MEETING NOTICE AND AGENDA

TECHNICAL ADVISORY COMMITTEE OF THE SEASIDE BASIN WATER MASTER

DATE: Wednesday, June 11, 2025

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/81744533528?pwd=EEbt2hGC30oTYbTIbwEfEP3wEd0m03.1

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: 817 4453 3528

Passcode: 147301

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 County Water Resources Agency**
Monterey Peninsula Water Management District

The next TAC meeting will be on Wednesday July 9, 2025 at 1:30 p.m.

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
Andreas Baer	City of Seaside	Engineering Trailer, 440 Harcourt Avenue Seaside, CA
Dave Pezzini	California American Water	511 Forest Lodge Road, Suite 100, Pacific Grove, CA 93950.
Cody Hennings	City of Monterey	Monterey Public Library, Solarium Conference Room 625 Pacific Street Monterey, CA 93940
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	11528 Castro Street, Castroville, CA. 95012

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	June 11, 2025
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the April 9, 2025 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Draft Minutes from this meeting were 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
April 9, 2025

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 – No Representative
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
Montgomery & Associates – Georgina
Yuri Anderson

There was a glitch in the Meeting Notice and the link for the Zoom meeting was left out. Attendees joined the meeting using the Meeting ID and Passcode that were provided on the Meeting Notice. The meeting was convened at 1:37 by Vice-Chair Shirley. MPWMD called in to the meeting after it was convened. However, there was no one available to monitor the Meeting Room on Zoom after the meeting started. Consequently, MPWMD was not admitted from the waiting room and MPWMD then disconnected.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the February 12, 2025 Meeting

On a motion by Mr. Gomez, seconded by Mr. Pezzini, the minutes were unanimously approved as presented.

B. Sustainable Groundwater Management Act (SGMA) Update

Mr. Jaques introduced this agenda item. There was a brief discussion regarding the summary of the February 10 meeting of the 180/400-Foot Aquifer GSP Planning Committee.

C. Update on SNG Well

Mr. Jaques summarized the agenda packet materials for this item. There were some questions and answers exchanged regarding the content of the item, but no action was recommended or taken.

D. Update on FO-10 and FO-11 Monitoring Wells

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

3. **Progress Report on Geophysical Imaging Partners Contract to Perform Pilot Test of Subsurface Imaging in the Vicinity of Sentinel Well No. 4**
   Mr. Jaques summarized the agenda packet materials on this item. There was a brief discussion of some of its content.

4. **Informational Presentation on Cone Penetration Technology (CPT) as a Possible Means of Obtaining Water Quality Data in the 140 to 200 Foot Zone in the Vicinity of Sentinel Well No. 4**
   Mr. Jaques introduced this item, and Ms. King made a PowerPoint presentation on the topic. Copies of the PowerPoint slides are attached. She highlighted that in the 140 to 205 foot depth zone there has been a trend of steadily increasing conductivity. She reported that the Cone Penetration Technology technique was found not to be feasible in this location because it is not possible to go as deep as necessary. That finding was based on information provided by an experienced contractor who has performed that type of work in this general area.

   CPT is a one-only sample-not a monitoring well. But it can collect multiple water samples at different depths. You cannot take cuttings from the bore hole.

   Sonic Borehole Drilling does not involve any fluids, air, or mud. However it does generate some drilling waste. Core samples can be obtained from this technology. After completion the core barrel can either be destroyed or it can be converted into a long-term monitoring well.

   Mr. Jaques reported that there may be difficulties in obtaining permission from landowners on the west side of Highway 1 to install a monitoring well in the general vicinity of Sentinel Well No. 4. He went on to describe a potential inland well site location, east of Highway 1, that could be considered. There was also discussion about potentially seeking permission from State Parks to put the well in a paved section of the access road to the former Ord Village pump station at the end of that road.

   Ms. King recommended doing the geophysical imaging work first to help identify the best location to install a new monitoring well. There was consensus to revisit this topic after the geophysical imaging work has been completed.

5. **Progress Report on Montgomery & Associates Contract to Update the Seawater Intrusion Response Plan**
   Mr. Jaques summarized the agenda packet materials for this item and there was no other discussion.

