SEASIDE GROUNDWATER BASIN WATERMASTER
REGULAR MEETING OF THE BOARD OF DIRECTORS
DRAFT AGENDA

Wednesday, January 8, 2025–2:00pm HYBRID

City Hall, City of Sand City
1 Pendergrass Way, Sand City, CA 93955 and

To access the meeting virtually, please click on the Zoom link or copy/paste it into your browser:
https://us02web.zoom.us/j/82630738438?pwd=NtQZSCFaoLphGL2xWBaCS82UujAktf.1
Meeting ID: 826 3073 8438 Passcode: 842615
If your computer does not have audio, you can join the meeting via phone. To participate via phone, please call:
408 638 0968 US (San Jose) • 669 444 9171 US • 669 900 6833 US (San Jose)
If you would like to comment on any item on the Agenda or any item not on the Agenda, please submit those in writing to our office or via email at watermasterseaside@sbcglobal.net by 10 a.m. on the day before the Board meeting. All submitted written comments will be provided to the Board and you may also comment during the meeting.

Watermaster Board
Coastal Subarea Landowner—Director Paul Bruno
City of Seaside—Mayor Ian Oglesby—Chair
California American Water (CAW)—Director Tim O'Halloran
City of Sand City—Mayor Mary Ann Carbone—Vice Chair
Monterey Peninsula Water Management District (MPWMD)—Director George Riley
Laguna Seca Subarea Landowner—Director John Gaglioti
City of Monterey—Council Member Kim Barber
City of Del Rey Oaks—Council Member Kim Shirley
Monterey County/Monterey County Water Resources Agency—Supervisor Wendy Root Askew, District 4

I. **CALL TO ORDER**

II. **ROLL CALL**

III. Schedule of Watermaster Board Member Representative and Alternate appointments for 2025-2026 (informational only – representatives for agencies in red type are not yet confirmed) 3

IV. **ELECTION AND APPOINTMENT OF OFFICERS FOR CALENDAR YEARS 2025**
A. Chairperson (Must be member of the Board of Directors)—Currently Mayor Oglesby
B. Vice Chairperson (Must be member of the Board of Directors)—Currently Mayor Carbone
C. Secretary (Need not be a member of the Board of Directors)—Currently Admin. Officer Paxton
D. Treasurer (Need not be a member of the Board of Directors)—Currently Director Askew

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

VI. **REVIEW OF AGENDA AND ANNOUNCEMENTS**
A vote may be taken to add to the agenda an item that arose after the 72-hour posting deadline pursuant to the requirements of Government Code Section 54954.2(b). (a 2/3-majority vote is required)

VII. **ORAL PRESENTATION** - None

VIII. **CONSENT CALENDAR**
A. Minutes of Regular Board meeting held on November 6, 2024 5
B. Board and TAC Schedule of Meetings for 2025 9
C. Summary of Payments made October - December, 2024 11
D. Fiscal Year 2024 Financial Reports through November 30, 2024..... 15

IX. **NEW BUSINESS**
A. Consider Approving Seawater Intrusion Analysis Report for 2024—Montgomery & Associates presentation 21
The Executive Summary is included in the Board agenda packet. The complete SIAR is posted on the Watermaster website at:
https://seasidegroundwaterbasinwatermaster.wpcomstaging.com/wp-content/uploads/2024/12/WY2024-Seawater-Intrusion-Analysis-Report-for-posting.pdf
B. Consider Approving Water Year 2024 Watermaster Annual Report.....31
The body of the Draft 2024 Annual Report is included in the Board agenda packet. The complete Draft version is posted at:
https://seasidegroundwaterbasinwatermaster.wpcomstaging.com/wp-content/uploads/2025/01/Revised-Draft-2024-Annual-Report-12-28-24-for-posting.pdf

X. **OLD BUSINESS—None**

XI. **INFORMATIONAL REPORTS (No Action Required)**
A. Technical Advisory Committee (TAC) draft meeting minutes from November 13, 2024 53
B. Watermaster report of Water Year 2024 Quarter 4 Production of the Seaside Basin (October 1, 2023 – September 30, 2024) 55
C. Sustainable Groundwater Management Act Monthly Update September, October, and November, 2024..... 57

XII. **DIRECTOR REPORTS**

XIII. **STAFF COMMENTS**

XIV. **CLOSED SESSION**
Conference with Legal Counsel pursuant to:
Government Code, section 54956.9(d)(4): one matter

XV. The Watermaster will consider a motion to adjourn to the next regular Watermaster Board meeting to be held on Wednesday, February 5, 2025 at 2:00 P.M.

This agenda was forwarded via email to the City Clerks of Seaside, Monterey, Sand City, and Del Rey Oaks; the Clerk of the Monterey Board of Supervisors, the Clerk to the Monterey Peninsula Water Management District; the Clerk at the Monterey County Water Resources Agency, Monterey One Water, and California American Water Company for posting on or before January 5, 2025, per the Ralph M. Brown Act, Government Code Section 54954.2 (a).

SEASIDE GROUNDWATER BASIN WATERMASTER
Board Member and Alternate Appointments
Calendar Year 2024

ITEM III.

MEMBER PARTY	MEMBER	ALTERNATE
California American Water	Director Tim O'Halloran	David Pezzini
City of Del Rey Oaks	Council Member Kim Shirley	TBD
City of Monterey	Council Member Kim Barber	Mayor Tyller Williamson
City of Sand City	Mayor Mary Ann Carbone	City Manager Vibeke Norgaard
City of Seaside	Mayor Ian Oglesby	Mayor Pro Tem David R. Pacheco
County of Monterey (MCWRA)	Supervisor Wendy Askew	TBD
MPWMD	Director George Riley	Director Alvin Edwards
Coastal Sub Area Landowner	Director Paul Bruno	Director John Gaglioti
Laguna Seca Sub Area Landowner	Director John Gaglioti	Director Paul Bruno

Updated 01/2/25
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SEASIDE GROUNDWATER BASIN WATERMASTER
REGULAR MEETING MINUTES - DRAFT
Wednesday, November 6, 2024 Hybrid
City of Sand City, City Hall, 1 Pendergrass Way, Sand City, CA 93955

I. CALL TO ORDER – The meeting was called to order at 2:00 p.m.

II. ROLL CALL

Coastal Subarea Landowner – Director Paul Bruno
City of Seaside – Mayor Ian Oglesby, Chair
California American Water (CAW) – Alternate Director David Pezzini
City of Sand City – Mayor Mary Ann Carbone, Vice Chair
Monterey Peninsula Water Management District (MPWMD) – Director George Riley
Laguna Seca Subarea Landowner – Director John Gaglioti
City of Monterey – Council Member Kim Barber
City of Del Rey Oaks – Council Member Kim Shirley

Absent: Monterey County/Water Resources Agency – Supervisor Wendy Root Askew

Others Present:
Bob Jaques, Watermaster Technical Program Manager (TPM)*
Laura Paxton, Watermaster Administrative Officer (AO)
Nancy Dayton, Watermaster Assistant Administrative Officer
Piet Harmon, General Manager, Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA)*
Sarah Hardgrave, Deputy General Manager, SVBGSA
Remleh Sherzinger, General Manager, Marina Coast Water District (MCWD)
Patrick Breen, MCWD
Aiko Yamakawa, CAW*
Jessica Riley, Finance Director, City of Seaside*
Dan Meewis, Deputy City Manager, City of Seaside
Andreas Baer, Senior Engineer, City of Seaside
Maureen Hamilton, MPWMD*
Jon Lear, MPWMD*
Jeanne Colletto, Monterey Resident*
Christopher Bunn, President, Salinas Basin Water Alliance*
An asterisk (*) signifies virtual attendance.

III. PUBLIC COMMUNICATIONS – There were no public communications.

IV. REVIEW OF AGENDA AND ANNOUNCEMENTS – The closed session item was deferred to the next scheduled regular board meeting due to legal counsel unable to attend today's meeting.

V. ORAL PRESENTATIONS

A. Piret Harmon, General Manager and Sarah Hardgrave, Deputy General Manager of the Salinas Valley Groundwater Sustainability Agency (SVBGSA) presented slides and responded to questions regarding coordination with Seaside Groundwater Basin on issues of mutual interest. General Manager Hardgrave welcomed Watermaster TPM Jaques to the Monterey Subbasin Groundwater Sustainability Plan (GSP) Implementation Committee as a voting member.
B. Remlah Sherzinger, General Manager, Marina Coast Water District Groundwater Sustainability Agency, presented slides and responded to questions regarding coordination with Seaside Groundwater Basin on issues of mutual interest.

Go to https://seasidegroundwaterbasinwatermaster.wpcomstaging.com/wp-content/uploads/2024/12/24-1106-Watermaster-board-meeting-presentations-by-SVBGSA-MCWD-1.mp3 for an audio of the presentations.

VI. CONSENT CALENDAR

A. Minutes of Regular Board meeting held August 7, 2024
B. Summary of Payments made in September, 2024
C. Fiscal Year 2024 Financial Reports through August 31, 2024

It was moved by Director Shirley, seconded by Director Barber, and unanimously carried 8-0 to approve the Consent Calendar items as presented.

VII. NEW BUSINESS

A. Consider approving adjustments to the 2024 Administrative Fund Budget

It was moved by Director Barber, seconded by Director Carbone and unanimously carried 8-0 to approve as presented adjustments to the 2024 Administrative Fund Budget.

B. Consider Approving Fiscal Year 2025 Annual Budgets:
   1. Proposed Administrative Fund Budget
   2. Proposed FY 2025 Monitoring and Management Program (M&MP) and M&MP Operations Budget; 2024 Budget Transfer to Evaluate Options for Updating the Groundwater Model in 2025; and Montgomery & Associates RSF No.2024-03 to Evaluate Options for Updating the Groundwater Model
   3. Proposed 2025 Replenishment Assessment Fund Budget –No Action Required

      It was moved by Director Bruno, seconded by Director Gaglioti, and carried 6-0 to approve as presented Fiscal Year 2025 Administrative Fund Budget; Monitoring and Management Program; a 2024 Budget Transfer to Evaluate Options for Updating the Groundwater Model in 2025; and Montgomery & Associates RSF No. 2024-03 to Evaluate Options for Updating the Groundwater Model.

   4. Consider Approving the Proposed 2025 Replenishment Assessment Unit Costs for Natural Safe Yield and Operating Yield Overproduction.
      It was moved by Director Riley, seconded by Director Shirley, and unanimously carried 8-0 to approve the Proposed 2025 Replenishment Assessment Unit Cost of $4,845.21 for Natural Safe Yield Overproduction and $1,211.30 for Operating Yield Overproduction.

C. Consider approving Water Year 2025 Declaration of Unavailability of Artificial Replenishment Water (Water Years 2025 Production Allocations and Basin Storage Allocations attached)

It was moved by Director Shirley, seconded by Director Pezzini, and unanimously carried 8-0 to approve the Water Year 2025 Declaration of Unavailability of Artificial Replenishment Water as presented.

D. Consider approving the following Professional Service Contracts for Fiscal Year 2025:
   1. Two Contracts with Montgomery & Associates, Inc. – one for $15,964 to provide ongoing and as-requested general hydrogeologic consulting services during the year, and the second for $30,050 to prepare the Seawater Intrusion Analysis Report (SIAR) for 2025
   2. One Contract with Martin Feeney – for $4,000 to provide on-call/as-requested hydrogeologic consulting services for 2025
   3. One Contract with Todd Groundwater – for $4,000 to provide on-call/as-needed hydrogeologic consulting services for 2025
   4. One Contract with MPWMD – for $82,556 to perform monitoring and other work on the 2025

Seaside Groundwater Basin Monitoring and Management Program (M&MP), including Sentinel Wells induction logging previously performed by Martin Feeney

5. One Contract with Klein, DeNatale, Goldner, Rosenlieb and Kimball, LLP – for $22,964 to provide Watermaster legal services for 2025

It was moved by Director Barber, seconded by Director Shirley, and unanimously carried 8-0 to approve the Professional Services Contracts for Fiscal Year 2025 as presented.

VIII. OLD BUSINESS

A. Consider Replenishment Water Quantity Needed

TPM Jaques' report specifies that, conservatively, the Seaside Basin will need 3,600 AFY of water to be injected and not extracted in order to achieve protective elevations. Doing so will prevent the risk of seawater intrusion in the Basin. In addition, "booster" injections will likely be needed following periods of drought. To achieve protective elevations in less than ten years, it appears that each additional 500 AFY of replenishment water added to the basin will reduce the time to achieve protective elevations by approximately one year. TPM related that the TAC considered the technical reports prepared by Watermaster consultants and determined that in light of expected future climatic conditions of less rainfall and bigger droughts, the range of 1,000 to 3,600 AFY is a range of probable needs. However, the more conservative set of assumptions for future rainfall and recharge conditions suggest that setting a target of 3,600 AFY would be wise. There is no way to predict if 3,600 AFY would actually be enough.

Director Riley questioned whether 36,000 AFY of replenishment over ten years, and not a lower number, was the appropriate target. He felt a plan for funding the purchase of replenishment water, identifying specific projects and partners, and establishing the cost of projects and replenishment water were necessary components of a decision by the board on target AFY replenishment. Director Riley was in favor of setting a target range of 1,000 to 3,600 AFY as a more realistic goal than a static 3,600 AFY.

Director Gaglioti stated that the Basin is the critical infrastructure in water supply on the Peninsula; that 3,600 AFY is the updated scientific number that quantifies achieving protective elevations to guard against seawater intrusion that would destroy it; and that the TAC considered empirical climactic data over the last 100 years that clarified the trend of drier years over the last 25 years is clearly now the norm.

Director Bruno offered that injecting replenishment water along the coast could help create a short-term protective barrier to seawater intrusion and allow the Basin to begin to reach protective elevations. He felt establishing a specific target should not be dependent upon identifying funding sources. The TAC worked closely with consultants over a year using modeling results to establish a data set consistent with reality resulting in the more conservative figure of at least 3,600 AFY of replenishment needed to more assuredly reach Basin protective levels in 10 years.

Director Oglesby stated that establishing a guiding number is a separate decision from choosing or paying for specific projects. The Watermaster could consider projects to provide any part of the 3,600 AFY. Moving forward, it is important to rely on the science from reports prepared by our consultants, and on information shared by other agencies. The 3,600 AFY represents a guiding number for discussion, documentation, and planning. The Board should focus on a number rather than a range.

Director Shirley inquired as to whether the "Summary of Updated Replenishment Water Analysis" is current and reliable. TPM Jaques responded that consultants provided minor updates in September, 2024; the main conclusions did not change. Assumptions that the analysis is based on most likely will not change in the foreseeable future.

It was moved by Director Riley, seconded by Director Barber, and unanimously carried 8-0 to adopt 3,600 AFY replenishment as the safety measure for future planning purposes to achieve protective groundwater levels in the Seaside Groundwater Basin.

IX. INFORMATIONAL REPORTS (No Action Required)

A. Minutes of October 7, 2024 Replenishment Ad Hoc Committee Meeting
B. Watermaster report of production of the Seaside Basin through Water Year 2024 (October 1, 2023 – September 30, 2024)
C. 2024 Calculated Replenishment Assessments – There was no overproduction and no assessments for WY 2024.
D. Sustainable Groundwater Management Act Monthly Update for August, 2024

X. DIRECTOR REPORTS – Director Bruno announced that invitations have been emailed for the annual Watermaster Holiday party on December 12, 2024. Director Carbone and Director Oglesby thanked the Watermaster staff and TAC for their work on Item VIII., Replenishment Water Needed. Director Gaglioti felt the item was a basis for community outreach to City Councils etc.; staff was directed to schedule a Public Awareness Committee meeting after the first of the year with the board encouraged to provide input into the presentation.

XI. STAFF COMMENTS – Watermaster received a copy of correspondence included in today's agenda packet on page 145 from City of Seaside City Attorney to Marina Coast Water District General Manager requesting MCWD reasonably serve existing customers.
Administrative staff recommended that the December 4, 2024, Board meeting be cancelled for lack of business.

