SEASIDE GROUNDWATER BASIN WATERMASTER
REGULAR MEETING OF THE BOARD OF DIRECTORS

AGENDA

Wednesday, December 7, 2022 – 2:00pm
IN-PERSON
(Temperature taken and sign-in required at entry)
Monterey One Water Board Room
5 Harris Court, Building "D", Ryan Ranch, Monterey, California

Watermaster Board
Coastal Subarea Landowner – Director Paul Bruno
City of Seaside – Mayor Ian Oglesby
California American Water – Director Christopher Cook
City of Sand City – Mayor Mary Ann Carbone
Monterey Peninsula Water Management District (MPWMD) – Director George Riley
Laguna Seca Subarea Landowner – Director Wesley Leith
City of Monterey – Mayor Clyde Roberson
City of Del Rey Oaks – Councilmember John Gaglioti
Monterey County/Monterey County Water Resources Agency – Supervisor Wendy Root Askew, District 4

I. CALL TO ORDER

II. ROLL CALL

III. PUBLIC COMMUNICATIONS

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

IV. REVIEW OF AGENDA

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).

V. ORAL PRESENTATION – None

VI. CONSENT CALENDAR

A. Minutes of Regular Board meeting held October 5, 2022 3
B. Board and TAC schedule of meetings for 2022 7
C. Summary of Payments made September through October 2022 totaling **$30,365.20** 9
D. Fiscal Year 2022 Financial Reports through October 31, 2022 11
E. Professional Service Contracts for Fiscal Year 2023: 17
1. Two Contracts with Montgomery & Associates, Inc. — one for $22,744 for providing ongoing and as-requested general hydrogeologic consulting services during the year and the second for $27,176 to prepare the Seawater Intrusion Analysis Report (SIAR) for 2023

2. Two Contracts with Martin Feeney— one for $11,013.30 to perform induction logging of the Sentinel Wells in 2023 and one for $4,000 to provide on-call/as-requested hydrogeologic consulting services
3. One Contract with Todd Groundwater—for $4,000 to provide on-call/as-needed hydrogeologic consulting services
4. One Contract with MPWMD—for $64,297 to perform monitoring and other work on the Seaside Groundwater Basin Monitoring and Management Program (M&MP) for 2023

F. Water Year 2023 Declaration of Unavailability of Artificial Replenishment Water (Water Year 2023 Production Allocations and Basin Storage Allocations attached) 57

G. Seawater Intrusion Analysis Report for 2022. The Executive Summary is included in the Board agenda packet. The complete SIAR is posted on the Watermaster website at https://www.seasidebasinwatermaster.org/Other/2022%20SIAR%20Final%2011-19-22.pdf and https://www.seasidebasinwatermaster.org/Other/2022%20SIAR%20Appendices%2011-8-22.pdf.. 61

VII. NEW BUSINESS

A. Discuss/Consider Approving Water Year 2022 Watermaster Annual Report. The body of the Draft 2022 Annual Report is included in the Board agenda packet. The complete Draft version is posted at https://www.seasidebasinwatermaster.org/Other/2022%20Annual%20Report%20Draft%2011-20-22.pdf..... 69

B. Discuss/Consider Policy on Watermaster Voting Positions and Weighted Voting..... 97

VIII. OLD BUSINESS – None

IX. INFORMATIONAL REPORTS (No Action Required)

A. Technical Advisory Committee (TAC) draft meeting minutes November 16, 2022 103

B. Watermaster report of production of the Seaside Basin through Water Year 2022 (October 1, 2021 – September 30, 2022)..... 107

C. Replenishment Fund Assessment calculations and 2022 Standard Producer Assessments 109

D. Watermaster correspondence to California Coastal Commission dated October 14, 2022..... 111

E. CAW Technical Memorandum dated November 1, 2022 by consultant WSC in response to MPWMD correspondence to Watermaster dated September 29, 2022 113

F. Watermaster correspondence to Calif. Department of Water Resources October 17, 2022..... 123

G. Director Riley email correspondence to Chair Bruno dated November 15, 2022 125

H. Director Riley strategic issues special meeting request..... 129

X. DIRECTOR'S REPORTS

XI. STAFF COMMENTS

XII. CLOSED SESSION

A. Personnel Matter: Evaluation of Legal Counsel

XIII. NEXT REGULAR MEETING DATE

A. Consider setting the next regular meeting date for **January 4, 2023 - 2:00 P.M.**

XIV. ADJOURNMENT

This agenda was forwarded via e-mail to the City Clerks of Seaside, Monterey, Sand City and Del Rey Oaks; the Clerk of the Monterey Board of Supervisors, the Clerk to the Monterey Peninsula Water Management District; the Clerk at the Monterey County Water Resources Agency, Monterey One Water and the California American Water Company for posting on November 30, 2022 per the Ralph M. Brown Act, Government Code Section 54954.2(a).

