   E. Consider Approving the Recommendation of the Joint Meeting of the Watermaster Budget & Finance and Administrative Committees to set the Operating Yield Overproduction Assessment Amount at 25% of the Natural Safe Yield overproduction unit cost per AF, and approve the recalculation of the Replenishment Fund Assessments retroactively

   Moved by Mayor Rubio, seconded by Director Brower, and unanimously carried to approve the consent calendar as presented.
VII. ORAL PRESENTATION: None

VIII. OLD BUSINESS: None

IX. NEW BUSINESS
   A. COMMITTEE REPORTS
      1. TECHNICAL ADVISORY COMMITTEE (TAC)
         a. Peer Review of Groundwater Model and Laguna Seca Modeling Results
            Mr. Jacques gave a background of the item and introduced Mr. Gus Yates of Todd
            Groundwater who presented the draft peer review report. Mr. Yates noted that his
            suggestions for management of the Laguna Seca Subarea/El Toro boundary have been
            removed from the peer review report and will be taken up separately by the TAC. Mr.
            Yates felt the Hydrometrics model was well calibrated and the best one yet developed.
            He recommended that Watermaster use the model to assist with basin management
            measures, performing additional sensitivity tests as needed to obtain more in-depth
            understanding of basin areas.

            Moved by Mayor Rubio, seconded by Director Costa, and unanimously carried to
            accept the Peer Review Technical Memorandum prepared by Todd Groundwater,
            and authorize through an amendment to Todd Groundwater’s contract an
            additional $2,500 for out-of-scope TAC meeting presentations and basin
            management recommendations provided at the request of Watermaster.

X. INFORMATIONAL REPORTS (No Action Required)
   A. Timeline Schedule of Milestone Dates (Critical date monitoring)
   B. TAC meeting minutes from February 11, March 11, and April 15, 2015 meetings
   C. Reported Quarterly and Annual Water Production from the Seaside Groundwater Basin

XI. DIRECTORS’ REPORTS: Director Sabolsice announced that the CPUC draft EIR of the Monterey
    Peninsula Water Supply Project Desalination Plant is available for public review and comment. Mayor
    Rubio stated that while the EIR identifies the most preferred environmental option is the smaller plant,
    it may be incumbent upon Watermaster to recommend a larger plant to maximize water availability
    and economies of scale in the best interest of the public trust.

    Director Bruno noted that as of last night he is now secretary and vice president of the Carmel River
    Watershed Conservancy.

XII. EXECUTIVE OFFICER COMMENTS – Next TAC meeting will be held April 13, 2015.

XIII. NEXT MEETING DATE – The next meeting of the Watermaster board will be held June 3,
      2015 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. (Mayor
      Edelen noted that there is a FORA meeting scheduled on June 3rd also.)

XIV. There being no further business, Chair Bruno adjourned the meeting at 2:54 p.m.
ITEM NO. VI.

CONSENT CALENDAR
ITEM VI.A.
8-5-2015

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors
FROM: Dewey D Evans, CEO
DATE: August 5, 2015

SUBJECT: Summary of Payments Authorized to be paid during the months of May, June and July, 2015

PURPOSE:

To advise the Board of payments authorized to be paid during the months of May, June and July, 2015.

RECOMMENDATIONS:

Consider approving the payment of bills submitted and authorized to be paid during the months of May, June and July, 2015.

COMMENTS and FISCAL IMPACT:

MAY, 2015

DDEvans Consulting (Professional Services Agreement—CEO)—April 27, 2015 through May 25, 2015 worked on Watermaster business a total of 48.0 hours at $100.00 per hour or $4,800.00. 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 Board agenda packet for May 6, 2015 meeting and sent out related posting notice to public agencies involved and to Board packet to Board members and others as appropriate. Prepared for May 6th meeting and attended Board meeting and followed up on items discussed at meeting. Calls to Russ McGlothlin and Lori Girard regarding court imposed ramp down of water production. Prepared time log and monthly bills; which were taken to City of Seaside for payment. Received and reviewed TAC agenda items. Sent out request for Board agenda items for June Board meeting. Sent out information regarding Pure Water Monterey Groundwater Replenishment Project DEIR.

Robert “Bob” Jaques (Technical Program Manager)—April 26, 2015 through May 25, 2015 worked on Watermaster business a total of 38.0 hours at $100.00 per hour or $3,800.00. Responded to email, telephone inquiries and other correspondence on a variety of Watermaster issues. Prepared for and attended the May 6th Board meeting; prepared for and attended the May 13th TAC meeting and follow-up meetings. Prepare minutes of May 13th TAC meeting and sent out same to TAC members for comment and corrections. Received and reviewed portions of DEIR of GWRP from MRWPCA and met with MRWPCA staff regarding questions about portions of DEIR. Reviewed materials for May 12th Salinas Valley Groundwater TAC meeting at MCWRA offices in Salinas. Attended GWRP
DEIR public meeting at Oldemeyer Center in Seaside. Reviewed CalAm MPWSP DEIR; prepared review and comment letter on MPWSP DEIR.

**HydroMetrics Water Resources, Inc.**—One invoice was submitted for payment totaling **$107.50**. This invoice was for ½ hour of Derrik Williams time answering questions from Eric Robinson regarding assumptions in the El Toro pumping simulations.

**Paxton Imaging**—(Watermaster Web Site Coordinator)-- Hosting Unix Server for the months of March and April, 2015 for **$400.00**.

Total for May, 2015 **$9,107.50**

**JUNE, 2015**

**DDEvans Consulting** (Professional Services Agreement—(CEO)—May 25, 2015 through June 26, 2015 worked on Watermaster business a total of 38.0 hours at $100.00 per hour or **$3,800.00**. Responded to telephone inquiries, email, and other correspondence as needed regarding the Seaside Basin. Received and reviewed water production and water level reports. Sent draft EIR for Pure Water Groundwater Replenishment Project to Board and others as appropriate; Sent out Board’s 6/3/2015 regular meeting cancellation notice to posting agents and Board members and others as appropriate. Called and discussed TAC meeting items with Bob Jaques; received and reviewed TAC meeting minutes. Sent out water production report request to producers to remind them of the due dates; Sent out request for Board agenda items for July 1, 2015 meeting. Sent out CalAm DEIR comment letter to Board members and others; sent out 7/1/2015 Board cancellation notice to Board and others.

**Robert “Bob” Jaques** (Technical Program Manager)—May 25, 2015 through June 25, 2015 worked on Watermaster business a total of 31.25 hours at $100.00 or **$3,125.00**. Responded to email, telephone inquiries and other correspondence on a variety of Watermaster issues. Worked on TAC agenda packet; sent out and attended TAC meeting on 6/10/2015. Attended MPWSR DEIR Public Workshop in Seaside; Finalized DEIR comment letter; Prepared for and attended Salinas Valley River Model TAC meeting.

**Todd Groundwater**—Invoice was received totaling **$8,232.25**; for 26 hours of professional services in connection with groundwater modeling peer review totaling $4,855.00 and outside consultant services totaling $1,935.00; plus other outside expenses totaling $1,442.25.

Total for June, 2015 **$15,157.25**

**JULY, 2015**

**DDEvans Consulting** (Professional Services Agreement—CEO)—June 29, 2015 through July 24, 2015 worked on Watermaster business a total of 46.5 hours at $100.00 per hour or **$4,650.00**. Responded to telephone inquiries, email, and other correspondence as needed regarding the Seaside Basin. Received and reviewed water production and water level reports. Worked on calendars and monthly billings and took bills to be paid to City of Seaside. Received and reviewed TAC agenda packet and discussed same with Bob Jaques. Preparing agenda for August 5th Board meeting; discussed RFSs with Bob Jaques. Worked on Summary of Payments Board agenda item. Discussed sending out RFSs instead of holding a regular Administrative/Budget and Finance Committee meeting with Paul Bruno and Bob Jaques; sent out request for Board agenda items for August 5th Board meeting. Worked on report for Admin/Budget & Finance Committee and sent report to committee.
members instead of having a regular meeting. Worked on Board meeting packet for August 5th meeting. Sent draft agenda packet to Paul Bruno, Bob Jaques and Laura Dadiw for their review.

Robert “Bob” Jaques (Technical Program Manager)—June 23, 2015 through July 23, 2015 worked on Watermaster business a total of 18.25 hours at $100.00 or $1,825.00. Responded to email telephone inquiries and other correspondence on a variety of Watermaster issues. Worked on TAC agenda packet; sent out and attended July 15th TAC meeting. Prepared RFSs for Todd Groundwater and HydroMetrics WRI; attended Salinas River Basin TAC meeting @ MCWRA offices.

Total for July, 2015 $6,425.00

Grand Total for May 1, 2015 through July 31, 2015 $30,689.75
Seaside Groundwater Basin Watermaster

Budget vs. Actual Administrative Fund
Fiscal Year (January 1 - December 31, 2015)
Balance through July 31, 2015

<table>
<thead>
<tr>
<th>Available Balances &amp; Assessments</th>
<th>2015 Adopted Budget</th>
<th>Contract Amount</th>
<th>Year to Date Revenue / Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated Reserve</td>
<td>12,000.00</td>
<td>12,000.00</td>
<td></td>
</tr>
<tr>
<td>FY (Rollover)</td>
<td>-</td>
<td>-</td>
<td></td>
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<tr>
<td>Admin Assessments</td>
<td>95,000.00</td>
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<td><strong>Available</strong></td>
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<tr>
<th>Expenses</th>
<th>2015 Adopted Budget</th>
<th>Contract Amount</th>
<th>Year to Date Revenue / Expenses</th>
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<tr>
<td>Contract Staff</td>
<td>60,000.00</td>
<td>60,000.00</td>
<td>28,887.50</td>
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<tr>
<td>Legal Advisor</td>
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<tr>
<td><strong>Total Expenses</strong></td>
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<td><strong>60,000.00</strong></td>
<td><strong>28,887.50</strong></td>
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<tr>
<td><strong>Total Available</strong></td>
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<tr>
<td><strong>Dedicated Reserve</strong></td>
<td>22,000.00</td>
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<tr>
<td><strong>Net Available</strong></td>
<td>-</td>
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</tbody>
</table>
### Seaside Groundwater Basin Watermaster

**Budget vs. Actual Monitoring & Management - Operations Fund**

**Fiscal Year (January 1 - December 31, 2015)**

**Balance through July 31, 2015**

#### Available Balances & Assessments

<table>
<thead>
<tr>
<th></th>
<th>2015 Adopted Budget</th>
<th>Contract Encumbrance</th>
<th>Year to Date Revenue/Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Fund Assessment</td>
<td>$233,454.00</td>
<td>$-</td>
<td>$233,454.00</td>
</tr>
<tr>
<td>FY 2014 Rollover</td>
<td>$198,767.00</td>
<td>$-</td>
<td>$198,767.00</td>
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<tr>
<td><strong>Total Available</strong></td>
<td>$432,221.00</td>
<td>$-</td>
<td>$432,221.00</td>
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</tbody>
</table>

