

MEETING NOTICE AND AGENDA
TECHNICAL ADVISORY COMMITTEE
OF THE
SEASIDE BASIN WATER MASTER

DATE: Wednesday, November 18, 2020

MEETING TIME: 1:30 p.m.

**IN KEEPING WITH GOVERNOR NEWSOMS EXECUTIVE ORDERS N-29-20 AND
N-35-20,
THE TECHNICAL ADVISORY COMMITTEE MEETING WILL BE CONDUCTED BY
TELECONFERENCE AND WILL NOT BE HELD IN THE MONTEREY ONE WATER
OFFICES.**

**YOU MAY ATTEND AND PARTICIPATE IN THE MEETING AS FOLLOWS:
JOIN FROM A PC, MAC, IPAD, IPHONE OR ANDROID DEVICE (NOTE: ZOOM APP MAY
NEED TO BE DOWNLOADED FOR SAFARI OR OTHER BROWSERS PRIOR TO
LINKING) BY GOING TO THIS WEB ADDRESS:**

<https://us02web.zoom.us/j/87061068123?pwd=Y1lqN1kzNm1tZVFqcEtsZFpobTdWdz09>

If joining the meeting by phone, dial either of these numbers:

+1 408 638 0968 US (San Jose)

+1 669 900 6833 US (San Jose)

**If you encounter problems joining the meeting using the link above, you may join from your
Zoom screen using the following information:**

Meeting ID: 870 6106 8123

Password: 363806

OFFICERS

Chairperson: Jon Lear, MPWMD

Vice-Chairperson: Tamara Voss, MCWRA

MEMBERS

**California American Water Company
Monterey**

City of Del Rey Oaks

City of

City of Sand City

City of Seaside

Coastal Subarea Landowners

Laguna Seca Property Owners

Monterey County Water Resources

Agency

Monterey Peninsula Water Management District

<u>Agenda Item</u>	<u>Page No.</u>
1. Public Comments	
2. Administrative Matters:	
A.Approve Minutes from the August 12, 2020 Meeting	2
B.Results from Martin Feeney's October 2020 Induction Logging of the Sentinel Wells	6 11
C.Sustainable Groundwater Management Act (SGMA) Update	25
D.Discuss Monitoring to be Performed at Security National Guarantee (SNG) Well	31
3. Discuss and Provide Input on the Draft 2020 Seawater Intrusion Analysis Report (SIAR)	37 54
4. Discuss and Provide Input on the Preliminary Draft Watermaster 2020 Annual Report	59
5. Schedule	
6. Other Business	
The next regular meeting is tentatively planned for Wednesday January 13, 2021 at 1:30 p.m. That meeting will likely also be held via teleconference.	

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

MEETING DATE:	November 18, 2020
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the August 12, 2020 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager

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

SUMMARY:

Draft Minutes from this meeting was emailed to all TAC members. Any changes requested by TAC members have been included in the attached version.

ATTACHMENTS:

Minutes from this meeting

**RECOMMENDED
ACTION:**

Approve the minutes

D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
August 12, 2020
(Meeting Held Using Zoom Conferencing)**

Attendees: TAC Members

City of Seaside – Scott Ottmar
California American Water – Tim O’Halloran
City of Monterey – Max Reiser
Laguna Seca Property Owners – Wes Leith
MPWMD – Jon Lear
MCWRA – Tamara Voss
City of Del Rey Oaks – No Representative
City of Sand City – Leon Gomez
Coastal Subarea Landowners – No Representative

Watermaster

Technical Program Manager - Robert Jaques
Administrative Officer – Laura Paxton

Consultants

None

Others

City of Seaside – Sheri Damon and Nisha Patel

The meeting was convened at 1:30 p.m.

Scott Ottmar introduced Nisha Patel, the new City of Seaside Director of Public Works, who was attending her first Watermaster TAC meeting. She reported that she will be attending future TAC meetings to represent the City of Seaside.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A.Approve Minutes from the July 8, 2020 Meeting

On a motion by Mr. Ottmar, seconded by Ms. Voss, the minutes were unanimously approved by those voting. Mr. Gomez and Mr. Leith were having audio problems and were unable to respond when asked for their votes. Mr. Leith subsequently said that he intended to vote to approve the minutes and asked that his vote be counted as such.

B.Sustainable Groundwater Management Act (SGMA) Update

Mr. Jaques summarized the agenda packet materials for this item. There was no other discussion.

3. Approve Monitoring and Management Program (M&MP) for FY 2021

Mr. Jaques summarized the agenda packet materials for this item. In his remarks, Mr. Jaques noted that a correction needed to be made in the dollar amount shown for Task I.2.b.7. The correct dollar amount is \$5,960, not \$5,940 as shown in the agenda packet. He also reported that he had not revised the Monitoring and Management Program to reflect reducing the frequency of water quality sampling of the Camp Huffman well, because he wanted to await direction from the TAC before making any change. He went on to report that there would be a slight cost savings if the frequency of sampling was reduced, because Monterey Peninsula Water Management District would not have to do that work in 2021.

Mr. Ottmar asked if the modeling scenario runs described in Task I.3.a.3 were required by the Monitoring and Management Program or by the Decision. Mr. Jaques responded that when the Monitoring and Management Program was developed, the Watermaster committed to developing a groundwater model and using it for Basin management purposes. He also reported that a number of previous model runs had been made to evaluate various groundwater management issues. Mr. Jaques said that making these specific scenario modeling runs was not required by the Monitoring and Management Program, but that at its July meeting the TAC concurred with including them in the Monitoring and Management Program for FY 2021.

Ms. Voss asked Mr. Lear about water quality sampling at the Camp Huffman well and asked if the water quality looked okay. Mr. Lear responded that the water quality looked fine. He went on to explain that this well had been installed in order to get data from this part of the Northern Inland Subarea where there were no other wells from which to gather information. He went on to say that this well is not induction logged, whereas the coastal Sentinel Wells are.

Mr. Lear if asked if any of the TAC members were opposed to reducing the sampling frequency for water quality at the Camp Huffman wells, and none of the members were opposed.

On a motion by Ms. Voss, seconded by Mr. O'Halloran, the Monitoring and Management Program was unanimously approved by those voting. Mr. Gomez and Mr. Leith were having audio problems and were unable to respond when asked for their votes. Mr. Leith subsequently said that he intended to vote to approve the Monitoring and Management Program and asked that his vote be counted as such.

4. Approve the FY 2021 Monitoring and Management Program (M&MP) Operations and Capital Budgets

Mr. Jaques summarized the agenda packet materials for this item. In his remarks Mr. Jaques noted that a correction needed to be made in the dollar amount shown for Task I.2.b.7. The correct dollar amount is \$5,960, not \$5,940 as shown in the agenda packet. He went on to say that with this correction made, the 2021 Monitoring and Management Program would be \$68,102 higher than the 2020 budget, not the \$68,080 shown in the agenda packet

Mr. Ottmar asked if the geochemical modeling work related to the Cal Am desalination plant was included in the budget. Mr. Jaques responded that it was included in task I.3.e, and that the work would only be done if it was found to be necessary. Mr. Lear went on to describe the previous work that had been done on the Pure Water Monterey Project, which led to the conclusion that no groundwater modeling needed to be done for that project.

On a motion by Mr. Ottmar, seconded by Mr. Lear, the budgets were unanimously approved as presented by those voting, with the correction in cost to Task I.2.b.7 mentioned above. Mr. Gomez and Mr. Leith were having audio problems and were unable to respond when asked for their votes. Mr. Leith subsequently said that he intended to vote to approve the Monitoring and Management Program budgets and asked that his vote be counted as such.

5. Approve Initial RFSs for Montgomery & Associates, MPWMD, Martin Feeney, and Todd Groundwater for 2021

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

On a motion by Mr. O'Halloran, seconded by Ms. Voss, the consultant contracts were unanimously approved as presented by those voting. Mr. Gomez and Mr. Leith were having audio problems and were unable to respond when asked for their votes. Mr. Leith subsequently said that he intended to vote to approve the consultant contracts, and asked that his vote be counted as such.

Note: Subsequent to the TAC meeting Mr. Jaques discovered that the correct amount for RFS No. 2021-01 to Martin Feeney is \$18,000.56 (which corresponds to the dollar amount in the cost proposal that is an attachment to that RFS) rather than the \$19,000.56 shown on page 47 in the agenda packet. The M&MP Operations Budget has the correct amount in it.

6. Schedule

Mr. Jaques summarized the agenda packet materials for this item. There was no other discussion.

7. Other Business

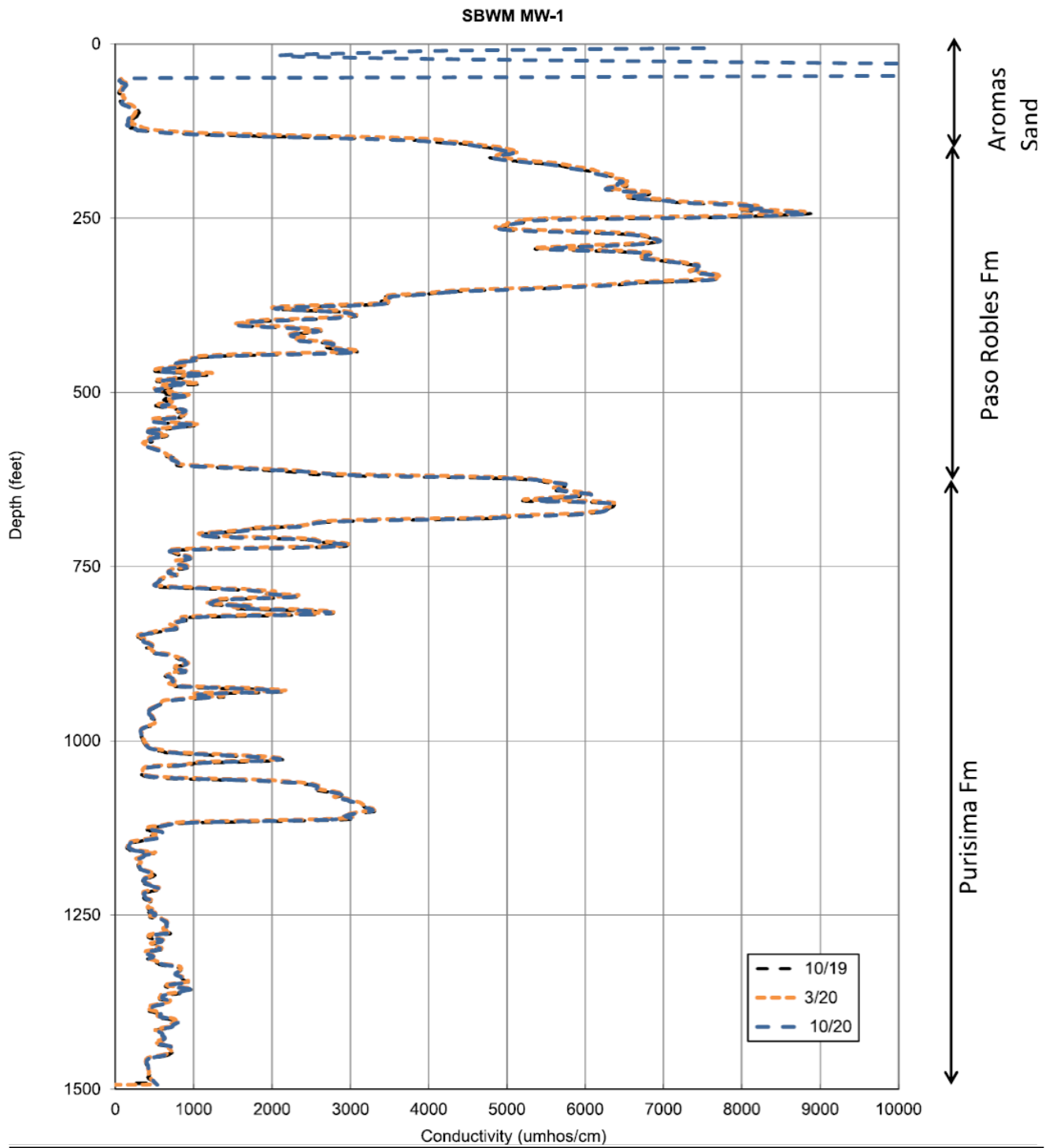
There was no other business.

The meeting adjourned at 2:00 PM.

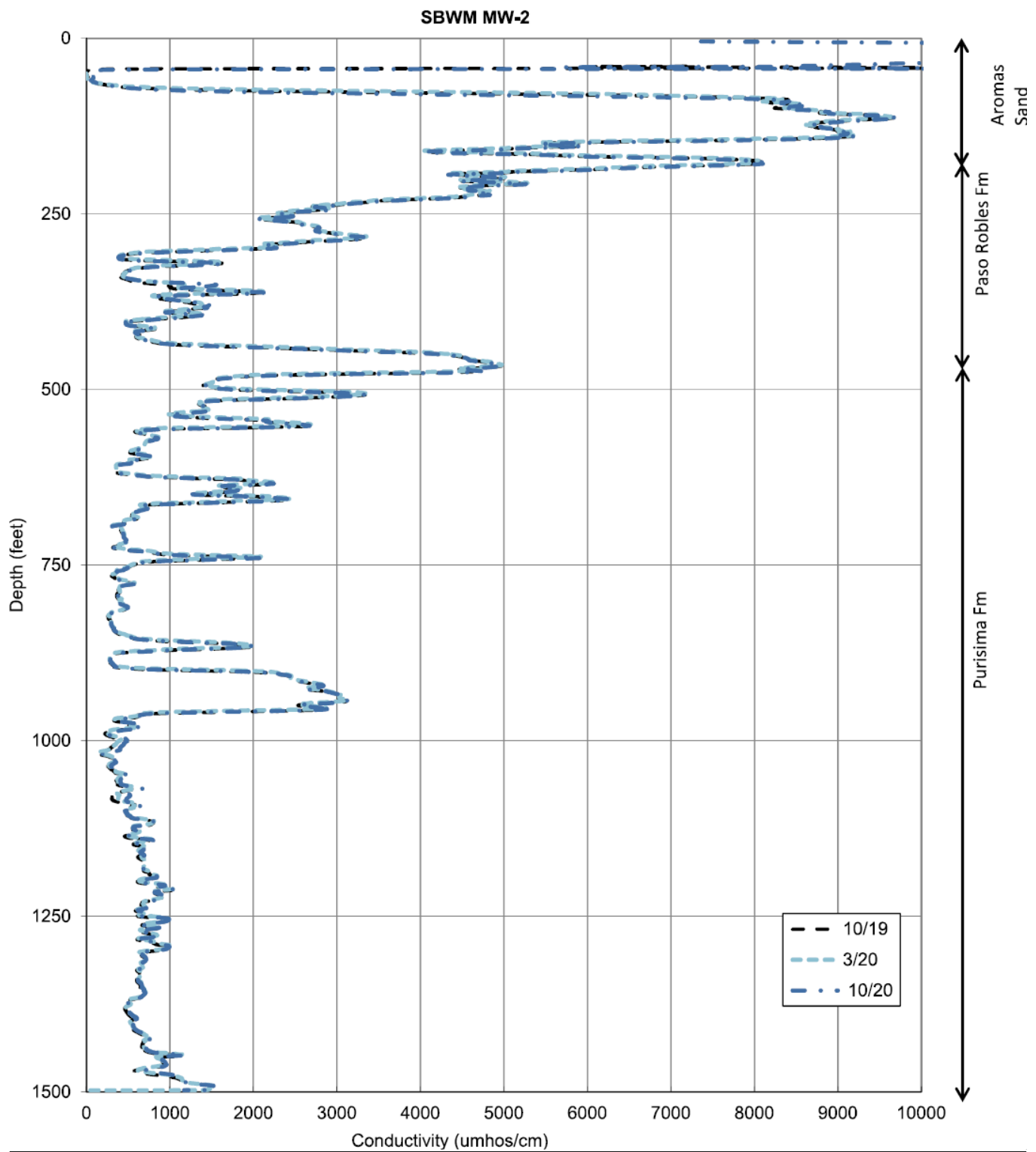
***SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ****