SEASIDE GROUNDWATER BASIN WATERMASTER
REGULAR MEETING MINUTES
Wednesday, October 5, 2022 Via Zoom Teleconference

I. CALL TO ORDER – Director Bruno called the meeting to order at 2:00pm

II. ROLL CALL

Coastal Subarea Landowner – Director Paul Bruno – Chair
City of Seaside – Mayor Ian Oglesby
City of Sand City – Mayor Mary Ann Carbone
Laguna Seca Subarea Landowner – Director Wesley Leith
California American Water (CAW) – Director Christopher Cook
Monterey Peninsula Water Management District (MPWMD) – Director George Riley
City of Del Rey Oaks – Council Member John Gaglioti
Monterey County/Monterey County Water Resources Agency – Supervisor Wendy Root Askew

Absent: City of Monterey – Council Member Dan Albert – Vice Chair

Others Present:
Robert Jaques, Watermaster Technical Program Manager (TPM)
Laura Paxton, Watermaster Administrative Officer (AO)
Michael Paxton, Assistant AO
Alvin Edwards, Chair, MPWMD Board of Directors
Jonathan Lear, MPWMD
Maureen Hamilton, MPWMD
Aiko Yamakawa, Attorney, CAW
Pascual Benito, Montgomery & Associates
Alison Imamura, Monterey One Water

III. PUBLIC COMMUNICATIONS – There were no public communications.

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

V. ORAL PRESENTATION – None

VI. CONSENT CALENDAR

A. Consider Approving Minutes of Regular Board meeting held September 7, 2022
B. Consider Approving Summary of Payments made May through August 2022
C. Consider Approving Fiscal Year 2022 Financial Reports through August 31, 2022

Chair Bruno requested "President Bruno" on page 6 be changed to "Chair Bruno." Supervisor Askew requested verbiage be added that Director Riley, after the vote [to deny The Club at Pasadera relief from overproduction assessment], asked for the weighted calculation to be provided. To satisfy Director Riley's request, the motion [in the minutes] reflects the vote results with the designated weight of each board member as per the Decision.

It was moved by Director Riley and seconded by Mayor Oglesby to approve the consent calendar with the noted change/addition to the September 7, 2022 minutes. Director Bruno – Aye; Mayor Oglesby – Aye; Director Cook – Aye; Councilmember Gaglioti – Aye; Mayor Carbone – Aye; Director Riley – Aye; Director Leith – Aye; Supervisor Askew - Aye. Motion carried.

Director Riley requested that staff review the Decision and the Watermaster Rules and Regulations with regard to a board member calling for a weighted vote and include as an agenda item at the next meeting.

VII. NEW BUSINESS

A. Consider Approving Fiscal Year (January–December) 2023 Annual Budgets:
1. Administrative Budget
2. Monitoring and Management Program (M&MP) and M&MP Operations and Capital Budgets

AO Paxton and TPM Jaques highlighted their transmittals on the proposed 2023 budgets.

It was moved by Director Riley and seconded by Council Member Gaglioti to approve Fiscal Year 2023 Annual Administrative, M&MP Operations, and M&MP Capital Budgets as presented. Mayor Oglesby – Aye; Director Cook – Aye; Councilmember Gaglioti – Aye; Mayor Carbone – Aye; Director Riley – Aye; Supervisor Askew - Aye. Motion carried.

(Per the Decision, landowner representatives do not participate in budget approval voting.)
The 2024 M&MP Operations Budget and Capital Budget and the 2023 Replenishment Fund Budget are informational and no action is required.

B. Consider Approving the Proposed 2023 Replenishment Assessment Unit Costs for Natural Safe Yield and Operating Yield Overproduction

Ms. Paxton gave highlights from the transmittal. Director Gaglioti inquired whether the $3,486 per acre foot amount for Pure Water Monterey (PWM) & its Expansion included conveyance costs or only production and generation costs; questioning if the projects would bear the costs of conveyance if the desalination plant that has those costs factored in is not built. Director Cook responded yes, if the desalination plant is not built the Expansion Project would have conveyance costs added to its operational per acre foot cost. He noted that the $3,486 per acre foot is the current base PWM project cost; an estimated cost for the Expansion Project is not currently available. Council Member Gaglioti suggested that the Expansion Project have the potential conveyance cost footnoted in the 2023 Unit Cost chart.