#### Appropriations & Expenses

**GENERAL**

<table>
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<tr>
<th></th>
<th>2015 Adopted Budget</th>
<th>Contract Encumbrance</th>
<th>Year to Date Revenue/Expenses</th>
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<tbody>
<tr>
<td>Technical Project Manager</td>
<td>$60,000.00</td>
<td>$60,000.00</td>
<td>$20,900.00</td>
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<tr>
<td>Contingency @ 20% (not including TPM )</td>
<td>$52,242.00</td>
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<td>$-</td>
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<td><strong>Total General</strong></td>
<td>$112,242.00</td>
<td>$60,000.00</td>
<td>$20,900.00</td>
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**CONSULTANTS (Hydrometrics; Web Site Database)**

<table>
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<tr>
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<th>2015 Adopted Budget</th>
<th>Contract Encumbrance</th>
<th>Year to Date Revenue/Expenses</th>
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<tbody>
<tr>
<td>Program Administration</td>
<td>$10,100.00</td>
<td>$11,600.00</td>
<td>$2,768.75</td>
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<tr>
<td>Production/Lvl/Qty Monitoring</td>
<td>$3,900.00</td>
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<td>$-</td>
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<tr>
<td>Basin Management Action Plan</td>
<td>$85,000.00</td>
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<td>$-</td>
</tr>
<tr>
<td>Seawater Intrusion Analysis Report</td>
<td>$25,750.00</td>
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<td>$-</td>
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<td><strong>Total Consultants</strong></td>
<td>$124,750.00</td>
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**MPWMD**

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<th>2015 Adopted Budget</th>
<th>Contract Encumbrance</th>
<th>Year to Date Revenue/Expenses</th>
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<tbody>
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<td>Production/Lvl/Qty Monitoring</td>
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<tr>
<td>Basin Management</td>
<td>$2,928.00</td>
<td>$2,928.00</td>
<td>$-</td>
</tr>
<tr>
<td>Seawater Intrusion</td>
<td>$2,928.00</td>
<td>$2,928.00</td>
<td>$-</td>
</tr>
<tr>
<td>Direct Costs</td>
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<td>$-</td>
<td>$-</td>
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<tr>
<td><strong>Total MPWMD</strong></td>
<td>$76,462.00</td>
<td>$76,462.00</td>
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<table>
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<tbody>
<tr>
<td>Reserve</td>
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</tr>
<tr>
<td>Transfer Out to Capital Fund</td>
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<td>-</td>
<td>-</td>
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<table>
<thead>
<tr>
<th><strong>Total Appropriations &amp; Expenses</strong></th>
<th>2015 Adopted Budget</th>
<th>Contract Encumbrance</th>
<th>Year to Date Revenue/Expenses</th>
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<tbody>
<tr>
<td></td>
<td>$313,454.00</td>
<td>$173,812.00</td>
<td>$23,668.75</td>
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</table>

| **Total Available**               | 118,767.00           | 408,552.25           |                             |

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Footnote 1: The $4,788 contract with MPWMD for data collection services consists of pass through expenditures paid by producers and is not budgeted. For 2015 -- $1,332.00 -- has been collected from Sand City with three other producers yet to pay, and MPWMD has not yet invoiced for services rendered in 2015.
## Seaside Groundwater Basin Watermaster

### Replenishment Fund

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

**Balance through July 31, 2015**

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>Assessments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($1,132 / $283)</td>
<td>$2,702</td>
<td>$2,702</td>
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<tr>
<td>Cal-Am Water Balance Forward</td>
<td></td>
<td></td>
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<td></td>
<td>$2,106,652</td>
<td>(3,739,325)</td>
<td>(3,739,325)</td>
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<tr>
<td>Cal-Am Water Production</td>
<td>3710.0 AF</td>
<td>4095.9 AF</td>
<td>3962.9 AF</td>
<td>3713.5 AF</td>
<td>3416.0 AF</td>
<td>3070.9 AF</td>
<td>3076.6 AF</td>
<td>3232.1 AF</td>
<td></td>
<td>$1,132 / $283</td>
<td>$2,702</td>
<td>$2,702</td>
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<tr>
<td>Exceeding Natural Safe Yield</td>
<td>-</td>
<td>20,235</td>
<td>8,511</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$2,280,943</td>
<td>$2,380,842</td>
<td>$2,790,539</td>
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<tr>
<td>Operating Yield Overproduction</td>
<td>-</td>
<td>20,235</td>
<td>8,511</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$154,963</td>
<td>$28,397,712</td>
<td>1,700,000</td>
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<tr>
<td>CAW Credit Against Assessment</td>
<td>(465,648)</td>
<td>(12,305,924)</td>
<td>$3,741,714</td>
<td>(5,095,213)</td>
<td>(5,425,799)</td>
<td>(5,111,413)</td>
<td>-</td>
<td>-</td>
<td>(32,145,711)</td>
<td>(5,000,000)</td>
<td>(37,145,711)</td>
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<tr>
<td>Total City of Seaside Balance Forward</td>
<td>$1,641,004</td>
<td>$4,226,710</td>
<td>(2,871,690)</td>
<td>(2,839,939)</td>
<td>(3,822,129)</td>
<td>(6,060,164)</td>
<td>(6,735,671)</td>
<td>(6,173,771)</td>
<td>(3,102,221)</td>
<td>(5,702,221)</td>
<td>(5,702,221)</td>
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<tr>
<td>Total Golf Courses</td>
<td>232,310</td>
<td>426,165</td>
<td>1,024,272</td>
<td>1,619,973</td>
<td>891,509</td>
<td>(110,014)</td>
<td>(773,813)</td>
<td>(1,575,876)</td>
<td>(2,889,325)</td>
<td>(5,000,000)</td>
<td>(37,145,711)</td>
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</tr>
<tr>
<td>Exceeding Natural Safe Yield - Alternative Producer</td>
<td>219,689</td>
<td>174,082</td>
<td>402,540</td>
<td>465,300</td>
<td>314,721</td>
<td>141,335</td>
<td>163,509</td>
<td>236,782</td>
<td>142,410</td>
<td>$2,349,946</td>
<td>$2,106,652</td>
<td>$2,585,706</td>
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<tr>
<td>Operating Yield Overproduction</td>
<td>12,622</td>
<td>85</td>
<td>4,225</td>
<td>16,522</td>
<td>20,690</td>
<td>-</td>
<td>1,689</td>
<td>27,007</td>
<td>3,222</td>
<td>86,061</td>
<td>86,061</td>
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<tr>
<td>Total Municipal</td>
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<td>145,631</td>
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<td>Exceeding Natural Safe Yield - Alternative Producer</td>
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<td>(1,142,858)</td>
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<td>Total Replenishment Fund Balance</td>
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<td>$4,652,874</td>
<td>(1,847,417)</td>
<td>(1,219,966)</td>
<td>(2,930,710)</td>
<td>(6,170,178)</td>
<td>(9,509,483)</td>
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<td>(5,991,546)</td>
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<td>(9,441,546)</td>
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### CITY VI.B.

**Projected Totals WY 2015**

| Replenishment Fund Balance Forward | $1,884,298 | $4,652,874 | (1,847,417) | (1,219,966) | (2,930,710) | (6,170,178) | (9,509,483) | (7,749,648) | (5,991,546) | (9,441,546) |
| Total Replenishment Assessments | 2,349,946 | 2,768,576 | 5,805,632 | 4,369,165 | 4,484,082 | 3,329,189 | 2,601,104 | 2,825,689 | 3,217,182 | 31,730,564 |
| Total Paid and/or Credited | 465,648 | - | (12,305,924) | (3,741,714) | (6,170,178) | (6,568,657) | (5,940,409) | (1,065,852) | (37,722,110) | (6,000,000) |
| Grand Total Fund Balance | $1,884,298 | $4,652,874 | (1,847,417) | (1,219,966) | (2,930,710) | (6,170,178) | (9,509,483) | (7,749,648) | (5,991,546) | (9,441,546) | (9,441,546) |
TO: Board of Directors

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

DATE: August 5, 2015

SUBJECT: Retaining HydroMetrics and Todd Groundwater on an As-Needed/On-Call Basis for Assistance with Groundwater Modeling Issues

RECOMMENDATIONS:
Approve RFS No. No. 2015-03 with HydroMetrics in the amount of $6,000 and RFS No. 2015-01 with Todd Groundwater in the amount of $6,000.

BACKGROUND:
Contracts have been issued to HydroMetrics to perform groundwater modeling of the Seaside Basin, with a specific recent focus on modeling of the Laguna Seca Subarea. This work has raised a number of issues and questions pertaining to how best to manage this part of the Seaside Basin to prevent groundwater levels from continuing to fall.

A contract was issued to Todd Groundwater to perform a Peer Review of the recent modeling work performed by HydroMetrics. The peer review shed additional light on trans-boundary pumping effects in the Laguna Seca subarea. Todd Groundwater also provided a list of possible management actions the Watermaster Board could take to address these issues.

In May 2015 the Monterey County Resource Management Agency convened its own Technical Advisory Committee to develop a new Salinas River Basin model, and asked for the Watermaster to join their TAC for this work. This group has met twice now and it is apparent that their consultant, Brown and Caldwell, will be asking for information regarding the Watermaster’s model of the Seaside Basin to ensure that the Salinas River Basin model coordinates properly with the Watermaster’s model.

DISCUSSION
Some of the Basin management options the Board may wish to pursue would involve coordination with the agency(s) responsible for groundwater management in the basins adjacent to the Laguna Seca Subarea. Monterey County Water Resources Agency (MCWRA) appears to be the logical candidate to become the Groundwater Sustainability Agency (as required under the State’s recently adopted Sustainable Groundwater Management Act) for the areas adjoining the Seaside Basin. Coordinating with MCWRA to seek mutually acceptable means of stabilizing groundwater levels in this area would be beneficial to the Watermaster as well as the County.
It is recommended that the Watermaster engage HydroMetrics on an as-requested basis to assist with this work in order to maximize the benefit of both the existing modeling work the Watermaster has performed, and the new modeling work that the County is about to perform. The attached RFS No. 2015-03 with HydroMetrics would provide the necessary authorization to accomplish this.

It is also anticipated that the Watermaster Board may wish to perform further analyses and evaluations pertaining to modeling in the Laguna Seca Subarea, modeling of the Seaside Basin as a whole, and/or the County’s Salinas River Basin Model Development work. In conjunction with such work it would be helpful to have Mr. Gus Yates of Todd Groundwater available to provide assistance to the Watermaster’s TAC on an as-requested basis. The attached RFS No. 2015-01 with Todd Groundwater would provide the necessary authorization to accomplish this.

**FISCAL IMPACTS**
The work proposed under the two attached RFSs was not anticipated and therefore not included in the Watermaster’s 2015 Budget. However, none of the Contingency line item in the Management and Monitoring Program (M&MP) Budget, in the amount of $42,242, has been utilized to date and this amount was increased by $10,000 in May when it was determined that some of the other budgeted work would not be necessary. Therefore, there are ample funds available in Contingency to cover the costs of the two RFSs with no Budget increase. Also, both RFSs are for as-requested work, so only the cost of the work deemed necessary will be incurred.