6. **Progress Report on Montgomery & Associates Preparing the Updated Seaside Groundwater Basin Model**
   Mr. Jaques summarized the agenda packet materials for this item. Ms. Woodrow said she concurred with deferring work on this item until the Salinas Valley Integrated Hydrogeologic Model has been finalized and other issues pertaining to modeling have been settled.

7. **Schedule**
   Mr. Jaques highlighted that there would be no need for a May TAC meeting and that the next TAC meeting would be on June 11th.

8. Other Business

There was no other business.

The meeting adjourned at 2:28 p.m.

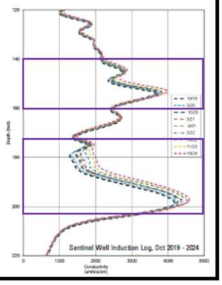
Sentinel Well #4 being drilled in 2007

DISCRETE SALINITY SAMPLING NEAR SENTINEL WELL 4

Presentation to Seaside Basin TAC on April 9, 2025

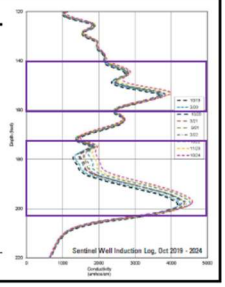
THINGS TO CONSIDER

- Sentinel Well #4 and other existing wells are not screened at these depths/lithologic zone
- Must have a method acceptable to State Park[BD1] which has restrictions on activities that may disturb revegetation efforts
- Challenging to find properties/locations to drill and construct a permanent monitoring well targeting the high salinity zones



PROBLEM TO BE SOLVED

- Induction logs of Sentinel Well #4 over time show increasing conductivity in two zones
- Groundwater quality samples need to be collected from these zones to determine the chloride concentration as conductivity is not a direct measure of groundwater's chloride concentration



PROPOSED SOLUTIONS

1. Cone Penetrometer Testing (CPT) and Hydropunch™ sampling adjacent to Sentinel Well #4
   - Advance CPT to ~220 ft bgs
   - Correlate CPT data to induction data to identify zone of increasing conductivity
   - Move 10-15 feet away and using the Hydropunch™ system to sample groundwater from specific zones
2. Sonic Borehole Drilling
   - Advance Sonic borehole to ~220 ft bgs
   - Collect depth specific samples during advancement, through the cased borehole or with Hydropunch™
   - Destroy the borehole or convert to a monitoring well for future use

CONE PENETROMETER

- Advantages of CPT:
  - Fast and continuous profiling
  - Repeatable and reliable data (independent of operator)
  - Economical and productive
- Disadvantage of CPT:
  - No soil sampling
  - Penetration depth can be limited in some gravel and/or cemented layers
  - Single occurrence

Truck mounted CPT unit

SONIC DRILLING

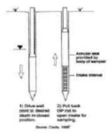
- Advantages of Sonic:
  - Fast and continuous coring
  - Ability to reach target depths
  - Can be converted into a monitoring well for future water quality sampling
- Disadvantages of Sonic:
  - Generates drilling waste
  - More onsite equipment compared to CPT

Truck mounted Sonic unit

CONE PENETROMETER

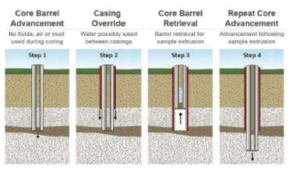
Two Step Process:

1. Advance CPT to identify depths for groundwater sampling:
   - Generates an interpreted lithologic profile
   - Comparison of this profile to induction logging
   - Correlate high conductivity readings with permeable materials
2. Advance a second, adjacent borehole for sampling
   - Isolated Hydropunch™ tool is advanced to target depth
   - Tool is opened to expose screen and collect sample
   - Multiple samples in one borehole, progressing shallow to deep



Example Hydropunch™ Sampling unit

SONIC DRILLING



Step-wise advancement of 6 or 7-inch diameter borehole with 4-inch core

SONIC DRILLING – GROUNDWATER SAMPLING

1. Groundwater sampling completed during borehole advancement within the cased borehole as the desired materials are encountered
2. Conversion to a monitoring well
   - Relatively low-cost increase as borehole is already drilled
   - Monitoring well provides repeatable sampling
   - Benefits initial sample QC and long-term sampling ability

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	June 11, 2025
AGENDA ITEM:	2.B
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 April and May 2025.

