

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

DATE: Tuesday August 14, 2024

MEETING TIME: 1:30 p.m.

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/83719782931?pwd=Wx9ditaW2xsPUcoNQmptsZLzyN6Gx7.1>

If joining the meeting by phone, dial this number:

+1 669 900 9128 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: 837 1978 2931

Passcode: 236788

TAC Member Teleconferencing Information is on the Next Page

OFFICERS

Chairperson: Jon Lear, MPWMD

Vice-Chairperson: Kim Shirley, City of Del Rey Oaks

MEMBERS

California American Water Company	City of Del Rey Oaks	City of Monterey
City of Sand City	City of Seaside	Coastal Subarea Landowners
Laguna Seca Property Owners	Monterey Peninsula Water Management District	Monterey County Water Resources Agency

Agenda Item

<u>Agenda Item</u>	<u>Page No.</u>
1. Public Comments	
2. Administrative Matters:	
A. Welcome New TAC Member Representing the Laguna Seca Subarea	3
B. Approve Minutes from the July 9, 2024 Meeting	6
C. Sustainable Groundwater Management Act (SGMA) Update	10
D. Update on Retrieval of Lost Datalogger from Sentinel Well No. 3	12
E. Presentation on Updated Groundwater Modeling Being Performed by the Salinas Valley Basin Groundwater Sustainability Agency	14
3. Approve Proposal from Montgomery & Associates to Update the Seawater Intrusion Response Plan	15
4. Discuss Updating the Seaside Basin Groundwater Model in 2025	20
5. Approve Monitoring and Management Program (M&MP) for FY 2025	26
6. Approve the FY 2025 Monitoring and Management Program (M&MP) Operations and Capital Budgets	35
7. Schedule	42
8. Other Business	45
The next regular meeting is planned for Wednesday September 11, 2024 at 1:30 p.m. However, if there is no business that needs to be conducted at that time, the meeting will be canceled.	

TAC MEMBER TELECONFERENCING INFORMATION

NAME	ENTITY	LOCATION
Amy Woodrow	Monterey County Water Resources Agency	5 Carriage Way, Durham, NH.
Kim Shirley	City of Del Rey Oaks	4 Baxter Place, Del Rey Oaks, CA
Nisha Patel	City of Seaside	Engineering Trailer, 440 Harcourt Avenue Seaside, CA
David Pezzini	California American Water	511 Forest Lodge Rd. Suite 100 Pacific Grove, CA
Cody Hennings	City of Monterey	City of Monterey Administrative Service Center, Orca Room, 735 Pacific Street, Monterey, CA
Jon Lear	Monterey Peninsula Water Management District	5 Harris Court, Bldg. G, Monterey, CA
Leon Gomez	City of Sand City	City Hall in Sand City, 1 Pendergrass Way, Sand City, CA 93955
Paul Bruno	Coastal Subarea Landowners	192 Healy Ave, Marina, CA
Eric Tynan	Laguna Seca Subarea Landowners	11499 Geil Street Castroville, CA

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	2.A
AGENDA TITLE:	Welcome New TAC Member Representing the Laguna Seca Subarea
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: <p>Eric Tynan will be replacing John Gaglioti as the Laguna Seca Subarea’s representative on the TAC starting with today’s meeting.</p> <p>Mr. Tynan is the General Manager of the Castroville Community Services District and has occupied that position for many years. His District shares many of the groundwater management concerns and responsibilities as does the Watermaster.</p> <p>His District was formerly the Castroville Water District, formed in 1952 for the purpose of installing and operating a water supply and distribution system for Castroville. The Castroville Water District merged with County Service Area 14 to become the Castroville Community Services District in 2008. The District provides services to customers in the Castroville area. Its services include providing include water, sewer, storm water, street lighting, and recreational facilities. It serves approximately 2,145 residential, commercial, and industrial customers.</p> <p>A copy of his resume is attached. It demonstrates that he has considerable experience in the types of issues with which the Watermaster TAC deals.</p>	
ATTACHMENTS:	Resume of Eric Tynan
RECOMMENDED ACTION:	None required – information only



J. Eric Tynan

General Manager

Castroville Community Services
District

24 years as General Manager of the Castroville CSD

Started in the water and wastewater field in 1995

Experienced in running various Water & Wastewater Treatment systems, Lab, Distribution, Cross connection Specialist w/ Backflow, RO, Air Striping w/acid injection remediation, SBR, RBC, Ponds, Multimedia Filtration

29 years' experience in managing wells, surface water, ground water, distribution, wastewater treatment & remediation, and Collection systems

Certification, Accreditations and Licenses;

- Water - CDHS Water Treatment Grade 3, CDHS Distribution Grade 3, AWWA Water Lab 1 Tech, AWWA Grade 2 Distribution, AWWA Cross Collection Specialist, AWWA Backflow Tester,
- Wastewater- SWRCB Wastewater Treatment IV, CWEA Collections Grade 2, CWEA WW Lab 1
- AS in Wastewater Management from Hartnell Collage
- AA History-Geography from Grossmont Collage
- Castroville Chamber President 2013-2015
- Monterey Bay Water Works Association President 2006-2008,2012-2016- currently Treasurer

EXPERIENCE

Successfully implemented two 218 measures 1 for water and 1 for wastewater & 4 LAFCO measures

Implemented Automated meter reading system (AMI) which freed-up operators to assume wastewater collection O&M duties when Castroville Water became Castroville Community Services District

Initiated 4 LAFCO measures,

1) 2006

Appropriated sewer and Storm drain operations in Castroville & Moro Cojo from Monterey County CSA-14 – District's Sewer & Storm drain powers activated

2) 2008

In order to completely replace CSA 14 services in Castroville, converted from the Castroville Water District into the Castroville Community Services District and absorbed CSA-14's remaining services– Storm drain, Street Lights, Recreational funding, Graffiti abatement,

For North County High School and Monte del Lago Moro Cojo, Sewer and Storm drain as well as Moro Cojo (under contract) Sewer, Open space, Streets, Signs and Storm drain.

3) 2011

Acquired Moss Landing sewer system with merger with the Moss Landing County Sanitation District due to Moss Landing community request for change from County Operations

4) 2006-2011

Multiple boundary changes and powers activated to meet each of these LAFCO Challenges

In SUMMARY

- Tripled size of District while providing 8 new public services in addition to the existing Water service.
These include; Storm Drain, Graffiti Abatement, Recreational Funding, Streets, Roads, Open Space maintenance, and Signs in Moro Cojo as well as acquiring the Wastewater system in Moss landing and Sewer in Castroville,
- Extensive savings in Administration & Operations overhead costs to District and community
- Better local control and representation for services and fees in our community
- All these changes only required hiring only 1 additional Operator
- Increased District reserves from \$2.1 million in 2000 to \$18 million in 2024

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	2.B
AGENDA TITLE:	Approve Minutes from the July 9, 2024 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>Draft Minutes from this meeting were emailed to all TAC members. Any changes requested by TAC members have been included in the attached version.</p>
ATTACHMENTS:	Minutes from this meeting
RECOMMENDED ACTION:	Approve the minutes

D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
July 9, 2024**

Attendees: TAC Members

City of Seaside – No Representative
California American Water – David Pezzini
City of Monterey – Cody Hennings
Laguna Seca Property Owners – No Representative
MPWMD – Jon Lear
MCWRA – Amy Woodrow
City of Del Rey Oaks – Kim Shirley
City of Sand City – Leon Gomez
Coastal Subarea Landowners – No Representative

Watermaster

Technical Program Manager-Bob Jaques

Others

MCWD – Patrick Breen
SVBGSA – Sarah Hardgrave

The meeting was convened at 1:33 p.m. by Mr. Lear.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A. Welcome New TAC Member Representing California American Water Company

Mr. Jaques introduced Mr. Pezzini who said he was glad to be serving on the TAC.

B. Approve Minutes from the June 12, 2024 Meeting

On a motion by Ms. Shirley, seconded by Mr. Gomez, the minutes were unanimously approved as presented, with Mr. Hennings and Mr. Pezzini abstaining.

C. Sustainable Groundwater Management Act (SGMA) Update

Mr. Jaques introduced this item and there was no other discussion on it.

3. Discuss Revised Proposal from Geophysical Imaging Partners to Perform sTEM Survey Near Sentinel Well No. 4

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

Mr. Lear reported that MPWMD is in the process of obtaining a data collection permit from the State Parks and Recreation Department and that the electromagnetic imaging survey might be able to be included with that.

Ms. Shirley said she supported doing this work as it would add data that we don't currently have. Mr. Gomez and Ms. Woodrow also said they supported it. Ms. Hardgrave said that this information will also be of interest to the SVBGSA.

A motion was made by Ms. Shirley, seconded by Ms. Woodrow, to include this work in the Monitoring and Management Program for 2025, and the motion passed unanimously.

4. Update on Follow-up Actions Regarding Induction Logging Findings on Sentinel Well No. 4

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

Mr. Lear mentioned that most of the water quality sampling that is being done uses the low-flow sample collection method, but that a different method could be used in the MSC Well. He went on to describe the condition of the MSC Well and explained why it cannot be induction logged in its current condition.

5. MPWMD Scope of Work 2024-02

Mr. Jaques summarized the agenda packet materials for this item

Mr. Lear said that his legal counsel's recommendation was for him to abstain from this item because it involves payment of money to MPWMD.

Mr. Hennings asked what would happen if the effort by MPWMD to retrieve the fallen data logger in Sentinel Well No. 3 was unsuccessful. Mr. Lear responded that in that case it would be necessary to hire a well drilling contractor that would have more effective tools available to perform the work.