It was moved by Director Barber, seconded by Mayor Carbone, and unanimously carried 8-0 to cancel the December 4, 2024, board meeting and reconvene January 8, 2025.

XII. CLOSED SESSION – The Closed Session item will be taken up at the next board meeting.

XIII. ADJOURNMENT – There being no further business, the meeting was adjourned at 4:00 p.m.

Respectfully submitted by Laura Paxton, Board Secretary

SEASIDE GROUNDWATER BASIN WATERMASTER

2025 PROPOSED SCHEDULE OF MEETINGS

Month	Board	TAC
January	8	no meeting
February	5	12
March	5	12
April	2	9
May	7	14
June	4	11
July	2	9
August	6	13
September	3	10
October	1	8
November	5	12
December	3	10

SEASIDE GROUNDWATER BASIN WATERMASTER **ITEM VIII. C.**

TO: Board of Directors **1/8/2025**
FROM: Laura Paxton, AO
January 8, 2025
SUBJECT: Summary of Payments Made for Services in October-December, 2024

RECOMMENDATIONS:

Consider approving bill payments submitted and authorized to be paid in October, November, and December 2024

Summary of Payments Made in October, 2024

Robert Jaques (Technical Program Manager)	Hours	Rate	
September 1 through September 30, 2024	22.5	@175	$ 3,937.50
Provided SNG Well info and research regarding same to A. Dominguez; edited Replenishment Water Summary Document; reviewed/approved invoices from L. Paxton and M&A; updated schedule of work for consultants and WM; prepared M&A RFS No. 2024-03 and sent to P. Benito and G. King for review; updated M&A Generic Professional Services Agreement and emailed Geophysical Imaging Partners for their review			
		Total Robert Jacques	**$ 3,937.50**
Paxton Associates (Administrative Officer (AO))	Hours	Rate	
Invoice No. 1629—August 26, 2024 through September 25, 2024	62.8	@125	$ 7,855.00
Prepared 10/2 Board Meeting packet (transmittals, revisions, coordinated w/ B. Jaques, presentations from S. Hardgrave @ SVGBSA and R. Sherzinger @ MCWD, links to documents on WM website, tested Zoom link); prepared agenda/notice; distributed both; set 10/7 and Repl A Hoc Committee mtg date (confirmed K. Shirley as facilitator; confirmed Sand City location; drafted agenda, confirmed R. Sherzinger attendance and confirmed no presentation or slides, emails to Committee members); trained Dayton on RA fund and all else; responded to telephone inquiries, e-mails, and other correspondence as needed regarding the Seaside Basin; routinely picked up mail from PO Box; processed invoices/payments/financials through 08/31/24 (trained Kelli) and sent to Seaside; noticed/collected/posted production; prepared financial reports; reviewed and posted items to website			
		Total Paxton Associates	**$ 7,855.00**
Klein DeNatale Goldner			
Administrative services	Hours	Rate	
INV 1232919 through September 19, 2024	2.4	@300	$ 720.00
Reviewed docket and pleadings re: ongoing proceedings affecting SNG well; emailed counsel re: same; emailed B. Jaques regarding proposed actions; began drafting request of court; telephone call w/ attorney of landowwner re: SNG well; reviewed report from B. Jaques re: same; emailed request and backgroud info to attorney of landowner; exchanged emails re: same; reviewed and responded to email from SNG attorney re: well repairs; exchanged emails w/ B/ Jaques re: same			
		Total Klein DeNatale Goldner	**$ 720.00**
Montgomery & Associates			
	Hours	Rate	
August 1 through August 30, 2024—Invoice No. 9150-24-07			
RFS 2024-01 (General Hydrogeologic Consulting)			
Prepared for and participated in August 14 TAC meeting via Zoom; responded to question from B. Jaques re: statement from D. Stoldt about flow from Seaside to Monterey Subbasin; reviewed Replenishment Modeling Summary document and provided feedback/comments to B. Jaques; reviewed draft TAC minutes and provided suggested revisions			
	2.00	$235/hr	$ 470.00
	7.00	$211/hr	$ 1,477.00
		Total Montgomery Associates	**$ 1,947.00**
		Grand Total October 2024	**$ 14,459.50**

Summary of Payments Made in November, 2024								
Robert Jaques (Technical Program Manager)						Hours	Rate	
October 1 through October 31, 2024						40	@175	$ 7,000.00
Reviewed/approved L. Paxton invoice; prepared amd distributed TAC meeting cancellation notice; prepared and submitted signed Code of Conduct form to SVBGSA for Committee membership; printed and reviewed of PWM Agreement between MCWD and MRWPCA/M1W for potential replenishment water for the Seaside Basin as discussed by Rem @ Replenishment Ad Hoc Committee meeting; discussed Watermaster issues with L. Paxton; participated in SVBGSA/MCWDGSA Steering Committee Zoom meeting; reviewed and provided edits for minutes of Replenishment Ad Hoc Committee meeting; revised schedule for M&A RFS No. 2024-03 to reflect delay in Board approval date and check w/Benito to see if deliverable date needs to be pushed back; edited schedule for same; asked P. Breen for readable exhibits to MCWD/M1W agreement; printed Monterey Subbasin Implementation Committee agenda packet, worked on 2025 Consultant Contracts								
							Total Robert Jacques	**$ 7,000.00**
Paxton Associates (Administrative Officer (AO))						Hours	Rate	
Invoice No. 1629—September 26, 2024 through October 25, 2024						74.5	@125	$ 9,312.50
Updated WM email distribution list; posted 24 1002 Board packet files to Google Drive; responded to email from Supervisor M. Sdams office; trained K. Catey; met with A. Dominguez to brief on RAhC 10/7 meeting; distributed RAHC agenda/notice; researched bounce-back emails from agenda packet; attempted to call I. Oglesby re 10/7 Replenishment mtg; emailed agenda packet to V. Norgaard at Sand City email address; added repleichment page to website and uploaded 10/7 agenda; add Dan Meewis City o Seaside to distribution list; prepared for Carbone and O'Halloran meeting attendance via Zoom; sent A. Baer agenda packets for Board and Replenishment meetings; preppedfor and attended Board meeting-no quorum; reviewed AB 2449 telecon attendance; revised 10/2 Board eeting packet for 10/21; notified Board members/MCWD/Hardgrave re: new date; added new slides to Hardgrave presentation; prepared RAHC meeting minutes; trained N. Dayton and K. Catey; provided clarification to B. Jaques re: R. Sherzinger statements; reviewed production and well depth reports; revised Board packet and triedto gather a quorum; began compiling year-end reporting for production and financials; responded to telephone inquiries, e-mails, and other correspondence as needed regarding the Seaside Basin; routinely picked up mail from PO Box; processed invoices/payments/financials through (trained Kelli) and sent to Seaside; noticed/collected/posted production; prepared financial reports; reviewed and posted items to website								
							Total Paxton Associates	**$ 9,312.50**
Klein DeNatale Goldner								
Administrative services						Hours	Rate	
INV 1234447 through October 18, 2024						2.2	@300	$ 660.00
Participated in video conference w/ L. Paxton re: Board meeting and upcoming Ad Hoc Replenishment meeting; exchanged emails with L. Paxton and N. Dayton re: remote participation for various Directors; telephone call w/ N. Dayton regarding same; prepared for and attended Board meeting; telephone call w/N. Dayton regarding same; reviewed and responded to emails regarding Brown Act compliance; attended Replenishment Ad Hoc Committee meeting								
Record Copies and Orange County Superior Court Document Downloads								$ 20.74
							Total Klein DeNatale Goldner	**$ 680.74**
							Grand Total November 2024	**$ 16,993.24**

Summary of Payments Made in December, 2024		
Robert Jaques (Technical Program Manager)	Hours	Rate
November 1 through November 30, 2024	52	@175	$ 9,100.00
Prepped for 11/6 Board meeting; sihned and sent RFS No. 2024-03 to P. Benito; reviewed induction loggibg data and adapted it for inclusion to the TAC agenda packet; worked on M&MP schedules; signed and sent our consutant RFSs; reviewed/approved invoices from L. Paxton and M&A; discussed WM issues with L.Paxton; completed review of draft SIAR, including comments and sent to M&A; completed preliminary draft of Annual Report; sent SIAR and Annual Reports to N. Dayton for posting on website; reviewed draft feasibility study Study Summary Report on SVBGSA Seawater Extraction Barrier/Desal Plant Project		
Total Robert Jacques		**$ 9,100.00**
Paxton Associates (Administrative Officer (AO))	Hours	Rate
Invoice No. 1639—October 26, 2024 through November 25, 2024	53.3	@125	$ 6,656.25
Updated 11/6 Board packet; distributed same; distributed holiday party invitation via email; respondedto Laguna Seca Water Company inquiry (wells in Basin, not a party to WM, but a member of SVBGSA); prepared 2024/25 production template, sent to producers, posted to website; sent PAC info to N. Dayton; sent 2025 budgets notification email to all parties; drafted minutes from 11/6 Board meeting; responded to CAW re: 2025 allocation; contributed to Annual Report; prepared CAW Admin and OPS assessment; cancelled 12/4 Board meeting; sent rep/alt appt notice; responded to Mike McCullough request for 11/6 Board meeting recording; spoke w/ Y. Anderson re: challenges of Director Askew attending Board meetings; began draftong 1/8/25 Board agenda; prepare OPS/Admin invlices for all parties; followed up w/ R. Sherzinger re: RAHC/proposal; responded to telephone inquiries, e-mails, and other correspondence as needed regarding the Seaside Basin; routinely picked up mail from PO Box; processed invoices/payments/financials through (trained Kelli) and sent to Seaside; noticed/collected/posted production; prepared financial reports; reviewed and posted items to website		
Total Paxton Associates		**$ 6,656.25**
Klein DeNatale Goldner		
Administrative services	Hours	Rate
INV 1235941 through November 18, 2024	0.2	@300	$ 60.00
Responded to email from B. Jaques re: SNG well; exchanged emails w/ SNG well attorney re: same; responded to email from N. Dayton re: Board meeting prep		
Total Klein DeNatale Goldner		**$ 60.00**
Montgomery & Associates		
	Hours	Rate
October 1 through October 31, 2024—Invoice No. 9150-24-08		
RFS 2024-01 (General Hydrogeologic Consulting)		
Responded to B. Jaques email on PCA-W and data loggers in Sentinel Well.		
	0.50	$235/hr	$ 117.50
RFS 2024-02 (SIAR)		
Conducted project kickoff meeting; coordinated and submitted data requests; organized data folders and file structure; downloaded and processed NOAA precipitation data and prepared precipitation chart; compiledproduction, groundwater level, and groundwater quality data; prepareded Annual Reported Grundwater Production and Operating Yield for Watermaster Producers figure; compiled and processed groundwater quality data and uploaded into Access Database; prepared Piper diagrams; compiled, processed and reviewed groundwater level data; communicated with J. Lear on induction log data findings; prepared water quality report for Appendix C; prepared shallow and deep quarterly chloride concentration maps; updated quarterly piper plots; updated historical chloride and sodium/chloride molar ratio figures; prepared text on chloride concentrations; confirmed with MPWMD that there was no ASR recovery in WY 2024; downloaded MCWD groundwater level data from SGMA Portal for Spring 2024 groundwater elevation contour maps; prepared hydrographs; add LSRA 1 and LSRA 5 water quality data to figures and water quality report; and updated Stiff diagrams; and update report water quality sections.		
	3.00	$235/hr	$ 705.00
	15.50	$187/hr	$ 2,898.50
	24.50	$124/hr	$ 3,038.00
Total Montgomery Associates		**$ 6,759.00**
Grand Total December 2024		**$ 22,575.25**

Seaside Groundwater Basin Watermaster

Budget vs. Actual Administrative Fund

Fiscal Year (January 1 - December 31, 2024)
Balance through November 30, 2024

	2024 Adopted Budget (Revised 11.6.24)	Contract Amount	Year to Date Revenue / Expenses
Available Balances & Assessments			
Other Assessments	-		
FY (Rollover)	47,500.00		50,000.00
Admin Assessments	68,000.00		68,000.00
Replenishment Assessments	10,474.00		10,474.00
Available	**125,974.00**		**128,474.00**
Expenses			
Contract Staff	78,000.00	78,000.00	75,492.16
Legal Counsel		12,500.00 *	
General	12,500.00		11,494.45
Replenishment	10,474.00		5,940.00
			17,434.45
Filing fees and postage			-
Total Expenses	**100,974.00**	**90,500.00**	**92,926.61**
Total Available	25,000.00		
Dedicated Reserve	25,000.00		-
Net Available	**-**		**35,547.39**

** $10,474 of the contracted amount is an approximation of expenditures related to the Replenishment Fund*

Seaside Groundwater Basin Watermaster

Budget vs. Actual Monitoring & Management - Operations Fund

Fiscal Year (January 1 - December 31, 2024)
Balance through November 30, 2024

	2024 Adopted Budget	Contract Encumbrance	Year to Date Revenue/Expenses
Available Balances & Assessments			
Operations Fund Assessment	$ 160,500.00	$ -	$ 160,500.00
Pass Through		-	2,804.00
FY 2022 Rollover (estimated)	133,281.00	-	133,281.00
Total Available	**$ 293,781.00**	**$ -**	**$ 296,585.00**
Appropriations & Expenses			
GENERAL			
Technical Project Manager*	$ 75,000.00	$ 75,000.00	$ 72,012.50
Contingency @ 10% (not including TPM)	28,537.00	-	
Total General	**$ 103,537.00**	**$ 75,000.00**	**$ 72,012.50**
CONSULTANTS (Montgomery; Web Site Database)			
Program Administration	$ 18,070.00	$ 21,670.00	$ 11,622.00
Production/Lvl/Qlty Monitoring	3,600.00		
Basin Management	46,000.00		
Seawater Intrusion Analysis Report	28,020.00	28,020.00	7,097.50
Total Consultants	**$ 95,690.00**	**$ 49,690.00**	**$ 18,719.50**
MPWMD			
Production/Lvl/Qlty Monitoring	$ 65,426.00	77,525.00	-
Pass Through 2024	21,128.00	-	-
Basin Management	-		-
Seawater Intrusion	-	-	-
Direct Costs	-	-	-
Total MPWMD	**$ 86,554.00**	**$ 77,525.00**	**$ -**
CONTRACTOR (Martin Feeney)			
Hydrogeologic Consulting Services	$ 4,000.00	4,000.00	-
Production/Lvl/Qlty Monitoring		-	-
	$ 4,000.00	**$ 4,000.00**	**$ -**
CONTRACTOR (Todd Groundwater)			
Hydrogeologic Consulting Services	**$ 4,000.00**	**$ 4,000.00**	1,810.00
Total Appropriations & Expenses	**$ 293,781.00**	**$ 210,215.00**	**$ 92,542.00**
Total Available	**-**		**204,043.00**

Seaside Groundwater Basin Watermaster
Budget vs. Actual Monitoring and Management - Capital Fund
Fiscal Year (January 1 - December 31, 2024)
Balance through November 30, 2024

	2023 Adopted Budget December 7, 2022		Contract Encumbrance		Year to Date Revenue / Expense
Available Balances and Assessments:					
Monitoring & Management Fund - Capital	$ 240,000.00				$ 48,902.08
FY 2022 carryover	66,666.99				66,666.99
Cost share from MPWMD & MCWD	-				130,938.12
Subtotal	306,666.99				246,507.19
Appropriations & Expenses:					
Professional Services					
Project Management	-		$ 23,600.00	*	14,612.27
Subtotal	-		23,600.00		14,612.27
Direct Costs					
Well Drilling -	240,000.00	**	258,197.00		213,106.20
Subtotal	240,000.00		258,197.00		213,106.20
Total Appropriations and Expenses	240,000.00		$ 281,797.00		227,718.47
Total Available	**$ 66,666.99**				**$ 18,788.72**