**ATTACHMENTS**
HydroMetrics RFS No. 2015-03 and Todd Groundwater RFS No. 2015-01
SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: ______ August 6, 2015 ________

RFS NO. 2015-03 ________
(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.

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

Total Price Authorized by this RFS: $_____ 6,000.00 ____ (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by: __________________________________________ Date: ____________.
WATERMASTER Technical Program Manager

Authorized by: ______________________________________ Date: ____________.
WATERMASTER Chief Executive Officer

Agreed to by: ______________________________________ Date: ____________.
PROFESSIONAL
ATTACHMENT 1

Scope of Work

On an ongoing and as-requested basis, PROFESSIONAL will provide hydrogeologic consulting services to WATERMASTER on groundwater modeling and related topics in support of WATERMASTER’s participation in Monterey County’s Salinas River Basin Model Development work. These may include, but not be limited to, responding to questions regarding the Seaside Basin Model that PROFESSIONAL has prepared for WATERMASTER, assisting WATERMASTER in the use of this model, and other related activities.

Providing these services may involve attending certain of WATERMASTER’s Technical Advisory Committee (TAC) meetings, and/or the Salinas River Basin Model Development TAC meetings, some of which may be attended telephonically.

Estimated Costs

Consulting services provided under this RFS No. 2015-03, including attending meetings either via telephone or in-person 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 the estimated cost of this RFS to cover travel and other incidental costs associated with the performance of this work.

The total cost authorized by this RFS No. 2015-03 is $6,000.00.
DATE: August 6, 2015

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

TO: Gus Yates
Todd Groundwater
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.

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

Total Price Authorized by this RFS: $6,000.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by: WATERMASTER Technical Program Manager

Authorized by: WATERMASTER Chief Executive Officer

Agreed to by: PROFESSIONAL

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ATTACHMENT 1

Scope of Work

On an ongoing and as-requested basis, Mr. Gus Yates, a Senior Hydrologist on PROFESSIONAL’s staff, will provide hydrogeologic consulting services to WATERMASTER on groundwater modeling and related topics. These may include, but not be limited to, responding to questions regarding the Seaside Basin Model that HydroMetrics WRI has prepared for WATERMASTER, assisting in the interpretation of modeling results, and other related activities.

Providing these services may involve attending certain of WATERMASTER’s Technical Advisory Committee (TAC) meetings, some of which may be attended telephonically.

Estimated Costs

Consulting services provided under this RFS No. 2015-01, including attending meetings either via telephone or in-person as requested by WATERMASTER, will be billed at the following hourly rates, including all markups and other direct costs:

Gus Yates = $195.00/hour

In addition to hourly labor costs, an allowance of $1,000.00 is included in the estimated cost of 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 $6,000.00.
ITEM. VIII.

NEW BUSINESS
TO: Board of Directors

FROM: Laura Dadiw, Assistant to the CEO

REVIEWED AND APPROVED BY: Dewey D. Evans, Watermaster CEO

DATE: August 5, 2015

SUBJECT: State Department of Water Resources updated list of critically over-drafted basins not to include the Seaside Groundwater Basin (Basin)

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RECOMMENDATIONS:
No recommendation, this item is informational only.

BACKGROUND:
Only July 27, 2015 an email was received by the Watermaster office from Dane Mathis, Senior Engineering Geologist from the State Department of Water Resources regarding critically over-drafted groundwater basins. Pertinent excerpts of that email are:

- Pursuant to SGMA, DWR is required to identify basins subject to critical conditions of overdraft. [Water Code 12924].

- By January 31, 2020, all B118 basins designated as high- or medium-priority and subject to critical conditions of overdraft (COD) shall be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans. [Water Code 10720.7. (a) (1)]

- DWR has identified additional basins that show obvious and significant undesirable results from chronic pumping of the aquifer – including seawater intrusion, subsidence, groundwater depletion, and chronic drop in groundwater levels for conditions that occurred or evident outside of drought conditions.

- DWR will present the draft list of critically over-drafted basins to the California Water Commission (CWC) at the August 19 meeting and will release the list to the public after the meeting. DWR will hold a public meeting in late August to release the draft results, explain the process, and solicit public comment. (The date has not been set yet.)

If your agency does not agree that the identified basin(s) is critically over-drafted, there is opportunity to challenge DWR’s draft determinations and provide compelling data and information that demonstrates otherwise. Please submit this information in the next couple of weeks so DWR can review it and evaluate if reconsidering the draft determination is warranted.
Dewey spoke with Mr. Mathis on the phone the day after receiving the email. He was under the impression that the Seaside Basin had been just adjudicated and was not aware that it had been adjudicated since March of 2006. Dewey directed Mr. Mathis to the Seaside Groundwater Basin Watermaster website at seasidebasinwatermaster.org to view past annual reports to Court from 2006 – 2014 that each provide compelling data and information that the Basin is not subject to critical conditions of overdraft.

On July 30, 2015, the following email was received from Mr. Mathis:

Hi Dewey-

Sorry I missed your call. DWR does not require any letter from you. Based on our conversation and recent review of the available technical data on the water master website, the Seaside subbasin will not be part of the draft list of basins subject to conditions of overdraft.

I appreciate your time and willingness to discuss the issue with me.

Please let me know if you have any questions or need anything further from me.

Thank you,
Dane
ITEM NO. IX.

OLD BUSINESS
ITEM IX.A.

COMMITTEE REPORTS
ITEM NO. IX.A.1.a).

TECHNICAL ADVISORY COMMITTEE (TAC)
TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

REVIEW, MODIFIED AND APPROVED BY: Dewey D Evans, CEO

DATE: August 5, 2015

SUBJECT: Discussion/Take Action on Technical Advisory Committee’s Recommendations from the Peer Review Accomplished by Todd Groundwater on HydroMetric’s WRI Modeling Work on the Laguna Seca Subarea.

RECOMMENDATIONS:

1. Focus the Watermaster’s efforts on addressing the overdrafting problem in the Laguna Seca Subarea (LSSA), rather than trying to come up with a universally acceptable Natural Safe Yield value for the LSSA.

2. Focus efforts on protection of production wells, but keep monitoring wells operational to provide data that will be useful in future modeling work.

3. Perform modeling to determine if any of the LSSA wells are located east of the flow divide that hydrogeologically forms the boundary between the LSSA and the El Toro area.

4. Perform modeling to evaluate the benefits of redistributing pumping by installing one or more recovery well systems.

5. Evaluate irrigation and water use management practices to determine if water demand could be reduced in the Laguna Seca Subarea, not just by the golf courses but for all types of uses.

6. Determine whether or not to seek capacity increases in the Monterey Peninsula Water Supply Project and/or the Groundwater Replenishment Project in order to provide additional water that could be imported to help supply the LSSA.

7. Monitor the development of the Sustainability Agency for the Salinas Valley Basin and the State Department of Water Resource’s development of regulations pertaining to requesting boundary revisions, and collaborate with these entities to address the problem of falling water levels in the LSSA.

BACKGROUND:

Earlier this year the Board retained an attorney (Mr. Russ McGlothlin) to prepare documents to file with the Court regarding several issues, one of which was to update the Court concerning the HydroMetrics modeling results and findings concerning the Laguna Seca Subarea (LSSA), and the Watermaster’s intended work plan to address long-term water reliability for the subbasin.

At the May 6, 2015 Board meeting Mr. Yates of Todd Groundwater presented his Peer Review Report regarding the LSSA modeling work performed by HydroMetrics. The Board accepted the report as having been very well prepared and satisfying the Board’s expectations for the peer review. Since then the TAC has discussed what types of Basin management actions the Board could consider taking with regard to the findings of this modeling work.
The TAC initially discussed several specific technical issues pertaining to this topic, and then discussed a number of possible approaches the Watermaster could take to address groundwater overdraft in the Laguna Seca Subarea as described in the attached *Groundwater Management Options and Recommendations for the Laguna Seca-El Toro Region* prepared by Mr. Yates. HydroMetrics was asked to provide their comments on these approaches and their response is attached. The HydroMetrics comments largely concur with the TAC’s conclusions regarding the approaches suggested by Todd Groundwater, but do add some additional considerations.

**DISCUSSION**

The following is a synopsis of the topics the TAC discussed and the TAC’s conclusions and recommendations on each of them. A more complete description is contained in Attachment 1.

**Specific Technical Issues**

**Issue:** What Natural Safe Yield (NSY) value should be used for the LSSA?

* TAC Conclusions: There was consensus that it would probably not be possible to reach agreement among all parties on a specific number to use for the NSY of the LSSA, and that regardless of what number is picked, water is flowing out of the Laguna Seca subarea and into the El Toro subarea. Efforts should focus on addressing that problem rather than seeking a universally acceptable NSY value for the LSSA.

**Issue:** Should the work plan address issues pertaining to monitoring wells as well as production wells, or should it only address issues pertaining to production wells?

* TAC Conclusions: The Watermaster should focus its efforts on protecting production wells, but should keep monitoring wells operational to provide data that can be used for future model runs.

**Issue:** Would it be useful to run the Model further out into the future with no California American Water (CAW) LSSA pumping to (1) see if all the other LSSA production wells will finally achieve stabilized groundwater levels at their projected pumping rates and/or (2) determine if it would be feasible to lower the pump and/or casing perforations, if necessary, in order to enable the wells to continue to serve as operational production wells to meet the water demands of these producers?

* TAC Conclusions: It would not be desirable to do this at this time with the existing model configuration, as it would not properly capture climate change impacts and therefore potentially give false conclusions. However, it might be worth looking into these things if climate change impacts were input into the model.

**Issue:** What would be the best way of determining more accurately the location of the southeastern boundary of the Seaside Groundwater Basin?

* TAC Conclusions: One of the first steps in pursuing work on this Issue would be to use the Model to try to establish where the flow divide between the LSSA and the El Toro Subarea is located. This information could then be used to determine if any of the LSSA wells are located east of that flow divide.
Management Option: Redistribute Pumping
Recovery wells could be installed near three of the LSSA’s boundaries to intercept and capture water to prevent it from flowing out of the LSSA. Under this Option pipelines would need to be installed to convey that water back to locations within the LSSA where this captured water would be used by producers who would then be able to reduce their pumping by an equivalent amount.

TAC Conclusions: This approach merits evaluation, even though it would not by itself solve the overdraft problem if pumping outside the LSSA’s boundaries continues at its historical rates.

Management Option: Reduce Water Demand
Much of the water pumped from the LSSA is used for golf course irrigation. It might be possible to reduce the water demand of the golf courses by reducing the amount of turf area that is irrigated.

TAC Conclusions: The TAC recommended evaluating irrigation and water use management practices to determine if water demand could be reduced in the Laguna Seca Subarea, not just for the golf courses but for all types of use. This evaluation would be done by Watermaster staff and presented to the TAC for its review in order for the TAC to develop its recommendations to the Board at a future meeting.