Mr. Gomez asked how much contingency money was available to perform this work. Mr. Jaques responded that the contingency was on the order of \$30,000 and that none of it had been used thus far this year.

A motion was made by Mr. Gomez, seconded by Mr. Pezzini, to approve MPWMD's Scope of Work 2024-02. The motion passed unanimously.

6. Initial Discussion Regarding Monitoring and Management Program (M&MP) for FY 2025

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

With regard to Task I.3.a.1 (Update the Existing Model) Mr. Lear noted that there had been a previous letter agreement for cost-sharing of model updating with MPWMD and Monterey One Water. Mr. Jaques thanked Mr. Lear for bringing that up and said that if the work is to proceed, it would be good for the representatives of these agencies to again consider cost-sharing the model update.

Ms. Shirley had several questions about the proposed Monitoring and Management Program and Mr. Jaques and Mr. Lear provided responses.

Ms. Hardgrave briefly described model updating and model development work being performed by the SVB and MCWD GSAs. She noted that she has been invited to make a presentation on that work at the next watermaster TAC meeting.

7. Schedule

Mr. Jaques reported that there had been no significant revisions to the schedule since the last TAC meeting.

8. Other Business

There was no other business.

The meeting adjourned at 2:04 p.m.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	2.C
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager

At the State level:

Since the last TAC meeting I have not received anything from the State that impacts the Watermaster.

At the Monterey County level:

Attached are summaries of meetings held in July 2024.

ATTACHMENTS:	Meeting Summaries
RECOMMENDED ACTION:	None required – information only

SUMMARY OF
PURE WATER MONTEREY, AND
SALINAS VALLEY AND
MARINA COAST WATER DISTRICT GROUNDWATER SUSTAINABILITY
AGENCY ZOOM MEETINGS
IN JULY 2024

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

180/400-Foot Aquifer Subbasin GSP Implementation Committee Meeting, July 10, 2024:

Since this meeting conflicted with the Watermaster Board meeting on this same date, I was not able to attend it. However, my review of the agenda packet indicated many of the items were the same as those that were presented and discussed at a recent Monterey Subbasin GSP Implementation Committee Meeting, so I don't believe there was anything new being presented that would be of interest to the Watermaster.

MPWMD Monterey Peninsula Water Operations Meeting, July 24, 2024:

At this meeting the agenda items pertained to the Pure Water Monterey Project and its Expansion, and ASR operations. The following information was included in the presentations:

- Pure Water Monterey Project:
 - 3,500 AF of water was delivered during Fiscal Year 2023-2024 (beginning July 1, 2023)
 - 2,189 AF is in the operating reserve.
 - All underground retention time travel time requirements (four months) are being met.
 - All Log Reduction Requirements continue to be met
 - There were a few minor Sampling/Analysis variances during this reporting period, but none that resulted in permit violations
 - Construction of Cal Am's new Extraction Wells 1 and 2 is in progress
 - The Pure Water Monterey Expansion Project is still projected to be complete by late 2025

- ASR:
 - Injection began Sunday 1/21/2024 and ended 5/29/2024
 - 1,519 AF was injected into the Basin this Water Year
 - 3,676 AF of ASR water is in storage
 - ASR-1 and ASR-2 rehabilitation (scrubbing) is in progress
 - Some Carmel Valley wells will be rehabbed late this calendar year.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	2.D
AGENDA TITLE:	Update on Retrieval of Lost Datalogger from Sentinel Well No. 3
PREPARED BY:	Robert Jaques, Technical Program Manager
<p>Jon Lear reported on July 18th that the data logger and its support cable that had fallen to the bottom of Sentinel Well No. 3 had been successfully retrieved. A photo of it is attached. The datalogger is pressure-rated and was damaged as a result of being submerged too deeply, so it will have to be replaced.</p>	
ATTACHMENTS:	Photo of retrieved datalogger and its support cable
RECOMMENDED ACTION:	None required – information only



**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	2.E
AGENDA TITLE:	Presentation on Updated Groundwater Modeling Being Performed by the Salinas Valley Basin Groundwater Sustainability Agency
PREPARED BY:	Robert Jaques, Technical Program Manager
<p>SUMMARY: The Watermaster and our consultants have been collaborating with the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) on their development of an updated Hydrogeologic Conceptual Model (HCM) of the Salinas Valley Basin. In the course of that, it was found that there were differences between the existing groundwater models developed for the Seaside Basin and the Monterey Subbasin.</p> <p>Several types of new data have become available (e.g. airborne electromagnetic imaging [AEM], well logs, gravity surveys, new offshore geologic mapping). The SVBGSA has been working to update the model layering and to add in new data available since the previous models were developed.</p> <p>The revised layering:</p> <ul style="list-style-type: none"> • Incorporates new data across the Ord Area that shows an uplift of the geologic formations • Considers the layering assignments from the Monterey Subbasin Groundwater Flow Model (developed by MCWDGSA’s consultant EKI) which reflects prior geophysical studies and interpretations • Incorporates the results of the Deep Aquifers Study • Reflects efforts to establish a more consistent connection of aquifer formations across the coastal area • Incorporates the Monterey Formation encountered in the newer wells drilled in Seaside. <p>They also compared the Watermaster’s Seaside Basin water budgets and the location of the groundwater divide from the Seaside Model and the existing Seawater Intrusion Model, which were surprisingly close, and they plan to do that again once their Seawater Intrusion Model is recalibrated.</p> <p>They will coordinate with the Watermaster’s consultants in recalibrating their model with the layering adjustments, and also plan to discuss the assumptions of predictive modeling. Differing assumptions between the various models has led to differences in future projections of groundwater conditions. They state that their goal is to compare what assumptions each entity uses, reconcile differences when possible, and, even when not reconciled, understand why differing assumptions produce differing results.</p> <p>They have been presenting their HCM updates to SVBGSA and MCWDGSA committees, and will make a similar presentation to the TAC at today’s meeting, including relevant updates in the Marina/Ord and Corral de Tierra areas. They will include a description of the improvements they have made to their Seawater Intrusion Model, which were in part in response to our comments about the Seaside Basin.</p>	
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	August 14, 2024
AGENDA ITEM:	3
AGENDA TITLE:	Discuss Proposal from Montgomery and Associates to Update the Seawater Intrusion Response Plan (SIRP)
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	
<p>At the July 9 TAC there was TAC concurrence that it would be beneficial to update the Watermaster’s SIRP in 2025.</p> <p>Attached is the proposal from Georgina King of Montgomery & Associates to perform this work. I believe the proposal is reasonable, and that it will address the issues raised by the TAC and our consultants when the findings from the 2023 induction logging results of Sentinel Well No. 4 were discussed in our meetings earlier this year. She pointed out that Task 1 of her Proposal includes updating more than just Figure 1 and Table 1, as it would be inconsistent to only update part of the document. Updating all the supporting information will provide a more complete plan as opposed to a “patched” plan.</p> <p>The TAC is invited to ask questions and provide suggested revisions, if any, to the proposal at today’s meeting. Following that discussion, if there are appreciable changes to the scope I will request an updated cost proposal from Ms. King. If there are no appreciable changes, I will include the \$25,481 proposed cost in the 2025 Monitoring and Management Program Operations Budget.</p> <p>The actual contract for perform the work, assuming that doing the work is approved by the Board, would come to the TAC for approval later this year.</p>	
ATTACHMENTS:	Proposal from Montgomery & Associates
RECOMMENDED ACTION:	Approve the proposed scope of work and having the cost of this work included in the 2025 M&MP Operations Budget

June 24, 2024

Mr. Bob Jaques
Seaside Watermaster Technical Program Manager
83 Via Encanto
Monterey, CA 93940

SUBJECT: SCOPE TO UPDATE SEASIDE BASIN SEAWATER INTRUSION RESPONSE PLAN

Dear Mr. Jaques

Montgomery & Associates (M&A) is pleased to present this scope of work to update the Seaside Basin (Basin) Seawater Intrusion Response Plan (SIRP).

Background

The SIRP, prepared in February 2009, is the Seaside Basin Watermaster's contingency plan for responding to seawater intrusion in the Basin, should it occur. The SIRP was developed as part of the Watermaster's implementation of the Seaside Basin Monitoring and Management Program. The SIRP details the indicators of seawater intrusion and action levels that trigger response measures, and recommended actions to be taken when seawater intrusion is observed.

At the June 2024 Technical Advisory Committee (TAC) meeting, there was consensus to update the SIRP per recommendations included in the TAC meeting packet. This scope of work is based on those recommendations, except for developing Protective Water Levels (PWLs) for major production wells. That recommendation is excluded from the scope because to reverse the current onshore groundwater flow direction, PWLs in production wells need to be well above sea level. This is impractical since pumping levels induced by production wells in the Northern Coastal subarea are up to 50 feet below sea level, even with operation of Pure Water Monterey.

Scope of Work

Task 1. Update SIRP Figures, Tables, and Appendices

Update Figure 1: Wells with Historical Water Quality Data, Table 1: Chloride Threshold Values and Trend Analysis and Table 2: Sodium/Chloride Molar Trend Analysis with additional data and wells. A statistical analysis of chloride concentration and Sodium/Chloride Molar Ratios is needed to update the 2 tables and will be described in Appendix C. M&A will compile all chloride and sodium data for existing and new monitoring wells and use the Mann-Kendall statistical approach to objectively determine if trends are increasing, stable or decreasing.