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 APRIL 2025

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

180/400 Foot Subbasin Implementation Committee Special Meeting - April 14, 2025:
The items on the agenda for this meeting were either topics covered at other meetings I attended, or items that would have no direct impact on the Watermaster. Therefore, I did not attend this meeting.

SVBGSA Advisory Committee Meeting, April 17, 2025:
The items on the agenda for this meeting were either topics covered at other meetings I attended, or items that would have no direct impact on the Watermaster. Therefore, I did not attend this meeting.

Monterey Subbasin Implementation Committee Meeting - April 23, 2025:
Items of interest to the Watermaster included reports on Feasibility Studies and Modeling Scenarios. Information from those reports included the following:

- **Feasibility Studies and Modeling Scenarios**

SCENARIO	TAKEAWAYS
No Project Scenario (continued pumping and other activities as they currently are)	Continued groundwater level declines below sea level, seawater intrusion advances, and increased chloride concentrations
Demand Management (pumping reductions of 10 %, 20%, and 30% across entire model area)	Raises groundwater levels but not to protective elevations, does not slow or halt seawater intrusion
Aquifer Storage and Recovery	Helps with seawater intrusion and groundwater levels locally, but not across the basin
Brackish Groundwater Restoration With Desalination Plant	Achieves seawater intrusion minimum threshold, but does not meet the measurable objective

So in summary none of the potential projects that have thus far been evaluated can meet the needs of the Monterey Subbasin. Some other projects that were recently raised for consideration will be evaluated for feasibility (such as intra-basin water transfers as discussed at an earlier meeting). Work is being undertaken to see if combinations of some or all of these projects would be able to meet the needs of this subbasin, and this information will be presented at future meetings.

Water Quality and Operations Committee Meeting - April 23, 2025:
Information provided at this meeting included:

- As of 4/1/25 the PWM Project had injected 2,271AF this year and the amount of water in the Operating Reserve remained at 2,189 AF.

- CSIP demand is likely to increase earlier this year due to the shortage of winter rainfall. Bayonet and Black Horse Golf Course irrigation demands will also depend on rainfall.
- ASR injection began on 2/5/2025 and ended on 4/7/2025. A total of 716 AF was injected this water year. The stored water total is 4,392 AF.
- The underground retention time requirement of a minimum of 4 months was met at all times. The recent retention times again ranged from 5.6 to 7.8 months.
- With regard to water quality there were some minor sampling/analysis variances associated with sodium, boron, and coliform, but all water quality requirements including the log reduction requirements were met at all times.
- Construction of Cal Am's Extraction Wells No. 1 and 2 is still in progress, but is nearing completion. These will increase the extraction capacity to match the increase in water injected from the PWMX Project.
- Cal Am is going through the permitting process for its new well in Carmel Valley (apparently to replace an older well).
- Well ASR4 is being rehabilitated.
- There is no change to the schedule for construction of the PWMX Project. The permit to operate the expansion is expected to be received in August or October of 2025.

SUMMARY OF
PURE WATER MONTEREY, AND
SALINAS VALLEY AND
MARINA COAST WATER DISTRICT GROUNDWATER SUSTAINABILITY AGENCY ZOOM MEETINGS
IN MAY 2025

There were no meetings in May that I attended.

SEASIDE BASIN WATER MASTER TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	June 11, 2025
AGENDA ITEM:	2.C
AGENDA TITLE:	Status Report on Updating the Seaside Basin Groundwater Model
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Pascual Benito of Montgomery & Associates provided this status report regarding updating the Seaside Basin Groundwater Model:

The Salinas GSP modeling team is still working on the Salinas Valley Integrated Hydrogeologic Model (SVIHM) updates and calibration. And while they have been keeping me updated on the progress and I have been providing them with data and input for the Seaside subbasin area of the model, they are not yet at a point where they have been able to share any results of the model or how the calibration for the Seaside subbasin looks and how it would compare to the Watermaster's model, and they are not yet at a point where they have shared any draft model update reports or anything like that yet either.

I am meeting with the SVIHM modeling team during the week of June 2nd to get an update and so I will then have a better sense of the schedule. But I don't realistically see being able to really provide any meaningful input until at least end of June, or even possible July when they have completed the calibration and the draft documentation.

That's still generally within the range of dates from their original schedule, but from what I have learned, for the original SVIHM the USGS had essentially not really done much to incorporate the Seaside or Monterey Subbasins, and so there has really been a lot of work they have had to do to get that portion of the model updated. They are now working on setting up calibration for the historical period of the model.