MEETING DATE:	Nonmember 20, 2019
AGENDA ITEM:	2.B
AGENDA TITLE:	Results from Martin Feeney's October 2020 Induction Logging of the Sentinel Wells
PREPARED BY:	Robert Jaques, Technical Program Manager
Attached are plots of the induction logging data from the October 2020 Sentinel Well logging event. As reported at the November 2019 TAC meeting, Mr. Feeney reported that due to failure of the induction tool he had been using in preceding years (10 runs), he switched to a new tool in September/October 2019. It has a slightly different response curve. The data was normalized to known resistivities (conductor casing and the prominent clay lens). This new tool was again used in the 2020 induction logging events. Mr. Feeney reports that the October 2020 data shows no detectable change in formation conductivity – a proxy for seawater intrusion. Thus, the induction logging does not show any indication of the start of seawater intrusion in any of the formations within which production wells are located (primarily the Paso Robles and Santa Margarita formations).	
ATTACHMENTS:	Induction Logging Results
RECOMMENDED ACTION:	None required – information only

SENTINEL WELLS CONDUCTIVITY

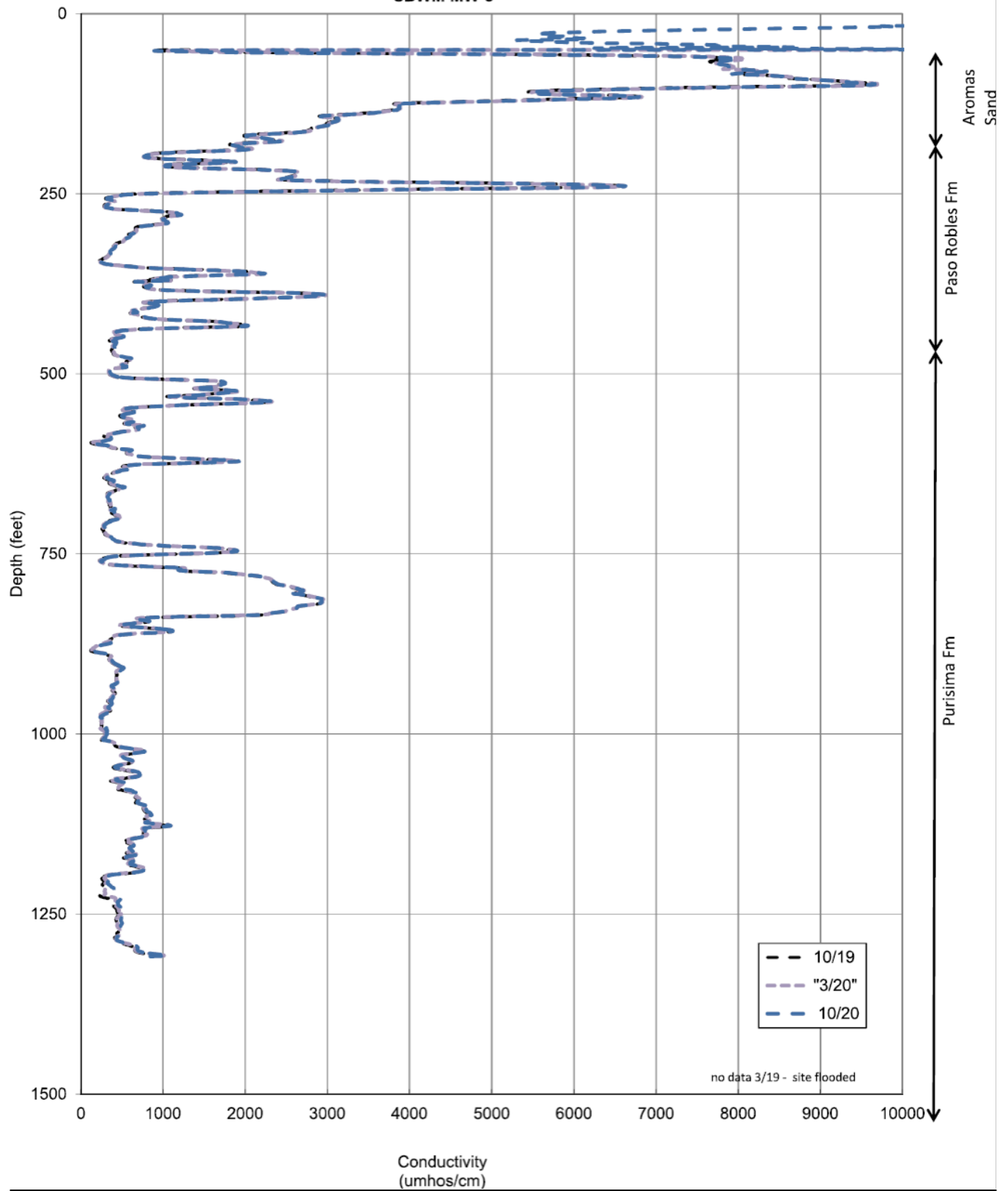


SENTINEL WELLS CONDUCTIVITY

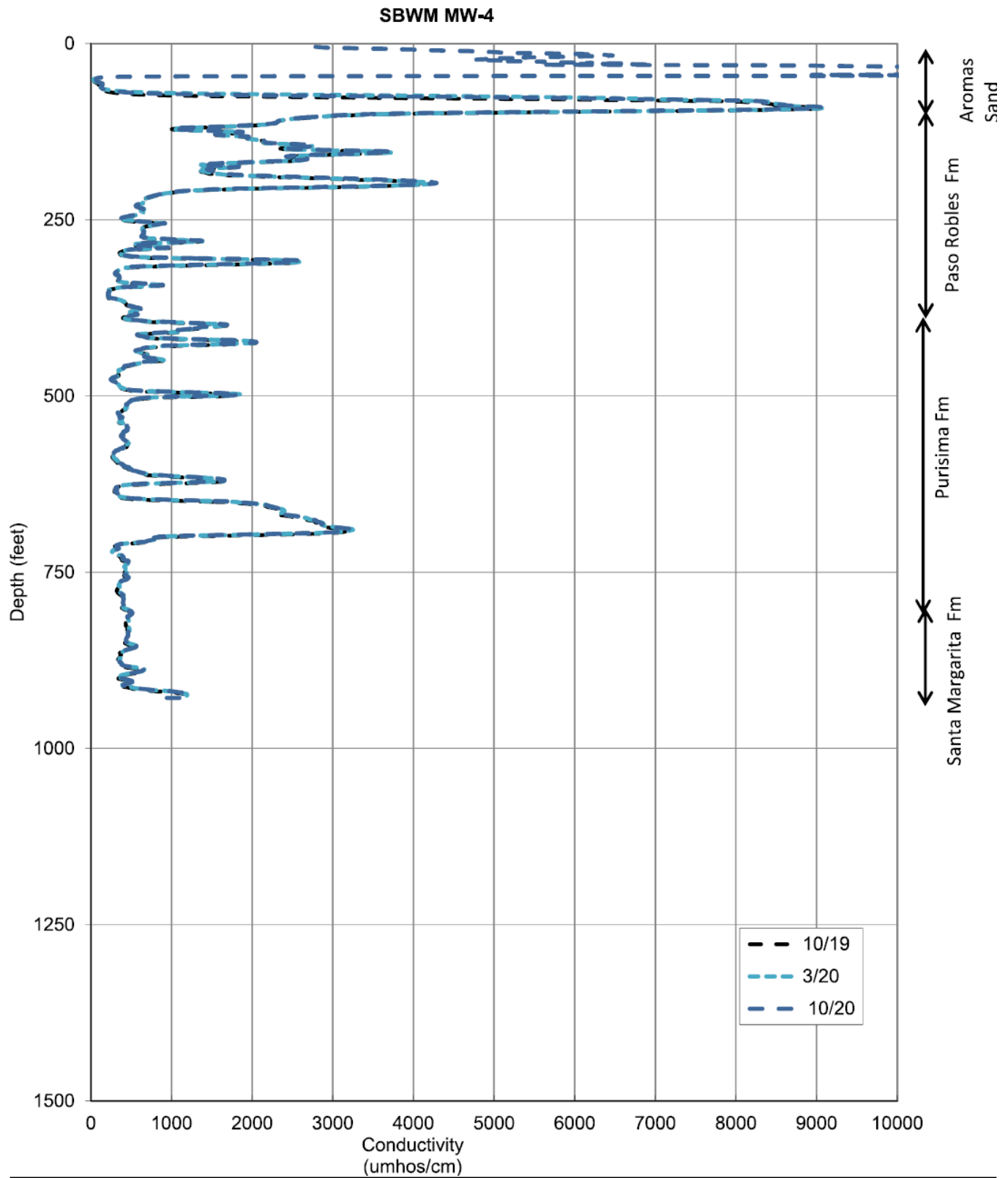


SENTINEL WELLS CONDUCTIVITY

SBWM MW-3



SENTINEL WELLS CONDUCTIVITY



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

MEETING DATE:	November 18, 2020
AGENDA ITEM:	2.C
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager
At the State level: Since my last update, I have not received any new materials from the State that would impact the Watermaster. At the Monterey County level: Because so many meetings are being cancelled, the Board asked that I keep them updated on issues related to my participation in meetings held by the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) by sending out meeting summaries on a monthly basis. Attached are summaries of those meetings held in August, September, and October 2020.	
ATTACHMENTS:	Meeting Summaries
RECOMMENDED ACTION:	None required – information only

SUMMARY OF
PURE WATER MONTEREY
AND
SALINAS VALLEY GROUNDWATER SUSTAINABILITY
ZOOM MEETINGS
IN AUGUST 2020

Note: This is a synopsis of information from these meetings that may be of interest to the Seaside Basin Watermaster

Pure Water Monterey Water (PWM) Quality and Operations Committee Meeting, August 12, 2020

- Dave Lindow is the Project Manager for the Pure Water Monterey project.
- On August 17 the deep injection wells will be taken out of service for swabbing and final commissioning.
- A third deep well will be added starting in November 2020 and completed in 2021. A third well is needed in order to be able to put 3,500 acre-feet per year into the aquifers for Cal Am extraction and the drought reserve.
- Improvements will be made to the vadose zone wells to mitigate sloughing and underperformance of these wells. They are not able to inject as much as originally planned. The plan is to stabilize the soil at these well pads.
- With the ground to sampling and analytical results, Patrice Parsons, M1W's Laboratory Director, reported that nothing alarming had been detected, only a few "legacy exceedances" in the aquifer which were observed before injection even began.
- In response to my request for information regarding virus testing results, I was provided a link to the State's data site where the Pure Water Monterey data is reported for virus and all other testing results. All of that data shows 100% compliance with virus removal requirements.
- I also asked for information regarding specific Covid-19 testing for the PWM Advanced Water Treatment (AWT) water to be provided at the next meeting.
- With regard to the tracer study work plan, the Pure Water Monterey AWT water itself will be used as the tracer (apparently it contains one or more constituents that enable it to be used as the tracer, rather than having to add something else to serve as the tracer constituent). The tracer work is just now starting.

SVBGSA Water Law Workshop, August 10, 2020

Nothing in this meeting provided information that was of direct interest to the Watermaster or the Seaside Basin.

SVBGSA Advisory Committee meeting, August 20, 2020

Nothing in this meeting pertained to, or was of direct interest to, the Watermaster or the Seaside Basin.

SVBGSA Seawater Intrusion Work Group meeting, August 24, 2020

Nothing in this meeting pertained to, or was of direct interest to, the Watermaster or the Seaside Basin.

MCWDGSA Stakeholder Meeting, August 25, 2020

- Vera Nelson of EKI Environment and Water (MCWD's consultant) provided a PowerPoint presentation describing MCWD GSA's approach to stakeholder involvement in the development

of their portion of the Monterey Subbasin GSP. The GSP must be submitted no later than January 31, 2022.

- MCWDGSA will prepare the portion of the GSP covering the Marina and Fort Ord areas which include federal lands that are not subject to SGMA. The SVBGSA will prepare the portion of the GSP for the Corral de Tierra area.
- There will be one single GSP covering the full Monterey subbasin after the two subarea portions are coordinated between these two GSA's.
- Quarterly meetings are expected to be held of the stakeholder group, meetings would be held in August, November 2020, and February and May 2021.
- Public process meetings will be held in August through November 2021.
- Chapters to be discussed each of these meetings are as follows:
 - August-chapters 1 through 4
 - November- chapters 5 and 6
 - February-chapters 7 and 8
 - May-chapters 9 and 10.
- The draft chapters from today's meeting will be posted for review on the MCWD website within two days.
- More than 100,000 water level and water quality records have been compiled from over 1000 wells thus far in the development of the draft GSP. [I will alert Montgomery and Associates to this so they can access this information if it will be helpful to them in the Seawater Intrusion Analysis Report or in conjunction with the Seaside Basin Groundwater Model.]
- MCWD's consultants are developing a new model they will refer to as the Monterey Subbasin Groundwater Model. It will incorporate data from the Fort Ord model, the Seaside Watermaster model, and the Salinas Valley Integrated Groundwater model. Its area will encompass the entire Monterey and Seaside subbasins.
- The three highest Sustainable Management Criteria concerns are envisioned to be: Reduction of groundwater storage, Lowering of water levels, and Seawater intrusion.
- More coordination is needed between the MCWD and the SVB GSA's to determine how to achieve sustainability. This is an ongoing process.
- Comments and questions about the chapters will occur at the next meeting(s) after the draft chapters are released.