Director Riley did not agree with the unit cost formula. He requested the board schedule a full discussion of the matter – how it was created, what elements are in it now, and what the math means. Supervisor Askew supported a better understanding of and options for formula methodology. Chair Bruno and Council Member Gaglioti noted that by end of year there may be an entirely different suite of projects being considered. Council Member Gaglioti agreed to participate at a January meeting on the matter even though his term on the Watermaster Board as Del Rey Oaks representative ends December 31st. Chair Bruno directed Ms. Paxton to convene a Budget & Finance Committee meeting in early January 2023 for a full discussion.

Moved by Council Member Gaglioti and seconded by Director Riley to approve the 2023 Replenishment Assessment unit cost of $3,461/AF and $865/AF for Natural Safe Yield and Operating Yield Overproduction, respectively. Director Bruno – Aye; Director Cook – Aye; Council Member Gaglioti – Aye; Mayor Carbone – Aye; Mayor Oglesby – Aye; Supervisor Askew – Aye; Director Riley – Aye; Director Leith – Aye. Motion carried.

VIII. OLD BUSINESS

A. TECHNICAL ADVISORY COMMITTEE (TAC)
Results from Flow Direction/Flow Velocity Modeling and Recommend Additional Analysis

TPM Jaques gave highlights from his transmittal. Pascual Benito, Ph.D., Senior Hydrogeologist, Montgomery and Associates provided information and graphics excerpted from the Flow Direction/Flow Velocity Modeling Technical Memorandum that describe its findings and conclusions. The full document is available on the Watermaster's website. Dr. Benito presented slides.

TPM Jaques noted that hydrology is a major factor in flow velocity – the more extended dry weather periods there are, the less replenishment water is available for injection, resulting in a greater risk of seawater intrusion. Carmel River hydrology over the 100 years ending in 2001, and over the 50 years also ending in 2001, showed that the predominant level of rainfall was "Normal." However, over the most recent 50 years ending in 2021, the predominant level of rainfall was "Critically Dry." Further analysis using more conservative assumptions rather than best-case assumptions would "bookend" the range of situations the basin could encounter.

Directors expressed appreciation for Dr. Benito's refinement of the modeling from that presented to the Watermaster TAC. Council Member Gaglioti further appreciated that the modeling showed solidly that the Basin and the suite of projects intended to meet demand are all critically impacted by climate change. The Basin cannot withstand seawater intrusion without being provided replenishment water. The PWM, PWMX, and ASR projects all provide water that is normally pumped back out and do not provide the needed amount of replenishment water. The projects being presented to elected officials by MPWMD as being the answer to Peninsula water supply/demand does not take into account climate change and its deleterious impact to the Basin. Watermaster needs to sound the alarm through public outreach that MPWMD-touted water supply projects (dependent on the health of the Basin for storage and permit-required retention of injected water) are heavily dependent on wet weather to remain viable, weather that has been shown to be trending predominantly toward drought.

TPM Jaques stated placing the new FO-09 well in the same general area as the destroyed one would fill an area data gap and maintain a continuous data record. Director Cook inquired if there were monitoring wells in the lower Paso Robles aquifer in the area per the model of potential rapid seawater intrusion. Jon Lear, MPWMD responded that the PCA east and west wells are completed in both the shallow and the deep aquifers, and Sentinel Well #4 has a long screen over the entirety of strata with resistivity induction logging as a proxy for water quality sampling. Mayor Carbone requested more clarity in understanding the particle paths on the left of Slide No. 12 which shows Layer 4 – Lower Paso Robles-Max Inland Velocity, with the particles travelling inland during drought years and reversing direction during wetter years.

It was noted that the location of the seawater/freshwater interface, whether offshore or beneath the shoreline, was not known. Airborne electromagnetic analysis by Department of Water Resources in the next several months may help to provide some information on the interface location.

Director Riley requested Watermaster staff confer with Dr. Benito to determine the validity of the CAW Urban Water Management Plan (UWMP) showing 400AF of demand related to firefighting, and whether changing this quantity would make a difference in the results. Dr. Benito noted that the MPWMD assumptions were used for this modeling, not the CAW Urban Water Management Plan assumptions, so the 400AF would have no bearing on the modeling results.