Management Option: Change the Laguna Seca-El Toro Boundary Location
The Adjudication Decision’s eastern boundary of the LSSA does not accurately portray the actual current boundary. Efforts could be undertaken to better define the boundary location and seek to have it changed.

TAC Conclusions: This Option (1) would require reopening the adjudication and (2) would not permanently eliminate the fundamental problem of basin boundaries defined by flow divides, rather than structural geological features. This means that future changes in pumping rates near the new basin boundaries would likely result in similar problems of trans-boundary flow. For these reasons the TAC recommends against pursuing this Option at this time.

Management Option: Import Water to the Laguna Seca Subarea
If the capacity of CAW’s Monterey Peninsula Water Supply Project and/or the MRWPCA-MPWMD Groundwater Replenishment Project were increased in size, these projects could potentially provide additional water that could be imported to help supply the LSSA.

TAC Conclusions: The TAC felt that whether or not to pursue this Option is a policy decision for the Board to make. However, from a technical perspective the TAC believes that pursuing a change in the size or configuration of the currently-defined water projects would likely lead to delays in completing these projects.

Management Option: Use the Sustainable Groundwater Management Act of 2014 (SGMA) as a Means of Managing Areas Outside of the Seaside Basin’s Boundaries
The SGMA requires that all groundwater basins be sustainably managed, and presents a new vehicle for managing groundwater in adjacent parts of the Salinas Valley Groundwater Basin to prevent external pumplers from adversely affecting groundwater levels within the Seaside Basin.

TAC Conclusions: It is likely that the Salinas Valley Groundwater Basin will be managed by a new Joint Powers Authority that will serve as the Sustainability Agency for the Salinas Basin, and which is yet to be formed. The TAC recommends that the Watermaster monitor the development of the Sustainability Agency and the State Department of Water Resource's development of
regulations pertaining to requesting boundary revisions, with the intent to collaborate with these entities as appropriate. DWR is scheduled to promulgate these regulations in January 2016, and to update its basin boundary maps by January 2017. This offers a window of opportunity to pursue a boundary revision, if that is found to be desirable by the Watermaster.

ATTACHMENTS
1. Description of TAC discussion topics and conclusions.
Description of TAC Discussion Topics and Conclusions

Specific Technical Issues

The following are the specific technical issues the TAC discussed and the TAC’s conclusions/recommendations on each of them:

**Issue 1**: The LSSA Natural Safe Yield (NSY) values that are reported in the Yates 2002, CH2M 2004, and HydroMetrics 2014 and reports are as follows:

**Yates 2002 Report**: This Report estimated the LSSA NSY to be 400 AFY. However, that estimate included an assumed pumping rate of 1,000 AFY from the LSSA. The WY 2007 Production Report showed that only 961 AF was pumped from the LSSA in that year. The WY 2013 and 2014 Production Reports show that only 912 and 920 AF, respectively, was pumped from the LSSA in those years. The continuing decline in water levels with even these lower pumping levels than were assumed in the Yates 2002 Report suggest that the NSY may be less than was estimated when that Report was prepared.

**CH2M 2004 Report**: This Report did not break out the individual subarea NSYs, and only provided a total-Basin estimated NSY of 3,400 to 3,500 AFY. No estimate of the LSSA NSY was provided in that Report. However, if the area of the LSSA as a fraction of the area of the total-Basin was used to approximate the portion of the total-Basin NSY attributable to the LSSA, the estimated LSSA NSY would be approximately 600 AFY. Again, that Report did not contain that calculation and did not provide an estimate of the LSSA NSY.

**HydroMetrics Technical Memo on the Results of Laguna Seca Safe Yield Analysis (July 28, 2014)**: One of the conclusions of this report was that the estimated average annual natural safe yield for the LSSA was 240 acre feet per year.

**Question**: With differing NSY estimates contained in these earlier reports, the Decision itself (which states that the NSY for the LSSA is 608 AFY), and the more recent work by HydroMetrics, what approach should be taken to reach consensus with all affected parties on what NSY should be used for the LSSA?

**TAC Conclusions**: There was consensus that it would probably not be possible to reach agreement among all parties on a specific number to use for the NSY of the LSSA. There was also consensus that regardless of what number is picked, water is flowing from the Northern Inland Subarea into the Laguna Seca subarea and then into the El Toro subarea, and that efforts should focus on addressing that problem rather than seeking a universally acceptable NSY value for the LSSA.

**Issue 2**: While stopping all pumping from the LSSA is unrealistic, if all LSSA pumping were stopped by 2018 (one of the Scenarios evaluated in the HydroMetrics modeling work) only the eastern LSSA wells FO-6 Shallow and Deep would continue to experience falling water levels. Both of these wells are monitoring wells not production wells.

**Question**: Should the work plan address issues pertaining to monitoring wells as well as production wells, or should it only address issues pertaining to production wells?

**TAC Conclusions**: The FO-6 wells are probably on the eastern side of the flow divide between the Laguna Seca subarea and the El Toro subarea, and it is therefore not possible to keep Laguna Seca water levels from falling simply by ceasing LSSA area pumping. There was consensus for the Watermaster to focus its efforts on protecting production wells, but to at the same time keep monitoring wells operational to provide data that can be used for future model runs.
**Issue 3:** With no planned California American Water (CAW) pumping from the LSSA once the regional desalination project goes online, the rate of decline in LSSA groundwater levels will decrease considerably, as described in the HydroMetrics Tech Memo.

**Question:** Would it be useful to run the Model further out into the future (beyond 2041 where it currently ends) for the Baseline scenario with no CAW LSSA pumping to see if all the other LSSA production wells will finally achieve stabilized groundwater levels at their projected pumping rates?

**TAC Conclusions:** It would not be desirable at this time with the existing model configuration to pursue the described work, as it would not properly capture climate change impacts and therefore potentially give false conclusions. However, it might be worth looking into these things if climate change impacts were input into the model.

**Issue 4:** If the modeling described under Issue 3 finds that groundwater levels stabilize, the stabilized groundwater levels might or might not be within the water-bearing thickness of the aquifer from which these wells are pumping.

**Question:** Would it be useful to determine the depth of the bottom of the aquifer at the location of each LSSA production well in order to determine if it would be feasible to lower the pump and/or casing perforations, if necessary, in order to enable the wells to continue to serve as operational production wells to meet the water demands of these producers?

**TAC Conclusions:** It would not be desirable at this time with the existing model configuration to pursue the described work, as it would not properly capture climate change impacts and therefore potentially give false conclusions. However, it might be worth looking into these things if climate change impacts were input into the model.

**Issue 5:** The Board at some point may conclude that the southeastern boundary of the Seaside Groundwater Basin is incorrectly shown in the Decision, and that the boundary in fact is either further to the east or further to the west.

**Question:** What would be the best way of determining more accurately the location of the southeastern boundary of the Seaside Groundwater Basin? What additional information would be needed to be able to do this?

**TAC Conclusions:** One of the first steps in pursuing work on this Issue would be to use the Model to try to establish where the flow divide between the LSSA and the El Toro Subarea is located. This information could then be used to confirm or refute the hypothesis that well FO-6 is located east of that flow divide. In addition the Watermaster should pursue discussions with other agencies to look at existing basin boundaries and determine how adjacent basin managers can agree to work together to resolve issues that impact both basins. In other words, rather than looking at moving the basin boundaries, it might be better to look at ways to address impacts caused by factors outside of existing basin boundaries.

*Groundwater Management Options and Recommendations for the Laguna Seca-El Toro Region*

The following are the management options/recommendations suggested by Todd Groundwater that the TAC discussed, and the TAC’s conclusions/recommendations on each of them:
Management Option No. 1: Redistribute Pumping

To prevent water from flowing out of the LSSA and into the Southern Coastal Subarea, the LSSA could retain some of its local yield by installing recovery wells near the three outflow boundaries to intercept and capture any increases in outflow that would occur as a result of reducing pumping within the LSSA. Reducing pumping within the LSSA would raise groundwater levels there, thus causing more water to flow out of the LSSA and into adjacent subareas. Under this Option pipelines would need to be installed to convey that water back to the locations where pumping was decreased. This concept would involve installing new municipal wells in up to three locations and constructing pipelines several miles in length from each location back to the east-central part of the subarea. It might be possible to use the Ryan Ranch water system to convey water from the Southern Coastal outflow boundary part of the way toward the eastern half of the Laguna Seca Subarea.

TAC Conclusions: The captured water could either be used directly or injected back into the aquifer underlying the LSSA. Presumably the captured water would be used directly to serve existing customers who would stop or reduce pumping from their wells, as this would avoid the cost of having to construct injection wells to put the captured water back into the aquifer. If new recovery wells were installed as part of a project to allow pumping to be redistributed within the LSSA, this project would also need to include piping to deliver the captured water to the well owners that would stop or reduce their pumping by an equivalent amount.

Management Option No. 2: Continue Pumping from Ryan Ranch Wells

This would be another way of redistributing pumping as described above under Management Option No. 1. CAW plans to discontinue pumping from its wells in the Ryan Ranch development in the western half of the LSSA. However, since groundwater flow in this area is toward the Southern Coastal Subarea, eliminating production from the Ryan Ranch wells would simply increase the rate of outflow from the LSSA. It might be desirable to continue using the Ryan Ranch wells and to convey the water pumped from these wells to users in the central and/or eastern portions of the LSSA. This Option would need to include piping to deliver the captured water to those well owners who would stop or reduce their pumping by an equivalent amount.

TAC Conclusions: The existing Cal Am Ryan Ranch wells are low-producers, and also have poor water quality, due to the hydrogeologic structure of the basin in the area where they are located. Rather than keeping these wells in service to intercept water that would otherwise flow westward and into the Southern Coastal Subarea, it would be more effective to install new wells in other locations that would more effectively capture that water so it could be returned for use by well owners in the Laguna Seca Subarea as part of a pumping redistribution project.

Management Option No. 3: Reduce Water Demand

Locally-produced recycled water is used to irrigate one of the two golf courses located within the LSSA, but the recycled water supply is less than the golf course irrigation demand. Therefore, much of the water pumped from the LSSA is used for golf course irrigation. It might be possible to reduce the water demand of the golf courses by reducing the amount of turf area that is irrigated.

TAC Conclusions: There was considerable TAC discussion of this Option, with some members feeling that the golf courses had already taken all reasonable steps to reduce their irrigation demand and other members feeling that they would like more information before drawing any conclusions. On a split vote the TAC recommended evaluating irrigation and water use management practices to determine if water demand could be reduced in the Laguna Seca Subarea,
not just for the golf courses but for all types of use. This evaluation would be done by Watermaster staff and presented to the TAC for its review in order for the TAC to develop its recommendations to the Board at a future meeting.