SVBGSA Watershed Overview Workshop, August 26, 2020

I did not participate in this workshop as I did not see anything on the agenda that would provide information of direct interest to the Watermaster or the Seaside Basin.

SUMMARY OF
PURE WATER MONTEREY
AND
SALINAS VALLEY GROUNDWATER SUSTAINABILITY
ZOOM MEETINGS
IN SEPTEMBER 2020

Note: This is a synopsis of information from these meetings that may be of interest to the Seaside Basin Watermaster

SVBGSA Monterey Subbasin GSP Committee meeting on September 4, 2020

- At this meeting Bob Jaques of the Watermaster and Georgina King of Montgomery and Associates presented a comprehensive PowerPoint presentation identifying issues of mutual concern between the Seaside Basin and the Corral de Tierra subarea of the Monterey Subbasin. Slides from that presentation are attached. The presentation was much appreciated by the members of the Committee and was well received. Numerous comments in support of issues of concern to the Watermaster were voiced by members of the Committee.

Pure Water Monterey Water (PWM) Quality and Operations Committee Meeting, September 9, 2020

- Some of the shallow and deep injection wells are off-line for scheduled maintenance. Only one deep injection well is out of service at a time. Final commissioning is in progress for some of the deep injection wells, and this will probably be completed in late October. Commissioning includes brushing, swabbing, chemical neutralization, and disinfection, in order to get the well ready for full-scale operation.
- As of this date 1,065 acre-feet of advanced treated water had been injected into the Seaside Basin. Most of this is to serve as the Operating Reserve.
- There were initially some problems with pH levels, but this is now being resolved. It was related to water injected at the ASR wells, not due to water injected from the Advanced Water Treatment Facility.
- Correction of the subsidence problem at one of the shallow injection wells is being negotiated with the original well installation contractor. If the cost for the original contractor to undertake the corrective work is unacceptable, this work will be added to the contract for installation of one of the new deep injection wells. The new deep injection well contracts will include aboveground facilities as well as the well itself. The new wells are expected to be completed in 2021.
- For the first new deep injection well, exploratory borings have been completed and the findings are good. They still need to determine what capacity these wells need to be in order to be able to inject the full 3,500 acre-feet per year.. The project to install the 1st of the two new deep injection wells is out to bid, with bids expected to be opened in mid-October. The 2nd new deep injection well is still under design.
- Tracer testing has been in progress since June. Injected water showed up in 4 to 11 days at the nearby monitoring wells, as expected. The injected water has not yet arrived at the more distant monitoring wells.
- Construction of the treatment facilities for the Cal Am extraction wells are nearing completion.

- Sampling protocols are being revised with concurrence of the Division of Drinking Water based on results of sampling performed to date.
- Monthly reporting to the Watermaster under the terms and conditions of the Storage Agreement will start shortly and will catch up on the unreported data to date.

SVBGSA Advisory Committee meeting, September 17, 2020

This meeting was canceled due to a scheduling conflict, and the next meeting will not be held until mid-October.

SVBGSA Seawater Intrusion Work Group meeting, September 28, 2020

In this meeting there was an extensive review of the various projects that have been implemented to reduce seawater intrusion into the Salinas Valley Groundwater Basin. These included the Salinas Valley Reclamation Project and the Castroville Seawater Intrusion Project. A Technical Advisory Committee consisting largely of hydrogeological experts, along with some interested parties, has been formed and will do the heavy technical assessment of options that will then be presented to the Work Group for discussion. There was also an update on work in progress at the County regarding curtailment of issuance of new well permits in certain areas that are particularly susceptible to seawater intrusion.

GSP Web Map Workshop – Joint Special Meeting of the Eastside, Forebay, Langley, Monterey, and Upper Valley Subbasin Committees, September 30, 2020

**ISSUES OF MUTUAL
CONCERN
BETWEEN
THE ADJUDICATED
SEASIDE GROUNDWATER
BASIN
AND THE
CORRAL DE TIERRA
SUBAREA OF THE
MONTEREY SUBBASIN**

Presented to
the Monterey
Subbasin GSP
Committee
September 4,
2020

 **MONTGOMERY
& ASSOCIATES**

OUTLINE

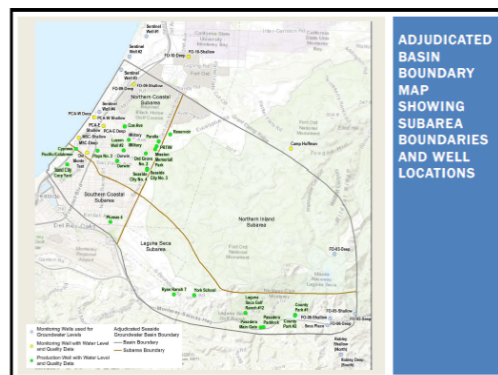
- Describe the Seaside Basin's Adjudication and Obligations
- Describe Findings from Earlier Hydrogeologic Studies of the El Toro Planning Area
- Describe Declining Groundwater Levels in the Laguna Seca Subarea
- Describe Laguna Seca Subarea groundwater modeling to date

 **MONTGOMERY
& ASSOCIATES**

**SEASIDE BASIN IS AN ADJUDICATED
BASIN**

- **Adjudication is a Court action taken to:**
 - Establish water rights for the parties that pump groundwater from the Basin
 - Standard Producers (public or private water suppliers)
 - Alternate Producers (pumpers that use their water themselves)
- Provide a "physical solution" for the perpetual management of the Basin – similar to a Groundwater Sustainability Plan, but dictated by the Court, not created by the Basin managers
- **The Court issues a Judgement called an Adjudication Decision which:**
 - Creates a Watermaster comprised of representatives of the parties to the Decision
 - Requires Watermaster to carry out the requirements of the Decision
 - Defines the term "Material Injury" to mean a substantial adverse physical impact to the Seaside Basin or any particular Producer(s), including but not limited to: seawater intrusion, land subsidence, excessive pump lifts, and water quality degradation

 **MONTGOMERY
& ASSOCIATES**



WATERMASTER'S OBLIGATIONS UNDER THE DECISION INCLUDE

- Implementing a Court-required ramp-down in pumping in order to have total Basin pumping not exceed the Basin's Natural Safe Yield (i.e. to become sustainable)
 - All Standard Producers required to reduce their initially allocated pumping allowances by 10% every three years
 - Final ramp-down will occur in Water Year 2021, which starts on October 1, 2020
 - Lowers Basinwide pumping by 2,600 AFY from an Initial 5,600 AFY to 3,000 AFY
 - Alternate Producers allowed to keep their initially allocated pumping allowances without ramping-down unless Watermaster determines that Natural Safe Yield is less than the original Court-established value of 3,000 AFY



5

WATERMASTER'S OBLIGATIONS UNDER THE DECISION INCLUDE

- Implementing a Monitoring and Management Plan including:
 - Installing monitoring wells to better understand the Basin's hydrogeology
 - Ongoing collection of water production, water level, and water quality data from monitoring and production wells
 - Hydrogeologically model the Basin
 - Utilize reclaimed water where appropriate to reduce pumping of groundwater
 - Return the Basin to equilibrium, i.e. make it sustainable
 - Avoid the occurrence of "material injury"



6

EARLIER HYDROGEOLOGIC STUDIES OF THE EL TORO PLANNING AREA

- Study for the County by Staal, Gardner & Dunne in 1991
 - Declining water levels during the 1980s
 - County imposed B-8 zoning to portions of El Toro Planning Area in 1992, but not to the Corral de Tierra subarea
 - B-8 zoning limits development to SFDs on existing lots of record since 1991
- Study for the County by Fugro in 1996
 - Cautioned that demand was approaching supply in most of the subareas
 - Build-out demand would exceed estimated supply
 - Recharge estimates need better groundwater level data to be reliable
 - Recommended expanded groundwater level monitoring program
 - Recommended performing hydrogeologic investigation and analysis of water resources using expanded monitoring data



7

2007 GEOSYNTEC EL TORO PLANNING AREA STUDY

- Many El Toro wells screened in both the Paso Robles and Santa Margarita aquifers
- Majority of pumping concentrated near Highway 68 in the northwest portion of the El Toro planning area
- Since 1999 90% of wells had water levels declining at an average rate of -1.8 feet per year
 - This represents 1,000 AFY of overdraft
- Rate of groundwater pumping exceeds the rate of groundwater replenishment - overdraft conditions clearly exist
 - Water table will continue to fall and will go below well screens in wells completed in the Paso Robles aquifer (has already happened to some wells in the Corral de Tierra subarea)
- Similar rates of declining water levels reported in the adjacent hydrogeologically contiguous Laguna Seca Subarea

8

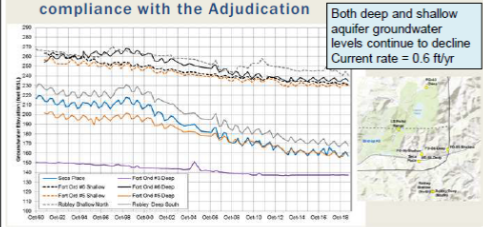
GEOSYNTEC RECOMMENDATIONS INCLUDED

- Expand B-8 zoning to cover the entire El Toro planning area in order to help prevent overdrafting and mining of stored groundwater
- Establish collaborative groundwater management program for the Laguna Seca and El Toro areas
- Install dedicated monitoring wells in the El Toro area as has already been done in the Laguna Seca area
- Evaluate feasibility of wastewater reclamation for golf course and domestic irrigation
- Evaluate feasibility of additional groundwater production and storage in the Upper Corral de Tierra Valley

9

DECLINING GROUNDWATER LEVELS IN THE LAGUNA SECA SUBAREA

- There have been long-term declines in the Laguna Seca Subarea even with reductions in pumping in compliance with the Adjudication



WHAT IS BEING DONE IN LAGUNA SECA TO MITIGATE DECLINING GROUNDWATER LEVELS

- Reclaimed water used to the fullest extent possible for golf course irrigation
- Cal Am constructing intertie to serve its Laguna Seca customers from its Main System in order to discontinue pumping from its Laguna Seca wells
 - Scheduled to be completed in late 2020
 - Will reduce Laguna Seca pumping by about 28%

11

GEORGINA KING OF MONTGOMERY & ASSOCIATES

WHO, ALONG WITH DERRIK WILLIAMS, HAS
BEEN PROVIDING HYDROGEOLOGIC
SERVICES TO THE WATERMASTER FOR MANY
YEARS

WILL NOW DISCUSS THE TECHNICAL ISSUES



WHAT HAS BEEN DONE TO UNDERSTAND DECLINING GROUNDWATER LEVELS?

Groundwater flow model developed in 2009 and regularly updated

1. Re-examined Laguna Seca Safe Yield using the Groundwater Model (2013/2014)
2. Evaluated groundwater flow divides between the LSSA and the Corral de Tierra subarea using the Groundwater Model (2016)



13

DIFFERENCE BETWEEN LAGUNA SECA SUBAREA MODELING PROJECTS

Safe Yield (2013/2014)

- Determine impacts from potential pumping changes within and outside of the subarea
- Estimate the Natural Safe Yield and Operational Safe Yield

Groundwater Divide (2016)

- Map existing and potential future groundwater divides based on groundwater model simulations
- Show flow directions



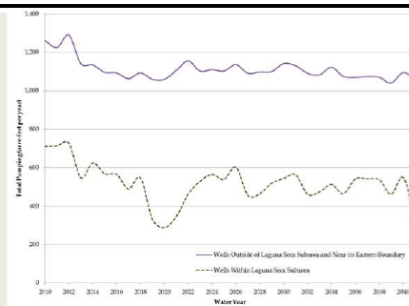
14

2014 MODELING FINDINGS WITHIN THE LAGUNA SECA SUBAREA

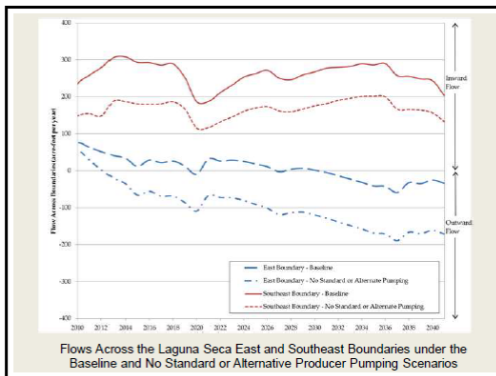
- Even with Cal Am discontinuing pumping from the LSSA:
 - Some LSSA wells will experience groundwater levels dropping below the top of their well screens
 - Groundwater levels in the Santa Margarita aquifer continue to fall in the eastern portion of the LSSA
- Wells in the Corral de Tierra area near the eastern boundary of the LSSA pump over twice the total amount of water pumped within the LSSA
- Water is being drawn out of the LSSA and into the Corral de Tierra subarea by pumping in the Corral de Tierra subarea



15



Projected Pumping Rates within the Laguna Seca Subarea (with all Cal Am Pumping Halted) and Outside of its Eastern Boundary



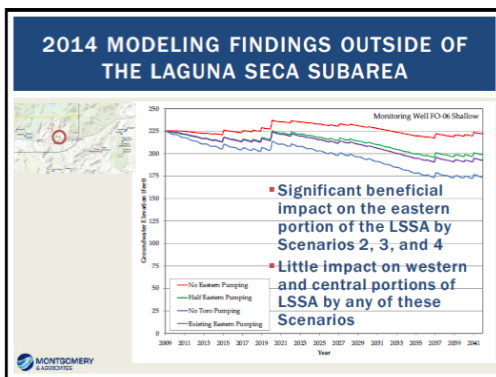
2014 MODELING FINDINGS OUTSIDE OF THE LAGUNA SECA SUBAREA

■ Four Scenarios were modeled for well pumping outside the LSSA:

1. Maintain existing pumping rates
2. Eliminate pumping from the Toro wells
3. Reduce Corral de Tierra pumping rates by 50%
4. Eliminate all Corral de Tierra pumping