*** RFS 2022-05 for $23,600 covers design and planning for the new well and is funded by the 2022 $66,667 carryover amount**

****RFS 2023-03 for $258,197 is for actual construction of the well. Costs increased between adoption of the budget and letting of the RFS with Montgomery and Associates. Watermaster will share the $258,197 well construction expenses with MCWD & MPWMD - agreement executed September 2023. Capital Fund Assessments were levied on Watermaster Standard Producers, payment due to Watermaster December 15, 2023.**

Seaside Groundwater Basin Watermaster

Replenishment Fund

12/21/24

Water Year 2024 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2024)

Balance through November 30, 2024

Replenishment Fund		**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Assessment Water Year		WY 05/06	WY 06/07	WY 07/08	WY 08/09	WY 09/10	WY 10/11	WY 11/12	WY 12/13	WY 13/14	WY 14/15	WY 15/16
Unit Cost:	a	$1,132 / $283	$1,132 / $283	$2,485 / 621.25	$3,040 / $760	$2,780 / $695	$2,780 / $695	$2,780 / $695	$2,780 / $695	$2,702/$675.50	$2,702/$675.50	$2,702/$675.50
Cal-Am Water Balance Forward	b	**$ -**	**$ 1,641,004**	**$ 4,226,710**	**$ (2,871,690)**	**$ (2,839,939)**	**$ (3,822,219)**	**$ (6,060,164)**	**$ (8,735,671)**	**$ (6,173,771)**	**$ (3,102,221)**	**$ (676,704)**
Cal-Am Water Production (AF)	c	*3,710.00*	*4,059.90*	*3,862.90*	*2,966.02*	*3,713.52*	*3,416.04*	*3,070.90*	*3,076.61*	*3,232.10*	*2,764.73*	*1,879.21*
Cal-Am Water NSY Over-Production (AF)	d	*1,862.69*	*2,266.32*	*2,092.16*	*1,241.27*	*1,479.47*	*1,146.71*	*820.48*	*856.42*	*1,032.77*	*782.17*	-
Exceeding Natural Safe Yield Considering Alternative Producers	e	$ 2,106,652	$ 2,565,471	$ 5,199,014	$ 3,773,464	$ 4,112,933	$ 3,187,854	$ 2,280,943	$ 2,380,842	$ 2,790,539	$ 2,113,414	-
Operating Yield Overproduction Replenishment	f	**$ -**	$ 20,235	$ 8,511	$ -	$ -	$ -	$ 154,963	$ 181,057	$ 281,012	$ 312,103	-
Total California American	g	***$ 2,106,652***	***$ 2,585,706***	***$ 5,207,525***	***$ 3,773,464***	***$ 4,112,933***	***$ 3,187,854***	***$ 2,435,907***	***$ 2,561,899***	***$ 3,071,550***	***$ 2,425,516***	***$ -***
CAW Credit Against Assessment	h	$ (465,648)		$ (12,305,924)	$ (3,741,714)	$ (5,095,213)	$ (5,425,799)	$ (5,111,413)				
CAW Unpaid Balance	i	***$ 1,641,004***	***$ 4,226,710***	***(2,871,690)***	***$ (2,839,939)***	***$ (3,822,219)***	***$ (6,060,164)***	***$ (8,735,671)***	***$ (6,173,771)***	***$ (3,102,221)***	***$ (676,704)***	***$ (676,704)***
City of Seaside Balance Forward	j	**$ -**	**$ 243,294**	**$ 426,165**	**$ 1,024,272**	**$ 1,619,973**	**$ 891,509**	**$ (110,014)**	**$ (773,813)**	**$ (1,575,876)**	**$ (2,889,325)**	**$ (3,346,548)**
City of Seaside Municipal Production (AF)	k	*332.00*	*287.70*	*294.20*	*293.44*	*282.87*	*240.68*	*233.72*	*257.73*	*223.64*	*185.01*	*195.16*
City of Seaside NSY Over-Production (AF)	l	*194.07*	*153.78*	*161.99*	*153.06*	*113.21*	*50.84*	*58.82*	*85.17*	*52.71*	*25.77*	*37.87*
Exceeding Natural Safe Yield Considering Alternative Producers	m	$ 219,689	$ 174,082	$ 402,540	$ 465,300	$ 314,721	$ 141,335	$ 163,509	$ 236,782	$ 142,410	$ 69,630	$ 102,330
Operating Yield Overproduction Replenishment	n	$ 12,622	$ 85	$ 4,225	$ 16,522	$ 20,690	$ -	$ 1,689	$ 27,007	$ 3,222	$ 38	$ 11,959
Total Municipal	o	***$ 232,310***	***$ 174,167***	***$ 406,764***	***$ 481,823***	***$ 335,412***	***$ 141,335***	***$ 165,198***	***$ 263,788***	***$ 145,631***	***$ 69,667***	***$ 114,290***
City of Seaside - Golf Courses (APA - 540 AFY)												
Exceeding Natural Safe Yield - Alternative Producer	p	-	-	$ 131,705	$ 69,701	-	-	-	-	-	-	-
Operating Yield Overproduction Replenishment	q	-	-	$ 32,926	$ 17,427	-	-	-	-	-	-	-
Total Golf Courses	r	$ -	$ -	$ 164,631	$ 87,128	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total City of Seaside*	s	**$ 232,310**	**$ 174,167**	**$ 571,395**	**$ 568,951**	**$ 335,412**	**$ 141,335**	**$ 165,198**	**$ 263,788**	**$ 145,631**	**$ 69,667**	**$ 114,290**
City of Seaside Late Payment 5%	t	$ 10,984	$ 8,704	$ 26,712	$ 26,750	$ 15,737						
In-lieu Credit Against Assessment	u					$ (1,079,613)	$ (1,142,858)	$ (828,996)	$ (1,065,852)	$ (1,459,080)	$ (526,890)	$ (162)
City of Seaside Unpaid Balance	v	***$ 243,294***	***$ 426,165***	***$ 1,024,272***	***$ 1,619,973***	***$ 891,509***	***$ (110,014)***	***$ (773,813)***	***$ (1,575,876)***	***$ (2,889,325)***	***$ (3,346,548)***	***$ (3,232,420)***
Mission Memorial Park												
Mission Memorial Park Production (AF)	w			*20.80*	*26.40*	*12.80*	*22.40*	*27.00*	*24.95*	*24.89*	*17.97*	*13.67*
Mission Memorial Park NSY Over-Production (AF)	x	-	-	-	-	-	-	-	-	-	-	-
Exceeding Natural Safe Yield - Alternative Producer	y	-	-	-	-	-	-	-	-	-	-	-
Operating Yield Overproduction Replenishment	z	-	-	-	-	-	-	-	-	-	-	-
Total Mission Memorial Park	aa	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Total Replenishment Fund Balance	bb	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	**$ (5,991,546)**	**$ (4,023,252)**	**$ (3,909,125)**
Replenishment Fund Balance Forward	cc	$ -	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	**$ (5,991,546)**	**$ (4,023,252)**
Total Replenishment Assessments	dd	$ 2,349,946	$ 2,768,576	$ 5,805,632	$ 4,369,165	$ 4,464,082	$ 3,329,189	$ 2,601,104	$ 2,825,688	$ 3,217,182	$ 2,495,183	$ 114,290
Total Paid and/or Credited	ee	$ (465,648)	$ -	$ (12,305,924)	$ (3,741,714)	$ (6,174,826)	$ (6,568,657)	$ (5,940,409)	$ (1,065,852)	$ (1,459,080)	$ (526,890)	$ (162)
Grand Total Fund Balance	ff	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	**$ (5,991,546)**	**$ (4,023,252)**	**$ (3,909,125)**

Seaside Groundwater Basin Watermaster — 12/21/24

Replenishment Fund — Page 2

Water Year 2024 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2024)

Balance through November 30, 2024

Replenishment Fund		2017	2018	2019	2020	WY 2021	WY 2022	WY 2023	WY 2024	Totals WY 2006 Through 2024	Budget WY 2025	Projected Totals Through WY 2025
Assessment Water Year		WY 16/17	WY 17/18	WY 18/19	WY 19/20	WY 20/21	WY 21/22	WY 22/23	WY 23/24		WY 23/24	
Unit Cost:	a	$2,872 / $718	$2,872 / $718	$2,872 / $718	$2,872 / $718	$2,947 / $737	$3,260/ $815	$3,461/ $865	$4,529/$1,132		$4,845/$1,211	
Cal-Am Water Balance Forward	b	**$ (676,704)**	**$ (491,747)**	**$ (48,797,949)**	**$ (47,979,852)**	**$ (46,855,121)**	**$ (46,855,121)**	**$ (46,855,121)**	**$ (46,855,121)**		**$ (46,855,121)**	
Cal-Am Water Production (AF)	c	*2,029.51*	*2,229.45*	*2,120.22*	*2,245.88*	*1,664.04*	*1,648.71*	*1,569.60*	*1,594.25*	*50,853.59*		
Cal-Am Water NSY Over-Production (AF)	d	*64.40*	*374.65*	*284.85*	*334.21*	-	-	-		*14,638.57*		
Exceeding Natural Safe Yield Considering Alternative Producers	e	$ 184,957	$ 1,075,995	$ 818,097	$ 959,859	-	-	-	-	$ 33,550,034	-	$ 33,550,034
Operating Yield Overproduction Replenishment	f				164,872	-	-	-	-	$ 1,122,753	-	$ 1,122,753
Total California American	g	**$ 184,957**	**$ 1,075,995**	**$ 818,097**	**$ 1,124,731**	**$ -**	**$ -**	**$ -**	**-**	**$ 34,672,786**	**-**	**$ 34,672,786**
CAW Credit Against Assessment	h		$ (49,382,196)	-	-	-	-	-	-	$ (81,527,907)	-	$ (81,527,907)
CAW Unpaid Balance	i	***$ (491,747)***	***$ (48,797,949)***	***$ (47,979,852)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***	***$ (46,855,121)***
City of Seaside Balance Forward (120.28 AF)	j	**$ (3,232,420)**	**$ (3,142,500)**	**$ (3,022,249)**	**$ (2,919,806)**	**$ (2,802,831)**	**$ (2,708,829)**	**$ (2,661,184)**	**$ (2,661,184)**		**$ (2,661,184)**	
City of Seaside Municipal Production (AF)	k	*188.31*	*184.63*	*178.40*	*181.65*	*174.69*	*155.12*	*158.46*		*4,047.41*		
City of Seaside NSY Over-Production (AF)	l	*30.47*	*32.46*	*27.82*	*32.06*	*25.52*	*11.69*	-		*1,247.31*		
Exceeding Natural Safe Yield Considering Alternative Producers	m	$ 87,512	$ 93,225	$ 79,893	$ 92,089	$ 75,197	$ 38,116	-	0.00	$ 2,898,358	0.00	$ 2,898,358
Operating Yield Overproduction Replenishment	n	2,409	27,026	22,550	24,886	18,806	9,529	-	0.00	$ 203,263	0.00	$ 203,263
Total Municipal	o	$ 89,920	$ 120,251	$ 102,443	$ 116,975	$ 94,002	$ 47,645	$ -	0.00	$ 3,101,621	0.00	$ 3,101,621
City of Seaside - Golf Courses (APA - 540 AFY)												
Exceeding Natural Safe Yield - Alternative Producer	p	-	-	-	-	-	-			$ 201,406		$ 201,406
Operating Yield Overproduction Replenishment	q	-	-	-	-	-	-			$ 50,353		$ 50,353
Total Golf Courses	r	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ 251,759		$ 251,759
Total City of Seaside*	s	**$ 89,920**	**$ 120,251**	**$ 102,443**	**$ 116,975**	**$ 94,002**	**$ 47,645**	**-**	**0.00**	**$ 3,353,380**	**0.00**	**$ 3,353,380**
City of Seaside Late Payment 5%	t									$ 88,887		$ 88,887
In-lieu Credit Against Assessment	u									$ (6,103,451)		$ (6,103,451)
City of Seaside Unpaid Balance	v	***$ (3,142,500)***	***$ (3,022,249)***	***$ (2,919,806)***	***$ (2,802,831)***	***$ (2,708,829)***	***$ (2,661,184)***	***$ (2,661,184)***	***$ (2,661,184)***	***$ (2,661,184)***	***$ (2,661,184)***	***$ (2,661,184)***
Mission Memorial Park (APA - 31 AFY)												
Mission Memorial Park Production (AF)	w	*13.74*	*14.43*	*16.07*	*20.00*	*46.77*	*33.95*			*335.84*		
Mission Memorial Park NSY Over-Production (AF)	x	-	-	-		*15.77*	*2.95*			*18.72*		
Exceeding Natural Safe Yield - Alternative Producer	y	-	-	-	-	$ 46,488	$ 9,608			$ 56,096		$ 56,096
Operating Yield Overproduction Replenishment	z	-	-	-	-	11,626.00	2,401.97			$ 14,028		$ 14,028
Board Approved (5/4/22) Credit Against Assessment						(33,114.00)				$ (33,114)		$ (33,114)
$8,500 Applied to Admin Fund to cover expenses						(8,500.00)						
Mission Memorial Park Unpaid Balance	aa	-	-	-	-	-	-	-	-	$ -	-	$ -
Total	o	**$ -**	**$ -**	**$ -**	**$ -**	***$ 16,500***	***$ 12,010***	**$ -**	**$ -**	***$ 28,510***	**$ -**	***$ 28,510***
Balance of Available Funds								***$ (6,049)***	***$ (5,940)***		***$ 16,630***	
Total Replenishment Fund Balance	bb	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,658)**	**$ (49,657,952)**	**$ (49,563,950)**	**$ (49,516,305)**	**$ (49,522,353)**	**$ (49,516,305)**	**$ (49,487,795)**	**$ (49,516,305)**	**$ (49,516,305)**
Replenishment Fund Balance Forward	cc	**$ (3,909,125)**	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,658)**	**$ (49,657,952)**	**$ (49,563,950)**	**$ (49,516,305)**	**$ (49,516,305)**		**$ (49,516,305)**	
Total Replenishment Assessments	dd	$ 274,877	$ 1,196,246	$ 920,540	$ 1,241,706	$ 110,502	$ 59,655	$ -	$ -	$ 38,143,563	$ -	**$ 38,143,563**
Total Paid and/or Credited	ee		$ (49,382,196)			$ (16,500)	$ (12,010)			(87,659,868)		**(87,659,868)**
Total Paid for Replenishment Legal Services	ff							$ (6,049)	(5,940)	(11,989)	(11,880)	**(23,869)**
Grand Total Fund Balance	gg	***$ (3,634,247)***	***$ (51,820,198)***	***$ (50,899,658)***	***$ (49,657,952)***	***$ (49,563,950)***	***$ (49,516,305)***	***$ (49,522,353)***	***$ (49,516,305)***	***$ (49,528,293)***	***$ (49,516,305)***	***$ (49,540,173)***

ITEM IX.A.
1/8/25

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: January 8, 2025

SUBJECT: Consider Approving the Seawater Intrusion Analysis Report for 2024.

- -

RECOMMENDATIONS:
It is recommended that the Board approve the Seawater Intrusion Analysis Report for WY 2024.

BACKGROUND:
Montgomery & Associates has prepared the Seawater Intrusion Analysis Report (SIAR) for Water Year 2024. The SIAR examines the "health" of the Basin with regard to whether or not there are any indications that seawater intrusion is either occurring or is imminent.

At its December 11, 2024 meeting the TAC received a presentation on the Draft version of the 2024 SIAR, found it to be satisfactory as-is, and did not recommend making any changes to it. The Draft document thus became the Final version. The TAC recommended that it be sent to the Board with the TAC's recommendation for approval. The Executive Summary from the WY 2024 SIAR is attached. The complete SIAR is lengthy, so rather than including it in this agenda packet it has been posted on the Watermaster's website so Board members and members of the public wishing to review the entire document can do so. Montgomery & Associates will provide a presentation on the SIAR at today's meeting and will respond to questions about it.