The update will include replacing the following appendices with updated versions incorporating all available data and updated analysis:

- Appendix B: Historical Chloride Concentration Graphs
- Appendix C: Statistical Trend Analysis
- Appendix D: Historical Sodium/Chloride Molar Ratio Graphs
- Appendix E: Piper Diagrams for Seaside Groundwater Basin Wells
- Appendix F: Stiff Diagrams for Seaside Groundwater Basin Wells

For efficiency, Appendices B, D, E and F will be updated based on Water Year 2024 Seawater Intrusion Analysis Report content with some minor adjustments to display SIRP-specific information.

Task 2. Revise List of Tasks in Contingency Action No. 4 on Pumping Redistribution Plan

Revise the list of tasks in the 2009 SIRP's Contingency Action No. 4 to make the Action more practical and straightforward to implement. For this task, M&A proposes to develop a number of options to present at a future TAC meeting to solicit feedback from TAC members on preferred options.

Task 3. Incorporate Geophysical Data as a Seawater Intrusion Indicator and Trigger

Establish an approach to incorporate repeatable geophysical measurements and data at monitoring wells as a seawater intrusion indicator and trigger.

Task 4. Prepare Updated SIRP

M&A will prepare a draft updated SIRP for review by the TAC. After incorporating comments from the TAC and Technical Program Manager, a Board draft SIRP will be prepared and included in the Board's meeting packet. Board comments will be addressed in the final updated SIRP. M&A will email the Technical Program Manager PDF and Word versions of the final updated SIRP.

Task 5. TAC and Board Meetings

Georgina King will prepare for and remotely attend two TAC meetings. The first TAC meeting will be to present options for revising the Contingency Action No. 4 on Pumping Redistribution Plan. The second TAC meeting will be to present the draft SIRP updates. Georgina King will also remotely present the SIRP updates to the Board.

Project Budget and Schedule

We understand this work shall be undertaken in 2025. It is anticipated that the work can be completed within a three-month period, though the timing may depend on the scheduling of TAC and Board meetings. We can begin work immediately following notice to proceed.

Total estimated costs to update the SIRP is \$25,481 as detailed in the attached cost table.

Please feel free to contact us with any questions about the proposed scope of work and budget.

Sincerely,
MONTGOMERY & ASSOCIATES



Georgina King, P.G., C.Hg.
Principal Hydrogeologist

Table 1. Cost Estimate for Seawater Intrusion Response Plan Update

		Montgomery & Associates Labor					Labor Total		Other Direct Costs	TOTALS
		Scientist VII	Scientist VII	Scientist III	Technical Editor					
		C. Tana	G. King				Hours	(\$)		
Task	Hourly Rates	\$265	\$265	\$172	\$86	Hours	(\$)	(\$)		
1	Update SIRP Figures and Tables	0	20	30	0	50	\$10,460	\$0	\$10,460	
2	Revise List of Tasks in Contingency Action No. 4 on Pumping Redistribution Plan	3	10	0	0	13	\$3,445	\$0	\$3,445	
3	Incorporate Geophysical Data as a Seawater Intrusion Indicator and Trigger	4	12	8	0	24	\$5,616	\$0	\$5,616	
4	Prepare Updated SIRP	0	8	4	4	16	\$3,152	\$0	\$3,152	
5	TAC and Board Meetings	0	8	4	0	12	\$2,808	\$0	\$2,808	
	Total	7	58	46	4	115	\$25,481	\$0	\$25,481	

DRAFT

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	August 14, 2024
AGENDA ITEM:	4
AGENDA TITLE:	Discuss Updating the Seaside Basin Groundwater Model in 2025
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

At the July 9, 2024 TAC meeting the TAC approved including a task in the 2025 Monitoring and Management Program (M&MP) to update the Seaside Basin Groundwater Model. The reason I felt it might be time to update our Model was because of the recent presentation to the Monterey Subbasin Implementation Committee on the work being done to improve the modeling of the Corral de Tierra subarea of the Monterey Subbasin. The Montgomery & Associates presenter described new geologic info, new hydrologic info, etc. some of which, they concluded, changed the estimates of the amounts of groundwater flowing between the Corral de Tierra portion of the Monterey Subbasin and the Laguna Seca (LSSA) and Northern Inland (NISA) subareas of the Seaside Basin, and between the Toro portion of the Monterey Subbasin and the 180/400-foot Aquifer Subbasin.

After the July 9th TAC meeting I received from Pascual Benito of Montgomery & Associates a ballpark cost estimate of between \$100K and \$150K to do this work. The last time the Model was updated was in 2018 and the cost of that update was only \$54,370. The cost of the work was shared with MPWMD and M1W through an MOA between the sharing parties. The Watermaster paid ½ of the cost, and MPWMD and M1W combined to pay the other ½ of the cost.

I held a telephone conference with Mr. Benito, Mr. Williams, and Ms. King to discuss a list of my questions and concerns regarding updating the Model. This is summarized in [Attachment 1](#). [Attachment 2](#) shows the areas covered by the models discussed in [Attachment 1](#).

Here are my key takeaways from that telephone conference discussion, and from my participation in meetings of the Salinas Valley Basin Groundwater Sustainability Agency's various committees where modeling issues have recently been discussed:

- Updating the existing Seaside Basin Model, or using another model and refining it by incorporating data from the Seaside Basin Model, will be a significant undertaking, with commensurate cost.
- It would be desirable to have whatever model the Watermaster uses to coordinate well with the Monterey Subbasin model developed by EKI for MCWD.
- There are several models that have been developed by other entities (SVBGSA and USGS) which cover both the Seaside and Monterey Subbasins. However, none of those models is as refined in the Seaside Basin as is the existing Seaside Basin Model.
- Updating modeling of the Seaside Basin probably would not lead to the Watermaster making significant changes with regard to basin-management decision-making. However, improving our understanding of the groundwater flow patterns and volumes, particularly to and from the adjacent Monterey Subbasin, would be useful in assessing replenishment water approaches to raising groundwater levels to avert or slow the advance of seawater intrusion, should it occur.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

AGENDA ITEM:	4 (Continued)
<ul style="list-style-type: none"> • The Seawater Intrusion Model could be used to replace the Watermaster’ Seaside Basin Model by taking that Model and refining it with data from the Seaside Basin Model for the area of the Seawater Intrusion Model that covers the Seaside Basin. The result would be a model covering both the Seaside and Monterey Subbasins as well as a good portion of the other subbasins in the Salinas Valley. It would also be a model that incorporates all of the HCM. <p>Considering all of these factors, these are my recommendations:</p> <ol style="list-style-type: none"> 1. Update or replace the Watermaster’s existing Seaside Basin Model with one that incorporates the data and knowledge that has been gained since it was prepared in 2009. 2. Have M&A evaluate the pros and cons of the various models that could be used, and approaches that could be taken, and provide their assessment to the Watermaster so the TAC and Board can determine which modeling approach will be the most cost-effective in meeting the Watermaster’s needs and objectives. 3. Select the approach that the Watermaster finds to be the most cost-effective, and prepare and issue a contract to M&M to perform that work in 2025. 	
ATTACHMENTS:	<ol style="list-style-type: none"> 1. Summary of Telephone Conference with Pascual Benito, Derrick Williams, and Georgina King Regarding Updating the Seaside Basin Groundwater Model 2. Map showing areas covered by the various models
RECOMMENDED ACTIONS:	<ol style="list-style-type: none"> 1. Provide direction to the Technical Program Manager on whether or not to include updating or replacing the Model in the 2025 M&MP and if so, at what cost. 2. Approve or modify the Technical Program Manager’s three recommendations listed above.

Attachment 1

SUMMARY OF TELEPHONE CONFERENCE WITH PASCUAL BENITO, DERRIK WILLIAMS, AND GEORGINA KING REGARDING UPDATING THE SEASIDE BASIN GROUNDWATER MODEL

1. My Question: The last update in 2018 cost a little less than \$60K. Why would this update cost \$100K to \$150K?

M&A Response: This model update would be substantially more effort than what was done in 2018. The 2018 work involved updates to the historical simulation, and the construction of the Model itself was unchanged. We only extended the simulation period to include additional years of pumping and hydrology data, not an update or upgrade of the Model, which would mean changing the structure of the Model (e.g. changing the Model layer geometry, aquifer hydraulic properties, or changing the boundary conditions).

In 2018, the historical model period was extended from 1987-2013 to include new pumping and hydrology data from 2014-2017, and new monthly pumping and rainfall/infiltration data was added to the existing Model inputs that included the prior years. But no actual changes were made to the structure of the Model itself.

For the new proposed update, we would be both extending the Model period to include the latest 2018-2024 pumping and hydrology data (analogous to what we did in 2018), while also:

- Making changes to the underlying structure of the Model to reflect the improved understanding of the basin structure and hydrogeology and
- Changing how the offshore and boundary conditions are set up so that we can better align and integrate with the modeling work that is being done for the neighboring subbasins and the SVBGSA's recently completed Seawater Intrusion model.

Georgina researched the cost of the original 2009 Seaside Basin Groundwater Model and found that it was approximately \$286K. [Bob found that this work was authorized via HydroMetrics RFS No. 2009-02.] Pascual commented that in 2024 dollars this would be approximately \$350K. [Note: Bob subsequently reviewed the 2008 Annual Report and saw that we had budgeted \$300K to prepare the Model in the 2009 Monitoring and Management Program Operations Budget. The cost proposal from HydroMetrics to Develop Model Goals and Objectives, Develop the Groundwater Flow Model, Develop and Run Predictive Model Scenarios, and to Prepare the Report describing all of this work totaled approximately \$250K. The \$286K figure Georgina referred to was for a scope of work that included things other than just the Model itself.]