I hope to be able to give you more of an update after my meeting with the SVIHM modeling team.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	June 11, 2025
AGENDA ITEM:	3
AGENDA TITLE:	Discussion/Input on Updating the Seawater Intrusion Response Plan
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

As reported at the last TAC meeting, Montgomery & Associates has begun work to update the Watermaster's existing Seawater Intrusion Response Plan (SIRP).

Attached is a description of the Tasks that Montgomery & Associates has been working on up to this point. Also attached for reference is an excerpt from the original 2009 SIRP. At today's meeting Montgomery & Associates will lead a discussion with the TAC on Tasks 2 and 3.

ATTACHMENTS:	**1.** Task Descriptions for the SIRP Updating Work **2.** Excerpt from the Existing SIRP
RECOMMENDED ACTION:	Provide feedback and direction to Montgomery & Associates on these Tasks

Attachment 1
Initial Tasks in the Updating Work

Task l. Update SIRP Figures, Tables, and Appendices

- Figure 1: Wells with Historical Water Quality Data
- Table 1: Chloride Threshold Values and Trend Analysis
- 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 these two tables and will be described in an Appendix to the updated SIRP. 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.

Attachment 2
2009 SIRP's Contingency Action No. 4

ACTION 4: PUMPING REDISTRIBUTION PLAN

The pumping redistribution plan is designed to contain observed seawater intrusion, and to protect production wells until a supplemental water supply is obtained. The pumping redistribution plan consists of the following eight activities that will be implemented. Many of these activities should be applied iteratively.

1. Discontinue or substantially reduce pumping the Impacted Well(s). If seawater intrusion has been declared for a production well, pumping at this well shall be discontinued or substantially reduced as soon as possible, but no longer than 30 calendar days after the Declaration of Seawater Intrusion. If seawater intrusion has been declared for only monitoring wells, this activity is unnecessary.

All of the following activities shall be initiated within 90 calendar days after the Declaration of Seawater Intrusion:

2. Identify At Risk Well(s) where seawater intrusion might occur. At Risk Wells are production wells that have the potential to become impacted by seawater intrusion based on their proximity to the Impacted Well(s), local groundwater gradients, and other conditions.
3. Identify and/or install additional monitoring wells. The Watermaster will evaluate the benefit of installing additional groundwater monitoring wells to evaluate the movement of seawater intrusion towards the At Risk Well(s). If this evaluation concludes that monitoring wells should be installed, the Watermaster will pursue installation of these wells with due diligence.
4. Estimate the groundwater conditions that protect production wells. The Watermaster shall estimate the maximum acceptable groundwater gradient between the Impacted Well(s) and the At Risk Well(s) that prevents seawater intrusion from reaching the At Risk Wells before a supplemental supply is obtained, currently estimated to be 2015. The Watermaster should further estimate the expected total dissolved solids (TDS) and chloride concentrations over time that might be observed at existing or new monitoring wells under this maximum groundwater gradient.
5. Identify and evaluate production wells' influence on observed seawater intrusion. All production wells in the Seaside Groundwater Basin shall be evaluated and ranked for their influence on the groundwater gradients that are causing seawater intrusion and migration. The Watermaster shall estimate one or more recommended pumping scenarios that will achieve the maximum acceptable gradient between Impacted and At Risk well(s).
6. Increase monitoring frequency. The Watermaster should increase the monitoring frequency of the Impacted Well(s), monitoring wells, and At Risk Well(s) to evaluate the progress of the seawater intrusion. Groundwater elevations at these wells should be measured monthly, and groundwater samples should be collected from these wells and analyzed monthly for major cations and anions. The groundwater gradient should be analyzed every month to confirm that the pumping reduction is having the planned effect.
7. Re-evaluate the Operating Yield. In accordance with the Amended Decision, the Watermaster should re-evaluate the Operating Yield to prevent further Material Injury.

The following activity shall be initiated within 90 calendar days of the Watermaster Board adopting recommendations from the previous activities:

8. Modify pumping to achieve the desired groundwater gradient. Groundwater pumping at the most influential production wells should be modified to achieve the groundwater gradient calculated above.