DISCUSSION
Previous SIARs have stated that depressed groundwater levels, continued pumping in excess of recharge and freshwater inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin. In spite of these factors, the previous SIARs stated that neither the Piper nor the Stiff Diagrams nor any of the other parameters indicated the presence of seawater intrusion in the existing monitoring wells. The 2024 SIAR again reports that the evaluation of the data from the sampling and monitoring program continues to indicate that seawater intrusion is not occurring.

As was also discussed in the 2023 SIAR, the 2024 SIAR describes some variations in the recent Seaside Basin Watermaster Monitoring Well (SBWM) induction logging results compared to prior years. These are the wells referred to as the "Sentinel Wells" because they are located close to the coastline. The logging results are showing a steady trend of increasing salinity in some of the upper strata layers of the Paso Robles aquifer in some of these wells.

Last year I convened a meeting of our hydrogeologic consultants to discuss this finding. It was their collective conclusion that no action is required at this time, but that we should monitor this apparent trend as future induction logging is performed to try to ascertain whether or not it is significant. In response to that recommendation, in 2024 two additional wells were added to the list of wells that are induction logged in the vicinity of SBWM-4, and the 2025 Monitoring and Management Program that the Board approved at its November 6, 2024 meeting includes performing subsurface electromagnetic imaging in 2025 in the vicinity of that well to improve our understanding of the hydrogeology in that area.

FISCAL IMPACTS:
None.

ATTACHMENTS:
Executive Summary from the WY 2024 Seawater Intrusion Analysis Report

For those who wish to review the complete SIAR it is posted on the Watermaster's website at: https://seasidegroundwaterbasinwatermaster.wpcomstaging.com/wp-content/uploads/2024/12/WY2024-Seawater-Intrusion-Analysis-Report-for-posting.pdf

EXECUTIVE SUMMARY

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

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

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

Groundwater levels below sea level, the cumulative effect of pumping in excess of recharge and freshwater inflows, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion has the potential to occur in the Seaside Groundwater Basin.

Data collected in WY 2024 from monitoring and production wells do not indicate seawater intrusion is occurring within the Seaside Groundwater Basin. However, induction logging shows incremental increases in conductivity over time in Sentinel wells SBWM-1, 2, and 4 within zones of the Paso Robles Formation that are not screened in nearby monitoring wells. Continual increases in conductivity may be a precursor to seawater intrusion.

Based on the findings of this report, the following ongoing detrimental groundwater conditions pose a direct threat of seawater intrusion:

- Both the Paso Robles and Santa Margarita aquifers in the Seaside Groundwater Basin are susceptible to seawater intrusion. The Paso Robles aquifer is in direct hydrogeologic connection with Monterey Bay, and seawater will eventually flow into it if inland

groundwater levels continue to be below sea level. It is uncertain whether the Santa Margarita aquifer is in direct connection with Monterey Bay. If it is not in direct connection, then seawater intrusion will take longer as seawater in the Paso Robles aquifer would need to move down through the clay rich deposits overlying the Santa Margarita aquifer before entering the aquifer itself and making its way into Santa Margarita production wells. It is not if, but when, seawater intrusion into these aquifers will occur if protective water elevations are not achieved.

- Sentinel wells SBWM-1 and SBWM-2, located north of the Seaside Basin, and SBWM-4, located in the Northern Coastal subarea where most of the Seaside Basin's groundwater extraction occurs, exhibit overall increases in conductivity over time within defined coarser-grained zones of the Paso Robles Formation. It is believed the increased conductivity in the shallow portions of SBWM-1 and SBWM-2 are associated with the mapped extent of seawater intrusion emanating from the Salinas Valley Basin shown on Figure 21. Since SBWM-3 does not have increasing conductivity in the Paso Robles Formation like the other three Sentinel wells, the cause of increasing conductivity in SBWM-4 may be different than SBWM-1 and SBWM-2 to the north. Evaluation of SBWM-4 conductivity data collected prior to 2019 indicates conductivity has been increasing within this zone from at least 2007 when induction logging started. An estimate of the total dissolved solids (TDS) increase associated with the logged change in conductivity in SBWM-4 since 2007 is approximately 1,000 mg/L. The Secondary Drinking Water limit is 500 mg/L. This indicates a significant salinity increase in the Paso Robles Formation. An induction log performed on monitoring well PCA-West Deep—located 780 feet southwest of SBWM-4—to verify increasing conductivity in this area does indicate high salinity within the Paso Robles Formation. However, several years of logs are needed to compare against the first baseline before it can be determined if conductivity is increasing at that well too.
- Groundwater levels in some portions of both the Paso Robles and Santa Margarita aquifers in the Northern Coastal subarea continue to be below sea level year-round. Groundwater levels below sea level create hydraulic conditions causing onshore flow. WY 2024 fourth quarter (summer/fall) groundwater levels in the Santa Margarita aquifer are approximately 20 feet below sea level. The Northern Coastal subarea pumping depression in the Santa Margarita aquifer is similar to last year. The pumping depression in the Paso Robles aquifer is slightly reduced from last year's pumping depression.
- Groundwater levels remain below protective elevations in all three Santa Margarita aquifer protective elevation monitoring wells (MSC deep, PCA-W Deep, and Sentinel well SBWM-3), and in one of the three Paso Robles aquifer protective elevation monitoring wells (MSC Shallow). All three Santa Margarita monitoring well

groundwater elevations continued increasing from WY 2022 which had the lowest levels on record. Groundwater elevations at all three Paso Robles protective elevation monitoring wells also increased. In WY 2024, PCA-West Shallow rose above the protective elevation for the first time since WY 2017. The increase is due to Bayonet/Blackhorse golf courses irrigation switching from locally pumped groundwater to recycled water.

The following evidence from this report demonstrates that seawater intrusion has not been detected in monitoring and production wells from which groundwater quality samples are collected:

- Most groundwater samples for WY 2024 from depth-discreet monitoring wells generally plot in a single cluster on Piper diagrams, with no water chemistry changes toward seawater.
- In some production wells, groundwater quality plots on Piper diagrams are different than groundwater quality in monitoring wells. This may be a result of mixed water quality because these wells are perforated in both the Paso Robles and Santa Margarita aquifers. None of the production wells' groundwater qualities are indicative of seawater intrusion.
- None of the Stiff diagrams for monitoring and production wells show the characteristic chloride spike that typically indicates seawater intrusion in Stiff diagrams. The stiff diagram for FO-10 Deep, which showed a spike of increased chloride in WY 2022, returned to a shape consistent with its historical shape.
- Maps of chloride concentrations for the shallow aquifer do not show chlorides increasing toward the coast. Santa Margarita aquifer chloride concentration maps show that the highest chloride concentrations are limited to coastal monitoring wells PCA-West Deep and MSC Deep, but these are not indicative of seawater intrusion since their concentrations are less than 160 mg/L and they do not have increasing trends.

Other important findings from the analysis contained in this report include the following:

- It is evident from comparing the long-term groundwater level trends of PCA-West Shallow and PCA-East Shallow, both in the Paso Robles aquifer, that golf course irrigation pumping is the cause of groundwater levels falling below protective elevations at PCA-West Shallow over the past 6 years. Using recycled water for golf course irrigation has allowed shallow groundwater levels to recover to above the protective elevations at PCA-West Shallow in WY 2024.
- Due to its distance from the coast, seawater intrusion is not an issue of concern in the Laguna Seca subarea. However, groundwater levels in the eastern Laguna Seca subarea

have historically declined at rates of 0.6 feet per year in the shallow aquifers, and up to 4 feet per year in the deep aquifers. These declines have occurred since 2001 despite triennial reductions in allowable pumping and CAWC ceasing pumping its Ryan Ranch and Bishop wells. The cause of the declines is the subarea's limited groundwater inflows and natural recharge compounded by the influence of wells pumping east of the Seaside Basin in the Monterey Subbasin Corral de Tierra Management Area. Since WY 2021, groundwater elevations in the area have appeared to experience some stabilization and recovery, potentially correlated with a cessation of pumping at California American Water Company's (CAWC) Ryan Ranch and Bishop wells.

- Native groundwater production in the Seaside Basin for WY 2024 was 2,350 acre-feet, which is 177 acre-feet more than WY 2023 and 650 acre-feet less than the Decision-ordered Operating Yield of 3,000 acre-feet. In addition to WY 2024 being an above average year for rainfall, recovery of 3,355 acre-feet of recycled water from Pure Water Monterey and use of recycled water at the Bayonet/Blackhorse golf courses helped offset pumping of native groundwater. As outlined in the Basin Management Action Plan (M&A, 2018a), it is vital the Watermaster continues to identify ways to reduce pumping native groundwater and/or to recover groundwater elevations with water that is left in the Seaside Basin and is not extracted out as water supply.

It is important to remain vigilant and to closely monitor groundwater quality at different depths through the Seaside Basin's aquifers. Although existing monitoring and production wells are not detecting seawater intrusion, it does not mean seawater intrusion is not occurring. The discovery of increasing conductivity in specific zones in the Sentinel wells that are not screened in nearby monitoring wells illustrates this fact. Using geophysical methods such as induction logging and electromagnetic surveys to identify salinity provides a more complete "scan" of the depth of the Seaside Basin that discreetly screened wells cannot provide.

Based on the findings of this report, the following recommendations should be implemented to monitor and track potential seawater intrusion.

1. **Actions Regarding Increased Conductivity Observed in Induction Logs in SBWM-1, SBWM-2, and SBWM-4**

    - EKI and Marina Coast Water District Groundwater Sustainability Agency (MCWD GSA) should be informed that Sentinel wells SBWM-1 and SBWM-2 continue to show increases in conductivity from 520-540 and 340-390 feet bgs respectively in defined coarser-grained zones in the Paso Robles aquifer. These monitoring wells are located outside of the Seaside Basin and are within the Marina-Ord Management Area of the Monterey Subbasin.

- Annual induction logs in PCA-West Deep and PCA-East Deep should continue to be performed to expand the area being monitored by geophysical methods.

- The Watermaster should consider performing land-based subsurface electromagnetic geophysics in the vicinity of SBWM-4 and PCA-West Deep, if feasible, to see if such data will add to the hydrogeologic understanding of this area.

2. **Verify Chloride Concentrations and Water Chemistry in the 140 – 200 foot Zone of SBWM-4**

   It is recommended that options for verifying seawater intrusion occurring in the Paso Robles Formation at or near SBWM-4 continue be evaluated in WY 2025. This may involve finding a site for a new monitoring well, adapting an existing well, evaluating the feasibility of using a Cone Penetration Testing (CPT) drill rig to non-intrusively collect once-off groundwater quality samples at specified depths without needing a permanent well, or some other solution. The fall 2024 induction logging results at SBWM-4 show that conductivity has been stable over the past year, however the Watermaster should continue to conduct induction logging at PCA-W Deep and PCA-E Deep and explore options to see if it would be feasible to monitor groundwater quality in the affected zone.

3. **Destroy the SNG Well**

   It is recommended that the privately owned SNG well be destroyed if it is found, as believed, to have a leaking casing that is allowing high salinity water to flow down from the seawater intruded Dune Sands into the Paso Robles Formation where the well is likely screened. In early 2021, the chloride concentration from water pumped from the well was 8,660 mg/L.

4. **Destroy and Replace FO-10 Shallow and FO-10 Deep**

   It is recommended that FO-10 Shallow and FO-10 Deep be destroyed and replaced to maintain continuous water quality monitoring and to prevent cross contamination between the Paso Robles and Santa Margarita aquifers and the overlying Dune Sands. These wells are located outside of the Seaside Basin, so destruction would need to be

conducted by the well owner, MPWMD, and replacement wells would need to be installed by the MCWD GSA.

5. **Continue to Analyze and Report on Water Quality Annually**

   Seawater intrusion is a threat to the Seaside Basin, and data must be collected and analyzed regularly to identify incipient intrusion. Maps, graphs, and analyses similar to what are found in this report should continue to be developed every year.

ITEM IX.B.
1/8/25

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: January 8, 2025

SUBJECT: Discussion/Consider Approving Watermaster Annual Report for WY 2024

- -

RECOMMENDATIONS:
It is recommended that the Board approve the Watermaster Annual Report for WY 2024.

BACKGROUND:
The Watermaster submits an Annual Report to the Court after the end of each Water Year to fulfill one of its obligations under the Court Decision that created the Watermaster. This document summarizes and provides information on all of the Watermaster's principal activities of the year, and as required by the Decision is organized into the following Sections:

A. Groundwater Extractions
B. Groundwater Storage
C. Amount of Artificial Replenishment, if any, performed by Watermaster
D. Leases or sales of Production Allocation and Administrative Actions
E. Use of imported, reclaimed, or desalinated Water as a source of Water for Storage or as a water supply for lands overlying the Seaside Basin
F. Violations of the Decision and any corrective actions taken
G. Watermaster administrative costs
H. Replenishment Assessments
I. All components of the Watermaster budget
J. Water Quality Monitoring and Basin Management
K. Conclusions and Recommendations

DISCUSSION:
A Preliminary Draft of the Annual Report was presented to the TAC for its review and input at the TAC's December 11, 2024 meeting. The TAC did not request any revisions to it, and recommended that the Report be forwarded to the Board for its approval.

Due to its large file size, a complete copy of the Final Draft 2024 Annual Report cannot be included with the agenda packet. However, a copy of the body of the Final Draft is attached. The complete Final Draft version is posted on the Watermaster's website at:
https://seasidegroundwaterbasinwatermaster.wpcomstaging.com/wp-content/uploads/2025/01/Revised-Draft-2024-Annual-Report-12-28-24-for-posting.pdf

The Draft version of the Annual Report will be made into a Final version, reflecting any comments or recommendations from the Board at today's meeting. The Final version will be submitted to the Court not later than the January 15, 2025 submittal deadline established by the Court. Due to the length of the Annual Report, rather than making a presentation at today's meeting, Staff will respond to questions about the Annual Report from the Board and the Public.

ATTACHMENTS: Body of the Final Draft version of the Watermaster 2024 Annual Report.

SEASIDE BASIN WATERMASTER ANNUAL REPORT – 2024

DRAFT

January 9, 2025

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SEASIDE BASIN WATERMASTER

ANNUAL REPORT – 2024

Integral to the Superior Court Decision (Decision) rendered by Judge Roger D. Randall on March 27, 2006 is the requirement to file an Annual Report. This 2024 Annual Report is being filed on or before January 15, 2025, consistent with the provisions of the Decision, as amended by the Order Amending Judgment filed March 29, 2018.

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

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

A. Groundwater Extractions

The schedule summarizing the Water Year 2024 (WY 2024) groundwater production from all the producers allocated a Production Allocation in the Seaside Groundwater Basin is provided in Attachment 1, "Seaside Groundwater Basin Watermaster, Reported Quarterly and Annual Water Production from the Seaside Groundwater Basin for all Producers Included in the Seaside Basin Adjudication During Water Year 2024." Water Year 2024 is defined as beginning October 1, 2023 and ending on September 30, 2024.

B. Groundwater Storage

Monterey Peninsula Water Management District (MPWMD), in cooperation with California American Water (CAWC), operates the Seaside Basin Aquifer Storage and Recovery (ASR) program. Under the ASR program, CAWC diverts water from its Carmel River sources during periods of flow in excess of NOAA-Fisheries' bypass flow requirements, and transports the water through the existing CAWC distribution system for injection and storage in the Seaside Basin at the MPWMD's Santa Margarita ASR site and CAWC's Seaside Middle School ASR site. During WY 2024, 1,519 acre-feet was diverted and stored in the Seaside Basin under the ASR program. Rainfall in the area was about 114% of normal, and Carmel River flow was about 122% of normal.