Council Member Gaglioti took exception to the MPWMD General Manager publicly objecting to Watermaster using CAW UWMP assumptions in replenishment needs modeling, and his claiming that the UWMP numbers used were wrong. He felt Watermaster should write a letter documenting the facts that counter MPWMD's accusation. Mr. Jaques suggested Watermaster wait for CAW's upcoming clarification statement regarding the UWMP 400AF for firefighting prior to responding to MPWMD. Mayor Oglesby felt no other agency should be making definitive statements on Watermaster matters, and

supported Council Member Gaglioti's request that Watermaster send a letter responding to MPWMD's misleading claims.

The Board concurred with the TAC recommendation to perform additional analyses using more conservative hydrology.

To clarify for Supervisor Askew, Director Gaglioti pointed out the purpose of modeling was to understand how the Basin responds to certain environmental conditions; further analyses would take into consideration the "new normal" hydrology based on the most recent 50 years of predominantly dry years. Director Riley added that the Basin is a storage vessel and it is threatened by seawater intrusion; the Watermaster Public Awareness Committee will use modeling results for a basis to inform the public (including elected officials) of the threats to the basin.

It was moved by Director Riley and seconded by Director Gaglioti to accept the flow direction/flow velocity Technical Memorandum of February 25, 2022 as a preliminary evaluation of how potential seawater intrusion would move in the Seaside Basin, and staff bring back additional Information. Director Bruno – Aye; Director Cook – Aye; Council Member Gaglioti – Aye; Mayor Carbone – Aye; Director Riley – Aye; Mayor Oglesby – Aye; Supervisor Askew – Aye. Motion carried.

IX. INFORMATIONAL REPORTS (No Action Required)

B. Technical Advisory Committee (TAC) draft meeting minutes August 10, 2022

C. Watermaster Report of Production of the Seaside third quarter Water Year 2022 (April 1, 2022 – June 30, 3022)

D. MPWMD Correspondence to Watermaster Chair dated September 29, 2022 Re: August 5, 2022 Draft Technical Memorandum – Hybrid Water Budget Analyses of Basin Replenishment Options and Alternate Assumptions

X. DIRECTOR'S REPORTS – Director Riley requested a closed session be included on the next meeting agenda to review the Watermaster legal services contract.

Director Riley requested an item on the January 2023 board meeting agenda to schedule a strategic or goals workshop to cover six to eight issues for discussion related to orientation and succession planning.

Director Riley reported on the October 3, 2022 MPWMD Water Supply Planning Committee meeting he attended, stating he voted to support a policy statement opposing CAW's Desalination Plant in favor of supply projects now/soon available. Director Cook reported an update just issued to desalination plant plans, now with a phased-in approach starting at 4.8MGD instead of 6.4MGD, and addressing slant wells and timing of need.

Director Bruno will host a Watermaster Christmas party at his home on December 15th at 6:00 p.m.

XI. STAFF COMMENTS – There are no items of urgency for the November meeting; it most likely will be cancelled.

XII. NEXT REGULAR MEETING DATE - November 2, 2022 / December 7, 2022 - 2:00 p.m.

XIII. ADJOURNMENT – There being no further business, the meeting was adjourned at 4:11 p.m.

SEASIDE GROUNDWATER BASIN
WATERMASTER

2023
SCHEDULE OF REGULAR MEETINGS

	BOARD	TAC
JANUARY	**4**	**11**
FEBRUARY	**1**	**8**
MARCH	**1**	**8**
APRIL	**5**	**12**
MAY	**3**	**10**
JUNE	**7**	**14**
JULY	**5**	**12**
AUGUST	**2**	**9**
SEPTEMBER	**6**	**13**
OCTOBER	**4**	**NONE**
NOVEMBER	**1**	**8**
DECEMBER	**6**	**13**