MONTGOMERY
LABORATORY

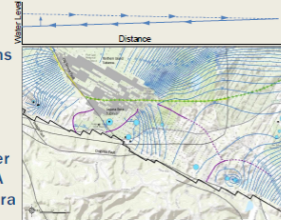


MONTGOMERY
LABORATORY

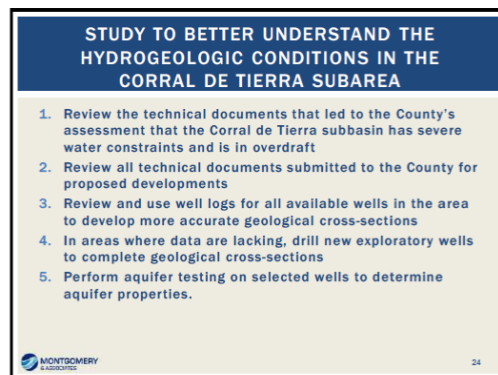
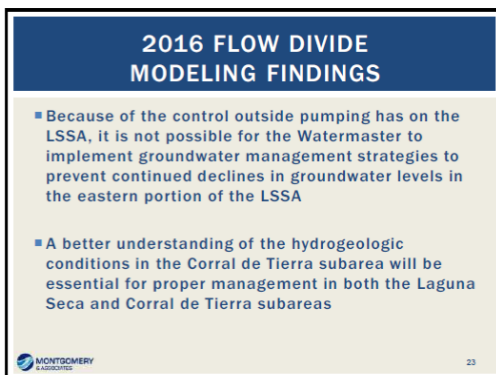
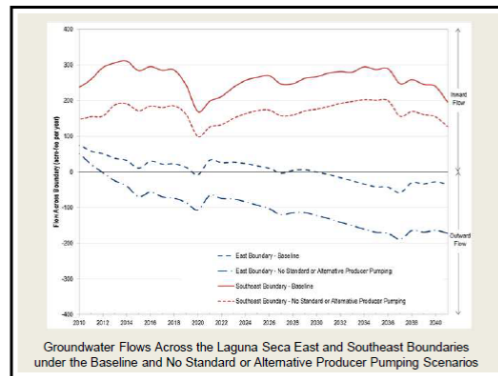
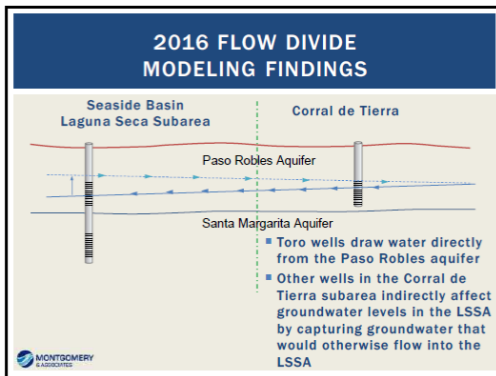
2016 FLOW DIVIDE MODELING FINDINGS

■ Reducing LSSA pumping will cause the flow divide to move westerly and further into the LSSA

- Caused by relative increase in groundwater elevations in the LSSA from reduced pumping compared to Corral de Tierra pumping
- Results in groundwater flowing from the LSSA into the Corral de Tierra



MONTGOMERY
LABORATORY



**APPLICABLE GSP REQUIREMENTS
UNDER SGMA**

- Section 354.28(b)(3) of SGMA states that one requirement of GSPs is to establish minimum thresholds to avoid causing undesirable results in adjacent basins or affecting the ability of adjacent basins to achieve sustainability goals
- The LSSA of the Seaside Subbasin cannot achieve stabilized groundwater levels and sustainability without pumping reductions in the Corral de Tierra subarea

 25

QUESTIONS?



SUMMARY OF
PURE WATER MONTEREY
AND
SALINAS VALLEY GROUNDWATER SUSTAINABILITY
ZOOM MEETINGS
IN OCTOBER 2020

Note: This is a synopsis of information from these meetings that may be of interest to the Seaside Basin Watermaster

SVBGSA Advisory Committee meeting, October 15, 2020

In this meeting there were two items of potential interest to the Watermaster.

One was discussion, and ultimately an Advisory Committee recommendation to the SVBGSA Board, regarding whether or not to classify the “shallow sediments” in the 180/400-foot aquifer as a “principal aquifer.” In this context the term shallow sediments refers to what is referred to as the perched aquifer (the Aromas Sands aquifer) in the Seaside Basin. After considerable discussion, and with several Committee members expressing concerns about the influence of shallow groundwater levels on potential Groundwater Dependent Ecosystems (GDEs), the Committee voted to recommend to that Board (1) that the shallow sediments NOT be classified as a principal aquifer, and (2) that the Board not direct staff to perform a study of this topic. This vote was largely because the shallow sediments in the 180/400-foot aquifer have very few active production wells drawing from it (because of seawater intrusion and low production rates), and because there are many other more important issues for the SVBGSA to address rather than spending time and money to perform a study of this issue.

The other item pertained to making a recommendation to the SVBGSA Board on how to estimate depletions of water from surface water sources that are connected to shallow groundwater aquifers. In the SVBGSA the interconnected surface water is the Salinas River, in a few locations. In those locations there is direct hydrogeologic connection between the Salinas River and the underlying or adjacent shallow groundwater aquifer. Consequently, pumping from the shallow aquifer could draw water downward from the Salinas River, thus depleting the quantity of water flowing in the Salinas River downstream from those locations. Two methods of estimating this surface water depletion were considered: (1) Estimate depletions with a model (in this case it would be the Integrated Salinas Valley Hydrogeologic Model being developed by the U.S. Geological Survey), or (2) Use groundwater elevations as a proxy to estimate depletions. Following considerable discussion, the Committee voted to recommend to that Board to use groundwater elevations as a proxy. This vote was largely because (1) Surface water depletions are proportional to changes in shallow groundwater elevations and (2) If groundwater elevations near a stream remain constant, then pumping is not causing additional surface water depletion.

Some Committee members expressed concern that the MCWRA’s dam release program would automatically cause larger dam releases if surface water depletion was being detected, and this could mask the effect pumping in the shallow aquifer could be having on surface water depletions. However, the majority of Committee members felt that using groundwater levels as a proxy sufficiently addressed the issue for Groundwater Sustainability Plan purposes, and that using the model would be costly and would not provide sufficient benefit to justify the expense.

These two issues may be of interest to the Watermaster, because the MCWD portion of the Monterey Subbasin, which borders the Seaside Basin’s northerly boundary, is adjacent to the 180/400-foot aquifer subbasin. Thus, decisions made on these issues in the 180/400-foot subbasin could influence similar decisions that MCWD will be making on its portion of the Monterey Subbasin, which could in turn have some impact on the Seaside Basin.

SVBGSA Seawater Intrusion Work Group meeting, October 26, 2020

In this meeting there was an extensive discussion of the Castroville Seawater Intrusion Project (CSIP) which is the project that is supplying recycled water for irrigation of food crops in the Castroville area of the Salinas Valley Groundwater Basin. There is a desire to increase the amount of water that this project can supply to growers in order to further reduce the amount of water that growers have to pump for irrigation. Various approaches to expanding the CSIP delivery capacity were reviewed.

There was also discussion of the County's well construction permitting process and its new well ordinance, in light of a recent State Supreme Court ruling that affects how well permitting processes are to be handled under the California Environmental Quality Act (CEQA).

There was a presentation by the SVBGSA's economic consultant (WestWater Research) on demand management approaches (ways of reducing groundwater pumping to achieve basin sustainability) and the cost of water from the various types of water supply projects that are being contemplated by the SVBGSA for the 180-400-foot Subbasin Groundwater Sustainability Plan.

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

MEETING DATE:	November 18, 2020
AGENDA ITEM:	2.D
AGENDA TITLE:	Discuss Monitoring to be Performed at Security National Guarantee (SNG) Well
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

The Court approved the Seaside Basin Monitoring and Management Program (M&MP) in September 2006. The M&MP contains this language pertaining to well monitoring requirements:

5. *Monitoring of Production Wells*

a) *Water Level Monitoring*

All active and inactive production wells in the basin owned and/or operated by a Watermaster member shall have static (i.e., non-pumping) water levels collected and recorded a minimum of once per month. It shall be the responsibility of each owner/operator of a Watermaster member production well to report monthly water level measurements to the Watermaster on an annual basis for inclusion of these data in the consolidated groundwater resource database.

b) *Water Quality Monitoring*

All active production wells in the coastal subareas of the basin owned and/or operated by a Watermaster member shall have a water quality sample from each well collected and analyzed by a state-approved laboratory for the full general inorganic mineral suite a minimum of once per year. It shall be the responsibility of each owner/operator of a Watermaster member production well to report water quality analytical results to the Watermaster on an annual basis for inclusion of these data in the consolidated groundwater resource database.

In the past the SNG well was inactive (not producing) and was only monitored for water levels. It has recently started to be pumped and is thus now a production well, and is located in a coastal subarea. Based on the language in the M&MP, it should now be monitored for water quality as well as water level. The well owner has proposed that monitoring for water quality is not necessary since this well is located very close to other wells which are providing water quality and water level data. I discussed this with Jon Lear of MPWMD, and with Georgina King of Montgomery & Associates. They provided the following opinions:

Jon Lear:

I remember that when the SNG well was inactive, PCA West served as a surrogate so that Ed [Ghandour] could keep his allocation alive. Now Ed has made a water wheeling deal with CalAm and retained a smaller allocation for his onsite well. Now that the well is active, MPWMD believes that the well should be treated like all other coastal producing wells and be sampled in September. Ed used Craig Evans to measure the depth to water and Craig is more than competent to take a water sample.

AGENDA ITEM:	2.D (Continued)
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**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ***

Georgina King:

I've looked into the issue of sampling and testing the SNG well since it is now pumping again. This well is probably one of the closest production wells to the ocean in the Basin and therefore it should be watched closely. It is screened from 200 – 630 ft below ground while the PCA-W shallow is screened from 525 – 575 ft below ground. As the SNG well screen starts much shallower, the PCA-W shallow well located between the ocean and the SNG well is not monitoring the same water in the SNG well. The PCA-E shallow well might be screened at roughly the same elevation as the SNG well, but it is inland of the SNG well.

I conclude that the SNG well should be sampled just like any other active production well per the Decision. My reasons are:

- The PCA-W shallow well is screened deeper than the majority of the SNG well's screens and therefore the water quality from the PCA-W shallow well does not represent the water quality in the SNG well.*
- The PCA-E shallow well is inland of the SNG well. If we relied on the PCA-E well to monitor the SNG well, seawater intrusion would have advanced quite far by the time it was found in the PCA-E shallow well.*
- I also think it could get complicated having exceptions to the provision in the decision that all active production wells are sampled. All production wells should be treated equally.*

Attached is data from the 2019 Seawater Intrusion Analysis Report showing water level data from the PCA-W, SNG, and PCA-E wells. (The SNG well is referred to as the "PCA Production" well in the 2019 SIAR). As the data indicates, the water levels in each of these wells is quite different from the water levels in the other of these wells.

Also attached is a map showing the relative locations of these three wells. The SNG well is approximately 400 feet inland of the PCA-W well and approximately 900 feet seaward of the PCA-E well.

Based on the information and opinions above, I recommend that the SNG well be required to obtain and provide to the Watermaster both water level and water quality data as required under the M&MP.

ATTACHMENTS:

1. Water level data from the 2019 SIAR
2. Map showing relative locations of the three wells

RECOMMENDED ACTION:

Require the SNG well to be monitored for both water level and water quality

PCA Production

Watermaster No. 171

Northern Coastal Owner: Security National Guaranty Inc

Aquifer Unit: QTc Well Type: Producer

All Values in Feet

Date Measured	Depth to Water	Reference Point	Water Elevation	Comments
10/26/2018	68.4	72.63	4.53	
11/26/2018	68.2	72.63	4.43	
12/24/2018	68.0	72.63	4.63	
01/24/2019	68.2	72.63	4.43	
02/25/2019	68.0	72.63	4.63	
03/25/2019	68.4	72.63	4.23	
04/22/2019	68.0	72.63	4.63	
05/23/2019	68.2	72.63	4.43	
06/25/2019	68.65	72.63	3.98	
07/24/2019	69.2	72.63	3.43	
08/24/2019	67.2	72.63	5.43	
09/25/2019	68.32	72.63	4.31	

PCA-E Shallow Watermaster No. 105 Northern Coastal

Owner: MPWMD Aquifer Unit: QTc

Well Type: Monitor All Values in Feet

Date Measured	Depth to Water	Reference Point	Water Elevation	Comments
10/31/2018	68.18	68.51	0.33	No Time
11/26/2018	67.70	68.51	0.81	
12/26/2018	67.07	68.51	1.44	
01/28/2019	66.40	68.51	2.11	
02/12/2019	66.07	68.51	2.44	Download
03/04/2019	65.62	68.51	2.89	

04/23/2019	65.49	68.51	3.02	
06/03/2019	65.83	68.51	2.68	
06/11/2019	65.40	68.51	3.11	Download
06/26/2019	65.64	68.51	2.87	
07/29/2019	66.67	68.51	1.84	
08/13/2019	66.78	68.51	1.73	Download
09/16/2019	67.15	68.51	1.36	SBWM annual Standard Panel

PCA-W Deep Watermaster No. 104 Northern Coastal Owner: MPWMD Aquifer Unit:
Tsm

Well Type: Monitor All Values in Feet

Date Measured	Depth to Water	Reference Point	Water Elevation	Comments
10/01/2018	82.87	65.18	-24.89	
11/01/2018	92.48	65.18	-27.30	
11/27/2018	91.10	65.18	-25.92	
11/28/2018	90.16	65.18	-24.98	Quarterly sample
12/31/2018	NA	65.18		Gate locked
01/29/2019	82.80	65.18	-17.62	
02/12/2019	80.39	65.18	-15.21	Download
03/01/2019	80.33	65.18	-15.15	
03/26/2019	77.70	65.18	-12.52	
04/23/2019	77.07	65.18	-11.89	
05/13/2019	79.42	65.18	-14.24	Quarterly sample
06/24/2019	82.17	65.18	-16.99	Download
07/08/2019	83.27	65.18	-18.09	Quarterly sample
07/25/2019	84.51	65.18	-19.33	
08/26/2019	89.18	65.18	-24.00	Download. Quarterly

10/03/2019 91.8 65.18 -26.62

PCA-W Shallow Watermaster No. 103 Northern Coastal Owner: MPWMD Aquifer
Unit: QTc

Well Type: Monitor All Values in Feet

Date Measured	Depth to Water	Reference Point	Water Elevation	Comments
10/01/2018	63.00	65.22	2.14	
11/01/2018	64.04	65.22	1.18	
11/27/2018	63.20	65.22	2.02	
11/28/2018	62.87	65.22	2.35	Quarterly sample
12/31/2018	NA	65.22		Gate locked
01/29/2019	NA	65.22		Need new lock
02/12/2019	62.03	65.22	3.19	
03/01/2019	62.17	65.22	3.05	
03/26/2019	61.71	65.22	3.51	
04/23/2019	61.30	65.22	3.92	
05/13/2019	61.82	65.22	3.40	Quarterly sample
06/24/2019	61.81	65.22	3.41	Download
07/08/2019	62.39	65.22	2.83	Quarterly sample
07/25/2019	62.12	65.22	3.10	
08/26/2019	62.68	65.22	2.54	Quarterly sample
10/03/2019	63.07	65.22	2.15	

Map Showing Relative Locations of the Three Wells



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

MEETING DATE:	November 18, 2020
AGENDA ITEM:	4
AGENDA TITLE:	Discuss and Provide Input on the 2020 Seawater Intrusion Analysis Report (SIAR)
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Montgomery & Associates has completed preparing the Draft Seawater Intrusion Analysis Report (SIAR) for Water Year 2019-2020 and the Executive Summary, which contains conclusions and recommendations, is attached. The complete Draft SIAR is lengthy, so rather than including it in this agenda packet it will be posted on the Watermaster's website so TAC members wishing to review the entire document could do so.