Based upon production reported for WY 2024, the following Standard Producers are entitled to Carryover Credits to WY 2025 in accordance with the Decision, Section III. H. 5:

Producer	Carryover Credit (Acre-feet)
Granite Rock	284.99
DBO Development	509.01 (-2.31 transfer)
Calabrese (Cypress)	19.13 (-3.17 transfer)
CAWC	1,339.93 (+5.48 transfer)
City of Seaside Muni	46.81

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

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

During Water Year 2024 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin.

As reported in the 2019 Annual Report, on September 4, 2019 the City of Seaside filed a motion with the Court seeking the Court's approval of the City's request for a Storage and Recovery Agreement for in-lieu storage and recovery of water. On October 25, 2019 the Court approved the City's request. Court documents pertaining to the City's request were contained in Attachment 15 of the 2019 Annual Report. On February 5, 2020 the Watermaster executed a Storage and Recovery Agreement with the City of Seaside, a copy of which was included in Attachment 7 of the 2020 Annual Report. 757.85 AF of non-native water was made available to the Basin during Water Year 2024 under this Storage and Recovery Agreement. The 757.85 AF accrues as a storage credit for any future City of Seaside Municipal or Golf Course use per the agreement.

D. Leases or Sales of Production Allocation and Administrative Actions

As reported in the 2017 Annual Report, on April 7, 2017, D.B.O Development No. 30 transferred/assigned 0.16 acre-feet (AF) of its Standard Production Allocation within the Seaside Groundwater Basin to California American Water for the Water Year ending 2017 applied to Water Year 2017. This transfer of water allocation was the first assignment of water pursuant to MPWMD Ordinance No. 166 and the Front-Loading Agreement between D.B.O and California American Water contained in Attachment 10 of the 2017 Annual Report.

As reported in the 2017 Annual Report, on June 15, 2017, D.B.O Development No. 30 transferred/assigned 2.15 acre-feet (AF) of its Standard Production Allocation within the Seaside Groundwater Basin to California American Water for the Water Year ending 2017 applied to Water Year 2017. This transfer of water allocation was the second assignment of water pursuant to MPWMD Ordinance No. 166 and the Front-Loading Agreement between D.B.O and California American Water contained in Attachment 10 of the 2017 Annual Report.

As reported in the 2019 Annual Report, in WY2019 a transfer or assignment of water allocation was activated, as provided for in the Cypress Pacific Investors (CPI), successor to Muriel L. Calabrese 1987 Trust, front-loading delivery of water agreement that was contained in Attachment 14 of the 2019 Annual Report. Per the agreement, CPI leases to California American Water Company (CAWC) 8.0 AF of water (subject to reduction per the formulas in the Decision) for the purpose of producing such water from, or moving the production of such water to, the inland wells operated by CAWC and for delivery of such water by CAWC to one or more CPI properties. In WY 2017 CPI assigned its entire Standard Production Allocation water right to CAWC effective October 1, 2016.

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

During WY 2024 the Watermaster Board did not make any changes to the *Rules and Regulations.*

The Watermaster Board in 2024 was comprised of the following Members and Alternates:

MEMBER	ALTERNATE	REPRESENTING
Director Paul Bruno	Director John Gaglioti	Coastal Subarea Landowner
Tim O'Halloran	David Pezzini	California American Water
Director John Gaglioti	Director Paul Bruno	Laguna Seca Subarea Landowner
Director George Riley	Director Alvin Edwards	MPWMD
Mayor Mary Ann Carbone	City Manager Vibeke Norgaard	City of Sand City
Supervisor Wendy Askew	TBD	Monterey County (MCWRA)
Councilmember Kim Shirley	TBD	City of Del Rey Oaks
Councilmember Kim Barber	Mayor Tyller Williamson	City of Monterey
Mayor Ian Oglesby	Mayor Pro Tem David R. Pacheco	City of Seaside

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

The CAWC/MPWMD ASR Program operated in WY 2024 and 1,518.54 acre-feet of water was injected into the Basin as Stored Water Credits and 0 acre-feet was extracted.

As reported in the 2019 Annual Report, the Watermaster issued a Storage and Recovery Agreement to CAWC and MPWMD governing the injection and recovery of water from the Pure Water Monterey (PWM) Project. A copy of the agreement was included in Attachment 13 of the 2019 Annual Report. The quantities of water that were stored and recovered in accordance with that Agreement during WY 2024 are reported in the lower portion of the spreadsheet in Attachment 1.

F. Violations of the Decision and Any Corrective Actions Taken

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

In WY 2021 the Watermaster implemented a final ramp-down in production to achieve the Basin's Decision-established Natural Safe Yield of 3,000 AFY. The Watermaster made its declaration regarding the availability of Artificial Replenishment Water, and the Total Usable Storage Space of the Basin, for WY 2024 at its Board meeting of January 3, 2024. Copies of these declarations are contained in Attachment 2.

Total pumping for WY 2024 did not exceed the Operating Yield (OY) of the Basin, and did not exceed the Natural Safe Yield (NSY) of the Basin.

G. Watermaster Administrative Costs

The total estimated Administrative costs through the end of Fiscal Year 2024 amounted to $100,000 including a $25,000 dedicated reserve. Costs include fees for three Administrative Officers and legal counsel. The "Fiscal Year 2024 Administrative Fund Report" and "Fiscal Year 2024 Operations Fund Report" are provided in Attachment 3.

H. Replenishment Assessments

At its meeting of November 6, 2024, the Watermaster Board determined that beginning with WY 2025 the Natural Safe Yield Replenishment Assessment unit cost should be updated to $4,845.21 per acre-foot, and the Operating Yield Replenishment Assessment unit cost should be updated to $1,211.30 per acre-foot. The spreadsheet that was included with the agenda transmittal for the November 6, 2024 meeting, and which explains the basis of calculation for these new unit costs, is contained in Attachment 4.

Alternative and Standard Producers report their production amounts from the Basin to the Watermaster on a quarterly basis. Based upon the reported productions for WY 2024, no replenishment assessments were made.

A summary of the calculations for Replenishment Assessments for WY 2024 is contained in Attachment 5.

I. All Components of the Watermaster Budget

The Watermaster budget has four separate funds: Administrative Fund; Monitoring & Management–Operations; Monitoring and Management–Capital Fund and;
Replenishment Fund. At its meeting of November 6, 2024, the Watermaster Board approved these budgets for Fiscal Year 2025, and copies of these budgets are contained in Attachment 6

The Watermaster Board is provided monthly financial status reports on all financial activities for each month with year-to-date totals.

J. Water Quality Monitoring and Basin Management

Water Quality Analytical Results

Groundwater quality data continued to be collected and analyzed on a quarterly basis during WY 2024 from the enhanced network of monitoring wells. The low-flow sampling method implemented in 2009 continued to be used in 2024 and is expected to continue to be used in the future to improve the efficiency of sample collection.

Monitoring and Management Program for the Upcoming Year

The 2025 Monitoring and Management Program (M&MP) contained in Attachment 8 includes the same types of basin management activities that have been conducted in prior years.

Most of the proposed revisions between the 2024 and 2025 Monitoring and Management Programs are relatively minor, but:

A new Task I.2.b.8 has been added to perform subsurface electromagnetic imaging in the vicinity of Sentinel Well No. 4 to see if it can help to determine if seawater intrusion is beginning to occur in that part of the Seaside Basin.

Task I.3.a includes the potential updating of the Watermaster's Seaside Basin Ground Water Model in 2025, in order for it to coordinate more closely with the updated model being prepared for the adjacent Monterey Subbasin.

Task I.3.a.3 has been updated to reflect Cal Am's updated schedule for the Monterey Peninsula Water Supply Project's desalination plant.

Task I.4.e includes updating the Seawater Intrusion Response Plan in response to the induction logging results from Sentinel Well No. 4.

The 2025 Monitoring and Management Program (M&MP) Budgets contained in Attachment 8 cover the same types of basin management activities that have been conducted in prior years.

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 Water District 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 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 order to determine the most cost-effective approach to update the Model, in 2024 Montgomery & Associates will be asked under the attached RFS No. 2024-03 to evaluate the options available for doing this. The 2024 M&MP Operations Budget included *Task I.3. e. - Seaside Basin Geochemical Model* to perform geochemical analyses of injecting desalinated water from the Monterey Peninsula Water Supply Project's desalination plant, if that plant was going to be constructed in 2024. Construction of that plant is not scheduled to occur in 2024, so the $10,000 included for that Task will not be utilized in 2024. A budget transfer of this $10,000 to *Task I.3.a.1- Update the Existing Model,* which had a zero budget in 2024, will be made to provide funding to perform this evaluation, the cost of which will not exceed $10,000. There will be no increase in the total amount of the 2024 M&MP Operations Budget as a result of making this budget transfer.

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.

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.

As a result of the changes described above, as indicated by the right-hand column titled "Comparative Costs from 2024 Budget" in Attachment 1, the proposed 2025 Budget is $185,192 higher ($478,973 -$293,781) than the 2024 Budget.

Basin Management Database

Pertinent groundwater resource data obtained from a number of sources has been consolidated into the Watermaster's database to allow more efficient organization and data retrieval. No modifications or enhancements to the database are planned in FY 2025.

Enhanced Monitoring Well Network

The Seaside Basin M&MP uses an Enhanced Monitoring Well Network to fill in data gaps in the previous monitoring well network used by the Monterey Peninsula Water Management District (MPWMD), and others, in order to improve the basin management capabilities of the Watermaster. The Enhanced Monitoring Well Network has been described in detail in previous Watermaster Annual Reports. It continues to be used to obtain additional data that is useful to the Watermaster in managing the Basin. During 2024, in response to concerns that induction logging of the Sentinel Wells and in particular Sentinel Well No.4 might be showing the start of an increasing trend in conductivity, two additional wells were added for induction logging. These are wells PCA-W Deep and PCA-E Deep. The induction logging results are discussed in the Seawater Intrusion Analysis Report.

As discussed in the 2023 Annual Report, the Security National Guaranty (SNG) well located in the dunes area in the northern portion of Sand City is suspected to have a casing leak that is allowing salty water from a shallow aquifer to flow downward into the Paso Robles aquifer. The well owner reported that the development project on this property was in the midst of litigation and he was prevented by the Court from doing any work on the well until the litigation was concluded. In late 2024 the Watermaster Board directed its legal counsel to contact the Court where the litigation was being conducted to request that the well be repaired now, rather than waiting until after the litigation is completed. The Watermaster's legal counsel reported that the attorney representing the development project had contacted them once they were notified that this action was going to be taken. In November 2024 the Watermaster's legal counsel reported that it was their understanding that SNG is still working with Craig Evans Pump Testing Services to investigate the well and determine next steps. Counsel went on to say they were pressuring for more rapid action. As of the date of preparation of this Annual Report the matter was still being pursued, but the well remained unrepaired.

Basin Management Action Plan (BMAP)

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

The Watermaster's first BMAP was completed in 2009 and the Executive Summary from that BMAP was contained in Attachment 9 of the 2009 Annual Report. The BMAP was updated in 2019 and the Executive Summary from the updated BMAP was contained in Attachment 7 of the 2019 Annual Report. These complete documents are posted on the Watermaster's website.

In the 2024 Annual Report there is a discussion regarding the Natural Safe Yield (NSY) of the Basin, and whether the Watermaster should change to a different approach (Sustainable Yield) rather than continuing to use the Natural Safe Yield approach that was used in the Adjudication Decision, for basin management purposes. At its September 1, 2021 meeting the Watermaster Board discussed this topic, and concluded the following:

- Sustainable Yield (SY) is a technically superior Basin management approach compared to the Natural Safe Yield (NSY) approach used in the Decision, and an SY analysis should be performed at some point in time.
- Because of the historical over pumping from the Basin, regardless of the approach that is used for Basin management, be it NSY or SY, even reducing pumping levels to match either the NSY or SY pumping levels will not achieve protective groundwater elevations. This is because these approaches only seek to stabilize groundwater levels and do not take into account that the Basin would still be at risk of seawater intrusion at some time in the future. An additional source(s) of water (replenishment water) that can be injected into the Basin to raise groundwater levels, and to maintain them at protective water levels, will be necessary regardless of which approach is used for Basin management.
- In view of the expense and complexity of changing to the SY approach, the Board concluded that making this change would not be justified until a source for this replenishment water has been secured.

As discussed below in Section K under the subheading titled "*Obtaining Replenishment Water*" efforts are underway by the Watermaster to obtain replenishment water. At such time as a firm plan to accomplish this has been developed, the Watermaster will revisit the issue of changing to the Sustainable Yield approach.

Seawater Intrusion Response Plan

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

The Final SIRP was approved by the Watermaster Board in 2009 and a summary of the Seawater Intrusion Contingency Actions from the SIRP were contained in Attachment 10 of the 2009 Annual Report. The complete document may be viewed and downloaded from the Watermaster's website at: http://www.seasidebasinwatermaster.org/.

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.

Seawater Intrusion Analysis Report

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

The 2022 Annual Report included a discussion of two monitoring wells which have experienced increased chloride concentrations. One of these, monitoring well FO-10 Shallow, is north of and outside of the Seaside Basin, and the other, monitoring well FO-9 Shallow, was just inside the northern boundary of the Northern Coastal Subarea of the Seaside Basin. As reported in the 2023 Annual Report, the original monitoring well FO-9 Shallow was destroyed and was replaced with a new FO-9 Shallow monitoring well in late 2023. Also as reported in the 2023 Annual Report, further investigation of Well FO-10 Shallow led to the conclusion that it might be allowing leakage to occur from the shallower Aromas or Dunes Sands formation into the Paso Robles aquifer below. In late 2024 MCWD reported that it is installing additional monitoring wells (one of the projects in its GSP), and will also be video inspecting monitoring wells FO-10 and FO-11, in an effort to determine why higher chloride levels are being detected in the groundwater samples from the deep aquifer at this location.

The Watermaster retained Montgomery & Associates to prepare the WY 2024 SIAR required by the M&MP. The WY 2024 SIAR provided an analysis of data collected during that Water Year.

There continue to be ongoing detrimental groundwater conditions within the Basin that pose a potential threat of seawater intrusion. Although in recent years pumping from the Basin has been reduced to less than the Basin's Natural Safe Yield of 3,000 AFY, groundwater levels in some parts of the Basin continue to be below sea level. This, coupled with the ongoing seawater intrusion in the nearby Salinas Valley, suggests that seawater intrusion has the potential to occur in the Seaside Groundwater Basin. Induction logging in the Sentinel Wells near the coast are showing a trend toward increasing TDS in some of the upper portions of the Paso Robles aquifer. However, no data collected in Water Year (WY) 2024 indicate that seawater intrusion is occurring within the Seaside Groundwater Basin.

The SIAR is lengthy, but the full *Executive Summary Section* from it is provided in Attachment 7. A complete copy of the document is posted for viewing and downloading from the Watermaster's website. All of the recommendations contained in the SIAR are being or will be carried out and are included in the budgeted activities contained in Attachment 6 and described in Attachment 8.

Geochemical Impact Assessments

When new sources of water are introduced into an aquifer, with each source having its own unique water quality, there can be chemical reactions that may have the potential to release minerals into solution which have previously been attached to soil particles, such as arsenic or mercury, and thus into the water itself. This has been experienced in some other locations where changes in water quality occurred as a result of water being injected into an aquifer.

The 2022 Annual Report includes a discussion of geochemical impact assessments pertaining to the introduction of desalinated water, additional ASR water, and advanced wastewater treatment (AWT) water under the Pure Water Monterey Project (PWM).

In 2024 no additional geochemical impact assessments needed to be performed, since the desalination plant component of the Monterey Peninsula Water Supply Project was still in the process of complying with permit conditions necessary to move forward.

Sustainable Groundwater Management Act (SGMA)

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

At the State Level:

During 2024 DWR did not issue any new regulations, or revisions to prior regulations, that impacted the Seaside Groundwater Basin or the Watermaster. In March of 2024 the Watermaster submitted to DWR the reporting information required of it, as an adjudicated basin, under SGMA.