2. Question: Would incorporating the new data into our Model have much if any impact on the management of groundwater in the Northern Coastal subarea of the Seaside Basin, where the majority of the Seaside Basin production wells are located?

M&A Response: Most of the structural changes are in the Corral de Tierra area and would probably not affect the Northern Coastal Subarea of the Seaside basin. We now have newer water level data in the Corral de Tierra area and other Salinas Valley subbasins. Also, there are new Pure Water Monterey wells that have been drilled so we know more about the geology in that portion of the Seaside Basin. Cal Am's discontinuance of pumping in the Laguna Seca Subarea has already been incorporated into the Seaside Model. The Northern Inland Subarea AEM data provided from the DWR aerial survey is new information that could be included in an update. Also, there is new offshore data from the Seawater Intrusion Model - it would be a significant amount of work to incorporate that information.

3. Question: It was my understanding that after Cal Am discontinued pumping from the LSSA, groundwater levels in the middle and western portions of that subarea had risen, but that they still sloped downward to the east toward the Corral de Tierra subarea. Most of the LSSA production wells are in the middle and western portion of the LSSA. How much impact would this new data be likely to have on the LSSA in terms of impacts on production wells there.

M&A Response: Georgina said she agreed that the water levels were showing some improvement but felt that the golf course well groundwater levels may still be declining. Derrick felt there would be a greater impact in the Laguna Seca subarea from the HCM information than in any other parts of the Seaside basin. EKI (the hydrogeologic consultant working for Marina Coast Water District) currently is updating its Monterey Subbasin Model by calibrating it with the Seawater Intrusion Model being developed by the SVBGSA. Also, there is now more well data available from the Corral de Tierra area that could be incorporated into the models.

4. Question: Would it be more cost effective to move the Seaside Basin model into the EKI Monterey Subbasin model so there is just one model covering both subbasins? Seems like that would eliminate the potential for conflicts at the boundaries of the two subbasins. The EKI model is being used by the Monterey Subbasin for its GSP.

M&A Response: Derrick explained that there are three models covering the Seaside basin:

- a. The Watermaster's Seaside Basin Model
- b. The SVBGSA Seawater Intrusion Model
- c. The SVIHM/SVOM USGS Model

Pascual reported that at the boundary between the Monterey and Seaside subbasins, EKI force-matched the groundwater levels in the Monterey Subbasin Model with the groundwater levels in the Watermaster's Seaside basin Groundwater Model. EKI did not extend the Monterey Subbasin Model into the Seaside basin in order to incorporate hydrogeologic data from the Seaside basin.

Pascual and Derrick felt that the updated Seawater Intrusion Model would probably be the best representation covering all of the subbasins. However, the cell sizes in the Seawater Intrusion Model are larger, so it is less spatially refined within the Seaside basin, since the Seaside basin model uses smaller cell sizes. The seawater intrusion model is more of a big-picture look, and is not as refined in the Seaside basin as is the Seaside Basin Model.

The SVIHM is also a big-picture groundwater model and will be used by the SVBGSA largely for overall decision-making within the Salinas Valley Basin. It is not a good model to use for the Seaside basin because it is poorly calibrated there and no data from the Seaside basin was used when that model was created. Also, very little data from the Monterey Subbasin was used. It is focused a lot on the agricultural areas of the Salinas Valley. If we wanted to use the Seawater Intrusion Model we may need to have a formal agreement with the SVBGSA to obtain use of the Model. Derrick mentioned that there is a written agreement between the SVBGSA and the MCWDGSA regarding the use of some of the modeling work.

Pascual said that having EKI extend Monterey Subbasin Model to cover the Seaside basin would be a significant undertaking.

Derrick reported that MCWD sued Cal Am with regard to the slant wells that are part of the Cal Am desalination project. The suit contends that the wells will adversely impact groundwater conditions within the MCWD area. Derrick understood that the case is currently before an Administrative Law Judge at the SWRCB.

Derrick said Pascual could take the Seawater Intrusion Model and refine it within the Seaside basin portion of that Model by using data from the Seaside Basin Model. The result would be a model covering both the Seaside and Monterey Subbasins as well as a good portion of the other subbasins in the Salinas Valley. Georgina and Pascual concurred with Derrick's comments, and noted that all of the HCM data is being incorporated into the Seawater Intrusion Model, but it may not be as refined in the area of the Seaside basin as it is in the Salinas Valley.

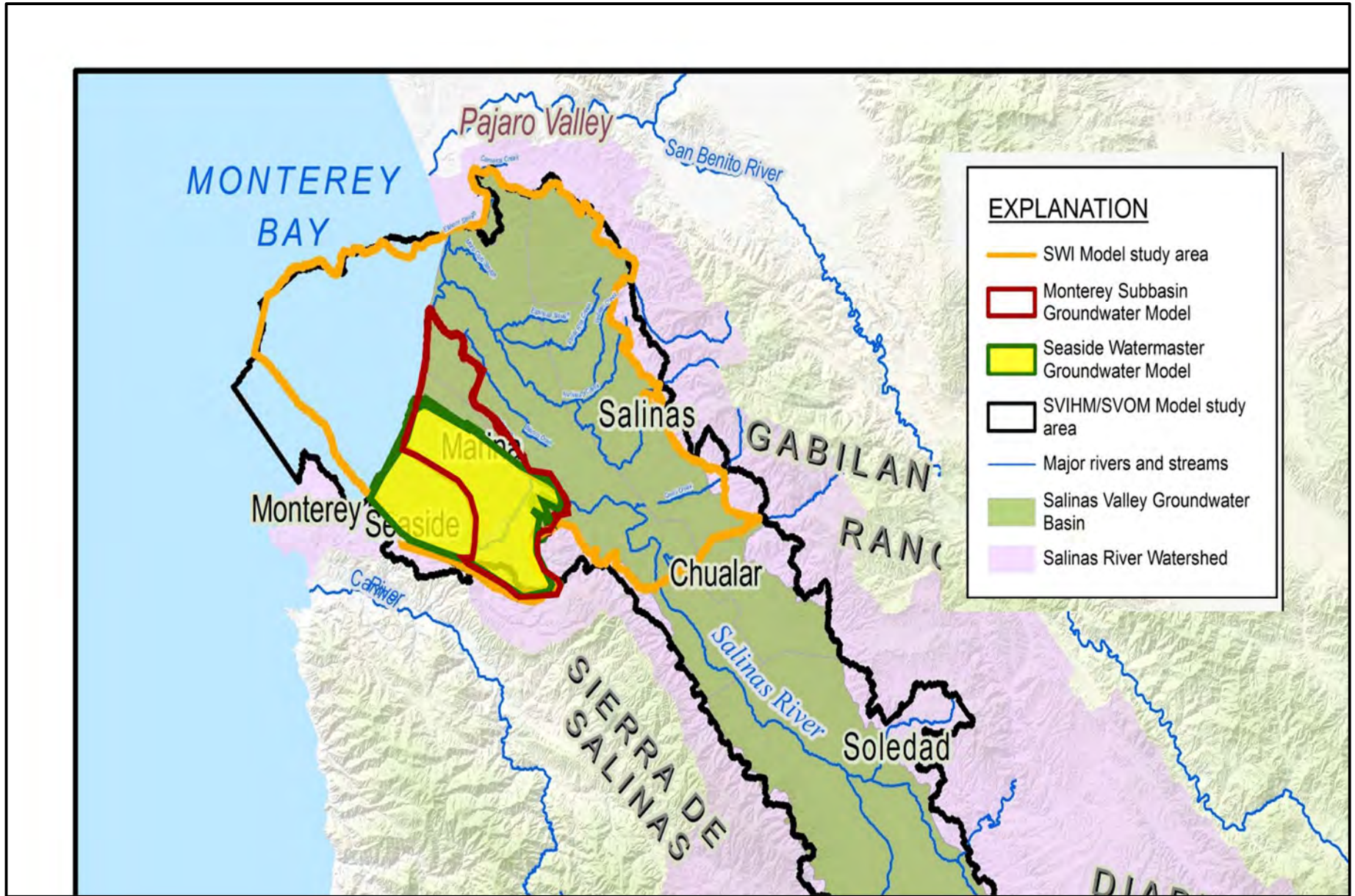
Pascual wondered if MCW the was going to drop use of the EKI Monterey basin model in favor of using the seawater intrusion model. No one knew the answer. [Note: In a separate conversation Bob had with MCWD representatives recently, it sounded like they would be keeping the Monterey Subbasin Model, but updating it with information from the Seawater Intrusion Model.]

Derrick said that an evaluation of the different modeling options with pros and cons could be prepared to guide the Watermaster in decision-making on this issue.

Pascual said he didn't think updating the Seaside Basin Model would drastically change basin-management decision-making.

5. Concern: Because of the very high cost being projected for this Model update, we need to have real justification in terms of basin management decision-making to spend that much money. If the impacts of the new data are likely to be modest, then I would not feel comfortable supporting doing an update in 2025. Thinking out of the box, I wonder if our money would be better spent with an analysis of how the Seaside Basin can be saved from eventually being lost to SWI. We have a good deal of modeling results already in hand – and I'm wondering if there is any salvation for the Basin (long term) without bringing in a new water supply i.e. desalination. M&A Response: We actually didn't get into discussing this as it was felt that the discussion up to this point was favoring doing some form of model updating to reflect the information that has been gained since the 2009 Model was prepared. Also, the update to the Seawater Intrusion Response Plan (SIRP) will be able to cover this topic in general.