									ITEM VI.C.
SEASIDE GROUNDWATER BASIN WATERMASTER									**12/7/22**
TO:	Board of Directors								
FROM:	Laura Paxton, AO								
DATE:	December 7, 2022								
SUBJECT:	Summary of Payments made from September through October 2022								
RECOMMENDATIONS:									
Consider approving payment of bills submitted and authorized to be paid September - October 2022									
Summary of Payments Made September 2022									
Chris Campbell, Baker Manock & Jensen (WM Legal Counsel)						2.7	$200/hr		540.00
						4.6	$300/hr		1,380.00
							Telephone & postage		19.20
May 2 through May 31, 2022								**$**	**1,939.20**
Review agenda packet; prepare for/discussion Misson Memorial Park (MMP) over pumping allocation; attend a portion of Watermaster board meeting concerning MMA over pumping and other items; prep with Paxton for the MMP excess water usage discussion; prep legal opinion and changes to WM Rules and Regulations; Zoom meting with Paxon, Jaques, and Cook concerning no supplemental water supply.									
Paxton Associates (Administrative Officer (AO))									
August 26 through September 25, 2022						42.5		**$**	**4,675.00**
Responded to telephone inquiries, e-mail, and other correspondence as needed regarding the Seaside Basin; prep for/attend 9/7 Board mtg; review Jaques invoice; process invoices to Seaside; arrange/prep for/attend 9/18 Budget/Finance mtg; review 3D model; meet w/Coleman of Pasadera; confer with Jaques about various issues; collect/follow up/post production and level reporting; draft 10/5 board mtg agenda & prep transmittals; begin 9/7 board mtg minutes. Routinely picked up mail from PO Box; reconciled accounts to the City of Seaside Watermaster accounts; prepared financial reports; processed invoices; reviewed and posted items to web site.									
Robert Jaques (Technical Program Manager)									
September 1 through September 31, 2022						49		**$**	**7,350.00**
Responded to emails, telephone inquiries, and other correspondence on a variety of Watermaster issues; prep for/attend 9/7 WM board mtg; prep for/attend 9/19 B&F Com mtg; begin preparing 2022 Annual Report; attend 9/21 PWM quality/ops mtg; finish and send out M&A RFS No. 2022-05; send info to Army Corps of Engineers re: replacement for well FO-9 Shallow on Army property; prep for/attend for Regional Water Forum Meeting 9/20 via Zoom; prep condensed Tech Memo covering replenishment water analyses per request of P. Bruno; discuss Watermaster issues w/ L. Paxton; prep/send letter to Nisha Patel requesting City of Seaside permission to install replacement for well FO-9 Shallow on City property; review original FO-9 well easement document from Army Corps of Engineers; meet w/ G. Riley to answer his questions re: Watermaster issues and history; review Board agenda packet and send corrections to L. Paxton; review agenda for 10/3 MPWMD Water Supply Planning Committee meeting; review/approve L. Paxton invoice									
					Total for September 2022			**$**	**13,964.20**

Summary of Payments Made August 2022			
Paxton Associates (Administrative Officer (AO))			
September 26, 2022 through October 25, 2022	40		**$ 4,400.00**
Responded to telephone inquiries, e-mail, and other correspondence as needed regarding the Seaside Basin; review 3D progress/slides; prep minutes of 9/7 board mtg; draft agenda for 10/5 board mtg/transmittals/assemble pkt & distribute; confer w/ Jaques; arrange M1W board room for 12/7 WM board mtg; draft 12/7 board mtg agenda w/closed session research; list end of year WM tasks; SNG well repair status; review TAC mtg minutes; 3D model cone of depression/groundwater movement; format/send letter to Coastal Commission; format/send letter to DWR; prep 10/5 WM board mtg minutes; routinely picked up mail from PO Box; reconciled accounts to the City of Seaside Watermaster accounts; prepared financial reports; processed invoices; reviewed and posted items to web site.			
Robert Jaques (Technical Program Manager)			
October 1 through October 31, 2022	40		**$ 6,000.00**
Responded to emails, telephone inquiries, and other correspondence on a variety of Watermaster issues; prep for/attend 10/5 WM board mtg; prep TAC agenda pkt; prepare 2022 Annual Report; prepare monthly meetings summary; prepare 2023 consultant contracts; discuss WM issues w/ L. Paxton; send AEM email to Katherine @ DWR; prepare replenishment water tech memo summary document; research PWM cost data for L. Paxton; field meeting w/N. Patel to look at potential sites for FO-9 replacement well; telecon w/Ed Ghandour re: SNG well issues; prepare PWMX support letter for P. Bruno to sign; review recent MPWMD meeting agendas and minutes; teleconference re: ASR-1 well issues & prepare meeting notes; coordinate meeting at Ord Village Pump Station Sentinel Well #4 w/MCWD & M. Feeney; field meeting @ Sentinel Well #4 re: pump station demolition project; email J. Poudrette @ State Parks to confirm future access to Sentinel Well #4; participate in SVBGSA Demand Management Zoom Workshop; review/approve L. Paxton invoice.			
Montgomery & Associates (Technical Consultant)	1.0	$220/hr	220.00
September 1 through September 30, 2022	25.5	$198/hr	5,049.00
RFS 2022-01, General Hydrogeologic Consulting			**$ 5,269.00**
Professional services: check in with B. Jaques on planned work through the end of the year; prepare map of draft AEM flight lines and email out to B. Jaques; prepare revised Hybrid Analyses of Replenishment Options tech memo text, figures, and conclusions; prepare combined conclusions summary; complete memo text, figure, and conclusions incorporating unconfined aquifers broken out into Aromas and Shallow Aquifer; develop draft combined memos intro and conclusions doc and prepare clean board drafts; update presentation slides with revised figures and updated conclusions; and respond to request from B. Jaques for preparing self-contained replenishment modeling figures spreadsheets.			
RFS 2022-04, Additional Hybrid Analyses of Replenishment	1.5	$228/hr	342.00
	6.0	$65/hr	390.00
			$ 732.00
			$ 6,001.00
Professional services: review Executive Summary tech memo; combine PDF and QC; and conduct editorial and formatting review of Executive Summary and tech memos.			
Total for October 2022			**$ 16,401.00**
Grand Total September - October 2022			**$ 30,365.20**