**Management Option No. 4: Change the Laguna Seca-El Toro Boundary Location**

This Option would require reopening the adjudication and relocating the easterly boundary of the Seaside Basin to more accurately reflect its true location, rather than the location established by the Adjudication Decision. If the new location were further east than it currently is, it would result in bringing El Toro area pumpers into the Seaside Basin and under the Watermaster’s management program. If the new location was further west than it currently is the El Toro area pumpers would remain outside of the adjudication area.

**TAC Conclusions:** This Option (1) would require reopening the adjudication and potentially bringing El Toro pumpers into the Seaside Basin, which could prove to be a risky, slow and expensive process, and (2) would not permanently eliminate the fundamental problem of basin boundaries defined by flow divides, meaning that future changes in pumping near the new basin boundaries would likely result in similar problems of trans-boundary flow. For these reasons the TAC recommends against pursuing this Option at this time.

**Management Option No. 5: Import Water to the Laguna Seca Subarea**

If the capacity of CAW’s Monterey Peninsula Water Supply Project and/or the MRWPCA-MPWD Groundwater Replenishment Project were increased in size, these projects could potentially provide additional water that could be imported to help supply the LSSA.

**TAC Conclusions:** There are still many hurdles that need to be crossed to implement these currently-defined water projects. Seeking a change in project sizes to provide additional water for the LSSA at this point could be a cause for project delay. The TAC felt that whether or not to pursue this Option is a policy decision for the Board to make. However, from a technical perspective the TAC believes that pursuing a change in the size or configuration of the currently-defined water projects (MPWSP or the GWRP) would likely lead to delays in completing these projects.

**Management Option No. 6: Use SGMA as a Means of Managing Areas outside the Basin**

The Sustainable Groundwater Management Act (SGMA) of 2014 requires that all groundwater basins be sustainably managed, which means that overdraft is eliminated. The SGMA represents a new vehicle for managing groundwater in adjacent parts of the Salinas Valley Groundwater Basin, or more specifically, to prevent external pumpers from adversely affecting groundwater levels within the Seaside Basin. Application of SGMA to the situation in Seaside is complicated by two factors: adjudication and basin boundaries.

**TAC Conclusions:** It is likely that the Salinas Valley Groundwater Basin will be managed by a new Joint Powers Authority yet to be formed, rather than by Monterey County Water Resources Agency. The TAC recommends that the Watermaster monitor the development of the Sustainability Agency for the Salinas Basin and for the areas around the Seaside Basin, and the State Department of Water Resource's development of regulations pertaining to requesting boundary revisions, with the intent to collaborate with these entities as appropriate. DWR is supposed to promulgate these regulations in January 2016.
MEMORANDUM

To: Bob Jaques, Seaside Basin Watermaster Technical Program Manager
From: Gus Yates, Senior Hydrologist, Todd Groundwater
Re: Groundwater Management Options and Recommendations for the Laguna Seca-El Toro Region

I recently completed a peer review of groundwater modeling studies of the Seaside Basin. During that process I became aware that the Watermaster Board would welcome input on groundwater management options for the Laguna Seca Subarea in light of the effect that nearby pumping outside the basin appears to have on groundwater levels and yield within the basin. The basin boundary assumed for the purpose of adjudication is not actually a physical boundary within the groundwater flow system. The Paso Robles and Santa Margarita Aquifers continue uninterruptedly from the Laguna Seca Subarea into the El Toro Subarea. This memorandum describes my thoughts and recommendations regarding management of groundwater in the Laguna Seca and El Toro areas.

Unlike the Coastal Subareas, the Laguna Seca Subarea will not benefit from proposed projects that would import water to the Seaside Basin. The Seaside Basin Groundwater Replenishment Project (GWR Project) will import highly-treated recycled water from the MRWPCA and inject the water into the Seaside Basin near the eastern border of the Northern Coastal Subarea. The Monterey Peninsula Water Supply Project (MPWSP) would import water from a seawater desalination facility to be constructed near Marina. The water would be introduced directly into water distribution systems operated by California American Water Company (Cal-Am). Both projects are in active stages of design, permitting and environmental compliance. Together, the projects are expected to balance groundwater supply and demand in the coastal subbasins, but neither project would supply additional water to the eastern half of the Laguna Seca Subarea, where chronically declining water levels are a problem. Although Cal-Am plans to discontinue producing groundwater from the Laguna Seca Subarea, simulations by HMWRI (2014b) indicate that pumping by the remaining users (“alternative producers”) would still exceed the operational yield.

Possible solutions to groundwater overdraft in the Laguna Seca Subarea are described below at a conceptual level, along with potential obstacles to their implementation.
Management Option No. 1: Redistribute Pumping

Because of head-dependent boundary responses, decreased groundwater pumping by Cal-Am and/or other users will increase the rates of groundwater outflow to the Southern Coastal, Northern Inland and El Toro Subareas. Given that the adjudication and now the Watermaster are managing the Seaside Basin on a subarea basis, the Laguna Seca Subarea could retain some of its local yield by installing recovery wells near the three outflow boundaries to intercept any increases in outflow. Pipelines would need to be installed to convey that water back to the locations where pumping was decreased.

This concept would involve installing new municipal wells in up to three locations and constructing pipelines several miles in length from each location back to the east-central part of the subarea. It might be possible to use the Ryan Ranch water system to convey water from the Southern Coastal outflow boundary part of the way toward the eastern half of the Laguna Seca Subarea.

This approach would not eliminate the problem of water-level declines at the eastern end of the Laguna Seca Subarea caused by pumping in the El Toro Subarea. Without recovery wells, outflow to El Toro would increase. Outflow would remain the same if the water-level gradient across the boundary remained the same. If El Toro water levels decline in the future, then Laguna Seca water levels near the boundary would have to decline at the same rate to maintain a constant gradient. However, this would require pumping at a recovery well on the Laguna Seca side of the boundary, which would increase the total rate of water-level decline in the eastern part of the Laguna Seca Subarea.

Management Option No. 2: Continue Pumping from Ryan Ranch Wells

Cal-Am reportedly plans to discontinue pumping from its wells in the Ryan Ranch development in the western half of the Laguna Seca Subarea. Groundwater levels are stable in that area, and groundwater flow is toward the Southern Coastal Subarea. Eliminating production from the Ryan Ranch wells would simply increase the rate of outflow while doing little to alleviate overdraft in the eastern half of the Laguna Seca Subarea. Therefore, it would be desirable to continue using the Ryan Ranch wells and to convey the produced water to the eastern part of the subarea. Depending on how Cal-Am plans to deliver water from other sources to Ryan Ranch customers, this management option might require additional pipelines from the Ryan Ranch wells to the eastern part of Laguna Seca.

Management Option No. 3: Reduce Water Demand

Given the high cost of conveying water within Laguna Seca—much less obtaining it from external sources—reducing water demand in the eastern part of the subarea is worth a hard look. Much of the consumptive use is for golf course irrigation. A treatment plant reportedly converts nearly all locally-produced wastewater into recycled water that is used on the golf courses. However, the recycled water supply is less than the golf course irrigation demand.
Therefore, the principal variable that can easily be managed is the irrigation requirement of the golf courses. This might be accomplished by decreasing the total irrigated area or the type of irrigated ground cover.

**MANAGEMENT MEASURES BEYOND THE BASIN**

**Management Option No. 4: Change the Laguna Seca-El Toro Boundary Location**

The problem of trans-boundary pumping effects could be solved by shifting the boundary location inward or outward to fully exclude or include the effects of the external pumpers, which in this case are primarily the Toro and Corral de Tierra municipal wells. If the boundary were moved outward to include those wells, they would fall under the jurisdiction of the adjudication and Watermaster and would be subject to the same phased pumping reductions as other Seaside Basin users. This would theoretically halt long-term water-level declines near the current boundary location.

From a practical standpoint, there appear to be at least two major issues associated with this approach:

- It would require reopening the adjudication and having El Toro pumpers join the Seaside Basin and its management program. This could prove to be a difficult and lengthy process.
- It would not permanently eliminate the fundamental problem of basin boundaries defined by flow divides, rather than physical geological boundaries. Future changes in pumping near the new basin boundaries could lead to similar problems of trans-boundary flow.

**Management Option No. 5: Import Water to the Laguna Seca Subarea**

Cal-Am reportedly intends to size the combined capacities of the GWR Project and the MPWSP such that they provide sufficient additional supply to enable Cal-Am to reduce its Seaside Basin pumping to comply with the Seaside Basin Adjudication Decision. The capacity of either project could conceivably be increased to obtain a new increment of supply for Laguna Seca. Additional pipelines would also be needed to convey the water from the Cal-Am system to the eastern part of Laguna Seca.

The GWR Project and the MPWSP are both already at advanced stages of environmental analysis. Changing the size of the project could delay the schedule for completion.

**Management Option No. 6: Use SGMA as a Means of Managing Areas outside the Basin**

The Sustainable Groundwater Management Act (SGMA) was adopted by the California Legislature and Governor in late 2014 and became effective on January 1, 2015. It profoundly changes statewide groundwater management and requires that all medium- and high-priority groundwater basins be sustainably managed, which means that overdraft is...
eliminated. SGMA represents a new vehicle for managing groundwater in adjacent parts of the Salinas Valley Groundwater Basin (including the El Toro Subarea), or more specifically, to prevent external pumpers from adversely affecting groundwater levels within the Seaside Basin. Application of the SGMA to the Laguna Seca Subarea groundwater depletion problem is complicated by two factors: the existing Seaside Basin Adjudication Decision and basin boundaries.

**Adjudication.** Seaside Basin is adjudicated, and SGMA defers to existing management programs in basins or parts of basins that have already been adjudicated, including the Seaside Basin (Water Code Section 10720.8(a)). The Watermaster is thus equivalent to the Sustainable Groundwater Agency that in other basins must be selected from among local agencies or created by a group of agencies acting under a memorandum of agreement or as a joint powers authority. Collaboration with external agencies to manage groundwater close to its borders is obviously desirable for the Watermaster, but it might not be legally feasible for the Watermaster to join a regional joint powers authority. That would bring the Seaside Basin under the authority of the Sustainable Groundwater Agency, which could conflict with current legal authority of the court.

SGMA does allow parts of basins to be managed by separate Groundwater Sustainability Agencies under separate Groundwater Sustainability Plans, but it requires the agencies to develop “coordination agreements” that ensure consistency among the plans (Water Code Sections 10727(b)(3), 10727.6 and 10723.4). Coordination agreements must demonstrate that all of the Groundwater Sustainability Plans within a basin together achieve the objective of sustainability throughout the basin. The coordination agreement is a means by which the Watermaster could engage in managing adjacent parts of the basin without subverting or reopening the adjudication. The adjudication implementation issues are legal in nature and would require legal counsel analysis before conclusions on this could be reached.