At the Monterey County level:

The 2022 Annual Report includes a discussion of the formation of the Groundwater Sustainability Agencies (GSAs) involved in the development and implementation of the GSP for the Monterey Subbasin. The Watermaster participated in the development of the Monterey Subbasin GSP and continued monitoring the implementation of that GSP in 2023. In late 2024 the Watermaster's request to the SVBGSA to become a member of the Monterey Subbasin GSP Implementation Committee was approved, and starting with the October 16, 2024 meeting of that Committee the Watermaster became an active member of it. The Watermaster also continued monitoring the implementation of the GSP for the 180/400-Foot Aquifer Subbasin GSP, since that subbasin has a direct impact on groundwater conditions in the Monterey Subbasin. Its participation as a member of the SVBGSA's Advisory Committee, and the MCWDGSA's Stakeholder Group, helps to ensure that there is close coordination between the SVBGSA, MCWDGSA, and the Watermaster on matters of mutual interest. Monthly summary reports of meetings of those groups are provided to the Watermaster's Technical Advisory Committee and Board by the Watermaster's Technical Program Manager.

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

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

Summary of Basin Conditions and Important Developments Concerning Management of Basin

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

In summary, the *2024 Seawater Intrusion Analysis Report*, which analyzes the water quality data collected under the Watermaster's sampling program, reported that while conditions exist within the Basin that pose a risk of seawater intrusion, none of the data collected in WY 2024 indicate that seawater intrusion has actually occurred.

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

As the Groundwater Sustainability Plans (GSPs) were developed under the State's Sustainable Groundwater Management Act (SGMA), the Watermaster became more aware of the impact of adjacent groundwater basins on the Seaside Groundwater Basin. In the context of the Salinas Valley Groundwater Basin, as recognized and defined by the DWR, each basin within that larger Basin is referred to as a "subbasin". Therefore, in this section of this Annual Report the Seaside Basin is referred to as the "Seaside Subbasin." The GSP for the Monterey Subbasin (which abuts the Seaside Subbasin to the north and east) made it clear that:

- The portion of the Monterey Subbasin to the east of the Seaside Subbasin (referred to as the Corral de Tierra/Toro Subarea) will not be able to achieve sustainability as defined under the SGMA without the importation of additional sources of water supply.
- The portion of the Monterey Subbasin to the north of the Seaside Subbasin (referred to as the Marina-Ord Subarea) will not be able to achieve sustainability unless the subarea immediately to the north (the 180/400-foot Aquifer Subbasin) raises its groundwater levels high enough to stop seawater from intruding that subbasin.
- There is significant loss of groundwater from the Seaside Subbasin to the Monterey Subbasin because the groundwater levels in the Monterey Subbasin are lower than those in the Seaside Subbasin.

During 2024 the SVBGSA obtained new and more accurate data on the stratigraphy of the Monterey Subbasin as it developed its Hydrogeologic Conceptual Model (HCM) for the Salinas Valley Basin. This data provided a better understanding of the hydrogeology of the Corral de Tierra/Toro Subarea, and will be useful in better understanding the hydrogeologic interactions between these parts of the Monterey Subbasin and the Seaside Subbasin.

Planned Near and Long-term Actions of the Watermaster

Near-term actions are described in the 2024 Monitoring and Management Program discussed in Section J and Attachment 8 of this Annual Report.

Near-term actions (to be carried out in 2025) include:

- Updating the Watermaster's Seaside Basin Groundwater Model
- Updating the Watermaster's Seawater Intrusion Response Plan

Long-term actions will include:

- Continuing to carry out the duties and responsibilities assigned to the Watermaster by the Decision
- Continuing to coordinate with the Monterey County Water Resources Agency, the SVBGSA, and the MCWDGSA:

- In their development of updated hydrogeologic models to ensure that there is hydrogeologic agreement between those models and the Watermaster' Seaside Basin model, and
- Continuing to coordinate with the SVBGSA to develop measures to aid in groundwater management of the Laguna Seca Subarea.

• Conducting meetings of the ad hoc "Replenishment Ad Hoc Committee" of the Watermaster Board to:

- Develop information about potential sources and quantities of replenishment water
- Identify potential funding mechanism options for the purchase of replenishment water

Information Concerning the Status of Regional Water Supply Issues

MPWSP

1. Implementation of the Monterey Peninsula Water Supply Project (MPWSP) continues to be actively pursued by CAWC. CAWC received approval of the project from the Coastal Commission in November 2022. The MPWSP 4.8 MGD desalination plant is currently anticipated to be operational in 2028.
2. The California Public Utilities Commission (CPUC) is in the process of deliberations on CAWC's request to update supply and demand estimates for the MPWSP. The CPUC extended the statutory deadline for completion of the proceeding until March 2025. Sometime thereafter the CPUC is expected to reach a decision on this matter.

PWM

1. Construction work on the Monterey One Water (M1W) and Marina Coast Water District (MCWD) Pure Water Monterey (PWM) recycled water project in Marina was completed in late 2019, and the Advanced Water Treatment (AWT) plant began producing water in early 2020. Water began being injected into the Seaside Groundwater Basin in February 2020. In WY 2024 a total of 3,676.03 acre-feet of water was injected. Of this amount, 3,356.96 acre-feet was available to CAWC for extraction and 319.07 acre-feet was added to the operating reserve. Cal Am only actually extracted 3,355 acre-feet.
2. On September 14, 2021 the State Division of Drinking Water (DDW) issued a letter to CAWC stating that "the drinking water source designation of ASR Well 01 (ASR-1) has been changed from active to inactive." DDW issued this letter because tracer studies indicated that the minimum retention time requirement for water injected by the PWM project was likely not being met for this well. That inactive status remains in effect today since no changes were made in the operation of the PWM project that would enable the status to revert to "active."
3. During WY 2023 CAWC continued to work on getting well ASR-4 permitted for use so it could be used in place of ASR-1 as a supply well. Because ASR-4 had been found to have a mercury concentration level above the drinking water standard, CAWC installed a mercury removal treatment unit so it could be permitted for use as a supply well. The Mercury Treatment system has been approved by DDW, California American Water is currently working on startup and commissioning of the well and treatment system.
4. CAWC is in the process of constructing EW-1 and EW-2 as part of the Pure Water Monterey Expansion Project. EW-1 has been drilled and EW-2 is under construction. These wells are anticipated to be complete and online in late 2025.

5.

Public Buyout of CAWC's Water System

- As discussed in the 2022 Annual Report, the Local Agency Formation Commission (LAFCO) passed a resolution denying MPWMD's application to activate its latent powers in order to acquire CAWC's Monterey Water System. MPWMD filed an Application for Reconsideration of LAFCO's disapproval, and LAFCO denied MPWMD's Application.
- MPWMD initiated litigation against LAFCO on April 1, 2022 as set forth in Monterey County Superior Court Case No. 22CV000925. Numerous filings were made by the parties involved in the litigation, and the case was heard in late September 2023. A "Statement of Intended Decision" was issued by the Court on October 25, 2023 which essentially ruled in favor of MPWMD and reversed LAFCO's earlier disapproval. LAFCO has appealed that decision, and Appeal briefings will be filed in coming months. A hearing schedule will be set in 2025. In addition, LAFCO has entered into an indemnification agreement with CAWC.
- At its meeting on October 10, 2023 the MPWMD Board voted to approve a "resolution of necessity" authorizing MPWMD to move ahead with the forced acquisition of the

  CAWC system and convert it to government ownership. On December 15, 2023 the MPWMD filed an eminent domain complaint in Monterey County Superior Court to first determine the District's "right to take" and then ultimately the value of CAWC, and to acquire it. As of the data of preparation of this Annual Report a trial date had not been set.
- On February 26, 2024, Cal Am filed a demurrer motion asking the Monterey County Superior Court to dismiss the MPWMD lawsuit seeking a government takeover of the company's Monterey Peninsula water system through eminent domain. The motion argues that the District's lawsuit fails to meet fundamental legal requirements necessary to proceed with such a significant action and should be dismissed. Cal Am's motion asserts that the District lacks legal authorization from both the California Legislature and the Monterey County LAFCO to become the retail water service provider on the Monterey Peninsula. In addition, CAWC asserts that the District's lawsuit improperly seeks to take property outside the boundaries of the District's territory.
- On August 25th, 2024 the Judge issued a tentative decision which could allow the MPWMD to continue their eminent domain takeover attempt. Although the Judge provided a tentative decision, prior facts presented by CAWC resulted in Judge Vallarta delaying a potential final decision until a hearing which was held on November 19. At that hearing (actually a case management conference) two milestones were established by the Judge:
  - Cal-Am's deadline to file an Answer to Demurrer will be December 13, 2024.
  - Given that the case is not at issue until the Answer is filed, a joint request was made that the Court set another case management conference, and it was set for March 4, 2025, at 9:30 a.m.

Management Activities that May Bear on the Basin's Wellbeing

1. *Water Conservation***.** From a water conservation standpoint, customers of CAWC are doing an exceptional job. CAWC's Monterey system has one of the highest levels of voluntary conservation in the state. There has essentially been no back-off in conservation following the end of mandatory conservation that occurred after the wet winter of 2016-2017.

2. *Storm Water and Recycled Water*. Storm water and recycled water are both components of the Pure Water Monterey (PWM) project that has been implemented by M1W and MCWD. CAWC has already contracted to receive 3,500 AFY of PWM recycled water for injection into, and recovery from, the Seaside Basin. As discussed above, M1W, in coordination with others, is pursuing the PWMX project to expand the delivery capacity of the PWM project by using additional sources of recycled water and storm water. Construction contracts for the initial components of the PWMX project were issued in late 2023 by M1W. The current schedule for that project indicates the project is expected to become operational in late 2025, and would deliver an additional 2,250 AFY of recycled water.

3. *Sustainable Groundwater Management Act*. Coordination between the Watermaster and the SVBGSA and the MCWDGSA is ongoing and is discussed in more detail above under Section J of this Annual Report. That coordination will aid in groundwater management of the Seaside Basin.

4. *Climate Change*. Higher seawater levels could exacerbate seawater intrusion concerns, which punctuates the importance of monitoring and long-term management to avoid seawater intrusion. From a water supply perspective, reliance on groundwater with sustainable

management is ideal because the resource is a reservoir and therefore not subject to sharp fluctuations in availability resulting from year-to-year precipitation amounts as is the case with surface water supplies. Updating of the Watermaster's *Groundwater Model* in 2018 (discussed in Section J of the 2018 Annual Report) and *Basin Management Action Plan* in 2019 (discussed in Section J of the 2019 Annual Report) incorporated projected impacts from climate change and sea level rise.

5. *New Technical Issues or Activities.*
Stormwater Projects Being Evaluated in the Monterey Peninsula Stormwater Resource Plan (SWRP). As reported in the 2018 Annual Report, Monterey One Water as the lead entity coordinated the development of a Stormwater Resource Plan (SWRP) for the Monterey Peninsula, Carmel Bay, and South Monterey Bay (Monterey Peninsula) Integrated Regional Water Management Plan (IRWMP) area.

Subsequently a Greater Monterey County SWRP (GMCSWRP) was prepared to cover a larger geographic area and fulfill the SWRCB's requirements for being eligible to receive grant funds for stormwater-related projects. The GMCSWRP was prepared by *Coastal Conservation and Research, Inc*. with funding support from a State Water Resources Control Board Proposition 1 Storm Water Planning Grant. *Coastal Conservation and Research* worked collaboratively with the Monterey Regional SWRP planning team to ensure consistency between the two plans and to explore possibilities for coordination and partnerships. The GMCSWRP can be accessed at *https://www.greatermontereyirwmp.org/wp-content/uploads/2023/02/Greater-Monterey-County-SWRP_Final-Plan_2023_01_20_low-res.pdf.*

One project described in the GMCSWRP pertinent to this Annual Report identifies an opportunity to capture stormwater and/or industrial wastewater from the City of Salinas that could be utilized as new water supply source for the PWM. This is referred to as the *Salinas Project to Enhance Regional Stormwater Supply (SPERSS) Design Project.* The City of Salinas provided this update on the SPERSS:

The SPERRS project is for the purpose of constructing stormwater improvements at existing facilities to increase water supply reliability and reduce nonpoint source pollution in the Salinas region and the Monterey Peninsula. Project tasks include:

Salinas Treatment Plant No. 1 (Phase 2A)

Plans are at 95% with an expected bid date in December 2024

- Trash capture device upstream of the Salinas Stormwater Pump Station.
- M1W assessed the integrity of an abandoned in place 33-inch pipeline which was previously used to convey industrial wastewater from the food processors in the City of Salinas to the Industrial Wastewater Treatment Facility, and submitted the necessary reports.
- Modifications to Existing Stormwater PS, 2-new flow meters to measure flows diverted to existing 33-inch pipeline and to existing 42-inch IWW pipeline; two (2) new diversion MHs.
- Pipeline to convey runoff from the existing stormwater pump station to a diversion manhole, valves and accessories and Electrical/Instrumentation work associated with Stormwater Diversion.

Industrial Wastewater Treatment Facility (Phase 2B)

Project bids were opened on October 15, 2024. Bids received were higher than available funds.

- New diversion structure.
- New influent pump station. – Three Submersible Pumps
- New Electrical Building to house all electrical/instrumentation components.
- New Emergency Generator
- Pipeline from the new influent pump station to the existing aeration lagoon.
- New Flow Meter
- Pipeline to divert excess flow from the new influent pump station to the existing emergency storage basin.
- Three vertical turbine pumps at the existing influent pump station to divert stormwater flow to Pond 1.
- Pipeline from existing influent pump station to the existing percolation Pond No. 1
- Site Improvements.

Phase 2A and 2B will be combined and a reduced scope developed to fit within the available funds. The combined project is expected to be bid in December.

A November 2024 article by Kevin Dayton in the *Salinas Valley Chamber of Commerce Business Journal* provided amplifying background information related to this topic:

- City of Salinas Industrial Wastewater to the Castroville Seawater Intrusion Project (2013) Established during World War II, the Salinas Industrial Wastewater conveyance and treatment system consists of wastewater pipelines in South Salinas that bring industrial processing wastewater (primarily "ag wash" from produce cleaning) to evaporation and percolation ponds near the Salinas River, at the intersection of Davis Road and Reservoir Road.

In the early 2010s, the City of Salinas was dealing with a volume of industrial wastewater inflows that threatened to exceed the regulatory capacity of the ponds. At the same time, the CSIP was short of irrigation water because of drought. The solution for both problems was to have the City of Salinas work with M1W and MCWRA to divert the industrial wastewater to M1W's Regional Treatment Plant. The industrial wastewater was treated and then used to provide additional water supply to the CSIP.

In 2013, M1W and the City of Salinas began trials for diverting industrial wastewater through the Salinas Pump Station to the Regional Treatment Plant. A permanent "shunt" at the Salinas Pump Station was completed in 2015 for this purpose. M1W is not conveying water to CSIP under the Pure Water Monterey program, it is conveying raw industrial wastewater and water from pond 3 of the Industrial Wastewater Treatment Plant to the M1W Regional Treatment Plant under separate short-term temporary agreements with the City of Salinas.

Infrastructure was completed in 2020 for the diversion of water from the Reclamation Ditch, Blanco Drain, urban stormwater from South Salinas, and pond 3 of the Industrial Wastewater Treatment Plant.

The Salinas River flooded in March 2023 and inundated the evaporation and percolation ponds of the Salinas River Industrial Wastewater Treatment Plant. M1W utilized the permanent diversion facility ("the shunt") built at the Salinas Pump Station

in 2015, which allowed the Salinas agricultural processing facilities to continue operating while the flooded ponds were unable to receive industrial wastewater flows. During the floods, silt from the river was deposited in the ponds and reduced their wastewater volume capacity. As a result, the City of Salinas has since struggled to comply with Central Coast Regional Water Quality Control Board regulations limiting the height of the water levels in the ponds.