Seaside Groundwater Basin Watermaster

Budget vs. Actual Administrative Fund

Fiscal Year (January 1 - December 31, 2022)
Balance through October 31, 2022

	2022 Adopted Budget	Contract Amount		Year to Date Revenue / Expenses
Available Balances & Assessments				
Other Assessments	-			8,500.00
FY (Rollover)	34,500.00			52,000.00
Admin Assessments	65,500.00			65,500.00
Available	**100,000.00**			**126,000.00**
Expenses				
Contract Staff	55,000.00	55,000.00		45,147.50
PAC / 3D Basin Modeling		8,000.00	*	6,675.50
Legal counsel	20,000.00	20,000.00		8,283.10
Filing fees and postage				-
Total Expenses	**75,000.00**	**83,000.00**		**60,106.10**
Total Available	25,000.00			
Dedicated Reserve	25,000.00			17,000.00
Net Available	**-**			**48,893.90**

**Transfer of $3,000 from Admin Reserve to Contract Staff for Basin 3D modeling approved at 5/4/2022 board meeting*

**RFS 2022-03 with Montgomery & Associates for $5,000 transferred from Admin Reserve to PAC draft presentation and l modeling review approved at 5/4/2022 board meeting*

Seaside Groundwater Basin Watermaster

Budget vs. Actual Monitoring & Management - Operations Fund

Fiscal Year (January 1 - December 31, 2022)

Balance through October 31, 2022

	2022 Adopted Budget	Contract Encumbrance	Year to Date Revenue/Expenses
Available Balances & Assessments			
Operations Fund Assessment	$ 232,878.00	$ -	$ 232,878.00
Pass Through		-	3,342.00
FY 2021 Rollover	38,000.00	-	50,950.00
Total Available	**$ 270,878.00**	**$ -**	**$ 287,170.00**
Appropriations & Expenses			
GENERAL			
Technical Project Manager*	$ 75,000.00	$ 75,000.00	$ 58,125.00
Contingency @ 10% (not including TPM)	17,807.00	-	
Total General	**$ 92,807.00**	**$ 75,000.00**	**$ 58,125.00**
CONSULTANTS (Montgomery; Web Site Database)			
Program Administration	$ 21,940.00	$ 92,731.00	$ 72,386.00
Production/Lvl/Qlty Monitoring	2,400.00		
Basin Management	30,000.00		
Seawater Intrusion Analysis Report	26,290.00	26,290.00	-
Total Consultants	**$ 80,630.00**	**$ 119,021.00**	**$ 72,386.00**
MPWMD			
Production/Lvl/Qlty Monitoring	$ 68,876.00	68,876.00	6,524.00
Pass Through 2021		-	5,304.00
Basin Management	-		-
Seawater Intrusion	-	-	-
Direct Costs	-	-	-
Total MPWMD	**$ 68,876.00**	**$ 68,876.00**	**$ 11,828.00**
CONTRACTOR (Martin Feeney)			
Hydrogeologic Consulting Services	$ 4,000.00	4,000.00	-
Production/Lvl/Qlty Monitoring	20,565.00	20,565.00	9,251.37
	$ 24,565.00	**$ 24,565.00**	**$ 9,251.37**
CONTRACTOR (Todd Groundwater)			
Hydrogeologic Consulting Services	**$ 4,000.00**	**$ 4,000.00**	-
Total Appropriations & Expenses	**$ 270,878.00**	**$ 291,462.00**	**$ 151,590.37**
Total Available	**-**		**135,579.63**

Seaside Groundwater Basin Watermaster
Budget vs. Actual Monitoring and Management - Capital Fund
Fiscal Year (January 1 - December 31, 2022)
Balance through October 31, 2022