**Basin Boundaries.** SGMA requires that basin and subbasin boundaries be consistent with the boundaries in California Department of Water Resources (DWR) Bulletin 118 unless revised through a formal process that includes DWR approval. The boundaries of the Seaside Basin used by the court for the purpose of adjudication do not conform at all to the Bulletin 118 boundaries, as shown in **Figure 1.** The adjudicated area straddles two Bulletin 118 subbasins of the Salinas Valley Groundwater Basin: the Seaside Area Subbasin and the Corral de Tierra Area Subbasin. The boundary between these Bulletin 118 subbasins is the inland extent of windblown dune deposits, which are unsaturated and have no bearing on the underlying groundwater flow system. However, the adjudication boundaries are equally problematic because the northern and eastern boundaries are the approximate locations of groundwater flow divides that could easily shift in response to future changes in pumping.

SGMA includes a provision for requesting changes in basin or subbasin boundaries. By January 1, 2016, DWR must adopt regulations stating the procedures for requesting boundary revisions. Several general criteria are listed in SGMA (Water Code Section 10722). The triennial update of Bulletin 118 is due to be completed by January 1, 2017, and that version is to be the basis for creating Groundwater Sustainability Agencies and Plans (Water...
Code Section 10720.7). This would appear to create a one-year window—calendar year 2017—to apply for basin boundary adjustments.

**Option A: Do Nothing**
If the Watermaster takes no proactive steps to accelerate management of groundwater in adjacent parts of the Salinas Valley Basin, management will still occur pursuant to SGMA. Whichever entity becomes the Sustainable Groundwater Agency will need to submit a Groundwater Sustainability Plan by January 31, 2022 and to achieve sustainability by January 31, 2042.

The drawbacks to this sub-option are that the Watermaster would have no input into strategies and programs developed for managing groundwater in adjoining areas, and Seaside Basin interests might not be fully taken into account. Also, it might take 27 years to achieve sustainability.

**Option B: Actively Participate in External Groundwater Management**
Monterey County Water Resources Agency (MCWRA) appears to be the logical candidate to become the Groundwater Sustainability Agency for areas adjoining the Seaside Basin. At a minimum, it could certainly be a member and key player in a multi-party Groundwater Sustainability Agency. The Watermaster could approach MCWRA in the near future to initiate a collaborative effort to manage the Seaside part of the Salinas Valley Basin under SGMA. The problems with conflicts between the Bulletin 118 boundaries and adjudication boundaries would impact the external Groundwater Sustainability Agency as much as they would impact the Watermaster. A joint petition to DWR for subbasin boundary adjustments could be a useful near-term objective.

**RECOMMENDATIONS**

Several of the possible management options listed above seem promising in terms of feasibility and cost-effectiveness. Recommended next steps to further explore those options are as follows:

- **Quantify the costs and benefits of continued operation of Ryan Ranch wells.** The groundwater model should be used to simulate Laguna Seca water balances with and without Ryan Ranch pumping by Cal-Am, with particular attention paid to changes in outflow to the Southern Coastal Subarea. Continued operation of the Ryan Ranch wells would presumably require an agreement with Cal-Am and probably also construction of pipelines to convey the water toward the eastern part of the Laguna Seca Subarea to offset pumping reductions in that area. The feasibility and approximate cost of these measures should be estimated. The impacts of any changes in outflow from the Laguna Seca subarea to the Southern Coastal Subarea should also be evaluated for potential negative impacts.

- **Quantify the costs and benefits of recovery wells to intercept increased subsurface outflow from the Laguna Seca Subarea resulting from decreased Laguna Seca
**Subarea pumping.** The groundwater model should be used to simulate the increases in outflow at the Southern Coastal, Northern Inland and El Toro boundaries and the ability of hypothetical recovery wells to capture any increases in outflow resulting from decreased pumping in the eastern part of the Laguna Seca Subarea. The cost of the wells and of pipelines needed to return the captured outflow to the central part of the Subarea could be estimated and integrated into a feasibility and cost-benefit analysis of outflow recovery wells.

- **Initiate sustainable groundwater management in areas adjacent to the Seaside Basin.** The Watermaster should meet soon with MCWRA to discuss implementation of SGMA in areas adjacent to the Seaside Basin. Issues to be discussed include:
  
  - whether to petition DWR for subbasin boundary revisions, and if so, what the alternative boundaries should be for the purposes of implementing SGMA (DWR will publish revision procedures by January 1, 2016);
  
  - which agency or agencies should become the Sustainable Groundwater Agency for the adjacent areas;
  
  - the elements of a coordination agreement linking water management in the Seaside Basin with the Sustainable Groundwater Plan for adjacent areas.
Legend
- Red: Salinas Valley Basin
- Green: Model Boundary
- Blue: Salinas Valley Subbasin
- Green with red outline: Adjudicated Seaside Basins

Figure 1
Comparison of Subbasin Boundaries
April 2015
Mr. Bob Jaques, Technical Program Manager  
Seaside Groundwater Basin Watermaster  
83 Via Encanto  
Monterey, CA 93940  
July 22, 2015

Subject: Comments on Todd Groundwater Technical Memorandum entitled  
Groundwater Management Options and Recommendations for the  
Laguna Seca-El Toro Region

Dear Bob:

We have reviewed the technical memorandum prepared by Todd Groundwater on recommended groundwater management options for the Laguna Seca-El Toro Region. We have several comments that may supplement the TAC’s discussion of the options. Our comments related to the Sustainable Groundwater Management Act (SGMA) are supported by our firm’s close involvement with the California Department of Water Resources (DWR) and other Central Coast agencies in establishing basin boundary regulations and in developing Groundwater Sustainability Agencies (GSA).

Management Option 1: Redistribute Pumping

Moving a small amount of pumping to the western side of the Laguna Seca subarea has some merit because groundwater levels are relatively high there and California-American Water (Cal-Am) will be reducing it’s pumping in this area. However, this option is not likely to be effective at solving the larger overdraft problem if pumping outside of the basin’s eastern boundary continues at the same rate as it has historically. Moving pumping from the central portion of the Laguna Seca subarea to the western side may simply provide more water to wells outside of the basin, and groundwater levels will continue to decline. This is supported by the modeling we did that is documented in the Technical

**Management Option 2: Continue Pumping from Ryan Ranch Wells**

This option and the first option are similar, and have similar benefits and drawbacks. The poor yield and water quality of these wells may limit their ability to be a substitute for pumping elsewhere in the subarea. The concept of capturing outflow from the subarea is a valid one that needs serious consideration but also needs to take into account declining groundwater levels in the subarea that will eventually cause groundwater levels to drop below well screens and pump intakes. Similar to Management Option 1, without addressing the impacts of outside wells on the subarea, declining groundwater levels will continue.

**Management Option 3: Reduce Water Demand**

At the TAC meeting on July 15, 2015 most the discussion of this option was related to golf course demands. Per a Regional Water Quality Control Board Waste Discharge and Recycled Water Producer Requirements Order No. 98-58, the treated wastewater used for golf course irrigation is blended one part to ten parts groundwater. Blending is required, not only to meet irrigation demand but also to improve the water quality for turf irrigation purposes. Cal-Am owns and operates the treatment facility.


Despite local and statewide water conservation efforts, new housing developments in the area will require more water, and as a result generate more wastewater. However, the current level of treatment at the wastewater facility is not sufficient to produce irrigation water that does not require blending. An option to consider, if more development in the area warrants it, is to upgrade the treatment plant to a tertiary level of treatment so recycled water can be applied directly to golf courses.

**Management Option 4: Change the Laguna Seca-El Toro Boundary Location**

This is a reasonable option for addressing impacts from outside the basin. However, we agree with Todd Groundwater that reopening the adjudication
could be a difficult and lengthy process. Furthermore, simply including areas outside the current basin boundaries does not solve the problem of overdraft, it simply gives the Watermaster the authority to control and reduce pumping in a larger area. If a new basin boundary is established, the natural and operational safe yields and production allocations would need to be revisited.

Management Option 5: Import Water to the Laguna Seca Subarea

This is the most direct management option, and is the most likely to succeed if it is logistically and financially feasible.

Management Option 6: Use SGMA as a Means of Managing Areas outside the Basin

This is a management option that has a reasonable long-term prospect for success. However, as Todd Groundwater points out, fully implementing the plan may take up to 27 years. This time frame may not be consistent with the time constraints imposed by the Seaside Basin Adjudication.

A group of regional stakeholders including Salinas Valley cities, the County of Monterey, and Monterey County agricultural interests are in the process of engaging a facilitation firm to develop and develop the Salinas Groundwater Basin Sustainability Agency to fulfill the requirements of SGMA. Identifying and engaging key stakeholders is the first task of that process. The Watermaster is clearly a key stakeholder and should be involved in these discussions. Other tasks that are part of developing the GSA include: facilitating linkages between related institutions, and helping formulate principles and governance agreements that will make the GSA an effective agency. These tasks address some of the recommendations made in Todd Groundwater’s technical memorandum on initiating sustainable groundwater management in areas adjacent to the Seaside Basin.

The Seaside Basin Watermaster will most likely not be a member of the Salinas GSA. In recent conversations, DWR has stated that they expect adjudicated basins to be part of the intra-basin coordination plans required of Groundwater Sustainability Plans. The intra-basin coordination plans require that groundwater management in the main Salinas Valley, and other areas outside the adjudicated Seaside Basin, coordinate with the Watermaster and use the same data and methodologies for developing water budgets and sustainable yield. Furthermore, the intra-basin coordination plan will need to demonstrate that the
entire Salinas Valley, including the Seaside Basin, can be sustainably managed without one area harming an adjacent area.

**Additional Management Option: Recharge Storm Water Runoff**

An additional option, we'd like to add is the capture of storm water runoff from developed areas and recharging it into the groundwater basin wherever possible. This is done to some extent at the Ryan Ranch complex of Highway 68 where storm water is collected during storms and recharged into a small percolation pond located to the southwest of the development. Although individually this is a small contribution to groundwater recharge, the more developments that implement this, the more water will be recharged to help improve the groundwater levels in the subarea. Storm water that is allowed to drain into the Arroyo del Rey is not really benefiting the subarea where pumping takes place, as it recharges through streambed percolation too far south of where the wells are.

We'd like to reiterate, that our groundwater modeling has shown that groundwater levels in the Laguna Seca subarea will continue to decline even if all groundwater pumping within the subarea is halted. It is the pumping outside of the eastern and southern boundary that is substantially adding to the overdraft. This external pumping must be addressed to bring the Laguna Seca area into balance.

If you have any questions, do not hesitate to contact me.

Sincerely,

[Signature]

Georgina King
Senior Hydrogeologist
ITEM X.

INFORMATIONAL REPORTS

(NO ACTION REQUIRED)
### Annual Milestones

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### 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.

### 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.

### California American Water to submit annually to Watermaster any augmentation to water supply for possible credit toward Repl Assessment.

### Water level monitoring - monthly data collection from all members for inclusion in the consolidated database.

### Water quality yearly data collection from all members for entry in consolidated database.

### Summary report of water resources data to all members/parties the 15th each quarter month:

### Administrative Milestones

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<td>Program Administration, Database Management (MPWMD)</td>
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<td>Refine and/or Update Basin Management Action Plan (Hydrometrics &amp; MPWMD)</td>
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### Special Issues

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<td>Cal-Am CWP / Alt. Projects EIR / Basin Repl MOU</td>
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### Summary Project Schedule

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The meeting was convened at 1:35 p.m. after a quorum had arrived.