From February 16 to April 21, 2024, M1W pumped excess pond 3 water to the M1W Regional Treatment Plant to help the City of Salinas keep its pond levels below regulatory limits. Blended with municipal wastewater, the excess pond 3 water was conveyed to the M1W Regional Treatment Plant and received primary and secondary treatment. M1W then released the treated wastewater into Monterey Bay via its ocean outfall.

In June 2024, the City of Salinas again asked M1W to help reduce pond levels by pumping wastewater from pond 3 to the Regional Treatment Plant. The City of Salinas would pay for conveying the pond 3 wastewater to the Regional Treatment Plant and would also pay the costs of treatment if the wastewater was ultimately sent to the ocean outfall. However, MCWRA would pay for treatment of any wastewater that originated from pond 3 and was recycled for the CSIP. The Pure Water Monterey program would pay for treatment of any wastewater that originated from pond 3 and was recycled for injection into the Seaside Groundwater Basin.

At its meeting on August 20, 2024, the Salinas City Council approved an agreement with M1W to temporarily divert wastewater from Pond 3 of the Salinas Industrial Wastewater Treatment Plant to the M1W Regional Treatment Plant.

- Regional Urban Water Program
  Under its 1989 annexation agreement with MCWD M1W provides recycled water for MCWD's Regional Urban Water Augmentation Program (RUWAP). RUWAP is intended to provide recycled water for landscape irrigation, including California State University Monterey Bay playing fields, and (as of 2023) the Bayonet and Blackhorse golf courses in the City of Seaside.

MCWRA Provided this Update on the Status of the Amended and Restated Water Recycling Agreement (ARWRA) with M1W:

> In June 2022 MCWRA notified M1W that the conditions precedent to share new source waters for PWM groundwater replenishment and the Castroville Seawater Intrusion Project (CSIP) could not be met and therefore the two agencies will split the source waters, as described in the ARWRA. The two agencies have been working on a long-term agreement between themselves and the City of Salinas, to utilize the Industrial Wastewater. The ARWRA states that MCWRA is the recipient of that water but also contemplates various ways for the parties to share resources when deemed excess or unwanted. Unfortunately, as of the date of preparation of this Annual Report an agreement on the terms has not been reached between the three parties. PWM continues to utilize a portion of the new source waters in addition to wastewater deemed excess, to continue to recycle water for groundwater replenishment in the Seaside Basin. Numerous parties are performing feasibility studies to determine if
>
> available water resources can be recycled or reused to balance the180/400 subbasin in the Salinas Valley. Those study results should be available in the next year.

Related to the City of Salinas's Industrial Wastewater Treatment Plant and Storm System, M1W provided this information about a recently started project under a grant from the State:

> The Central Coast Wetlands Group designed, and as of the date of preparation of this Annual Report was nearing completion of construction of, a small pilot wetland at the Industrial Wastewater Treatment Facility. This project is designed to determine if the wetland can help remove any nutrients that are present in the industrial wastewater or stormwater runoff sent to the Industrial Wastewater Treatment Facility. The wetland plants will be established, the system will be managed, and the results will be monitored, followed by a report on the results.

Some of the projects discussed in the 2018 SWMP have the potential to minimally benefit the Seaside Basin. These are described below.

City of Seaside: The Del Monte Manor project in the City of Seaside was completed in 2023. This project diverts portions of the stormwater that is captured in this area into an infiltration structure.

City of Sand City: The City of Sand City is currently designing the West End Stormwater Improvement Project on Contra Costa Street and Catalina Street. The Contra Costa Street portion is funded by a State Water Resources Control Board (SWRCB) Proposition 1 Stormwater Grant (technical assistance and implementation) and the Catalina Street portion is funded by a Department of Water Resources (DWR) Proposition 1 Integrated Regional Water Management Program (IRWMP) Grant. At the time of preparation of this 2024 Annual Report, both projects are in design with construction anticipated to begin in 2025.

Project Description
The West End Stormwater Improvement Project is a retrofit of two existing collector streets, Contra Costa Street and Catalina Street, to incorporate Low Impact Development (LID) best management practices (BMPs) to improve stormwater runoff quality, augment local groundwater supplies, mitigate flooding, provide urban green space, and reduce pollutant load discharges to the Monterey Bay National Marine Sanctuary. The Project proposes to install bioretention facilities (i.e., urban rain gardens), trash capture devices, permeable pavement, drought tolerant landscaping and trees, and subsurface infiltration chambers. The Project will construct new curb, gutter, sidewalks, curb extensions, crosswalks, and it will improve pedestrian access throughout the corridor. The Project will install traffic calming measures to improve safety for users.

Both Projects are designed to capture, treat, and infiltrate urban storm water runoff to reduce pollutants such as metals, bacteria, nutrients, and trash that are currently being discharged into the Monterey Bay. Both Projects will increase the reliability of the Seaside Groundwater Basin through infiltration of treated storm water and will incorporate City and regional objectives for economic vitality, community livability, and environmental equity. In addition, the Project will improve regional water self-reliance and strengthen collaborative efforts between local agencies to provide sustainable water resources. The city obtained community input regarding storm water management priorities which influenced the design of the Projects.

<u>City of Monterey:</u>
Oliver Street Stormwater Diversion Project
In October 2022, the City of Monterey received a $25,000 Local Agency MPWMD grant to help with the costs of survey work for the Olivier Street Stormwater Diversion
Project (previously known as the Tunnel Diversion Project). The Project will divert urban stormwater drainage from an existing storm drain, currently discharging untreated into
the Harbor/Monterey Bay, to an existing City sanitary sewer utility for treatment at M1W's Regional Wastewater Treatment Plant. This diversion is estimated to provide 10-12 acre-feet of dry-weather source water for water recycling at the time of year when source water is not abundant, and reduce the discharge into the Bay. The City is now coordinating with
MPWMD on an additional State funding award through MPWMD to assist with the design and construction of the project.

Lake El Estero Urban Diversion Project
The City of Monterey has received State funding for this project and is working on the design and environmental permitting for it. Currently, storm water that flows into Lake El Estero is periodically pumped into Monterey Bay to avoid flooding. This project will divert a portion of that pumped flow into the sanitary sewer for treatment at M1W's Regional Wastewater Treatment Plant.

These diversion projects will increase the amount of water that can be recycled for beneficial reuse.

6. *Reduction in Pumping in the Laguna Seca Subarea*
As mentioned in the 2022 Annual Report, in 2020 CAWC completed construction of an intertie pipeline that enabled it to serve the customers in its Bishop and Ryan Ranch Units in the Laguna Seca Subarea with water from its Main System. With the completion of this pipeline, CAWC has been able to discontinue pumping from the Laguna Seca Subarea to serve those customers. This is expected to reduce total pumping from the Laguna Seca Subarea by about 28%.

7. *Obtaining Replenishment Water.*

As described in Section J under the subheading "Basin Management Action Plan," and above in the subsection of this Section titled "Summary of Basin Conditions and Important Developments Concerning the Management of the Basin," portions of the Seaside Basin have groundwater levels below sea level. Therefore, even with the pumping reductions achieved to date the Basin will remain vulnerable to seawater intrusion. Replenishing the Basin by injecting water and leaving it in the Basin, rather than withdrawing it as is done in the ASR and PWM projects, could help to raise groundwater levels high enough to protect the Basin against seawater intrusion.

Potential sources of replenishment water include the MPWSP's desalination plant and the PWMX project during their initial years of operation when projected water demands will be less than the production capacities of either of these projects. The replenishment water would be obtained by operating either of these projects at their full capacities and injecting the excess water into the Basin. Doing this would increase the operational costs of those projects, and funds to cover those costs would be needed. Other potential sources being evaluated by MCWD include a Phase II PWM project to deliver recycled water to areas in the former Fort

Ord, MCWD's Reservation Road desalination project, and pumping groundwater from MCWD's wells for injection into the Seaside Basin.

As reported in the 2022 Annual Report, it was found that there are no State or Federal funding programs that could provide money to purchase replenishment water. All of those programs only provide funding for planning, design, and construction of projects, but not for operational costs once the projects are constructed. Discussions involving the Watermaster, MPWMD, M1W, and CAWC led to the conclusion that MPWMD had the legal authority to levy fees to help pay for replenishment of the Basin. In 2023 the Watermaster formed an ad hoc committee to develop concepts and/or funding mechanisms for replenishing the Seaside Basin, once replenishment water becomes available. On October 7, 2024 the ad hoc committee received a presentation from MCWD regarding the potential replenishment water sources described in the preceding paragraph. Meetings of that ad hoc committee were ongoing as of the date of preparation of this 2024 Annual Report.

Studies performed for the Watermaster in 2022 pertaining to the need for replenishment water to raise ground water levels in the Seaside Subbasin to protect it against seawater intrusion concluded:

- Under a "best case" scenario based on future water demand projections, Aquifer Storage and Recovery (ASR) injection rates, and Pure Water Monterey Expansion (PWMX) injection rates prepared by MPWMD, 1,000 acre-feet-per-year (AFY) of water would need to be injected into the Seaside Basin <u>every year</u> to replenish it and raise groundwater levels high enough to prevent seawater intrusion from occurring.
- Under a more "conservative" scenario based on future water demand projections and the timing of start-up of CAWC's desalination plant contained in CAWC's 2020 Urban Water Management Plan, ASR and PWMX injection rates with a built-in margin of safety, and revised water demands for the City of Seaside's golf courses proposed by Cal Am and the City of Seaside, the amount needed would be 3,600 AFY <u>every year</u>.
- Unless replenishment water in these quantities is added annually, the Seaside Basin will be at risk of seawater intrusion, and that risk will increase each year that groundwater levels continue to fall and remain below sea level.
- Implementation of the PWMX project alone does not accomplish this, and an additional source of replenishment water will be needed.

A summary of the Technical Memorandum describing the work that led to these conclusions was contained in Attachment 9 of the 2022 Annual Report.

As reported in the 2023 Annual Report, studies performed for the Watermaster pertaining to the directions and inland velocities that seawater intrusion into the Seaside Subbasin would move, if intrusion should occur, concluded:

- Under current conditions inland seawater intrusion encroachment of 250 ft/yr could occur.
- Periods of prolonged drought with no ASR injection increases inland travel rates and the risk of seawater intrusion.
- The number of critically dry rainfall years has greatly increased in the last 50 years compared to the prior 50 years of data. Critically dry years now exceed the number of "normal rainfall" years thus becoming the "new norm".

These studies highlight the vulnerability of the Seaside Subbasin to seawater intrusion, and the need for replenishment water to raise groundwater levels within the Seaside Subbasin to prevent that from occurring. A summary of this work was contained in Attachment 9 of the 2023 Annual Report.

The Watermaster considered performing additional analyses to reflect the impacts from more severe climatic conditions of reduced rainfall and longer periods of drought. However, it was concluded that such additional analyses would be unlikely to provide any further information that would be useful in Basin management. A Memorandum summarizing this work and the basis for not conducting additional analyses was contained in Attachment 10 of the 2023 Annual Report.

L. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. The FY 2025 budgets contained in Attachment 6 support carrying out all elements of the 2025 Seaside Groundwater Basin Monitoring and Management Program (M&MP). The M&MP is contained in Attachment 8 and describes the activities that the Watermaster plans to conduct during Fiscal Year 2025.

As described in Section J above, information from the Enhanced Monitoring Well Network is being utilized to detect seawater intrusion. The response actions described in the Watermaster's Seawater Intrusion Response Plan, which was contained in the 2009 Annual Report and which will be updated in 2025, will be implemented if seawater intrusion is detected within the Basin.

As of the date of preparation of this 2024 Annual Report, no future status conferences with the Court have been scheduled.

D-R-A-F-T
MINUTES

Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
November 13, 2024

Attendees: **TAC Members**
City of Seaside – Dan Meewis
California American Water – David Pezzini
City of Monterey – No Representative
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
MCWD – Patrick Breen

The meeting was convened at 1:35 p.m. by Ms. Shirley who Chaired the meeting as the Vice Chair, due to the absence of Mr. Lear, the Chair.

1. Public Comments
There were no public comments.

2. Administrative Matters:

A. Approve Minutes from the August 14, 2024 Meeting
On a motion by Mr. Pezzini, seconded by Mr. Gomez, the minutes were unanimously approved as presented.

B. Sustainable Groundwater Management Act (SGMA) Update
Ms. Shirley asked about the quantities of water expected to be produced by the seawater extraction barrier desalination plant, if that project is constructed. She also asked if the Seaside Basin would be able to purchase desalinated water from that plant. Mr. Jaques responded that if the plant were constructed large enough to meet the 180/400-Foot Aquifer Subbasin's GSP Seawater Intrusion Measurable Objective, it would need to extract about 100,000 AFY and the plant would be expected to produce about 70,000 AFY of desalinated water. Mr. Jaques said that some months ago he had requested that the Seaside Basin be included in the list of potential recipients of such water, but was told that the SVBGSA was only planning to provide desalinated water to entities within its jurisdictional boundaries. The Seaside Basin is not within those boundaries. Mr. Jaques went on to say that as this

project is further developed, if it is found to be financially and otherwise viable, the Watermaster should again make this request in a more formal manner.

Mr. Pezzini asked if the Watermaster would get a copy of the feasibility study for this project when it becomes available, and Mr. Jaques said he would obtain a copy.

3. Approve Initial RFSs for Montgomery & Associates, MPWMD, Martin Feeney, and Todd Groundwater for 2025

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

A motion was made by Mr. Pezzini, seconded by Ms. Woodrow, to approve all of these contracts and the motion passed unanimously.

4. Schedule

Mr. Jaques reported that there were no schedule updates from the prior schedule.

5. Other Business

There was no other business.

The meeting adjourned at 1:44 p.m.

SEASIDE GROUNDWATER BASIN WATERMASTER

Reported Quarterly and Annual Water Production From the Seaside Groundwater Basin
For All Producers Included in the Seaside Basin Adjudication – Water Year 2024
(All Values in Acre-Feet [AF])

ITEM XI.B.