	2022 Adopted Budget	Contract Encumbrance	Year to Date Revenue / Expense
Available Balances and Assessments:			
Monitoring & Management Fund - Capital	$ 66,667		$ 66,667
FY 2007-2014 Rollover to 2015	-		-
Transfer out to Operations Fund	-		-
Subtotal	66,667		66,667
Appropriations & Expenses:			
Professional Services			
Project Management	-	-	-
Subtotal	-	-	
Direct Costs			
Well Drilling -	-	-	-
Subtotal	-	-	-
Total Appropriations and Expenses	$ -	$ -	$ -
Total Available	**$ 66,667.00**		**$ 66,667.00**

Seaside Groundwater Basin Watermaster — VI.D

Replenishment Fund — 12/7/22

Water Year 2022 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2022) —

Balance through October 31, 2022

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)**

** 2010 = 319.55 AF golf course in-lieu replenishment and 68.8 AF 4-party agmt in-lieu replenishment*
2011 = 411.1 AF golf course in-lieu replenishment
2012 = 298.2 AF golf course in-lieu replenishment
2013 = 383.4 AF golf course in-lieu replenishment
2014 = 552.4 AF golf course in-lieu capped at 540 AF
2015 = 195.0 AF golf course in-lieu
2016 = 00.06 AF golf course in-lieu
2017 = 00.00 AF golf course in-lieu

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Seaside Groundwater Basin Watermaster
Replenishment Fund
Water Year 2022 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2022)
Balance through October 31, 2022

Replenishment Fund		2017	2018	2019	2020	WY 2021	WY 2022	Totals WY 2006 Through 2022	Budget WY 2023	Projected Totals Through WY 2023
Assessment Water Year		WY 16/17	WY 17/18	WY 18/19	WY 19/20	WY 20/21	WY 21/22		WY 22/23	
Unit Cost:	a	$2,872 / $718	$2,872 / $718	$2,872 / $718	$2,872 / $718	$2,947 / $737	$3,260/ $815		$3,461/ $865	
Cal-Am Water Balance Forward	b	**$ (676,704)**	**$ (491,747)**	**$ (48,797,949)**	**$ (47,979,852)**	**$ (46,855,121)**	**$ (46,855,121)**		**$ (46,855,121)**	
Cal-Am Water Production (AF)	c	*2,029.51*	*2,229.45*	*2,120.22*	*2,245.88*	*1,664.04*	*1,648.71*	*47,689.74*		
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	$ 100,000	$ 33,650,034
Operating Yield Overproduction Replenishment	f				$ 164,872	$ -	$ -	$ 1,122,753	$ 20,000	$ 1,142,753
Total California American	g	**$ 184,957**	**$ 1,075,995**	**$ 818,097**	**$ 1,124,731**	**$ -**	**$ -**	**$ 34,672,786**	**$ 120,000**	**$ 34,792,786**
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)***	***$ (46,735,121)***	***$ (46,735,121)***
City of Seaside Balance Forward	j	**$ (3,232,420)**	**$ (3,142,500)**	**$ (3,022,249)**	**$ (2,919,806)**	**$ (2,802,831)**	**$ (2,708,829)**		**$ (2,661,184)**	
City of Seaside Municipal Production (AF)	k	*188.31*	*184.63*	*178.40*	*181.65*	*174.69*	*155.12*	*3,888.95*		
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	$ 2,898,358	$ 100,000	$ 2,998,358
Operating Yield Overproduction Replenishment	n	$ 2,409	$ 27,026	$ 22,550	$ 24,886	$ 18,806	$ 9,529	$ 203,263	$ 10,000	$ 213,263
Total Municipal	o	$ 89,920	$ 120,251	$ 102,443	$ 116,975	$ 94,002	$ 47,645	$ 3,101,621	$ 110,000	$ 3,211,621
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**	**$ 3,353,380**	**$ 110,000**	**$ 3,463,380**
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)***	***$ (2,551,184)***	***$ (2,551,184)***
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	$ 2,402	$ 14,028		$ 14,028
Board Approved (5/4/22) Credit Against Assessment						(33,114)	-	$ (33,114)		$ (33,114)
Mission Memorial Park Unpaid Balance	aa	$ -		$ -	$ -	***$ -***	$ -	$ -	$ -	$ -
Total	o	$ -	$ -	$ -	$ -	***$ 25,000.00***	***$ 12,010***	$ 37,010	***$ -***	$ 37,010
Total Replenishment Fund Balance	bb	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,658)**	**$ (49,657,952)**	**$ (49,563,950)**	**$ (49,516,305)**	**$ (49,479,295)**	**$ (49,286,305)**	**$ (49,286,305)**
Replenishment Fund Balance Forward	cc	**$ (3,909,125)**	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,658)**	**$ (49,657,952)**	**$ (49,563,950)**		**$ (49,504,295)**	
Total Replenishment Assessments	dd	$ 274,877	$ 1,196,246	$ 920,540	$ 1,241,706	$ 119,002	$ 59,655	$ 38,152,063	$ 230,000	**$ 38,382,063**
Total Paid and/or Credited	ee		$ (49,382,196)			$ (25,000)	$ -	$ (87,656,358)	$ 12,010	**$ (87,644,348)**
Grand Total Fund Balance	ff	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,658)**	**$ (49,657,952)**	**$ (49,563,950)**	**$ (49,504,295)**	**$ (49,504,295)**	**$ (49,262,285)**	**$ (49,262,285)**