The SIAR examines the "health" of the Basin with regard to whether or not there are any indications that seawater intrusion is either occurring or is imminent. Previous SIARs have stated that depressed groundwater levels, continued pumping in excess of recharge and freshwater inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin. In spite of these factors, the previous SIARs stated that neither the Piper nor the Stiff Diagrams nor any of the other parameters indicated the presence of seawater intrusion in the existing monitoring wells. The 2020 SIAR reports that the evaluation of the data from the sampling and monitoring program continues to indicate that seawater intrusion is not occurring. However, The SIAR did report that there had been recent increases in chloride concentrations at monitoring wells FO-9 Shallow and FO-10 Shallow. These wells are both in relatively close proximity to known intrusion in the Salinas Valley, but are inland of the Watermaster's four Sentinel Wells where induction logging showed no indication of seawater intrusion. Based on these chloride concentration increases, the SIAR recommended that:

- Monitoring well FO-10 Shallow be immediately resampled to confirm the 48 mg/L chloride increase that was found in the last 2020 sample taken from this well. (A sample was collected on November 10, 2020 and analytical results are expected in December 2020).
- Monitoring wells FO-9 Shallow and FO-10 Shallow's sampling frequency be increased to quarterly and that their groundwater quality results be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. Monitoring well FO-9 Shallow is currently monitored on a semi-annual basis, increased from annual sampling, because an increasing chloride trend had previously been observed. Monitoring well FO-10 Shallow is currently monitored on an annual basis.

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

AGENDA ITEM:

4 (Continued)

A representative from Montgomery & Associates will participate in today's TAC meeting to provide an oral summary of the report and to respond to questions by TAC members.

ATTACHMENTS:

Executive Summary from the Draft 2020 SIAR

**RECOMMENDED
ACTION:**

Discuss and either modify or approve the Draft SIAR and forward the document to the Board with the TAC's recommendation for approval



EXECUTIVE SUMMARY

This report fulfills part of the annual reporting requirements contained in the Seaside Groundwater Basin Adjudication (California American Water v. City of Seaside, Monterey County Superior Court, Case Number M66343). The annual report addresses the potential for, and extent of, seawater intrusion in the Seaside Groundwater Basin.

Seawater intrusion may occur under basic hydrogeologic conditions as a wedge beneath fresh groundwater, or in more complex hydrogeology with various intrusion interfaces among the different aquifers. Continued pumping in excess of recharge and fresh water inflows, coastal groundwater levels well below sea level, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin.

Seawater intrusion is typically identified through regular chemical analyses of groundwater which can identify geochemical changes in response to seawater intrusion. No single analysis definitively identifies seawater intrusion, however by looking at various analyses we can ascertain when fresh groundwater mixes with seawater. At low chloride concentrations, it is often difficult to identify incipient seawater intrusion. This is due to the natural variation in fresh water chemistry at chloride concentrations below 1,000 milligrams per liter (mg/L). Mixing trends between groundwater and seawater are more easily defined when chloride concentrations exceed 1,000 mg/L. Common geochemical indicators of seawater intrusion are cation and anion ratios, chloride trends, sodium/chloride ratios, and electric induction logging.

Based on an evaluation of geochemical indicators for Water Year 2020 and prior, no seawater intrusion has historically been or is currently observed in existing monitoring and production wells in the Seaside Groundwater Basin. Even though seawater intrusion is not occurring, there are ongoing detrimental groundwater conditions that pose a potential threat of seawater intrusion. These are summarized below:

- Both the Paso Robles and Santa Margarita aquifers in the Seaside Groundwater Basin are susceptible to seawater intrusion. The Paso Robles aquifer is in direct hydrogeologic connection with Monterey Bay, and seawater will eventually flow into it if inland groundwater levels continue to be below sea level. The Santa Margarita aquifer may not be in direct connection with Monterey Bay. If that is the case, then seawater intrusion will take longer to appear because the pathway for seawater into that aquifer will be longer as seawater would need to move through the clay rich deposits adjacent to that aquifer before entering the aquifer itself and thereafter make its way into Santa Margarita production wells. It is not if, but when, seawater intrusion into these aquifers will occur if protective water elevations are not achieved.



- Deep groundwater in the Northern Coastal subarea remains below sea level. The Water Year 2020 2nd quarter (winter/spring) deep aquifer coastal groundwater levels are more than 20 feet below sea level and the 4th quarter (summer/fall) levels are more than 30 feet below sea level. The pumping depression in the Northern Coastal subarea shrunk slightly because CAWC pumped almost 800 acre-feet less than last year in the subarea.
- Groundwater levels remain below protective elevations in all deep target monitoring wells (MSC deep, PCA-W deep, and sentinel well SBWM-3). Currently, MSC Shallow and PCA-W Shallow are two of three shallow wells with groundwater levels below their respective protective elevations.

Data that indicate that seawater intrusion is not occurring are described in the bulleted items below:

- Most groundwater samples for Water Year 2020 from depth-discreet monitoring wells generally plot in a single cluster on Piper diagrams, with no water chemistry changes towards seawater. Increased chloride in recent samples at FO-9 Shallow and FO-10 Shallow has shifted how these wells plot on Piper diagrams towards a chlorinated water type, however they still generally plot between sodium-chloride and sodium-bicarbonate type waters.
- In some production wells, groundwater quality plots differently on Piper diagrams than the monitoring wells. This may be a result of mixed water quality from both shallow and deep zones in which these wells are perforated. None of the production wells' groundwater qualities are indicative of seawater intrusion.
- None of the Stiff diagrams for monitoring and production wells show the characteristic chloride spike that typically indicates seawater intrusion in Stiff diagrams. The Stiff diagrams for monitoring wells FO-9 Shallow and FO-10 Shallow show a slightly different shape than other shallow wells because of their increased chloride.
- Chloride concentration trends were stable for most monitoring wells, except FO-9 Shallow and FO-10 Shallow. Monitoring well FO-09 Shallow has experienced increased chloride concentrations in all three samples taken during Water Year 2020, in addition to increases observed in the three samples taken last water year. The increase in concentrations between Water Years 2019 and 2020 is around 13 mg/L, which is greater than fluctuations observed historically over its period of record. Monitoring well FO-10 Shallow also experienced a 48 mg/L increase in chloride concentrations in the sample taken this year. The elevated concentrations in themselves do not indicate seawater intrusion, however, these wells should both be monitored quarterly over the next year to determine if the increasing chloride concentrations are temporary or not.



- Sodium/chloride molar ratios in most monitoring wells remained constant or increased over the past year. Monitoring well FO-09 Shallow experienced an increase in chloride as mentioned above, and its sodium/chloride ratio of 0.82 in Water Year 2020 is just above its historical minimum of 0.81. Monitoring well FO-10 Shallow also experienced an increase in chloride over the last year and currently has a sodium/chloride ratio of 0.79. Sodium/chloride ratios at both of these wells are below the 0.86 ratio that may identify seawater intrusion as the source of chloride as opposed to a domestic wastewater source
- Maps of chloride concentrations for the shallow aquifer do not show chlorides increasing towards the coast. However, northern monitoring wells FO-9 Shallow and FO-10 Shallow have recently increased chloride concentrations, but at concentrations still less than 100 mg/L. The deep aquifer maps show that the highest chloride concentrations are limited to coastal monitoring wells PCA-West Deep and MSC Deep, but these are not indicative of seawater intrusion since their concentrations are less than 155 mg/L and they do not have increasing trends.
- Induction logging data at the coastal Sentinel Wells do not show historical or recent changes over time that are indicative of seawater intrusion.

Due to its distance from the coast, seawater intrusion is not an issue of concern in the Laguna Seca subarea. However, groundwater levels in the eastern Laguna Seca subarea have historically declined at rates of 0.6 feet per year in the shallow aquifers, and up to four feet per year in the deep aquifers. These declines have occurred since 2001, despite triennial reductions in allowable pumping. The cause of the declines is due in part to the Natural Safe Yield of the subarea being too high and in part due to the influence of wells to the east of the Seaside Basin. Although there was some stabilization in groundwater levels between Water Years 2014 and 2016, groundwater levels are continuing to decline. The rate of decline now, however, is less than 0.6 feet per year.

Native groundwater production in the Seaside Groundwater Basin for Water Year 2020 was 3,323.1 acre-feet, which is 52.9 acre-feet more than Water Year 2019. The amount of native groundwater pumped in Water Year 2020 is 36.9 acre-feet less than the Decision-ordered Operating Yield of 3,360 acre-feet per year that is required between October 1, 2017 and September 30, 2020. The Decision-ordered Operating Yield for Water Year 2021 will be 3,000 acre-feet.

Based on recent corresponding increases in chloride concentrations at monitoring wells FO-9 Shallow and FO-10 Shallow, both in relatively close proximity to known intrusion in the Salinas Valley, the following is recommended:

1. Monitoring well FO-10 Shallow be immediately resampled to confirm the 48 mg/L chloride increase. A sample was collected on November 10, 2020 and results are expected within a month.
2. Monitoring wells FO-9 Shallow and FO-10 Shallow's sampling frequency be increased to quarterly and that their groundwater quality results be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. Monitoring well FO-9 Shallow is currently monitored on a semi-annual basis, increased from annual sampling, because an increasing chloride trend had previously been observed. Monitoring well FO-10 Shallow is currently monitored on an annual basis.

With the exception of monitoring wells FO-09 Shallow and FO-10 Shallow, data analyzed for this report did not deviate significantly from historical data. Therefore, besides increased sampling frequency recommended for FO-09 Shallow and FO-10 Shallow, there are no additional recommendations on sampling frequencies.

As projects that recharge and recover water in the Basin are implemented, groundwater levels and thus groundwater flow directions will change, and possibly groundwater quality too. It is therefore important that data from new monitoring wells are reported to the Watermaster and taken into consideration in future SIARs. Watermaster staff worked in 2020 to identify monitoring wells associated with Pure Water Monterey that would be beneficial to the SIAR. Data from these wells have not yet been incorporated into the SIAR.

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

MEETING DATE:	November 21, 2018
AGENDA ITEM:	5
AGENDA TITLE:	Discuss and Provide Input on the Preliminary Draft Watermaster 2020 Annual Report
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: The Watermaster submits an Annual Report to the Court after the end of each Water Year to fulfill one of its obligations under the Court Decision that created the Watermaster. A Preliminary Draft Annual Report for 2020 is being presented to the TAC for its review and input, in as complete a form as it can be as of today's TAC meeting. Due to its large file size, a complete copy of the Preliminary Draft 2020 Annual Report cannot be included with the agenda packet. However, a copy of the <u>body</u> of the Preliminary Draft is attached. A copy of the complete Preliminary Draft Annual Report was posted on the Watermaster's website for anyone that would like to examine the entire document. At today's meeting I will review with the TAC the principle components of the Preliminary Draft and provide an opportunity for the TAC to raise questions, provide input, and provide suggested edits to the document.	
ATTACHMENTS:	Preliminary Draft 2020 Annual Report (Body only)
RECOMMENDED ACTION:	Provide input to the Technical Program Manager regarding any edits to the Preliminary Draft Annual Report that the TAC wishes to propose

SEASIDE BASIN WATERMASTER PRELIMINARY DRAFT ANNUAL REPORT – 2020

November 11, 2020

Note: This is a Preliminary Draft of the Annual Report. It will be reviewed by the Watermaster's Technical Advisory Committee at its November 18, 2020 meeting. Any revisions that result from that meeting will be incorporated into a Draft version of the Annual Report which will be presented to the Board of Directors at its December 2, 2020 meeting.

ANNUAL REPORT – 2020

Integral to the Superior Court Decision (Decision) rendered by Judge Roger D. Randall on March 27, 2006 is the requirement to file an Annual Report. This 2019 Annual Report is being filed on or before January 15, 2021, consistent with the provisions of the Decision, as amended by the Order Amending Judgment filed March 29, 2018.

This Annual Report addresses the specific Watermaster functions set forth in Section III. L. 3. x. of the Decision. In addition, this Annual Report includes sections pertaining to:

- Water quality monitoring and Basin management
- Information that the Watermaster would otherwise include within a Case Status Conference Statement, including:
 - A summary of basin conditions and important developments concerning the management of the Basin
 - Planned near- and long-term actions of the Watermaster
 - Information concerning the status of regional water supply issues
 - Management activities that may bear on the Basin's wellbeing.

A. Groundwater Extractions

The schedule summarizing the Water Year 2020 (WY 2020) groundwater production from all the producers allocated a Production Allocation in the Seaside Groundwater Basin is provided in Attachment 1, “Seaside Groundwater Basin Watermaster, Reported Quarterly and Annual Water Production from the Seaside Groundwater Basin for all Producers Included in the Seaside Basin Adjudication During Water Year 2020.” Water Year 2020 is defined as beginning October 1, 2019 and ending on September 30, 2020.

B. Groundwater Storage

Monterey Peninsula Water Management District (MPWMD), in cooperation with California American Water (CAWC), operates the Seaside Basin Aquifer Storage and Recovery (ASR) program. Under the ASR program, CAWC diverts water from its Carmel River sources during periods of flow in excess of NOAA-Fisheries’ bypass flow requirements, and transports the water through the existing CAWC distribution system for injection and storage in the Seaside Basin at the MPWMD’s Santa Margarita ASR site and CAWC’s Seaside Middle School ASR site. During WY 2020, 917 acre-feet was diverted and stored in the Seaside Basin under the ASR program. Rainfall in the area was about 83% of normal, and Carmel River flow was about 69% of normal.

Based upon production reported for WY 2020, the following Standard Producers are entitled to Free and Not-Free Carryover Credits to 2021 in accordance with the Decision, Section III. H. 5:

<u>Producer</u>	<u>Free Carryover Credit</u> (Acre-feet)	<u>Not-Free Carryover Credit</u> (Acre-feet)
Granite Rock	194.88	27.12

DBO Development	364.98	38.98 (-2.31 transfer)
Calabrese (Cypress)	11.74	1.58 (-3.17 transfer)
CAWC	00.00	00.00 (+5.48 transfer)
City of Seaside Muni	00.00	00.00

During Water Year 2020 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin. No non-native water was made available to the Basin during Water Year 2020 under the April 7, 2010 Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water.

C. Amount of Artificial Replenishment, If Any, Performed by Watermaster

Per the Decision, “Artificial Replenishment” means the act of the Watermaster, directly or indirectly, engaging in contracting for Non-Native Water to be added to the Groundwater supply of the Seaside Basin through Spreading or Direct Injection to offset the cumulative Over-Production from the Seaside Basin in any particular Water Year pursuant to Section III.L.3.j.iii. It also includes programs in which Producers agree to refrain, in whole or in part, from exercising their right to produce their full Production Allocation where the intent is to cause the replenishment of the Seaside Basin through forbearance in lieu of the injection or spreading of Non-Native Water (referred to herein as “In-lieu Replenishment”).