1/8/2025

	Type	Oct	Nov	Dec	Oct-Dec	Jan	Feb	Mar	Jan-Mar	Apr	May	Jun	Apr-Jun	Jul	Aug	Sep	Jul-Sep	Reported Total	Yield Allocation	from WY 2023	for WY 2024
Coastal Subareas																		1,542.95			
CAW - Coastal Subareas	SPA	586.52	463.84	422.73	1,473.09	294.27	414.00	356.34	1,064.60	369.67	521.64	236.01	1,127.31	427.04	428.59	377.31	1,232.94	*4,897.94*	1,466.03	759.43	2,225.46
Lutern		46.27	50.24	52.84	149.35	13.56	0.00	0.00	13.56	0.00	55.40	1.87	57.27	37.97	55.86	27.25	121.08	341.26			
Ord Grove		129.21	126.13	127.82	383.16	46.36	126.05	136.00	308.42	131.59	134.68	30.08	296.34	117.73	132.57	129.26	379.55	1,367.47			
Paraita		173.67	140.09	132.23	445.99	107.38	98.65	104.25	310.28	142.43	175.96	106.12	424.51	135.02	135.65	115.07	385.74	1,566.52			
Playa		42.56	29.37	0.75	72.68	11.29	37.66	10.45	59.40	0.00	5.34	0.00	5.34	16.29	0.00	0.19	16.48	153.90			
Plumas		25.54	13.55	0.00	39.10	6.96	25.98	6.95	39.90	0.00	9.35	0.00	9.35	13.16	0.00	0.21	13.37	101.72			
Santa Margarita		169.27	104.45	109.09	382.81	108.71	125.66	98.68	333.05	95.65	140.91	97.94	334.50	106.87	104.51	105.33	316.71	1,367.07			
ASR Recovery		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PWM Recovery		(254.47)	(304.91)	(392.62)	(952.00)	(269.57)	(380.44)	(324.46)	(974.48)	(339.41)	(300.00)	(61.33)	(700.75)	(164.23)	(250.21)	(313.33)	(727.77)	*(3,354.99)*			
Seaside Municipal	SPA	16.88	12.91	11.01	40.81	11.40	11.67	13.12	36.19	13.96	16.47	15.47	45.90	15.92	16.04	14.95	46.91	169.81	120.28	31.15	151.43
Inlieu Extraction		0.00	0.00	0.00	0.00				0.00				0.00				0.00	0.00			
Granite Rock Company	SPA	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	0.00	11.35	267.49	278.84
DBO Development No. 30	SPA	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	0.00	20.59	477.26	497.85
Calabrese (Cypress Pacific Inv.)	SPA	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	0.00	2.76	14.87	17.63
City of Seaside (Golf Courses)	APA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	540.00		540.00
Sand City	APA	0.07	0.07	0.07	0.21	0.00	0.00	0.03	0.04	0.06	0.09	0.09	0.24	0.09	0.11	0.08	0.29	0.77	9.00		9.00
SNG (Security National Guaranty) /	APA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00		90.00
MLDC (Mountain Lake Dev. Corp.)	APA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.00		59.00
Calabrese (Cypress Pacific Inv.)	APA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00		6.00
Mission Memorial (Alderwoods)	APA	4.22	2.93	2.54	9.69	1.07	1.16	1.77	4.00	2.84	3.51	2.98	9.33	1.26	2.95	2.09	6.30	29.32	31.00		31.00
Coastal Subareas Totals					571.79				130.36				482.04				558.66	1,742.85	2,356.01	1,550.20	3,906.21
Laguna Seca Subarea																					
CAW - Laguna Seca Subarea	SPA	12.84	11.46	9.93	34.23	8.24	7.73	8.65	24.62	8.40	10.97	13.57	32.94	15.09	16.47	13.78	45.34	137.13	0.00		0.00
Ryan Ranch Unit	06/21/21: Ryan Ranch Wells #7, #8, and #11 physically disconnected from the distribution system.								0.00				0.00				0.00	0.00			
Hidden Hills Unit/Bay Ridge		12.84	11.46	9.93	34.23	8.24	7.73	8.65	24.62	8.40	10.97	13.57	32.94	15.09	16.47	13.78	45.34	137.13			
Bishop Unit 3	05/27/21: Bishop Wells #1 and #3 physically disconnected from the distribution system.								0.00				0.00				0.00	0.00			
Bishop Unit 1	The Monterey Main to Ryan Ranch & Bishop Intertie was opened on 12/08/20								0.00				0.00				0.00	0.00			
The Club at Pasadera	APA	6.00	8.00	5.00	19.00	0.00	0.00	0.00	0.00	19.00	30.00	34.00	83.00	43.00	36.00	46.00	125.00	227.00	251.00		251.00
Laguna Seca Golf Resort (Bishop)	APA	20.66	3.29	1.54	25.49	0.00	0.00	0.00	0.00	21.27	26.26	31.30	78.84	37.02	31.79	42.43	111.24	215.57	320.00		320.00
York School	APA	2.25	0.16	0.47	2.88	0.01	0.02	0.41	0.44	0.92	0.93	1.03	2.87	1.47	0.93	1.15	3.56	9.75	32.00		32.00
Laguna Seca County Park	APA	1.13	0.28	0.24	1.65	1.51	0.91	1.23	3.65	1.71	1.69	1.80	5.20	4.87	2.02	0.64	7.54	18.04	41.00		41.00
Laguna Seca Subarea Totals					83.25				28.71				202.85				292.68	607.49	644.00	0.00	644.00
Total Production by WM Producers					655.04				159.07				684.89				851.34	2,350.34	3,000.01	1,550.20	4,550.21
									Annual Production from APA Producers									500.45			1,379.00
									Annual Production from SPA Producers									1,849.89			3,171.21

CAW / MPWMD ASR (Carmel River Basin source water)																			*Previous Balance*	*Total*
Injection		0.00	0.00	0.00	0.00	88.49	389.66	319.39	797.54	357.35	363.65	0.00	721.00	0.00	0.00	0.00	0.00	1,518.54		
(Recovery)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Net ASR		0.00	0.00	0.00	0.00	88.49	389.66	319.39	797.54	357.35	363.65	0.00	721.00	0.00	0.00	0.00	0.00	1,518.54	1,722.90	3,241.44
Pure Water Monterey (PWM) Injection and Cal-Am Recovery																				
	Forward																		*Previous Balance*	*Total*
Injection Operating Reserve	1,870.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.26	232.81	319.07	0.00	0.00	0.00	0.00	2,189.19		
Injection Drought Reserve		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Delivery to Basin (Injection)		254.47	304.91	406.95	966.33	435.09	341.41	390.67	1167.18	314.17	267.78	232.81	814.76	164.23	250.21	313.33	727.77	3,676.03		
CAW		(254.47)	(304.91)	(392.62)	(952.01)	(269.57)	(380.44)	(324.46)	(974.48)	(339.41)	(300.00)	(61.33)	(700.75)	(164.23)	(250.21)	(313.33)	(727.77)	(3,355.00)		
																		321.03	836.5	1,157.48
	Balance Forward																			
City of Seaside Golf Course Recycled Water Use/Municipal Potable Water Recovery: 2.361AF Max																			*Previous Balance*	*Total*
In-lieu Storage/Recycled Water Use	365.03	35.76	12.61	6.55	54.93	2.26	0.38	13.63	16.27	27.00	52.31	57.22	136.54	78.41	56.23	50.43	185.08	757.85		
City of Seaside Municipal Extraction		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Net In-lieu					54.93				16.27	27.00	52.31	57.22	136.54	78.41	56.23	50.43	185.08	757.85	365.0	1122.88

Notes:

1. The Water Year (WY) begins October 1 and ends September 30 of the following calendar year. For example, WY 2024 begins on October 1, 2023, and ends on September 30, 2024.
2. "Type" refers to water right as described in Seaside Basin Adjudication decision as amended, signed February 9, 2007 (Monterey County Superior Court Case No. M66343).
3. Values shown in the table are based on reports to the Watermaster received by October 15, 2024.
4. All values are rounded to the nearest hundredth of an acre-foot. Where required, reported data were converted to acre-feet utilizing the relationships: 325,851 gallons = 43,560 cubic feet = 1 acre-foot.
5. "Base Operating Yield Allocation" values are based on Seaside Basin Adjudication decision. These values are consistent with the *Watermaster Producer Allocations Water Year 2024* (see Item VII.F. in 1/3/2024 Board packet).
6. Any minor discrepancies in totals are attributable to rounding.
7. APA = Alternative Producer Allocation; SPA = Standard Producer Allocation; CAW = California American Water.
8. It should be noted that CAW/MPWMD ASR "Injection" and "Recovery" amounts are not expected to "balance" within each Water Year. This is due to the injection recovery "rules" that are part of SWRCB water rights permits and/or separate agreements with state and federal resources agencies that are associated with the water rights permits.
9. Cal-Am Toro Well #3 Destroyed 09/30/21

SUMMARY OF PURE WATER MONTEREY, AND SALINAS VALLEY AND MARINA COAST WATER DISTRICT GROUNDWATER SUSTAINABILITY AGENCY ZOOM MEETINGS IN SEPTEMBER 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, September 5, 2024:
The agenda materials for this meeting were similar to those from other meetings that I attended, so I did not attend this meeting.

SVBGSA Groundwater Technical Advisory Committee Meeting, September 18, 2024:
There were two agenda items of interest to the Watermaster. One was a further update on the Hydrogeologic Conceptual Model (HCM) by Montgomery & Associates and the other was an update on the Salinas Valley Integrated Hydrogeologic Model (SVIHM) by the United States Geological Survey.

The HCM update at this meeting focused on basins not adjacent to the Seaside Basin, but in the presentation it was reported that the depths and extents of some of the Salinas Valley aquifers and aquicludes were considerably different than previously understood. This may change the groundwater modeling projections in those portions of the Salinas Valley Basin.

The SVIHM update was to report on progress by the USGS in completing the development and calibration of this model, which covers a very large area. It extends throughout the entire Salinas Valley Basin and beyond. The completed model is expected to become available either late this year or early next year. The findings from it will be incorporated into the HCM.

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

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

SVBGSA/MCWDGSA Steering Committee Meeting, October 10, 2024:

The purpose of this Committee is for the two GSAs to coordinate their activities, share data, and keep each other abreast of progress on actions being taken.

At this meeting there was discussion of the ongoing work to refine and improve calibration of the Seawater Intrusion Model. Its simulated seawater intrusion front contours were compared to the measured seawater intrusion front contours prepared by the MCWRA. The simulations approximate the locations of the MCWRA contours, but work is still in progress for the model to more closely predict the measured contours. The model predicts that by the year 2070, if no projects are implemented to slow or halt seawater intrusion, the intrusion front will have advanced clear into the City of Salinas.

MCWD described its indirect potable reuse project, which is one of the projects in the Monterey Subbasin GSP. The feasibility study of this project is underway. Work has progressed to the point that the location of the injection well and the two monitoring wells have been defined. The project will operate similarly to the Pure Water Monterey Project, by taking approximately 827 AFY of reclaimed water from the PWM Advanced Water Treatment Plant, injecting it into the aquifer via a 1,000 GPM injection well at a depth of approximately 1,300 feet, and having the water withdrawn by existing MCWD production wells that are some distance away from the injection location. The travel time in the aquifer from the time of injection to the time of extraction will be quite long (on the order of decades), much longer than the underground retention time required by State regulations. .

MCWD is also installing additional monitoring wells (another of the projects in its GSP), and will also be videoing existing monitoring wells FO-10 and FO-11, both of which have been monitored under the Watermaster's monitoring network. FO-10 Deep was believed to be experiencing cross-aquifer contamination from a shallow aquifer to a deeper aquifer. Presumably the videoing of it may provide an explanation for the higher chloride levels being detected in the groundwater samples from the deep aquifer.

Monterey Subbasin GSP Implementation Committee Meeting, October 16, 2024:

At its October 10, 2024 meeting the SVBGSA Board adopted revisions to its membership requirements for its subbasin implementation committees that allow the membership to include representatives of adjacent basins, including adjudicated basins. At that same meeting the Board approved me for membership on the Monterey Subbasin GSP Implementation Committee, so this was my first Committee meeting as a member, not just as an attendee as has been the case in the past. As a Committee member, I need to participate in the entire meetings, even when there are issues that are not of direct concern to the Watermaster.

In addition to myself, members of this Committee include representatives from the Marina Coast water District; residents of Marina, San Benancio, and Corral de Tierra; a representative from the SVBGSA

Board of Directors; California Water Services; and the League of Women's Voters. Some of the residential representatives are growers and others are homeowners.

- Patrick Breen of Marina Coast water District was reelected as the Chair, Jeff Hibino was elected as the Vice Chair, Robert Long was elected as the Advisory Committee representative with Beverly Bean as his alternate.
- They will be, or are already are, putting in some additional monitoring wells in the Corral de Tierra area. At least one of these is going to be, or is, adjacent to the boundary between the Laguna Seca subarea and the Corral de Tierra management area.
- A new Monterey County ordinance has been adopted which will require well registration of all wells, including the small producers which are designated as "deminimis" wells meaning they produce less than 2 acre-feet per year. The deminimis wells may be exempt from metering requirements.
- They will be looking for opportunities to reduce water usage in residential units by such things as improved irrigation practices, installation of low-flow water fixtures etc.
- They will initially focus on the "low hanging fruit" such as demand management, decentralized storm water capture and reuse, supply from the 180/400 foot seawater intrusion extraction barrier desalination plant, voluntary efficiency programs, and land use actions such as a landscape ordinance and zoning changes. Demand management is currently being evaluated on a basin-wide basis, not specifically just for the Monterey subbasin. In that evaluation they are focusing on approaches other than just water allocations.
- Montgomery and Associates does not see any way to achieve sustainability in the Corral e Tierra area without reducing water extraction, i.e. demand management. The larger more effective projects will be very expensive and some are all proved to be infeasible.
- California American Water got a bad rap from one member who reported a very unsatisfactory experience in terms of response when he called in to report a water leak in the Corral de Tierra area.
- The State has recently developed "water use objectives" that could be applied in the Corral de Tierra area if the SGMA allows that. For example daily residential water usage caps.
- There was likely discussion about the voluntary efficiency programs for residences-what they would consist of, how they would be carried out, and how effective they would be.
- I reported I will be recommending to our Board to update our groundwater model in 2025 so it will coordinate well with the Monterey subbasin model that has been developed by EKI. I also asked them to add the Seaside Basin Watermaster to their list of partner agencies that they will coordinate with. (Given all of our interactions on groundwater matters with the SVBGSA over the past several years, I thought it was strange that the Watermaster was not currently on that list.)

Water Quality and Operations Committee Meeting, October 23, 2024:

Information provided at this meeting included:

- As of 10/22/24 the PWM Project had injected 920 AF this year and the amount of water in the Operating Reserve was 2,189 AF.
- The underground retention time requirement of a minimum of 4 months was met at all times. The recent retention times ranged from 5.7 to 7.9 months.
- With regard to water quality there were some minor sampling/analysis variances, but all water quality requirements including the log reduction requirements were met at all times.
- MCWD will be increasing the number of sites which will be served with reclaimed water for irrigation, rather than using potable water.
- Construction of Cal Am's Extraction Wells No. 1 and 2 is in progress. These will increase the extraction capacity to match the increase in water injected from the PWMX Project.

- There is no change to the schedule for construction of the PWMX Project. It is still scheduled to be completed in late 2025.

SUMMARY OF PURE WATER MONTEREY, AND SALINAS VALLEY AND MARINA COAST WATER DISTRICT GROUNDWATER SUSTAINABILITY AGENCY ZOOM MEETINGS IN NOVEMBER 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, November 21, 2024:
They did not have a quorum, but proceeded with a discussion of the non-action informational item. A presentation was made by Duncan MacEwan of ERA Economics (SVBGSA's Demand Management consultant) on demand management concepts and the "Planning for Uncertainty" public workshops they will be (or are already) holding on demand management.

- They will conduct an economic analysis of the demand management alternatives
- They will quantify costs and benefits of the alternatives
- Alternatives they have identified are:
    - Land repurposing
    - Reduced pumping (voluntary)
    - Irrigation and production practices
    - Urban (M&I) conservation
    - Rotational fallowing (voluntary)
    - Fallow bank (voluntary)
    - Alternative crops Land retirement (voluntary)
    - Recycled water Tiered fees
    - Education /Water use data
    - Other?
- They described case studies they had done of some of these alternatives that are being implemented in other GSAs
    - Madera County GSA: Voluntary Land Repurposing Program
        - Voluntary Fallow Banking
    - Napa Valley Subbasin GSA: Groundwater Pumping Reduction (GPR) Program
        - Reduced pumping (voluntary)
        - Irrigation and production practices
        - Urban (M&I) conservation
        - Recycled water
        - Education
        - Water use data
    - Madera County GSA: Multibenefit Land Repurposing Program (MLRP)
        - Land repurposing
        - Irrigation and production practices
        - Alternative crops
    - Vina Subbasin GSA: Extend Orchard Replacement Program (EORP)
        - Rotational fallowing (voluntary)
- They described some Pricing Examples in use in other GSAs
    - Colusa Subbasin – GSP development included an evaluation of incentives to switch from groundwater to surface water in selected areas. Included potential for informal market
    - PV Water – Recharge Net Metering Program with an Incentive-driven rebate program

- Sonoma – GSP fees set based on estimated water use. There were issues with fairness, and with effectiveness of price to reduce demand
- Their next steps will be to begin the economic analysis:
  - Develop baseline economic data
  - Outreach
  - Continue to support discussion for demand management options

There were numerous questions from Committee members and members of the public about how these programs are funded, incentives, feasibility, practicality, etc.