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

MEETING DATE:	June 11, 2025
AGENDA ITEM:	4
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

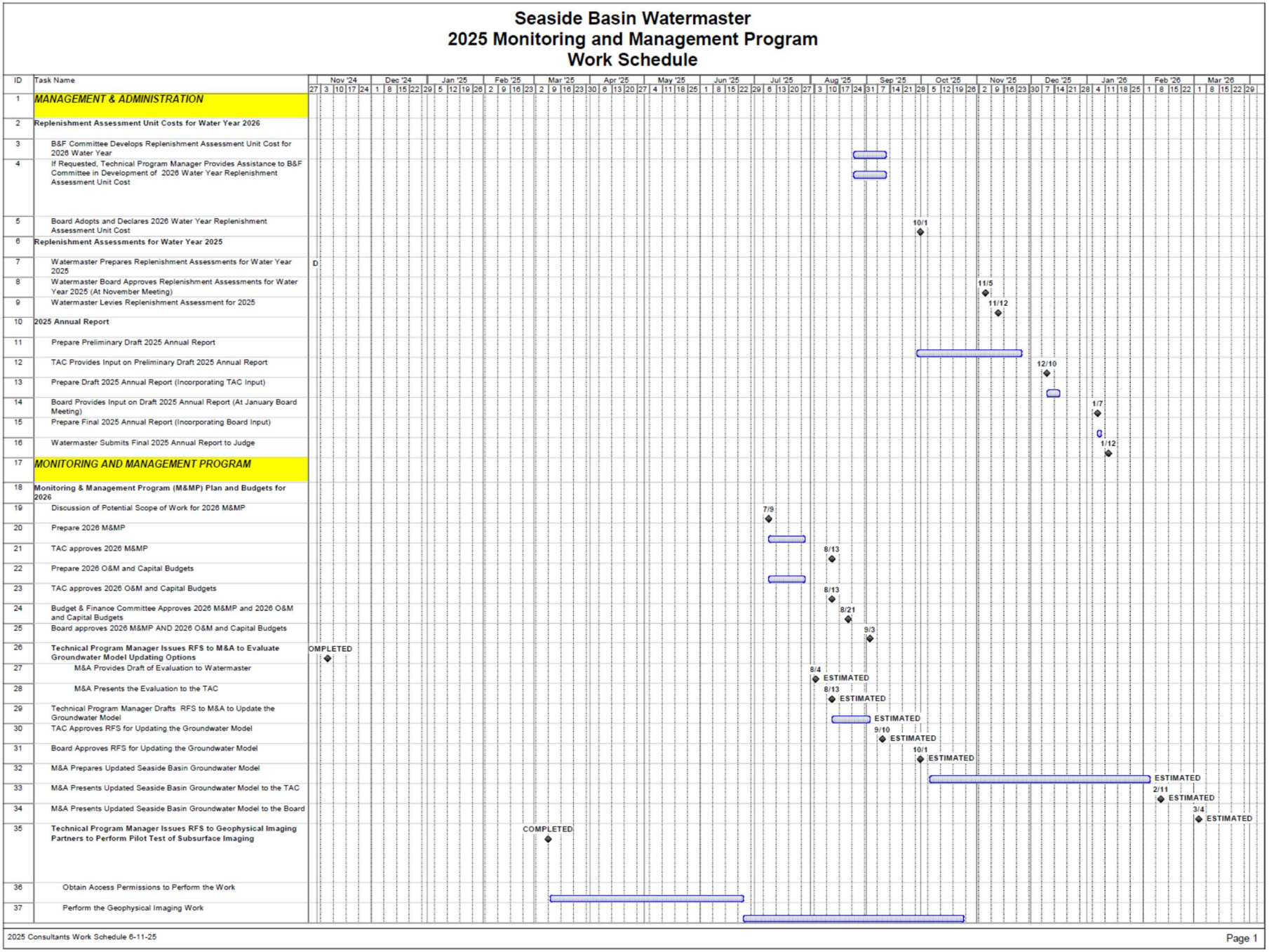
As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Schedule of the activities being performed by the Watermaster, its consultants, and the public entity (MPWMD) which are performing certain portions of the work.

Attached is the updated schedule for 2025 activities.