During Water Year 2020 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin. No non-native water was made available to the Basin during Water Year 2020 under the April 7, 2010 Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water.

As reported in the 2019 Annual Report, on September 4, 2019 the City of Seaside filed a motion with the Court seeking the Court’s approval of the City’s request for a Storage and Recovery Agreement for in-lieu storage and recovery of water. On October 25, 2019 the Court approved the City’s request. Court documents pertaining to the City’s request were contained in Attachment 15 of the 2019 Annual Report. On February 5, 2020 the Watermaster executed a Storage and Recovery Agreement with the City of Seaside, a copy of which is included in Attachment 7.

D. Leases or Sales of Production Allocation and Administrative Actions

As reported in the 2019 Annual Report, in WY2019 a transfer or assignment of water allocation was activated, as provided for in the Cypress Pacific Investors (CPI), successor to Muriel L. Calabrese 1987 Trust, front-loading delivery of water agreement that is contained in Attachment 14. Per the agreement, CPI leases to California American Water Company (CAWC) 8.0 AF of water (subject to reduction per the formulas in the Decision) for the purpose of producing such water from, or moving the production of such water to, the inland wells operated by CAWC and for delivery of such water by CAWC to one or more CPI properties. In Water Year 2016-17 CPI assigned its entire Standard Production Allocation water right to CAWC effective October 1, 2016.

As discussed in Attachment 13 of the 2018 Annual Report, in 2019 Security National Guarantee (SNG) indicated it intended to convert a portion of its Alternative Production Allocation to Standard Production. However, SNG subsequently decided not to make such a conversion.

During WY 2020 the Watermaster Board did not make any revisions to its *Rules and Regulations*.

During WY 2020 the Watermaster Board was comprised of the following Members and Alternates:

<u>MEMBER</u>	<u>ALTERNATE</u>	<u>REPRESENTING</u>
Director Paul Bruno	N/A	Coastal Subarea Landowner
Christopher Cook	Tim O'Halloran	California American Water
Wesley Leith	N/A	Laguna Seca Subarea Landowner
Director George Riley	Director Molly Evans	MPWMD
Mayor Mary Ann Carbone	N/A	City of Sand City
Supervisor Mary Adams	Supervisor Jane Parker	Monterey County (MCWRA)
Councilmember John Gaglioti	Mayor Alison Kerr	City of Del Rey Oaks
Councilmember Dan Albert	Mayor Clyde Roberson	City of Monterey
Mayor Ian Oglesby	Council Member Jon Wizard	City of Seaside

E. Use of Imported, Reclaimed, or Desalinated Water as a Source of Water for Storage or as a Water Supply for Lands Overlying the Seaside Basin

The CAWC/MPWMD ASR Program operated in WY 2020 and 917 acre-feet of water was injected into the Basin as Stored Water Credits and 713 acre-feet was extracted.

As reported in the 2019 Annual Report, the Watermaster issued a Storage and Recovery Agreement to CAWC and MPWMD governing the injection and recovery of water from PWM. A copy of the agreement was included in Attachment 13 of the 2019 Annual Report. The quantities of water that were stored and recovered in accordance with that Agreement are reported in Attachment 10.

F. Violations of the Decision and Any Corrective Actions Taken

Section III. D. of the Decision enjoins all Producers from any Over-Production beyond the Operating Yield in any Water Year in which the Watermaster declares that Artificial Replenishment is not available or possible. Section III. L. 3. j. iii. requires that the Watermaster declare the unavailability of Artificial Replenishment in December of each year, so that the Producers are informed of the prohibition against pumping in excess of the Operating Yield.

The Watermaster made its declaration regarding the availability of Artificial Replenishment Water, and the Total Usable Storage Space of the Basin, for WY 2020 at its Board meeting of December 4, 2019. Copies of these declarations are contained in Attachment 2. No water production reductions were

implemented in WY 2020. However, in WY 2021 the Watermaster plans to implement a final ramp-down in production to achieve the Basin's Decision-established Natural Safe Yield of 3,000 AFY.

Total pumping for WY 2020 did not exceed the Operating Yield (OY) of the Basin, and exceeded the Natural Safe Yield (NSY) of the Basin by 323.14 acre-feet.

California American Water reported annual pumping quantities that exceeded its Standard Production NSY allocation by 334.21 acre-feet, and reported annual pumping quantities that exceeded its Operating Yield allocation by 229.63 acre-feet. The Watermaster will assess California American Water a Replenishment Assessment for this over production, as further described in Section H, below.

The City of Seaside reported annual pumping quantities that exceeded its Standard Production NSY allocation by 32.06 acre-feet, and reported annual pumping quantities that exceeded its Operating Yield allocation by 34.66 acre-feet. The City of Seaside did not exceed its Alternative Production NSY. The Watermaster will assess the City of Seaside a Replenishment Assessment for these over productions, as further described in Section H, below.

G. Watermaster Administrative Costs

The total estimated Administrative costs through the end of Fiscal Year 2020 amounted to \$75,000 including a \$25,000 dedicated reserve. Costs include the Administrative Officer salary and legal counsel fees. The "Fiscal Year 2020 Administrative Fund Report" and "Fiscal Year 2020 Operations Fund Report" are provided in Attachment 3.

H. Replenishment Assessments

At its meeting of September 2, 2020 the Watermaster Board determined that beginning with WY 2021 the Natural Safe Yield Replenishment Assessment unit cost should be updated to \$2,947 per acre-foot, and the Operating Yield Replenishment Assessment unit cost should be updated to \$737 per acre-foot. The Agenda transmittal which explains the basis of calculation for these new unit costs is contained in Attachment 4.

Alternative and Standard Producers report their production amounts from the Basin to the Watermaster on a quarterly basis. Based upon the reported production for WY 2020, CAWC's Replenishment Assessment for Overproduction in excess of its share of the Natural Safe Yield is \$959,859, and for overproduction in excess of its share of the Operating Yield is \$164,872.

Based upon the reported production for WY 2020, the City of Seaside's Replenishment Assessment for its Municipal System for Overproduction in excess of its share of the Natural Safe Yield is \$92,089, and for overproduction in excess of its share of the Operating Yield is \$24,886. The City of Seaside did not exceed its Alternative Production Allocation for its Golf Course System production. A summary of the calculations for Replenishment Assessments for WY 2020 is contained in Attachment 5.

I. All Components of the Watermaster Budget

The Watermaster budget has four separate funds: Administrative Fund; Monitoring & Management–Operations; Monitoring and Management–Capital Fund and; Replenishment Fund. Copies of the budgets for Fiscal Year 2021 are contained in Attachment 6.

The Watermaster Board is provided monthly financial status reports on all financial

activities for each month with year-to-date totals.

J. Water Quality Monitoring and Basin Management

Water Quality Analytical Results

Groundwater quality data continued to be collected and analyzed on a quarterly basis during WY 2020 from the enhanced network of monitoring wells. The low-flow sampling method implemented in 2009 continued to be used in 2020 and is expected to continue to be used in the future to improve the efficiency of sample collection.

As discussed in the 2013 Annual Report, the Watermaster reduced the frequency of water quality sampling at SBWM-MW5 (the shallow and deep monitoring wells located in the Northern Inland Subarea at Camp Huffman) to once every 3 years beginning in WY 2014. This was based on the January 2010 well construction report in which the well installation hydrogeologic consultant (Martin Feeney) recommended doing initial sampling annually for several years, then reducing the frequency of sampling once it was felt that the water chemistry had been established. Mr. Feeney suggested going to once every five years after initial water quality had been established. Starting with WY 2014 the Watermaster elected to go to once every three years as a more conservative approach.

In July 2020 the Watermaster reviewed the water quality sampling data from SBWM-MW5 for the period from WY 2013 to WY 2020. This review found that there were four sets of water quality sampling data from these shallow and deep wells, and that the sampling data was similar at each sampling event, demonstrating that an adequate baseline had been established. Based on this finding, the Watermaster determined that it was reasonable to reduce the sampling frequency to once every 5 years. Therefore, the next samples from SBWM-MW5 will be collected in WY 2022.

No modifications to the quarterly data collection frequency from the enhanced network of monitoring wells were made during WY 2020.

In prior years a separate water quality and water level report was prepared for the Watermaster by MPWMD, and included in the Annual Reports. Since this data is primarily used to prepare the Seawater Intrusion Analysis Report, beginning in 2019 the data was provided by MPWMD to Montgomery & Associates. Montgomery & Associates uses that data to prepare the water quality and water level report which is included as an attachment to the SIAR. The SIAR is further discussed below.

Monitoring and Management Program Work Plan for the Upcoming Year

The 2021 Monitoring and Management Program (M&MP) Work Plan contained in Attachment 9 includes the types of basin management activities conducted in prior years as well as revisions approved by the Board at its September 2, 2020 meeting.

Other than small changes due to changes in hourly rates for some of the consultants, the following are the principle differences between the 2020 M&MP and the 2021 M&MP, and their respective budgets:

Technical Program Manager: Due to the voluminous amount of agenda materials from, and meetings being held by, the Salinas Valley Basin Groundwater Sustainability Agency's committees that the Technical Program Manager serves upon representing the Watermaster, and the increasing work associated with working toward obtaining replenishment water to protect the Seaside Basin against the threat of seawater intrusion, the Board increased the 2021 budget line-item for the Technical Program Manager by \$10,000 from \$50,000 to \$60,000.

Tasks M.1.c, M.1.d, and M.1.e (On-call/as-needed Consulting Services): In 2020 a greater amount of assistance was needed from Montgomery and Associates in evaluating a number of different issues that have come before the TAC, than has been the case in prior years. Consequently, it was necessary to authorize an additional \$5,000 to them in the fall of 2020, in order to ensure that funds were available for them to continue providing those services through the rest of 2020. In 2021 there will be some hourly rate increases for the Montgomery and Associates staff that will likely be the ones to provide on-call/as-needed hydrogeological consulting services under Tasks M.1.c, M.1.d, and M.1.e (Derrick Williams and Georgina King). It is anticipated that there may be an ongoing need for this higher level of services in 2021, and therefore their on-call consulting services allowance was increased by \$4,000 for this line-item budget amount.

Task M.1.g (SGMA Documentation Preparation): Although the scope of work for this Task is unchanged from 2020, in 2021 there will be some hourly rate increases for the Montgomery and Associates staff that perform this work. Therefore, the amount provided for 2021 is slightly increased from 2020 amount.

Task I.2.b.3 (Collect Quarterly Water Quality Samples): The proposed cost for the induction logging work that is performed by Mr. Feeney and his subcontractor is lower than it was in 2020 because less maintenance work on the Sentinel wells is anticipated in 2021. Thus far, the State Department of Parks and Recreation has been authorizing the induction logging of the Sentinel Wells which are located within the Fort Ord Dunes State Park. with minimal requirements. However, they have recently determined that they need to issue a formal Right-of-Entry Permit to perform this work. The 2021 proposed cost includes a \$50 annual cost to obtain this Permit. The Permit will likely need to be renewed at that cost each year.

Task I.2.b.7 (CASGEM Data Submittal for Watermaster's Voluntary Wells): MPWMD has been able to reduce the amount of time needed to format and submit this data to DWR in 2021 to comply with the SGMA requirements for adjudicated basins. Consequently, the number of hours provided for this Task in 2021 has been significantly reduced from the number of hours required in 2020.

Task I.3.a.3 (Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions): Included in Task I.3.a.3 is \$50,000 to perform some new modeling work pertaining to injection of water to raise groundwater levels. This additional work was initially proposed for 2020, but was removed based on input from Todd Groundwater and Montgomery & Associates that pointed out that if all the water injected by the PWM and desalination plant projects is subsequently extracted, there would be little if any net increase in groundwater levels. Reinstating that work is proposed for 2021 in order to work on getting additional water above and beyond that which would be injected by the desalination plant or the PWM Expansion Project (depending on which of these moves forward to construction) and not extracted, in order to raise groundwater levels to protective elevations Basinwide.

Task I.4.c (Annual Report- Seawater Intrusion Analysis): The scope of work for this Task in 2021 adds making a presentation of the SIAR to the Board of Directors as well as to the TAC. However, it is expected that those presentations will be made remotely (either via teleconference or Zoom) rather than in person, so there is only a minor cost change for this part of the work. Also, in 2021 there will be some hourly rate increases for the Montgomery and Associates staff that perform this work. Therefore, the amount proposed for 2021 is slightly increased from the 2020 amount.

There are no Capital Projects anticipated in 2021.

Basin Management Database

Pertinent groundwater resource data obtained from a number of sources has been consolidated into the Watermaster's database to allow more efficient organization and data retrieval. No modifications or enhancements to the database are planned in FY 2020.

Enhanced Monitoring Well Network

The Seaside Basin M&MP uses an Enhanced Monitoring Well Network to fill in data gaps in the previous monitoring well network used by the Monterey Peninsula Water Management District (MPWMD), and others, in order to improve the basin management capabilities of the Watermaster. The Enhanced Monitoring Well Network has been described in detail in previous Watermaster Annual Reports. It continues to be used to obtain additional data that is useful to the Watermaster in managing the Basin.

Basin Management Action Plan (BMAP)

The BMAP constitutes the basic plan for managing the Seaside Groundwater Basin. The BMAP identifies both short-term actions and long-term strategies intended to protect the groundwater resource while maximizing the beneficial use of groundwater in the basin. It provides the Watermaster a logical set of actions that can be undertaken to manage the basin to its Safe Yield.

The Watermaster's first BMAP was completed in 2009 and was approved by the Watermaster Board at its February 2009 meeting. The Executive Summary from that BMAP was contained in Attachment 9 of the 2009 Annual Report, and the complete document is posted on the Watermaster's website at: http://www.seasidebasinwatermaster.org/Other/BMAP_FINAL_5-Feb-2009.pdf.

Over the nine years since the 2009 BMAP was completed, the Watermaster collected much groundwater level and quality data, and conducted various studies to improve the understanding of the basin. This improved understanding was incorporated into a 2019 Updated BMAP to facilitate ongoing responsible management of the groundwater resource. The Watermaster Board approved the 2019 Updated BMAP at its June 5, 2019 meeting. The Executive Summary from that document was contained in Attachment 7 of the 2019 Annual Report, and the complete document is posted on the Watermaster's website at: http://www.seasidebasinwatermaster.org/Other/BMAP%20Final_07192019.pdf.

One of the findings in the Updated BMAP is that the Natural Safe Yield (NSY) of the Basin is 2,370 AFY, which is lower than the Adjudication Decision's initially-established 3,000 AFY.