Attachment 2



**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	5
AGENDA TITLE:	Approve Monitoring and Management Program (M&MP) for FY 2025
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	
<p>At its July 9, 2024 meeting the TAC reviewed and discussed a Draft version of the proposed FY 2025 Management and Monitoring Program (M&MP). No revisions to the Draft version were suggested. The costs for the various tasks have been updated based on input received from MPWMD and Montgomery & Associates (shown in Track Changes), and some minor text edits have been made.</p> <p>I will incorporate the TAC’s direction from the discussion of Agenda Items 3 and 4 of today’s meeting into the Final version of the 2025 M&MP, if they result in any changes from the language or costs included in the version attached to this Transmittal.</p> <p>No other changes to the Draft version of the M&MP have been made from the draft version presented to the TAC at its July 9th meeting, and the version that is attached to this Agenda Item is the proposed Final 2025 M&MP.</p>	
ATTACHMENTS:	Proposed Final FY 2025 Seaside Groundwater Basin M&MP
RECOMMENDED ACTION:	Provide Input to the Technical Program Manager Regarding Any Further Corrections or Additions to the proposed Final FY 2025 M&MP, and recommend its approval to the Board

FINAL DRAFT
Seaside Groundwater Basin
2025 Monitoring and Management Program

The tasks outlined below are those that are anticipated to be performed during 2025. Some Tasks listed below are specific to 2025, while other Tasks are recurring such as data collection, database entry, and Program Administration Tasks.

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

M.1 Program Administration

M. 1. a Project Budget and Controls (\$0)	Consultants will provide monthly or bimonthly invoices to the Watermaster for work performed under their contracts with the Watermaster. Consultants will perform maintenance of their internal budgets and schedules, and management of their subconsultants. The Watermaster will perform management of its Consultants.
M. 1. b Assist with Board and TAC Agendas (\$0)	Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.
M. 1. c., M. 1. d, & M.1.e Preparation for and Attendance at Meetings, and Peer Review of Documents and Reports (\$19,53020,570)	<p>The Consultants’ work will require internal meetings and possibly meetings with outside governmental agencies and the public. For meetings with outside agencies, other Consultants, or any other parties which are necessary for the conduct of the work of their contracts, the Consultants will set up the meetings and prepare agendas and meeting minutes to facilitate the meetings. These may include planning and review meetings with Watermaster staff. The costs for these meetings will be included in their contracts, under the specific Tasks and/or subtasks to which the meetings relate. The only meeting costs that will be incurred under Tasks M.1.c, M.1.d, and M.1.e will be:</p> <ul style="list-style-type: none"> • Those associated with attendance at TAC meetings (either in person or by videoconference connection), including providing periodic progress reports to the Watermaster for inclusion in the agenda packets for the TAC meetings, when requested by the Watermaster to do so. These progress reports will typically include project progress that has been made, problem identification and resolution, and planned upcoming work. • From time-to-time when Watermaster staff asks Consultants to make special presentations to the Watermaster Board and/or the TAC, and which are not included in the Consultant’s contracts for other tasks.

Appropriate Consultant representatives will attend TAC meetings (either in person or by videoconference connection) when requested to do so by Watermaster Staff, but will not be asked to prepare agendas or meeting minutes. As necessary, Consultants may provide oral updates to their progress reports (prepared under Task M.1.d) at the TAC meetings.

When requested by the Watermaster staff, Consultants may be asked to

assist the TAC and the Watermaster staff with peer reviews of documents and reports prepared by various other Watermaster Consultants and/or entities.

M. 1. f QA/QC (\$0)	A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These costs are included in the other tasks.
M.1.g Prepare Documents for SGMA Reporting (\$2,5493,124)	Section 10720.8 of the Sustainable Groundwater Management Act (SGMA) requires adjudicated basins to submit annual reports. Most of the documentation that needs to be reported is already generated by the Watermaster in conjunction with preparing its own Annual Reports. However, some information such as changes in basin storage is not currently generated and will require consultant assistance to do so. This task will be used to obtain this consultant assistance, as needed.

1.2 Comprehensive Basin Production, Water Level and Water Quality Monitoring Program

I. 2. a. Database Management

I. 2. a. 1 Conduct Ongoing Data Entry and Database Maintenance/ Enhancement (\$22,70014,838)	The database will be maintained by a Consultant (MPWMD) performing this work for the Watermaster. MPWMD will enter new data into the consolidated database, including water production volumes, water quality and water level data, and such other data as may be appropriate. Other than an annual reporting of data to another Watermaster Consultant at the end of the Water Year, as mentioned in Task I.4.c below, no reporting of water level or water quality data during the Water Year is required. However, MPWMD will promptly notify the Watermaster of any missing data or data collection irregularities that were <u>are</u> encountered.
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Under this Task, when requested MPWMD will also respond to requests from consultants and others for data from the database.

At the end of the Water Year MPWMD will prepare an annual water production, water level, and water quality tabulation in Access format and will provide the tabulation to another Watermaster Consultant who will use that data in the preparation of the SIAR under Task No. I.4.c of the Monitoring and Management Program.

No enhancements to the database are anticipated during 2025.

Watermaster staff will maintain the Watermaster's website.

I. 2. a. 2 Verify Accuracy of Production Well Meters (\$0)	To ensure that water production data is accurate, the well meters of the major producers were verified for accuracy during 2009 and again during 2015. No additional work of this type is anticipated during 2025.
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I. 2. b. Data Collection Program

I. 2. b. 1 Site Representation and Selection (\$0)	The monitoring well network review that was started in 2008 has been completed, and sites have been identified where future monitoring well(s) could be installed, if it is deemed necessary to do so in order to fill in data gaps. No further work of this type is anticipated in 2025.
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<p>I. 2 b. 2 Collect Water Levels (\$21,428,23,174)</p>	<p>Each of the monitoring wells will be visited on a regular basis. Water levels will be determined by either taking manual water levels using an electric sounder, or by dataloggers. The wells where the use of dataloggers is feasible or appropriate have been equipped with dataloggers. All of the other wells will be manually measured.</p> <p>This Task includes the purchase of one datalogger and parts for the datalogger to keep in inventory as a spare if needed.</p>
<p>I. 2. b. 3 Collect Water Quality Samples. (\$38,446,36,392)</p>	<p>As discussed in the 2018 Annual Report, water quality data will be collected quarterly from certain of the monitoring wells, but is no longer being collected from the four coastal Sentinel Wells. Because many years of data have shown essentially no change in aquifer water quality, beginning in WY2023 the frequency of induction logging of the Sentinel Wells was reduced to once per year.</p> <p>As discussed in the 2012 Annual Report, water quality analyses were expanded to include barium and iodide ions. Since these analyses have created more than 10 years of data, as discussed in the 2022 Annual Report the analyses were no longer being performed starting in WY 2023. They will only be resumed if the other water quality parameters are indicative of seawater intrusion.</p> <p>As discussed in the 2021 Annual Report, the frequency of sampling of SBWM-5 (the Camp Huffman well) has been reduced over the years. It is being sampled once every five years beginning in WY 2022.</p> <p>Water quality data may come from water quality samples that are taken from these wells and submitted to a State Certified analytic laboratory for general mineral and physical suite of analyses, or the data may come from induction logging of these wells and/or other data gathering techniques. The Consultant or Contractor selected to perform this work will make this judgment based on consideration of costs and other factors.</p> <p>Sampling equipment sits in the water column and may periodically need to be replaced or repaired. Accordingly, an allowance to perform maintenance on previously installed equipment has been included in this Task. Also, in the event a sampling pump fails or is found to be no longer adequate due to declining groundwater levels, an allowance of \$945 to purchase a replacement sampling pump has been included in this Task.</p>
<p>I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. (\$0)</p>	<p>All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2025.</p>
<p>I. 2. b. 5 Monitor Well Construction (\$0)</p>	<p>A well to replace Monitoring Well FO-9 Shallow, which in 2021 was found to have a leaking casing, was installed in 2023. No other monitoring wells are expected to be constructed in 2025.</p>

<p>I. 2. b. 6 Reports (\$3,680,480)</p>	<p>This task was essentially eliminated starting in 2020 by having the data collected by MPWMD under tasks I.2.b.1, I.2.b.2, and I.2.b.3 reported in the SIAR under Task I.4.c. The work remaining under this task is for MPWMD to prepare and provide the data appendix to the Consultant that prepares the SIAR.</p> <p>No formalized reporting on a quarterly basis is required. However, MPWMD will promptly notify the Watermaster and the Consultant that prepares the SIAR of any missing data or data collection irregularities in the water quality and water level data collected under Tasks I.2.b.2 and I.2.b.3.</p>
<p>I.2.b.7 CASGEM Data Submittal (\$4,200,072)</p>	<p>On the Watermaster’s behalf MPWMD will compile and submit data on the Watermaster’s “Voluntary Wells” into the State’s CASGEM groundwater management database. The term “Voluntary Well” refers to a well that is not currently having its data reported into the CASGEM system, but for which the Watermaster obtains data. This will be done in the format and on the schedule required by the Department of Water Resources under the Sustainable Groundwater Management Act.</p>
<p>I.2.b.8 Perform Subsurface Electromagnetic Imaging (\$15,500)</p>	<p>The 2023 induction logging revealed gradually increasing conductivity in some of the shallower formations near the coastline. In 2025 the potential benefit of performing subsurface electromagnetic imaging in the vicinity of Sentinel Well No. 4 will be evaluated to see if it can help determine if seawater intrusion is beginning to occur in that part of the Seaside Basin.</p>
<p><i>1.3 Basin Management</i></p>	
<p>I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)</p>	<p>The Watermaster and its consultants use a Groundwater Model for basin management purposes.</p>
<p>I.3.a.1 Update the Existing Model (\$0125,000)</p>	<p>The Model, described in the report titled “Groundwater Flow and Transport Model” dated October 1, 2007, was updated in 2009 in order to develop protective water levels, and to evaluate replenishment scenarios and develop answers to Basin management questions. The Model was again updated in 2014.</p> <p>In 2018 the Model was recalibrated and updated. Work is being performed by the Salinas Valley Basin and Marina Coast Groundwater Sustainability Agencies on the hydrogeologic modeling of the Monterey Subbasin. Significant changes in the understanding of the hydrogeology of that subbasin are being identified, and an updated model of that subbasin is expected to be completed in late 2024. In order for the Watermaster’s Model to incorporate that new information and to more closely coordinate with the updated Monterey Subbasin model, it may be desirable to update, <u>modify, or replace</u> the Watermaster’s Model in 2025.</p>