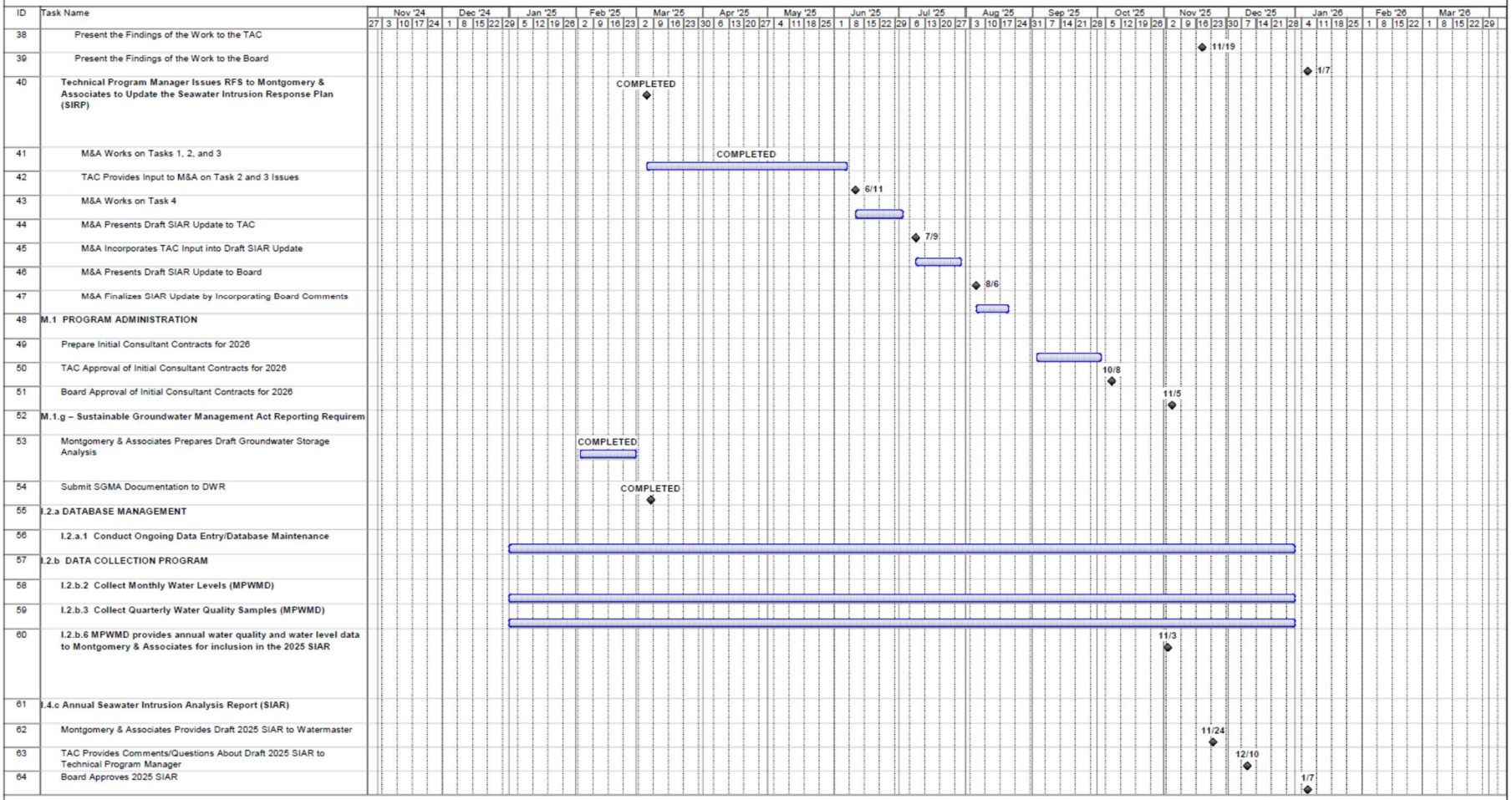
Note that all of the dates pertaining to updating the Seaside Basin Groundwater Model are best estimates based on the information known at the time the schedule was prepared. These dates are subject to change as activities being performed by other parties will impact these dates.

ATTACHMENTS:	Updated Schedule of 2025 Activities
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to the Schedule

Seaside Basin Watermaster
2025 Monitoring and Management Program
Work Schedule



Seaside Basin Watermaster
2025 Monitoring and Management Program
Work Schedule



SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE

** * * AGENDA TRANSMITTAL FORM * * **

MEETING DATE:	June 11, 2025
AGENDA ITEM:	5
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