Attachment 10 of the 2019 Annual Report contains a Memo titled "Seaside Groundwater Basin Natural Safe Yield Allocations to Producers." The Memo describes how the Adjudication Decision allocated water rights to each of the Producers (both Standard and Alternative Producers), and the water rights that each Producer would have after all of the Adjudication Decision-required ramp-downs in pumping have been completed. The Memo also briefly describes the water rights impacts that would result from lowering the NSY of the Basin from 3,000 AFY to 2,370 AFY.

As discussed in the Memo, the approach used to make these calculations is based on the assumption that the Adjudication Decision contemplated that all of the Basin's NSY comes from the Laguna Seca and the Coastal Subareas, and that none of it comes from the Northern Inland Subarea. Two options for arriving at the water rights for each Producer are presented in the Memo. As noted in the Memo, there are some inconsistencies in the Adjudication Decision which complicate the calculation of water rights after the Adjudication Decision-mandated ramp-downs in pumping are completed.

The Memo contains a set of ramp-down calculations for a basin-wide NSY of 3,000 AFY, because 3,000 AFY had been the ramp-down figure that was developed when CAWC was sizing its Monterey Peninsula Water Supply Project. That analysis led to the conclusion that CAWC's ultimate water right in the Basin would be 1,474 AFY, based on a basin-wide Natural Safe Yield of 3,000 AFY. This calculation approach was approved by Judge Randall in his Order dated 9 February 2007. Therefore, it was appropriate to include the ramp-down analysis leading to CAWC's 1,474 AFY of ultimate water right. Also contained in the Memo is a set of ramp-down calculations for a basin-wide NSY of 2,913 AFY, based on a slightly different interpretation of the Adjudication Decision.

The Memo provided to the Watermaster Board all of the necessary background information and calculations for use in determining which of the two ramp-down figures (3,000 AFY or 2,913 AFY) should be used when the next (and presumably final) ramp-down occurs in WY 2021. At its meeting of June 5, 2019 the Watermaster Board determined that there should be a final ramp-down to 3,000 AFY in WY 2021 and that water allocations to each Producer should be assigned as shown in Table 7 of Attachment 10 in the 2019 Annual Report, after all pumping ramp-downs have been completed. The Board reached this decision in part because ramping-down to 3,000 AFY would cause less hardship on the Alternative Producers by not requiring them to ramp-down along with the Standard Producers, and because ramping down to 2,913 AFY would provide negligible additional benefit and would require both the Standard and Alternative Producers to ramp-down.

In conjunction with updating the BMAP, Montgomery & Associates and Todd Groundwater (a hydrogeologic consultant the Watermaster used to perform a peer review of a draft version of the Updated BMAP) recommended that at some point in the future the Watermaster change to a different approach (Sustainable Yield) rather than continuing to use the Natural Safe Yield approach that was used in the Adjudication Decision, for basin management purposes. Attachment 11 in the 2019 Annual Report contains a discussion of the pros and cons of using the Sustainable Yield approach vs. the Natural Safe Yield approach. The Watermaster Board considered the information contained in that attachment at its June 5, 2019 meeting and made the following determinations:

- A Sustainable Yield analysis should not be performed at this time.
- The concept of using the Sustainable Yield approach to replace the Natural Safe Yield approach should be revisited after the Groundwater Sustainability Plan for the Monterey Subbasin of the Salinas Valley Groundwater Basin has been completed, and its impacts on the Seaside Groundwater Basin have been determined.
- If something is learned, or events occur, that would warrant performing a Sustainable Yield analysis sooner, the Board should revisit the decision at that time.

Development of the Groundwater Sustainability Plan for the Monterey Subbasin was started in 2020 and is expected to be completed in late 2021 or early 2022. Following completion of that Groundwater Sustainability Plan, the Watermaster intends to revisit the issue of changing to the Sustainable Yield approach.

HydroMetrics LLC was hired by the Watermaster to prepare a long-term Seawater Intrusion Response Plan (SIRP), as required in the M&MP.

The Final SIRP was approved by the Watermaster Board in 2009 and a summary of the Seawater Intrusion Contingency Actions from the SIRP were contained in Attachment 10 of the 2009 Annual Report. The complete document may be viewed and downloaded from the Watermaster's website at: <http://www.seasidebasinwatermaster.org/>. No modifications to the SIRP were made in 2020.

Seawater Intrusion Analysis Report

The Seawater Intrusion Analysis Report (SIAR) examines the “health” of the Basin with regard to whether or not there are any indications that seawater intrusion is either occurring or is imminent. Previous SIARs have stated that depressed groundwater levels, continued pumping in excess of recharge and freshwater inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin.

The Watermaster retained Montgomery & Associates to prepare the WY 2020 SIAR required by the M&MP. The WY 2020 SIAR provided an analysis of data collected during that Water Year.

The 2020 SIAR reported that the evaluation of the data from the sampling and monitoring program continued to indicate that seawater intrusion was not occurring. The SIAR did report that there had been recent increases in chloride concentrations at monitoring wells FO-9 Shallow and FO-10 Shallow. These wells are both in relatively close proximity to known intrusion in the Salinas Valley, but are inland of the Watermaster's four Sentinel Wells where induction logging showed no indication of seawater intrusion. Based on these chloride concentration increases, the SIAR recommended that:

- Monitoring well FO-10 Shallow be immediately resampled to confirm the 48 mg/L chloride increase that was found in the last 2020 sample taken from this well. (A sample was collected on November 10, 2020 and analytical results are expected in December 2020).
- Monitoring wells FO-9 Shallow and FO-10 Shallow's sampling frequency be increased to quarterly and that their groundwater quality results be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. Monitoring well FO-9 Shallow is currently monitored on a semi-annual basis, increased from annual sampling, because an increasing chloride trend had previously been observed. Monitoring well FO-10 Shallow is currently monitored on an annual basis.

The SIAR is lengthy, but the full *Executive Summary Section* from it is provided in Attachment 8. A complete copy of the document is posted for viewing and downloading from the Watermaster's website at: <http://www.seasidebasinwatermaster.org/>. All recommendations contained in the SIAR are being or will be carried out and are included in the budgeted activities contained in Attachment 6 and described in Attachment 9.

Geochemical Impact Assessments

When new sources of water are introduced into an aquifer, with each source having its own unique water quality, there can be chemical reactions that may have the potential to release minerals into solution which have previously been attached to soil particles, such as arsenic or mercury, and thus into the water

itself. This has been experienced in some other locations where changes in water quality occurred as a result of water being injected into an aquifer.

MPWMD's consultant (Pueblo Water Resources) has been using geochemical impact assessments to predict the effects of injecting Carmel River water into the Seaside Groundwater Basin under the ASR program. As discussed in the 2018 Annual Report under the heading titled "Monitoring and Management Program Work Plan for the Upcoming Year," in order to predict whether there will be groundwater quality changes that will result from the introduction of desalinated water, additional ASR water (under the Monterey Peninsula Water Supply Project), and advanced wastewater treatment (AWT) water under the Pure Water Monterey Project (PWM) geochemical impact assessments have been, or will be, performed by Pueblo Water Resources for use in the areas of the Basin where injection of these new water sources will occur. A description of this work was provided in Attachment 11 of the 2018 Annual Report.

In 2019 an assessment of the geochemical impacts of injecting AWT water from the PWM was performed. A Technical Memorandum describing that work is contained in Attachment 12 of the 2019 Annual Report. The assessment found that if the quality of the PWM AWT water is maintained within the ranges set forth in the Division of Drinking Water (DDW) Operations Report, there will be no adverse geochemical impacts on the aquifers within the Seaside Basin.

In 2020 no additional geochemical impact assessments needed to be performed, since the Monterey Peninsula Water Supply Project was still in the process of obtaining the permits necessary to move forward with that project.

Sustainable Groundwater Management Act (SGMA)

As reported in the 2015 Annual Report the Watermaster Board determined that the Watermaster should monitor the development of the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) and the State Department of Water Resources' (DWR) development of SGMA regulations with the intent to collaborate with these entities as appropriate.

At the State Level:

During 2020 DWR did not issue any new regulations, or revisions to prior regulations, that impacted the Seaside Groundwater Basin or the Watermaster. In March of 2020 the Watermaster submitted to DWR the reporting information required of it, as an adjudicated basin, under SGMA.

At the Monterey County level:

As reported in the 2018 Annual Report, the SVBGSA, the Marina Coast Water District (MCWD), and the City of Marina all submitted Notifications with DWR to serve as the GSA for overlapping portions of the Monterey and/or the 180/400-foot aquifer subbasins. The SVBGSA, MCWD, and the City of Marina embarked on processes to address and resolve these overlaps.

In its notification to DWR, the City of Marina proposed becoming the GSA for the portion of the 180/400-foot Subbasin lying within the City's jurisdictional boundaries. However, since this overlapped with the SVBGSA's proposal to be the GSA for that area, DWR concurred with the SVBGSA's proposal, as authorized by SGMA, to have the County of Monterey be the GSA for that area. The County then delegated authority to prepare the Groundwater Sustainability Plan (GSP) for that area to the SVBGSA. The SVBGSA submitted its GSP for the 180/400-foot Subbasin to DWR in January 2020.

With regard to the proposals by both MCWD and the SVBGSA to be the GSA for portions of the Monterey Subbasin, the result was agreement between the MCWD GSA and the SVBGSA to break the Monterey Subbasin into two Management Areas, described as follows:

- Marina-Ord Area: This Management Area consists of the lands within the City of Marina and the former Fort Ord. The MCWD GSA will be the GSA for this Management Area.
- Corral de Tierra Area: This Management Area consists of the remainder of the subbasin, which are generally south of State Route 68 and includes a parcel located between the City of Marina and the former Fort Ord. The SVBGSA will be the GSA for this Management Area.

The MCWD GSA and the SVBGSA agreed to work together to develop a single GSP for the Monterey Subbasin, as required by SGMA, with each of these two entities preparing the portion of that GSP to address their respective Management Areas.

In 2020 MCWD began development of a GSP for the Marina-Ord Area portion of the Monterey subbasin. DWR determined that this subbasin is not critically overdrafted and therefore has a GSP submittal deadline two years later (January 2022) than the deadline for critically overdrafted subbasins. The Watermaster is participating in the stakeholder group the MCWD GSA has formed to provide input during development of this GSP.

In 2020 the SVBGSA began development of a GSP for the Corral de Tierra Area portion of the Monterey subbasin. DWR determined that this subbasin is not critically overdrafted and therefore has a GSP submittal deadline two years later (January 2022) than the deadline for critically overdrafted subbasins. The Watermaster is participating in the Monterey Subbasin GSP Committee that the SVBGSA has formed to provide input during development of this GSP. In 2020 the Watermaster's Technical Program Manager, jointly with Montgomery & Associates, made a PowerPoint presentation to that Committee describing issues of mutual concern between the Corral de Tierra area and the Seaside Groundwater Basin. The presentation highlighted the impacts that pumping in the Corral de Tierra area is having on groundwater levels in the Laguna Seca Subarea of the Seaside Basin.

In addition, the Watermaster is participating in the development of the SVBGSA's other GSPs through its membership on the SVBGSA's Advisory Committee.

The Watermaster's participation in these committees and stakeholder groups will help to ensure that there is close coordination between the SVBGSA, MCWD GSA, and the Watermaster on matters of mutual interest.

K. Information that the Watermaster Would Otherwise Include within a Case Status Conference Statement

This Section was added to the Annual Report beginning in 2018 year as directed by the Court in its Order Amending Judgment filed March 29, 2018. It is formatted to contain the topic headings below, which were requested by the Court in its March 29, 2018 Order.

Summary of Basin Conditions and Important Developments Concerning the Management of the Basin
The condition of the Basin is discussed in the *Water Quality, Seawater Intrusion Analysis Report*, and *Basin Management Action Plan* subheadings in Section J of this Annual Report.

In summary, the *Seawater Intrusion Analysis Report*, which analyzes the water quality data collected under the Watermaster's sampling program, found that no seawater intrusion is being detected within the

Basin. The 2019 updated *Basin Management Action Plan* found that in spite of recent pumping at levels less than the Decision-established Natural Safe Yield of 3,000 AFY, water levels in some portions of the Basin are continuing to drop. It is expected that once the MPWSP becomes operational, or if that project is not constructed but an expansion of the PWM project is constructed, and CAWC is able to further reduce its pumping from the Basin by 700 AFY through its 25-year overpumping repayment program, the rate of drop in groundwater levels will be at least partially mitigated.

Planned Near and Long-term Actions of the Watermaster

Near-term actions are described in the 2020 Monitoring and Management Program discussed in Section J and Attachment 9 of this Annual Report.

Long-term actions will include:

- Continuing to carry out the duties and responsibilities assigned to the Watermaster by the Decision
- Continuing to coordinate with the Monterey County Water Resources Agency in their development of an updated hydrogeologic model of the Salinas Valley Basin, as discussed under the *Coordination of Watermaster's Seaside Groundwater Model with Salinas River Basin Model* subheading in Section J of the 2018 Annual Report (Note: In 2020 completion of this model was delayed and was still being completed as of the date of preparation of this 2020 Annual Report. The Watermaster will continue to coordinate with the Monterey County Water Resources Agency on this, once the model is completed and promulgated.)
- Continuing to coordinate with the Salinas Valley Basin Groundwater Sustainability Agency to develop measures to aid in groundwater management of the Laguna Seca Subarea, as discussed under the *Sustainable Groundwater Management Act* subheading in Section J of this Annual Report.

Information Concerning the Status of Regional Water Supply Issues

MPWSP

Implementation of the Monterey Peninsula Water Supply Project (MPWSP) continues to be vigorously pursued by California American Water.

In mid-November 2019 the California Coastal Commission held a hearing on CAWC's application for a Coastal Development Permit for construction of the portions of the MPWSP located within the coastal zone. The Commission received public input at that hearing but deferred taking action on the application until early 2020. That action was originally scheduled for the Commission's May 2020 meeting, but was rescheduled to a September 2020 meeting by Commission staff, who stated that they needed more time to adequately evaluate all of the documents that had been submitted. Just prior to the scheduled September 2020 Commission meeting date, CAWC decided to withdraw its application in order to see if it could negotiate with the opposing parties modifications to the project that would address their concerns and objections. CAWC stated it intended to resubmit its application within a few months. On November 5, 2020 CAWC formally resubmitted its application for a Coastal Development Permit with the Coastal Commission. Approval by the Coastal Commission is the last major permit needed to allow construction of the project to begin.