<p>I. 3. a. 2 Develop Protective Water Levels (\$0)</p>	<p>A series of cross-sectional models was created in 2009 in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work is discussed in Hydrometrics' November 2009 report titled "<i>Seaside Groundwater Basin Modeling and Protective Groundwater Elevations,</i>" and is posted on the Watermaster's website. As discussed in <u>Attachment 10</u> of the 2013 Annual Report, further work was started in 2013 to refine these protective water levels, but it was found that the previously developed protective water levels were reasonable. Protective water levels will be updated, if appropriate, as part of the work of Task I.3.e. or I.4.e.</p>
<p>I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions (\$40,000)</p>	<p>Modeling performed to date indicates that the solution to the problem of water levels in the Seaside Basin being below Protective Water Levels will be to inject replenishment water.</p> <p>Two projects are planned that have the potential to provide additional water for Basin replenishment. The first is the Pure Water Monterey Expansion (PWMX) Project for which construction bids were solicited in 2023 and is projected to become operational in 2025. The PWMX Project will increase the capacity of the existing 3,500 AFY PWM Project by 2,250 AFY. The second is the Monterey Peninsula Water Supply Project's (MPWSP) desalination plant which is still in the design and permitting stage. The proponent of the MPWSP, California American Water, anticipates starting construction of the desalination plant in October 2025 and the plant becoming operational in late 2027 or early 2028. Growth is built into each of these projects' plant capacity, and the full capacity of these plants will likely not all be needed for some years into the future. During the time period that these projects would have excess capacity, they could potentially provide water for Basin replenishment.</p> <p>Montgomery & Associates agrees that injection is the quickest way to bring groundwater levels up in the Seaside Basin. Modeling performed in 2022 and 2023 found that between 1,000 and 4,600 AFY of replenishment water will need to be needed, depending on future water demands and rainfall.</p> <p>Modeling performed in 2014, 2015, and 2016 led to the conclusion that groundwater levels in parts of the Laguna Seca Subarea will continue to fall, even if all pumping within that subarea is discontinued, because of the influence of pumping from areas near to, but outside of, the Basin boundary. The Groundwater Sustainability Plan for the Corral de Tierra subarea of the Monterey Subbasin includes projects to help to alleviate this problem, but they will be insufficient to completely alleviate it.</p> <p>This Task includes a \$40,000 allowance to perform further modeling or analyses pertaining to Basin management issues if so directed by the Watermaster Board.</p>

<p>I. 3. b. Complete Preparation of Basin Management Action Plan (\$0)</p>	<p>The Watermaster's Consultant completed preparation of the Basin Management Action Plan (BMAP) in February 2009. The BMAP serves as the Watermaster's long-term seawater intrusion prevention plan. The Sections that are included in the BMAP are: Executive Summary Section 1 – Background and Purpose Section 2 – State of the Seaside Groundwater Basin Section 3 – Supplemental Water Supplies Section 4 – Groundwater Management Actions Section 5 – Recommended Management Strategies Section 6 – References</p>
<p>I. 3. c. Refine and/or Update the Basin Management Action Plan (\$0)</p>	<p>In 2019 the BMAP was updated based on new data and knowledge that has been gained since it was prepared in 2009.</p> <p>No further work of this type is anticipated in 2025. However, although no funds are budgeted for this Task in 2025, since the Groundwater Sustainability Plan (GSP) for the adjacent Monterey Subbasin of the Salinas Valley Groundwater Basin was completed in early 2022, at some point it may be appropriate to further update the BMAP to reflect the impacts of implementing that GSP.</p>
<p>I. 3. d. Evaluate Coastal Wells for Cross-Aquifer Contamination Potential (\$0)</p>	<p>If seawater intrusion were to reach any of the coastal wells in any aquifer, and if a well was constructed without proper seals to prevent cross-aquifer communication, or if deterioration of the well led to casing leakage, it would be possible for the intrusion to flow from one aquifer to another.</p> <p>An evaluation of this was performed in 2012 and is described in Attachment 10 of the 2012 Annual Report.</p> <p>In 2021 the Watermaster TAC examined the feasibility of performing conductivity profiling of certain of the near-coastal wells that were evaluated in the 2012 Memorandum, as a method of determining if any of those wells was allowing downward migration of intruded water from the shallow dunes aquifer to enter the Paso Robles aquifer. However, it was concluded that conditions in those wells would make it infeasible to perform such work.</p> <p>No further work of this type is anticipated in 2025.</p>

**I.3. e.
Seaside Basin Geochemical
Model
(\$10,000)**

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 which have previously been attached to soil particles, such as arsenic or mercury, into solution and thus into the water itself. This has been experienced in some other locations where changes occurred in the quality of the water being injected into an aquifer. MPWMD's consultants used geochemical modeling to predict the effects of injecting Carmel River water into the Seaside Groundwater Basin under the ASR program.

In 2019 a geochemical evaluation of introducing advance-treated water from the Pure Water Monterey Project was performed. That evaluation concluded that there would be no adverse geochemical impacts as a result of introducing that water into the Basin. A similar evaluation of the impact of introducing ASR water also concluded that there would be no adverse geochemical impacts. An evaluation of introducing desalinated water will be performed, if the Monterey Peninsula Water Supply Project's desalination plant proceeds into the construction phase.

If the geochemical evaluation of injecting desalinated water indicates the potential for problems to occur, then Montgomery and Associates may use the Watermaster's updated groundwater model, and information about injection locations and quantities, injection scheduling, etc. provided by MPWMD and/or California American Water for this project, to develop model scenarios to see if the problem(s) can be averted by changing delivery schedules and delivery quantities. This Task includes an allowance of \$10,000 to have Montgomery and Associates perform such modeling, if necessary.

If the modeling predicts that there may be adverse impacts from introducing desalinated water, measures to mitigate those impacts will be developed under a separate task that will be created for that purpose when and if necessary.

I. 4 Seawater Intrusion Response Plan (formerly referred to as the Seawater Intrusion Contingency Plan)

<p>I. 4. a. Oversight of Seawater Intrusion Detection and Tracking (\$0)</p>	<p>Consultants will provide general oversight over the Seawater Intrusion detection program under the other Tasks in this Work Plan.</p>
<p>I. 4. c. Annual Report- Seawater Intrusion Analysis (\$28,02030,050)</p>	<p>At the end of each water year, a Consultant will reanalyze all water quality data. Water level and water quality data will be provided to the Consultant by another Consultant (MPWMD) in MS Access format. The Consultant will put this data into a report format and will include it as an attachment to the Seawater Intrusion Analysis Report. If possible, semi-annual chloride concentration maps will be produced for each aquifer in the basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. The induction logs will be analyzed to identify changes in seawater wedge locations. All analyses will be incorporated into an annual report that follows the format of the initial historical data report. Potential seawater intrusion will be highlighted in the report, and if necessary, recommendations will be included. The annual report will be submitted for review by the TAC and the Board. Modifications to the report will be incorporated based on input from these bodies, as well as Watermaster staff.</p>
<p>I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan (\$25,481)</p>	<p>Due to the observation of increasing conductivity in the 2023 induction logging in some of the shallower formations near the coastline, it was determined that in 2025 it would be appropriate to update the 2009 SIRP. The update would include incorporating data that has been obtained since 2009 and examining technology and techniques that could potentially be used to make the SIRP more practical and useful.</p>
<p>I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan (\$0)</p>	<p>The SIRP will be implemented if seawater intrusion, as defined in the SIRP, is determined by the Watermaster to be occurring.</p>

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	6
AGENDA TITLE:	Approve the FY 2025 Monitoring and Management Program (M&MP) Operations and Capital Budgets
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Attached are the proposed M&MP Operations and Capital Budgets for 2025 and 2026. The Board has asked that two-year budgets be developed to alert the Board to potential changes in scope and/or cost in near future years. Only the 2025 budgets are before the TAC for approval. The 2026 budgets are for information only. The following are comments and/or principal revisions from the 2024 M&MP Budget:

Technical Program Manager: Although the Groundwater Sustainability Plan for the adjacent Monterey Subbasin has been completed and was submitted in early 2022 by the Salinas Valley Basin and the Marina Coast Water District Groundwater Sustainability Agencies, there will continue to be regular meetings of their GSP-related committees that I serve on representing the Watermaster. Also, there will likely be further work related to obtaining replenishment water for the Basin. Therefore, I anticipate that the 2025 workload will be similar to that of 2024, so the proposed line-item budget amount has been maintained at \$75,000 in 2025.

Tasks Involving MPWMD and Montgomery & Associates: The scopes-of-work for both MPWMD and Montgomery & Associates are essentially unchanged from 2024. However, both will have hourly-rate increases in 2025, so the costs of the Tasks in which they are involved reflect somewhat higher dollar amounts in 2025 compared to 2024.