1. Public Comments
There were no public comments.

2. Administrative Matters:
   A. Approve Minutes from the April 15, 2015 Meeting
On a motion by Mr. Franklin, seconded by Mr. Lear, the Minutes were unanimously approved as presented.

   B. Designate Watermaster Representative to Salinas River Basin Updated Model Development TAC
Mr. Jaques summarized the agenda packet materials for this agenda item.

Mr. Franklin said he did not feel it would be essential to have an Alternate on this TAC, since the TAC would only provide input and would not vote or take any other action. Mr. Lear said he felt the Watermaster should get the HydroMetrics model in-house so we can share it with Monterey County's TAC. Mr. Franklin said that one of the goals of the TAC is to look at adjoining/overlapping models to
avoid conflicts. He noted that approximately one-third of the Seaside Basin is within the County's Zone 2C, which is the initial boundary of the Salinas Basin model investigation. He went on to say they will want to look at the Seaside model, too. There was some discussion of having HydroMetrics serve as the Watermaster's TAC representative, but Mr. Jaques pointed out that this would be an additional cost that would have to be authorized by the Board, and he felt it was unlikely that the Board would wish to pay to have HydroMetrics attend the TAC meetings. Mr. Jaques said he would pursue with HydroMetrics obtaining a copy of the model for in-house use. Mr. Lear said that once the Model is available in-house, we can get model input data information from it as needed.

Mr. Lear made a motion, and Mr. Green seconded it, to designate Mr. Jaques as the Watermaster's Primary Member, and that no Alternate Member needed to be designated. The motion passed unanimously.

Mr. Franklin said he would like to have Mr. Williams available occasionally, for input to the Salinas River Basin Model Update TAC if necessary, if technical issues arise.

C. Notices of Availability of Draft EIRs for the Groundwater Replenishment Project and Monterey Peninsula Water Supply Project and Draft Watermaster Comment Letter

Mr. Jaques summarized the agenda packet materials for this item and highlighted the two areas of comment pertaining to development water and back flushing water. Mr. Franklin said he felt these were good issues to raise. Mr. Lear said he felt that the backwash water would amount to approximately 12 acre feet per year, and that this would be a small amount. Mr. Franklin said he felt it was still good to raise these issues.

Mr. Green asked Mr. Lear if the amount of lost water could be determined and what the system efficiency might be. Mr. Lear said the proposed injection area is over a cone of depression, so he felt it would be 100 percent efficient.

Mr. Gomez said he concurred with the comment letter. Mr. Franklin asked if the letter would come from the TAC or the Chief Executive Officer, and Mr. Jaques responded that it would come from the Chief Executive Officer, Mr. Evans. There was unanimous consensus to forward the draft letter contained in the agenda packet to Mr. Evans for finalization and submittal.

3. Preliminary Discussion of Work Plan to Address Findings of Laguna Seca Modeling Work

Mr. Jaques summarized the agenda packet materials for this item, and said he felt that discussion of this topic would probably span several TAC meetings. Mr. Hulbert said he agreed that it would be a multi-meeting discussion topic. Mr. Jaques then summarized each of the five issues listed on pages 23-25 of the agenda packet.

**Issue 1:** Mr. Costa asked what the Decision established as the Natural Safe Yield for the Basin. Mr. Jaques responded 3,000 acre feet per year. Mr. Costa said it would be difficult to determine what number to use. He felt it would be desirable to model all of the subareas to get their individual Natural Safe Yields just as had been done for the Laguna Seca subarea. There was much discussion on this topic. Mr. Lear said that regardless of what number is picked, water is flowing from the Northern Inland Subarea into the Laguna Seca subarea and then into the El Toro subarea. Following much discussion Mr. Hulbert noted that it would probably not be possible to reach agreement among all parties on a specific number to use.
**Issue 2:** Mr. Lear said the FO-6 wells are probably on the eastern side of the flow divide between the Laguna Seca subarea and the El Toro subarea. Hence, it is not possible to keep Laguna Seca water levels from falling simply by ceasing Laguna Seca subarea pumping. There was much discussion of whether monitoring wells should be included in a work plan. There was general consensus to focus on protecting production wells, but to keep monitoring wells operational to provide data input to the model.

**Issue 3:** Mr. Franklin did not feel that it was appropriate at this time with this model to pursue the described work, as it would not properly capture climate change impacts and therefore potentially give false conclusions. He said there are techniques to do this, and that the U. S. G. S. and D.W.R. climate change models are currently being refined. He said he felt it might be worth looking into these things if climate change impacts were input into the model. He said it might be around two years before refinement of the climate change models is completed.

**Issue 4:** There was a brief similar discussion as for Issue 3.

**Issue 5:** Mr. Lear said that modeling could establish where the flow divide is, and that this could be one of the first steps in a work plan. Mr. Franklin said another thought would be to look at existing basin boundaries and determine how adjacent basin managers can agree to work together to resolve issues that impact both basins. In other words, rather than looking at moving the basin boundaries, it might be better to look at ways to address impacts caused by factors outside of existing basin boundaries.

There were some questions and answers regarding Cal Am's future plans to discontinue pumping from its Laguna Seca subarea wells and also what plans Cal Am had with regard to pumping from its wells in the El Toro subarea.

It was agreed that Mr. Jaques would write up these discussion points from today's meeting for further TAC review and revisions and its next meeting.

4. **Schedule**
Mr. Jaques reported that there were no significant changes to the Schedule.

5. **Other Business**
No Other Business items were discussed.

6. **Set Next Meeting Date**
The next regular meeting was set for Wednesday June 10, 2015 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 3:05 p.m.
Seaside Groundwater Basin Watermaster  
Technical Advisory Committee Meeting  
June 10, 2015

Attendees:  
TAC Members  
City of Seaside – Rick Riedl (via telephone)  
California American Water – Roger Hulbert  
City of Monterey – Norm Green (via telephone)  
Laguna Seca Property Owners – Bob Costa  
MPWMD – Joe Oliver  
MCWRA – Howard Franklin  
City of Del Rey Oaks – No Representative  
City of Sand City – No Representative  
Coastal Subarea Landowners – No Representative

Watermaster  
Technical Program Manager - Robert Jaques

Consultants  
None

Others  
Bishop, McIntosh & McIntosh – Leonard McIntosh  
MPWMD – Jon Lear

The meeting was convened at 1:35 p.m. after a quorum had arrived.

1. Public Comments  
There were no public comments.

2. Administrative Matters:  
   A. Approve Minutes from the May 13, 2015 Meeting  
Mr. Hulbert asked that the Minutes be corrected to show that Mr. Riedl had attended the meeting via telephone.

Mr. Lear asked that in the next to last sentence in the first paragraph under Agenda Item No. 2.C of the Draft Minutes, the wording to be revised to read “Mr. Lear said he felt that the backwash water would amount to approximately 12 acre feet per year, and that this would be a small amount and that the District did not think that was an appropriate comment.”

On a motion by Mr. Franklin, seconded by Mr. Costa, the Minutes were unanimously approved with these revisions.
By way of information Mr. Hulbert reported that the latest plan by Cal Am is to discontinue its pumping from the Laguna Seca Subarea once the MPWSP becomes operational, which is projected to occur in the Spring of 2019. Cal Am’s Toro No. 3 well will be taken out of service but its Ambler and other Toro wells will continue in service.

B. Notice of Availability of Draft EIR for the Monterey Peninsula Water Supply Project and Draft Watermaster Comment Letter

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

Mr. Riedl asked Mr. Oliver if all of the water extracted from the ASR Wells is counted as water extracted from storage or whether it is reduced by the quantities of water used for backflushing. Mr. Oliver responded that the water injected and the water extracted are counted on a one-for-one basis, in other words the water used for backflushing is not counted against the amount taken out of storage.

Mr. Oliver and Mr. Lear said they felt it was not feasible to filter out the backwash water and reinject it into the aquifer because of public health agency and other regulatory agency concerns.

Mr. Franklin commented that approximately 20 acre feet of water for well development may not be a significant amount. Also, it is being put back into the Basin by percolation.

Mr. Oliver said that the backflushing water from the existing ASR wells percolates rapidly into the ground and there would be insignificant evaporation. The water does not get directly back into the Santa Margarita aquifer, but does get back into the Paso Robles aquifer fairly quickly.

Mr. Hulbert said it may not be a "significant" issue given the small quantity of water involved.

Mr. Franklin felt it was worth mentioning this issue so the EIR consultant can respond and address these issues. However, he wondered if counting backwash water against a producer’s allocation amount would be holding future ASR wells to a higher standard than existing ASR well practices are required to meet.

Mr. Oliver suggested that the EIR preparer be asked to comment on the significance of the water pumped out for development and backflushing.

Mr. Oliver and Mr. Hulbert suggested deleting several paragraphs from the draft comment letter as contained on pages 7 and 8 of the agenda packet.

Mr. Lear said he wondered what Cal Am's reaction would be to discounting its allocation by the quantity of extracted water used for backflushing.

Mr. Oliver and Mr. Lear noted that regular pump maintenance water used to clear system piping in order to meet bacteriological standards or for backflushing purposes does not go through the well production meters and is therefore not counted against the allocation.

Mr. Riedl noted that the City of Seaside does not get to reduce their production quantities by the amount of water that is used for maintenance purposes. That water is discharged to the sanitary sewer.
Mr. Riedl said that in the past the City had requested to get credit for storm water percolation back into the ground, but was denied by the Watermaster because it was not expected to be a true recharge method. He went on to say that to him it was unclear "what the rules are" with regard to how wells are to be operated in terms of recharge and accounting for water pumped out for well maintenance purposes.

Mr. Oliver asked Mr. Riedl if the discussion with regard to the City's proposal to get credit for percolating storm water came up during discussions of the Basin Management Action Plan in 2009. Mr. Riedl said he believed that was when the discussion occurred.

Mr. Riedl asked if development water will contain hydrogen sulfide and therefore be an odor concern. Mr. Hulbert noted that chlorine rapidly reacts with hydrogen sulfide, and Mr. Oliver commented that hydrogen sulfide is oxidized to sulfate rapidly when exposed to the atmosphere. Mr. Riedl said the City would comment on this issue in its own comment letter.

After further discussion of revisions to be made to the draft comment letter, consensus on this issue was reached. A motion was made by Mr. Costa, seconded by Mr. Oliver and unanimously approved to forward the revised comment letter from Mr. Jaques to Mr. Evans for submittal by the Watermaster Chief Executive Officer to the Public Utilities Commission.

3. Continued Discussion of Work Plan to Address Findings of Laguna Seca Modeling Work

Mr. Jaques summarized each of the Issue items described in the packet under this agenda item. There was consensus that the descriptions contained in the agenda packet were accurate.