Detailed quarterly update reports on the MPWSP are posted on the MPWSP website at <https://www.watersupplyproject.org>. However, the second quarter 2020 update on that website (the most recent update as of the date of preparation of this 2020 Annual Report) did not provide any updated information

regarding when CAWC will be resubmitting its application, and did not provide any updated schedule for the project. The last update of the schedule appears to have been made when CAWC anticipated getting its Coastal Development Permit approved in December 2018. If the Coastal Commission approves the Coastal Development Permit in the first quarter of 2021, and if the same time periods for implementation of the project which are shown on the last updated schedule are accurate, the MPWSP could become operational in the fall of 2023.

PWM

Construction work on Monterey One Water's (M1W) Pure Water Monterey (PWM) recycled water project in Marina was completed in late 2019, and the Advanced Water Treatment plant began producing water in early 2020. Water began being injected into the Seaside Groundwater Basin in February 2020. M1W experienced some problems with the shallow injection wells (called vadose zone injection wells) shortly after it began injecting water into the Basin. It was found that some subsidence was occurring at these shallow wells, and also that it was not possible to inject the amounts of water in these shallow wells that was expected. As a result, M1W is performing rehabilitation of the wells where subsidence was occurring, and is designing two additional deep injection wells in order to bring the PWM injection capacity up to the intended levels. Those new deep injection wells are planned to be completed in late 2021, at which time the PWM project is expected to be able to inject approximately 3,500 AFY of advanced treated recycled water into the Seaside Basin for subsequent recovery and service to CAWC customers.

Public Buyout of CAWC Water System

Voters approved Measure J in the November 2018 general election. That Measure instructed the Monterey Peninsula Water Management District to undertake a feasibility study on the public takeover of California American Water's Monterey Water System.

At its November 2019 meeting MPWMD reviewed and discussed a preliminary valuation assessment and cost of service evaluation regarding the feasibility of securing and maintaining public ownership of CAWC's Monterey Water System. The preliminary valuation assessment consisted of completion of a preliminary desktop valuation assessment of the Monterey Water System to estimate the cost required to be incurred to acquire the Monterey Water System. The cost of service analysis was completed to compare the cost of public ownership, operation, and maintenance of the Monterey Water System (i.e. the public ownership scenario) with a status quo scenario, which is the anticipated cost of continued ownership, operation, and maintenance of the system by CAWC. The cost of service analysis was compared in terms of the annual Monterey Water System revenue requirements and typical residential customer bill impacts associated with the various scenarios that were developed.

The preliminary valuation assessment and cost of service evaluation concluded that acquisition of the Monterey Water System by MPWMD appeared to be economically feasible. Economic feasibility was assessed by comparing the estimated revenue requirements of the water system under MPWMD ownership versus CAW ownership, which indicated significant revenue requirement savings could be achieved under the MPWMD ownership scenarios.

In order to prepare the MPWMD Board to consider in the future a Resolution of Public Necessity for the potential acquisition of CAWC's Monterey Water System, the Monterey County Local Agency Formation Commission (LAFCO) must allow MPWMD to activate certain latent powers authorized by its legislation, as well as consider annexation of approximately 56 parcels to MPWMD. LAFCO will require CEQA findings, action by MPWMD, and a filing of a Notice of Determination with the State.

As a step toward fulfilling CEQA requirements, at its October 29, 2020 meeting the MPWMD Board certified a Final Environmental Impact Report (FEIR) for the Potential Acquisition of Monterey Water System and District Boundary Adjustment. Certification of this FEIR does not commit MPWMD to a hearing on a Resolution of Necessity or a condemnation proceeding, both of which would be required steps in the public acquisition process.

Management Activities that May Bear on the Basin's Wellbeing

1. *Water Conservation.* From a water conservation standpoint, customers of CAWC are doing an exceptional job. CAWC's Monterey system has one of the highest levels of voluntary conservation in the state. There has essentially been no back-off in conservation following the end of mandatory conservation that occurred after the wet winter of 2016-2017.
2. *Storm Water and Recycled Water.* Storm water and recycled water are both components of the Pure Water Monterey (PWM) project that is being implemented by Monterey One Water. CAWC has already contracted to receive 3,500 AFY of PWM recycled water for injection into, and recovery from, the Seaside Basin. Monterey One Water, in coordination with others, is looking at the potential to expand the delivery capacity of the PWM project by using additional sources of recycled water and storm water, and in late 2019 completed preparation of a Supplemental Environmental Impact Report (SEIR) to fulfill the CEQA requirements for such an expansion. However, at its April 2020 meeting the M1W Board voted not to certify the SEIR. Although further consideration of that matter may occur at some point in the future, M1W staff reported that at the time of preparation of this 2020 Annual Report, no action by M1W was in progress or scheduled to resume consideration of that matter, and certification had still not occurred.

At its October 19, 2020 meeting, the MPWMD Board of Directors considered seeking to become the lead agency for the expansion project, in order to move forward with getting the SEIR certified. At that meeting, on a split vote, the Board determined not to pursue becoming the lead agency. From the discussion of Board members at that meeting, it appeared that this issue might again come before them for consideration, depending on future actions by M1W and on the outcome of the November 3, 2020 general election in which several seats on the MPWMD Board were up election.

3. *Sustainable Groundwater Management Act.* Coordination between the Watermaster and the SVBGSA and the MCWD GSA is ongoing and is discussed in more detail above under Section J of this Annual Report. That coordination will aid in groundwater management of the Laguna Seca and Corral de Tierra subareas.
4. *Climate Change.* Higher seawater levels could exacerbate seawater intrusion concerns, which punctuates the importance of monitoring and long-term management to avoid seawater intrusion. From a water supply perspective, reliance on groundwater with sustainable management is ideal because the resource is a reservoir and therefore not subject to sharp fluctuations in availability resulting from year-to-year precipitation amounts as is the case with surface water supplies. Updating of the Watermaster's *Groundwater Model* in 2018 (discussed in Section J of the 2018 Annual Report) and *Basin Management Action Plan* in 2019 (discussed in Section J of the 2019 Annual Report) incorporated projected impacts from climate change and sea level rise.
5. *New Technical Issues or Activities.*
 - Stormwater Projects Being Evaluated in the Monterey Peninsula Stormwater Resource Plan (SWRP).

As reported in the 2018 Annual Report, Monterey One Water as the lead entity coordinated the development of a Stormwater Resource Plan (SWRP) for the Monterey Peninsula, Carmel Bay, and South Monterey Bay (Monterey Peninsula) Integrated Regional Water Management Plan (IRWMP) area.

The purpose of the SWRP is to identify opportunities to capture stormwater that could be utilized as new water supply sources for the Monterey Peninsula and provide additional water quality and environmental benefits. Some of those projects have the potential to minimally benefit the Seaside Basin, and are discussed in the 2019 Updated Basin Management Action Plan.

Of the seven priority projects that were identified in the Stormwater Resource Plan, at this time one project has been scheduled to receive funding to proceed. The Del Monte Manor project for the City of Seaside is lined up to receive IRWMP funds later this year and move forward with their Final Design, Environmental Review, and then Construction.

In addition, the City of Sand City has also been awarded IRWMP funds to proceed with their Green Streets initiative in downtown Sand City. Although this project was not a top priority project in the Stormwater Resource Plan, it was a project identified in the plan and was eligible for State funding.

The City of Monterey is awaiting the appropriate funding opportunity to proceed with the Hartnell Gulch stormwater diversion project.

L. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. At the Watermaster Board meeting held on September 2, 2020 the Board adopted the FY 2021 budgets contained in Attachment 6, which support carrying out all elements of the 2021 Seaside Groundwater Basin Monitoring and Management Program (M&MP). The M&MP is contained in Attachment 9 and describes the activities that the Watermaster plans to conduct during Fiscal Year 2021.

As described in Section J above, information from the Enhanced Monitoring Well Network is being utilized to detect any seawater intrusion. The response actions described in the Watermaster's Seawater Intrusion Response Plan, which was contained in the 2009 Annual Report, will be implemented if seawater intrusion is detected within the Basin.

As of the date of preparation of this 2020 Annual Report no future status conferences with the Court have been scheduled.

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

MEETING DATE:	November 18, 2020
AGENDA ITEM:	6
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Schedule of the activities being performed by the Watermaster, its consultants, and the public entity (MPWMD) which are performing certain portions of the work. Attached are the updated schedule for 2020 activities, and the proposed schedule for 2021 activities. Some activities which may be needed in 2021, such as further geochemical modeling if the MPWSP desalination plant begins construction or if groundwater modeling is necessary to interface with the Salinas Valley Basin GSA in its development of a Groundwater Sustainability Plan for the Corral di Tierra subarea, will be added during the year if necessary.	
ATTACHMENTS:	1. Schedule of Work Activities for FY 2020 2. Proposed Schedule of Work Activities for FY 2021
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to the Schedules

Seaside Basin Watermaster 2020 Monitoring and Management Program Work Schedule

ID	Task Name	Dec '19	Jan '20	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20
1	Replenishment Assessment Unit Costs for Water Year 2021	1	8	15	22	29	5	12	19	26	2	9	16	23
2	B&F Committee Develops Replenishment Assessment Unit Cost for 2021 Water Year									COMPLETED				
3	If Requested, TAC Provides Assistance to B&F Committee in Development of 2021 Water Year Replenishment Assessment Unit Cost									ASSISTANCE WAS PROVIDED				
4	Board Adopts and Declares 2021 Water Year Replenishment Assessment Unit Cost									COMPLETED				
5	Replenishment Assessments for Water Year 2020													
6	Watermaster Prepares Replenishment Assessments for Water Year 2020													
7	Watermaster Board Approves Replenishment Assessments for Water Year 2020 (At December Meeting)													12/2
8	Watermaster Levies Replenishment Assessment for 2020													12/8
9	Monitoring & Management Program (M&MP) Budgets for 2021 and 2022													
10	Preliminary Discussion of Potential Scope of Work for 2021 M&MP								COMPLETED					
11	Prepare 2021 M&MP								COMPLETED					
12	TAC approves 2021 M&MP								COMPLETED					
13	Prepare M&MP 2021 and 2022 O&M and Capital Budgets								COMPLETED					
14	TAC approves 2021 and 2022 M&MP O&M and Capital Budgets								COMPLETED					
15	Budget & Finance Committee Approves or Revises Draft 2021 M&MP, and 2021 and 2022 O&M and Capital Budgets								COMPLETED					
16	Board approves or Revises 2021 M&MP and 2021 M&MP O&M and Capital Budgets								COMPLETED					
17	2019 Annual Report													
18	Prepare Preliminary Draft 2020 Annual Report											COMPLETED		
19	TAC Provides Input on Preliminary Draft 2020 Annual Report													
20	Prepare Draft 2020 Annual Report (Incorporating TAC Input)													11/18
21	Board Provides Input on Draft 2020 Annual Report (At December Board Meeting)													12/2
22	Prepare Final 2020 Annual Report (Incorporating Board Input)													
23	Watermaster Submits Final 2020 Annual Report to Judge													12/10

Seaside Basin Watermaster 2020 Monitoring and Management Program Work Schedule

ID	Task Name	Dec '19	Jan '20	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20
24	MANAGEMENT	1 8 15 22 29	5 12 19 26	2 9 16 23	1 8 15 22 29	5 12 19 26	3 10 17 24 31	7 14 21 28	5 12 19 26	2 9 16 23 30	6 13 20 27	4 11 18 25	1 8 15 22 29	6 13 20 27 3
25	M.1 PROGRAM ADMINISTRATION													
26	Prepare Initial Consultant Contracts for 2021									COMPLETED				
27	TAC Approval of Initial Consultant Contracts for 2021									COMPLETED				
28	Board Approval of Initial Consultant Contracts for 2021										COMPLETED			
29	M.1.g – Sustainable Groundwater Management Act Reporting Requirements													
30	Montgomery & Associates Prepares Draft Groundwater Storage Analysis			COMPLETED										
31	Submit SGMA Documentation to DWR			COMPLETED										
32	IMPLEMENTATION													
33	I.2.a DATABASE MANAGEMENT													
34	I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance													
35	I.2.b DATA COLLECTION PROGRAM													
36	I.2.b.2 Collect Monthly Water Levels (MPWMD)													
37	I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD)													
38	I.2.b.6 MPWMD provides annual water quality and water level data to Montgomery & Associates for inclusion in the 2020 SIAR											COMPLETED		
39	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)													
40	Montgomery & Associates Provides Draft SIAR to Watermaster											COMPLETED		
41	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)												11/18	
42	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)													12/2

Seaside Basin Watermaster 2021 Monitoring and Management Program Work Schedule

ID	Task Name	Dec '20	Jan '21	Feb '21	Mar '21	Apr '21	May '21	Jun '21	Jul '21	Aug '21	Sep '21	Oct '21	Nov '21	Dec '21	J
1	Replenishment Assessment Unit Costs for Water Year 2022	29	6	13	20	27	3	10	17	24	31	7	14	21	28
2	B&F Committee Develops Replenishment Assessment Unit Cost for 2022 Water Year														
3	If Requested, TAC Provides Assistance to B&F Committee in Development of 2022 Water Year Replenishment Assessment Unit Cost														
4	Board Adopts and Declares 2022 Water Year Replenishment Assessment Unit Cost														
5	Replenishment Assessments for Water Year 2021														
6	Watermaster Prepares Replenishment Assessments for Water Year 2021														
7	Watermaster Board Approves Replenishment Assessments for Water Year 2021 (At December Meeting)														
8	Watermaster Levies Replenishment Assessment for 2021														
9	Monitoring & Management Program (M&MP) Budgets for 2022 and 2023														
10	Preliminary Discussion of Potential Scope of Work for 2022 M&MP														
11	Prepare Draft 2022 M&MP														
12	TAC approves Draft 2022 M&MP														
13	Prepare Draft 2022 and 2023 O&M and Capital Budgets														
14	TAC approves Draft 2022 and 2023 O&M and Capital Budgets														
15	Budget & Finance Committee Approves Draft 2022 M&MP and Draft 2022 O&M and Capital Budgets														
16	Board approves 2022 M&MP and 2022 M&MP O&M and Capital Budgets														
17	2021 Annual Report														
18	Prepare Preliminary Draft 2021 Annual Report														
19	TAC Provides Input on Preliminary Draft 2021 Annual Report														
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21	Board Provides Input on Draft 2021 Annual Report (At December Board Meeting)														
22	Prepare Final 2021 Annual Report (Incorporating Board Input)														
23	Watermaster Submits Final 2021 Annual Report to Judge														
24	MANAGEMENT														

Seaside Basin Watermaster 2021 Monitoring and Management Program Work Schedule

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25	M.1 PROGRAM ADMINISTRATION	29	6	13	20	27	3	10	17	24	31	7	14	21	28
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***SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE
* * * AGENDA TRANSMITTAL FORM * * ****

MEETING DATE:	November 18, 2020
AGENDA ITEM:	7
AGENDA TITLE:	Other Business
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: The “Other Business” agenda item is intended to provide an opportunity for TAC members or others present at the meeting to discuss items not on the agenda that may be of interest to the TAC.	
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only