Task I.2.b.8: This Task has been added to perform a pilot test of subsurface electromagnetic imaging in the vicinity of Sentinel Well No. 4. Induction logging of that well shows what appears to be increasing conductivity in some of the subsurface strata that could be an indication that seawater is beginning to intrude inland in this location. Subsurface electromagnetic imaging has the potential to aid in this determination. This Task adds \$15,500 to the Budget.

Task I.3.a.1: This is to update the groundwater modeling of the Seaside Basin. Significant changes in the understanding of the hydrogeology of the Monterey Subbasin, which abuts the Seaside Basin, have been identified through work being conducted by the Salinas Valley Basin and Marina Coast Groundwater Sustainability Agencies. They project having an updated model of the Monterey Subbasin in late 2024. In order for the Watermaster to have a model to incorporate that new information and to more closely coordinate with the updated Monterey Subbasin model, it may be desirable to update the Watermaster's modeling work in 2025. The existing Seaside Basin Model was last updated in 2018 at a cost of approximately \$55K. However, that update only consisted of inputting more recent groundwater measurements (water level, production, etc.) but no changes to the actual model itself were made. The proposed updating work would be a much more complex and

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

AGENDA ITEM:	6 (Continued)
<p>vigorous undertaking, with a commensurate significantly higher cost. The consultant (Montgomery & Associates) has provided a ballpark cost range of \$100K to \$150K to update the existing Seaside Basin Model. However, discussions with Montgomery and Associates and the TAC may lead to the conclusion that rather than simply updating the existing Seaside Basin Model, there may be a more useful and cost-effective way to prepare a model that incorporates the newer information and data and better integrates with the modeling being done in the other subbasins of the Salinas Valley Basin. The Budget includes \$125K for this Task (midpoint of ballpark cost range). In the 2018 Model update, the cost was shared between the Watermaster, MPWMD, and M1W. The Watermaster paid 50% of the cost and the two other agencies collectively paid the other 50%. If this model updating work is undertaken in 2025, efforts will be made to cost-share as was done with the 2018 update.</p> <p>Task I.4.e: This is to update the Seawater Intrusion Response Plan (SIRP) which was prepared in 2009 and has not been updated since then. The update would include incorporating more recent groundwater data, updating implementation triggers, updating the Contingency Actions currently described in the SIRP in an effort to make them more practical and straightforward, and establishing an approach to incorporate geophysical data as a seawater intrusion indicator and/or trigger. This work will add \$25,481 to the Budget.</p> <p>As a result of the changes described above, as indicated by the right-hand column titled “Comparative Costs from 2024 Budget” in <u>Attachment 1</u>, the proposed 2025 Budget is \$185,192 higher (\$478,973 - \$293,781) than the 2024 Budget. Following TAC approval of the 2025 M&MP and Budgets, they will be forwarded to the Budget and Finance Committee and then to the Board for approval.</p>	
ATTACHMENTS:	<ol style="list-style-type: none"> 1. 2025 and 2026 M&MP Operations Budgets 2. 2025 and 2026 M&MP Capital Budgets
RECOMMENDED ACTION:	Approve, or make changes to, the attached Budgets and then recommend these for approval to the Board

Monitoring and Management Program Operations Budget For Tasks to be Undertaken in 2025									Comparative Costs from 2024 Budget	
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽³⁾						Total
				MPWMD	Montgomery & Associates	Todd Groundwater	Martin Feeney	Contractors or Other Consultants		
Labor										
			Technical Project Manager	N/A	N/A	N/A	N/A	N/A	\$75,000	\$75,000
M.1 Program Administration										
	M.1.a		Project Budget and Controls	\$0				\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0				\$0	\$0	\$0
	M.1.c, M.1.d, & M.1.e		Preparation for and Attendance at Meetings and Peer Review of Documents and Reports ⁽⁸⁾	\$0	\$12,570	\$4,000	\$4,000	\$0	\$20,570	\$19,530
	M.1.f		QA/QC	\$0				\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$3,124	\$0	\$0	\$0	\$3,124	\$2,540
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)										
I.2 Production, Water Level and Quality Monitoring										
	I. 2. a.		Database Management							
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance and Respond to Data Requests ⁽¹⁵⁾	\$14,838				\$0	\$14,838	\$22,700
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I. 2. b.		Data Collection Program							
		I. 2. b. 1.	Site Representation and Selection ⁽¹⁴⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 2.	Collect Water Levels ⁽⁵⁾⁽⁶⁾	\$23,174	\$0	\$0	\$0	\$0	\$23,174	\$21,128
		I. 2. b. 3.	Collect Water Quality Samples and Perform Sentinel Well Induction Logging ⁽¹⁾⁽⁵⁾	\$36,392	\$0	\$0	\$0	\$0	\$36,392	\$38,446
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 5.	Monitor Well Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		I. 2. b. 6.	Reports	\$4,080	\$0	\$0	\$0	\$0	\$4,080	\$3,680
		I. 2. b. 7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$3,072	\$0	\$0	\$0	\$0	\$3,072	\$4,200
		I.2.b.8	Perform Subsurface Electromagnetic Imaging	\$0	\$0	\$0	\$0	\$15,500	\$15,500	\$0
I.3 Basin Management										
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)						
		I. 3. a. 1	Update the Existing Model ⁽¹¹⁾	\$0	\$125,000	\$0	\$0	\$0	\$125,000	\$0
		I. 3. a. 2	Develop Protective Water Levels ⁽¹²⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ⁽¹⁰⁾	\$0	\$40,000			\$0	\$40,000	\$40,000
	I. 3. b.		Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I. 3. c.		Refine and/or Update the Basin Management Action Plan ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I. 3. d.		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I. 3. e.		Seaside Basin Geochemical Model ⁽¹³⁾	\$0	\$10,000	\$0	\$0	\$0	\$10,000	\$10,000
I.4 Seawater Intrusion Contingency Plan										
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking ⁽¹⁷⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I. 4. b.		Analyze and Map Water Quality from Coastal Monitoring Wells	(Costs Included Under I.4.a)						
	I. 4. c.		Annual Report- Seawater Intrusion Analysis ⁽¹⁶⁾	\$0	\$30,050	\$0	\$0	\$0	\$30,050	\$28,020
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾	\$0	\$25,481	\$0	\$0	\$0	\$25,481	\$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement the Seawater Intrusion Response Plan ⁽⁹⁾	(No Costs are Included for This Task, as This Task May Not be Necessary During 2025. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)						
TOTALS CONSULTANTS & CONTRACTORS				\$81,556	\$246,225	\$4,000	\$4,000	\$15,500	\$351,281	
SUBTOTAL not including Technical Program Manager =									\$351,281	\$190,244
Contingency (not including Technical Program Manager) @ 15% ⁽⁴⁾ =									\$52,692	\$28,537
Technical Program Manager =									\$75,000	\$75,000
TOTAL=									\$478,973	\$293,781

Footnotes:
(1) Under this Subtask the Watermaster will contract with MPWMD to perform the Sentinel Well induction logging work and to perform the other portions of the work of this Subtask. The Sentinel Wells will be induction logged once per year (in September).
(2) The response plan is expected to be updated in 2025.
(3) Within the context of this document the term "Consultant" refers to a private consultant providing professional engineering or other types of technical services. The term "Contractor" refers to a firm providing construction or field services such as well drilling or meter calibration.
(4) Due to the uncertainties of the exact scopes of some of the larger Tasks listed above at the time of preparation of this Budget it is recommended that a Contingency of 15% be included in the Budget.
(5) The MPWMD portion of these Tasks includes: For Task I.2.b.2: (1) \$570 for vehicle mileage costs for both this Task and Task I.2.b.3 and (2) \$850 to purchase a replacement datalogger (if necessary). For Task I.2.b.3: (1) \$7,448 for laboratory analytical costs, (2) \$250 for CO2 bottles to run the sample pumps, (3) \$950 to purchase a replacement low flow sampling pump (if necessary) and (4) \$760 of administrative support costs for preparing billings and processing invoices from the water quality laboratory.
(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.
(7) The BMAP was updated in 2018, and no further work on this Task is anticipated in 2024.
(8) This cost is for Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when/if requested to do so by the Technical Program Manager. This work may include, but not be limited to, participation in conference calls and reviewing documents prepared by others.
(9) If work under this Task is found to be necessary, it will need to be funded through the Contingency line item or by a Budget transfer.
(10) This Task is included to provide funds for the Watermaster to perform modeling and other investigative work to aid in making Basin management decisions that the Board may wish to perform in 2025.
(11) The Model was last updated and recalibrated in 2018, but that work did not include any change to the Model itself, only inputting more recent groundwater data and then recalibrating it for a best match with field measured well data. The proposed 2025 model updating work will incorporate new hydrogeologic data from multiple sources, along with more recent groundwater data, in order to more closely match the data being used in the models for adjacent Monterey Subbasin of the greater Salinas Valley Basin. This work will likely consist of either updating the existing Seaside Basin Model, modifying it, or replacing it with an adapted version of another model being developed by the MCWD or SVGB GSAs.
(12) The protective water levels developed in 2009 were examined in 2013 to see if they needed to be updated. It was concluded that the 2009 protective levels were still satisfactory for Basin management purposes, and that no revisions were needed. No work under this Task is anticipated in 2025.
(13) This was a new Task that was started in 2018, and was completed for the PWM AWT water in 2019. Funds allocated for this Task in 2025 would only be used if geochemical modeling is performed in 2025 for the MPWSP desalination plant water, and if that modeling indicates the need to have Montgomery and Associates use the Seaside Basin groundwater model to provide additional information needed by the geochemical model to develop mitigation measures for any adverse water quality impacts the geochemical model predicts could occur from introducing desalinated water into the Basin.
(14) No additional monitoring well is expected to be constructed in 2025.
(15) Watermaster staff will maintain the Watermaster's website and post documents on it. This Task includes \$2,550 for MPWMD to respond to requests from consultants and others for data from the database (that would only be expended if needed).
(16) MPWMD's costs to assist in this Task are included in its costs under Task I.2.b.6.
(17) MPWMD's and Montgomery & Associates' costs to provide oversight in this Task are included under their other Tasks.