Mr. Jaques then listed each of the six Management Options discussed in Mr. Yates' letter, and discussion on these began.

**With regard to Option 1-Redistribute Pumping:** Mr. Hulbert said that much new infrastructure would be required to do this. There was much discussion about how this option would work and whether the captured water would be used to serve existing customers who would stop pumping their wells, or whether it would be injected to recharge the basin.

**With regard to Option 2-Continue Pumping from Ryan Ranch Wells:** Mr. Lear and Mr. Oliver said that the Ryan Ranch wells are low-producers due to the hydrogeologic structure of the basin in this area. They struggle to supply their existing demands. More desirable pumping areas would be to the north in the former Fort Ord area.

Mr. Franklin said he understood the intent of this option was to maintain existing production, not to increase it.

Mr. Hulbert said that water produced by these wells needs treatment for arsenic removal and that the wells produce poor water quality compared to other wells. Annual production from these wells was collectively estimated at about 60 to 70 acre feet per year.

Mr. Hulbert said that other options may be more economically viable. He went on to say that it would probably be necessary to construct new wells in a different location in order to efficiently capture groundwater that would otherwise be lost as outflow to the Southern Coastal Subarea.

Mr. Jaques said he would contact Mr. Yates to seek clarification of his intent as to how this Management Option would work.
Due to the lateness of the hour it was agreed that this topic would be continued over to the next TAC meeting and the continued discussion would begin with Management Option 3.

4. Schedule
Mr. Jaques reported that there were no significant changes to the Schedule.

5. Other Business
Mr. Jaques’ provided a short oral description of the items of interest to the Watermaster which were discussed at the Salinas River Basin Updated Model Development TAC meeting held on May 12, 2015. He said he would include written notes of future meetings of that TAC in future Watermaster TAC agenda packets.

6. Set Next Meeting Date
Because several TAC members said they would not be able to attend on the next regular meeting date of Wednesday July 8, 2015, it was agreed that the next TAC meeting would instead be held on Wednesday July 15, 2015 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 3:10 p.m.
Seaside Groundwater Basin Watermaster Technical Advisory Committee Meeting
July 15, 2015

Attendees:

**TAC Members**
- City of Seaside – Rick Riedl
- California American Water – Roger Hulbert
- City of Monterey – Norm Green (via telephone)
- Laguna Seca Property Owners – Bob Costa
- MPWMD – No Representative
- MCWRA – Howard Franklin
- City of Del Rey Oaks – No Representative
- City of Sand City – Todd Bodem
- Coastal Subarea Landowners – No Representative

**Watermaster**
Technical Program Manager - Robert Jaques

**Consultants**
None

**Others**
None

The meeting was convened at 1:35 p.m. after a quorum had arrived.

1. **Public Comments**
There were no public comments.

2. **Administrative Matters:**
   A. **Approve Minutes from the June 10, 2015 Meeting**
   On a motion by Mr. Costa, seconded by Mr. Riedl, the Minutes were unanimously approved.

   B. **Notes From June 9, 2015 Salinas River Groundwater Basin Investigation Model TAC Meeting and Recommendation to Engage HydroMetrics for Assistance in this Work**
   Mr. Jaques summarized the agenda packet materials for this item.

   Mr. Franklin noted that it will be important for the work by Monterey County on its Zone 2C model update, managed by MCWRA, to recognize the Watermaster's modeling work and for there to be continuity of data and collaboration between those models.
Mr. Costa asked Mr. Franklin what the timeline was for the County's work. Mr. Franklin responded that a State of the Basin report has already been completed by the County, and that he is hopeful that the updated model can be completed in the first quarter of 2016. The model will then be updated annually, and by 2018 will provide for a full 2030 planning horizon forecasting model. He is working closely with U.S. Bureau of Reclamation and U.S. Geological Survey on climate modeling with higher resolution for the model area.

Mr. Riedl asked Mr. Franklin when the boundary limits for the model will be set. Mr. Franklin responded that the boundary is Zone 2C per the legal settlement agreement between plaintiffs and the County of Monterey.

C. Consider Approval of RFSs to HydroMetrics and Todd Groundwater for Assistance on Modeling Issues

Mr. Jaques summarized the agenda packet materials for this item and reported that Contingency money is available to fund this work. Mr. Riedl asked Mr. Jaques why Mr. Yates was considered to be more qualified than Mr. Williams for this work. Mr. Jaques responded that he did not feel that it was a question of one party being more qualified than the other, just that it would be beneficial to have the perspectives of both of these consultants due to their extensive expertise and experience working in the Seaside Basin.

On a motion by Mr. Costa, seconded by Mr. Bodem, the TAC unanimously approved the two Requests for Service, with Mr. Franklin abstaining.

3. WL/WQ Report from MPWMD

Since no representative from MPWMD was present, Mr. Jaques summarized the agenda packet materials for this item and there was no further discussion on this item.

4. Continued Discussion of Work Plan to Address Findings of Laguna Seca Modeling Work

Mr. Jaques summarized the agenda packet materials for this item. There was unanimous agreement that the TAC Conclusions described on page 15 of the agenda packet for Management Options 1 and 2 were accurate.

Discussion of Management Option 3-Reduce Water Demand:

Mr. Costa and Mr. Hulbert explained that there is just one Laguna Seca/Pasadera wastewater treatment plant that produces reclaimed water. Mr. Costa went on to say that the Laguna Seca Golf Course uses groundwater from its one well in the amount of about 240 to 300 acre feet per year for golf course irrigation. The amount of irrigation water that could be reduced would be very small, for example a 20 percent reduction would only be about 50 acre feet per year. Mr. Costa went on to say that the golf course is doing all they can to reduce demand and irrigates only about 100 acres. They cannot take any more areas out of irrigation without degrading the quality of the golf course. He said he understood that similar conditions exist at the Pasadera Golf Course. Mr. Hulbert said he supported Mr. Costa's comments and findings with regard to there being little, if any, further irrigation reductions the golf courses could make. It was also noted that 100 percent of the recycled water is being used by the Pasadera Golf Course, and none of it is used at the Laguna Seca Golf Course because all of the reclaimed water that is being produced is used by the Pasadera Golf Course.

Mr. Franklin said he would like to try to quantify the amount of reduced pumping that might feasibly be achieved in the Laguna Seca Subarea. Mr. Costa went on to say that he would expect that all of the Laguna Seca Subarea users should also be required to cutback their water use, if the golf courses had to cutback themselves.
Mr. Franklin asked Mr. Costa what conservation practices the golf courses are currently employing, and also asked if there were any new practices that could be explored. Mr. Costa responded that they have already stopped irrigation of non-playable turf areas and have a climate station at the golf course that guides them in their irrigation practices to minimize irrigation quantities. Keeping the turf firm by minimizing irrigation is one of the techniques being used. The courses have predominantly Kikua grass which requires less water than the cool weather grasses.

Mr. Franklin asked if there were code-required water conservation requirements for the housing areas within Laguna Seca Subarea. Mr. Costa Mr. Hulbert responded yes, these are required by California American Water under the Monterey Peninsula Water Management District's conservation program requirements. Mr. Riedl noted that these do not apply to be the Laguna Seca Golf Course irrigation well.

Mr. Hulbert commented that if we focus on the Management Options that have the greatest potential for benefit to the Laguna Seca Subarea, having golf courses reduce irrigation would not be one of the most effective ones. There was further discussion which led to consensus that the TAC will examine this Management Option and report on its findings at a future Board meeting.

Mr. Green said he understood Mr. Costa's concerns and wondered if the Judge could direct a golf course to cut-back its irrigation. Mr. Jaques responded that he thought it was more likely that if the Judge felt further pumping reductions were needed, he would issue an across-the-board order to reduce pumping by all users.

Mr. Riedl noted that California American Water told the City of Seaside that they needed to do an irrigation study to see if any landscape irrigation reduction could be achieved. Mr. Costa noted that he is certified as a water management auditor, and holds other water conservation credentials as well.

Mr. Franklin made a motion to evaluate irrigation and water use management practices to determine if water demand could be reduced in the Laguna Seca Subarea. On a vote of five in favor and one opposed the motion carried.

[Note: At this point in the meeting Mr. Costa departed.]

Discussion of Management Option 4-Change the Laguna Seca-El Toro Boundary Location:
Mr. Jaques summarized this Management Option and said he recommended that the Watermaster not pursue this Option for the reasons as stated in the two bulleted items on page 19 of the agenda packet under this Management Option. There was unanimous concurrence by the TAC to support Mr. Jaques' recommendation.

Discussion of Management Option 5-Import Water to the Laguna Seca Subarea:
Mr. Jaques summarized this Management Option.

Mr. Hulbert said that there are so many hurdles that still need to be crossed to implement the currently-defined water projects that to seek a change in projects size to provide additional water for the Laguna Seca Subarea at this point could be a cause for project delay. Following further discussion a motion by Mr. Riedl, seconded by Mr. Franklin, was unanimously approved stating that this topic is a policy issue for the Board to determine, but that from a technical perspective there was TAC consensus that pursuing a change in the size or configuration of the currently-defined water projects (MPWSP or the GWRP) would likely lead to delays in completing these projects.
Discussion of Management Option 6-Use the Sustainable Groundwater Management Act (SGMA) as a Means of Managing Areas Outside of the Seaside Basin:
Mr. Franklin said it was more likely that the Salinas Valley Groundwater Basin will be managed by a new Joint Powers Authority yet to be formed, rather than by MCWRA. There will not be a single entity to work with, rather there will be a number of entities working together as a Joint Powers Authority. Mr. Bodem made the recommendation, seconded by Mr. Riedl, that the Watermaster TAC monitor the development of the Sustainability Agency for the Salinas Basin and for the areas around the Seaside Basin and DWR's development of regulations pertaining to requesting boundary revisions with the intent to collaborate as appropriate. Those regulations are supposed to be promulgated by DWR in January 2016. There was unanimous consensus to make this recommendation to the Board with regard to this Management Option.

5. Schedule
Mr. Jaques briefly summarized this agenda packet item and highlighted that there will be no October TAC meeting but that the Board would receive the TAC's recommendations on Agenda Item 4 from today's TAC meeting at the Board's August 5th meeting.

6. Other Business
Mr. Hulbert reported that California American water had recently provided seven acre field water to the City of Seaside via an interconnection and he wished to know how to get credit for this water transfer. Mr. Jaques recommended that he send an e-mail or letter describing this to Mr. Evans for his consideration and processing of the request.

Mr. Riedl asked Mr. Franklin if the Department of Water Resources was working on a process for changing basin boundaries. Mr. Franklin responded that they were working on that and that he anticipated information on that matter being provided by the Department of Water Resources in early 2016.

7. Set Next Meeting Date
The next regular meeting was set for Wednesday August 12, 2015 at 1:30 p.m. at the MRWPCA Board Room.

The meeting adjourned at 3:10 p.m.
ITEM NO. XI.

DIRECTOR’S REPORTS
ITEM NO. XII.

EXECUTIVE OFFICER

COMMENTS