Monitoring and Management Program Preliminary Estimated Operations Budget For Tasks to be Undertaken in 2026								Comparative Costs from 2025 Budget		
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽³⁾					Total	
				MPWMD	Montgomery	Todd	Martin	Contractors		
				Labor						
			Technical Project Manager	N/A	N/A	N/A	N/A	N/A	\$75,000	
M.1 Program Administration										
	M.1.a		Project Budget and Controls	\$0				\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0				\$0	\$0	\$0
	M.1.c, M.1.d, & M.1.f		Preparation for and Attendance at Meetings and Peer Review of Documents and	\$0	\$12,947	\$4,000	\$4,000	\$0	\$20,947	\$20,570
	M.1.g		SGMA Documentation Preparation	\$0	\$3,218	\$0	\$0	\$0	\$3,218	\$3,124
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed)										
I.2 Production, Water Level and Quality Monitoring										
	I.2.a.		Database Management							
	I.2.a.1.		Conduct Ongoing Data Entry/ Database Maintenance and Respond to Data Requests ⁽¹⁵⁾	\$20,240				\$0	\$20,240	\$14,838
	I.2.a.2.		Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.2.b.		Data Collection Program							
	I.2.b.1.		Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.2.b.2.		Collect Water Levels ⁽⁵⁾⁽⁶⁾	\$22,293	\$0	\$0	\$0	\$0	\$22,293	\$23,174
	I.2.b.3.		Collect Water Quality Samples and Perform Sentinel Well Induction Logging ⁽¹⁾⁽⁵⁾	\$33,353	\$0	\$0	\$0	\$0	\$33,353	\$36,392
	I.2.b.4.		Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.2.b.5.		Monitor Well Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.2.b.6.		Reports	\$3,906	\$0	\$0	\$0	\$0	\$3,906	\$4,080
	I.2.b.7.		CASGEM Data Submittal for Watermaster's Voluntary Wells	\$4,450	\$0	\$0	\$0	\$0	\$4,450	\$3,072
	I.2.b.8.		Perform Subsurface Electromagnetic Imaging	\$0	\$0	\$0	\$0	\$0	\$0	\$15,500
I.3 Basin Management										
	I.3.a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)						
	I.3.a.1		Update the Existing Model ⁽¹¹⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000
	I.3.a.2		Develop Protective Water Levels	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.3.a.3		Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ⁽¹⁰⁾	\$0	\$40,000			\$0	\$40,000	\$40,000
	I.3.b.		Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.3.c.		Refine and/or Update the Basin Management Action Plan ⁽¹⁴⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.3.d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.3.e		Seaside Basin Geochemical Model ⁽¹³⁾	\$0	\$10,000	\$0	\$0	\$0	\$10,000	\$10,000
I.4 Seawater Intrusion Contingency Plan										
	I.4.a.		Oversight of Seawater Intrusion Detection and Tracking ⁽¹⁷⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	I.4.b.		Analyze and Map Water Quality from Coastal Monitoring Wells	(Costs Included Under I.4.a)						
	I.4.c.		Annual Report- Seawater Intrusion Analysis	\$0	\$30,952	\$0	\$0	\$0	\$30,952	\$30,050
	I.4.e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$25,481
	I.4.f.		If Seawater Intrusion is Determined to be Occurring, Implement the Seawater Intrusion Response Plan ⁽⁹⁾	(No Costs are Included for This Task, as This Task May Not be Necessary During 2025. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)						
TOTALS CONSULTANTS & CONTRACTORS⁽¹²⁾				\$84,242	\$97,116	\$4,000	\$4,000	\$0	\$189,358	
SUBTOTAL not including Technical Program Manager =									\$189,358	\$351,281
Contingency (not including Technical Program Manager) @ 15% ⁽⁴⁾ =									\$28,404	\$52,692
Technical Program Manager =									\$75,000	\$75,000
TOTAL=									\$292,762	\$478,973

Footnotes:

- (1) Under this Subtask the Watermaster will contract with MPWMD to perform the Sentinel Well induction logging work and to perform the other portions of the work of this Subtask. The Sentinel Wells will be induction logged once per year (in September).
- (2) The response plan is not expected to be updated in 2026.
- (3) Within the context of this document the term "Consultant" refers to a private consultant providing professional engineering or other types of technical services. The term "Contractor" refers to a firm providing construction or field services such as well drilling or meter calibration.

- (4) Due to the uncertainties of the exact scopes of some of the Tasks listed above at the time of preparation of this Budget, it is recommended that a 15% Contingency be included in the Budget.
- (5) A portion of this cost is for maintaining sampling equipment that was installed in prior years.
- (6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.
- (7) No additional monitoring well is expected to be constructed in 2026.
- (8) For Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager.
- (9) If work under this Task is found to be necessary, it will need to be funded through the Contingency line item or by a Budget transfer.

- (10) This Task is included to provide funds for the Watermaster to perform modeling and other investigative work to aid in making Basin management decisions that the Board may wish to perform in 2026.
- (11) The Model is not expected to be updated in 2026.
- (12) Includes a 3% inflation factor on most annually recurring costs in the 2025 Budget, except the Technical Program Manager cost which has no inflation factor applied to it.
- (13) Work on this Task may not be performed in 2025, so work on this Task may need to be rebudgeted in 2026.
- (14) The BMAP is not expected to be updated in 2026.

**Monitoring and Management Program Capital Budget
For Tasks to be Undertaken in 2025**

No Capital projects are anticipated to be undertaken in 2025, so this budget is \$0.

**Monitoring and Management Program Capital Budget
For Tasks to be Undertaken in 2026**

No Capital projects are anticipated to be undertaken in 2026, so this budget is \$0.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	7
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>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.</p> <p>Attached is the updated schedule for 2024 activities.</p>
ATTACHMENTS:	Updated Schedule of Work Activities for FY 2024
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to the Schedules

Seaside Basin Watermaster 2024 Monitoring and Management Program Work Schedule

ID	Task Name	Jan '24	Feb '24	Mar '24	Apr '24	May '24	Jun '24	Jul '24	Aug '24	Sep '24	Oct '24	Nov '24	Dec '24	Jan '25
1	MANAGEMENT & ADMINISTRATION													
2	Replenishment Assessment Unit Costs for Water Year 2025													
3	B&F Committee Develops Replenishment Assessment Unit Cost for 2025 Water Year													
4	If Requested, Technical Program Manager Provides Assistance to B&F Committee in Development of 2025 Water Year Replenishment Assessment Unit Cost													
5	Board Adopts and Declares 2025 Water Year Replenishment Assessment Unit Cost													
6	Replenishment Assessments for Water Year 2024													
7	Watermaster Prepares Replenishment Assessments for Water Year 2024													
8	Watermaster Board Approves Replenishment Assessments for Water Year 2024 (At December Meeting)													
9	Watermaster Levies Replenishment Assessment for 2024													
10	2024 Annual Report													
11	Prepare Preliminary Draft 2024 Annual Report													
12	TAC Provides Input on Preliminary Draft 2024 Annual Report													
13	Prepare Draft 2024 Annual Report (Incorporating TAC Input)													
14	Board Provides Input on Draft 2024 Annual Report (At December Board Meeting)													
15	Prepare Final 2024 Annual Report (Incorporating Board Input)													
16	Watermaster Submits Final 2024 Annual Report to Judge													
17	MONITORING AND MANAGEMENT PROGRAM													
18	Monitoring & Management Program (M&MP) Plan and Budgets for 2025													
19	Discussion of Potential Scope of Work for 2025 M&MP													
20	Prepare 2025 M&MP													
21	TAC approves 2025 M&MP													
22	Prepare 2025 O&M and Capital Budgets													
23	TAC approves 2025 O&M and Capital Budgets													
24	Budget & Finance Committee Approves 2025 M&MP and 2025 O&M and Capital Budgets													
25	Board approves 2025 M&MP AND 2025 O&M and Capital Budgets													
26	M.1 PROGRAM ADMINISTRATION													
27	Prepare Initial Consultant Contracts for 2025													

Seaside Basin Watermaster 2024 Monitoring and Management Program Work Schedule

ID	Task Name	Jan '24	Feb '24	Mar '24	Apr '24	May '24	Jun '24	Jul '24	Aug '24	Sep '24	Oct '24	Nov '24	Dec '24	Jan '25
28	TAC Approval of Initial Consultant Contracts for 2025													
29	Board Approval of Initial Consultant Contracts for 2025													
30	M.1.g – Sustainable Groundwater Management Act Reporting Requirements													
31	Montgomery & Associates Prepares Draft Groundwater Storage Analysis													
32	Submit SGMA Documentation to DWR													
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 2024 SIAR													
39	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)													
40	Montgomery & Associates Provides Draft 2024 SIAR to Watermaster													
41	TAC Provides Comments/Questions About Draft 2024 SIAR to Technical Program Manager													
42	Board Approves 2024 SIAR													

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

*** * * AGENDA TRANSMITTAL FORM * * ***

MEETING DATE:	August 14, 2024
AGENDA ITEM:	8
AGENDA TITLE:	Other Business
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>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.</p>
ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only