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: December 7, 2022

SUBJECT: Consider Approving the following Professional Service Contracts for Fiscal Year 2023:

1. Two Contracts with Montgomery & Associates, Inc. — one for $22,744 for providing ongoing and as-requested general hydrogeologic consulting services during the year and the second for $27,176 to prepare the Seawater Intrusion Analysis Report (SIAR) for 2023
2. Two Contracts with Martin Feeney— one for $11,013.30 to perform induction logging of the Sentinel Wells in 2023 and one for $4,000 to provide on-call/as-requested hydrogeologic consulting services
3. One Contract with Todd Groundwater—for $4,000 to provide on-call/as-needed hydrogeologic consulting services
4. One Contract with MPWMD—for $64,297 to perform monitoring and other work on the Seaside Groundwater Basin Monitoring and Management Program (M&MP) for 2023

- -

RECOMMENDATIONS:

It is recommended that the Board approve the attached RFSs No. 2023-01 and 2023-02 with Montgomery & Associates, RFSs No. 2023-01 and 2023-02 with Martin Feeney, RFS No. 2023-01 with Todd Groundwater, and SOW 2023-01 with MPWMD.

BACKGROUND:

Attached are the proposed initial contracts for each of the Watermaster's consultants that are expected to work on M&MP activities during 2023. With the exception of MPWMD, each of these are currently working under a master form of agreement with the Watermaster called a "Professional Services Agreement" (PSA). Actual work assignments are made through the issuance of Requests for Service (RFS) under the umbrella language of the PSA. For MPWMD there is a Master Agreement and actual work assignments are made through the issuance of "Scopes of Work" (SOW) under the umbrella language of the Master Agreement.

DISCUSSION

The attached RFSs and the one SOW constitute the proposed initial 2023 work assignments for each of these consultants as follows:

- Montgomery & Associates RFS No. 2023-01 covering their providing general hydrogeologic consulting services and for providing assistance in preparing documents that the Watermaster will need to submit to fulfill its reporting requirements under the Sustainable Groundwater Management Act.
- Montgomery & Associates RFS No. 2023-02 covering their preparing the 2023 SIAR.
- MPWMD SOW No. 2023-01 covering their anticipated 2023 M&MP tasks, and covering their obtaining water quality and water level data from private producers who ask the Watermaster collect this data for them. The costs for the latter work are reimbursed by the private producers, and there is no net cost to the Watermaster for performing that work. During 2023 there may be some minor adjustments in the work since the replacement well for Monitoring Well FO-9 Shallow will hopefully be completed in mid- to late-2023 and could at that point begin being monitored by MPWMD. There may also be some minor adjustments as Marina Coast Water

District (MCWD) begins getting involved in acquiring data and information it needs to carry out its GSP for the Marina-Ord portion of the Monterey Subbasin. My efforts to this point have been to ask them to contract directly with MPWMD to provide them the information they need, and for the Watermaster to thereby not be involved in those costs. MCWD has also said it would like to cost-share with the Watermaster in acquiring water level and water quality data for wells that the Watermaster currently monitors, but which are within the boundaries of the Monterey Subbasin, not the Seaside Subbasin. These are wells FO-10S, FO-10D, CDM MW-1, and Sentinel Wells 1 and 2. If we are able to share with MCWD in the costs for monitoring these wells, there will be a modest cost-savings to the Watermaster.

- Martin Feeney RFS No. 2023-01 covering his performing induction logging of certain of the Watermaster's monitoring wells and providing that data as well as water level data to MPWMD and Montgomery & Associates. This work also includes performing some maintenance on the Sentinel Wells.
- Martin Feeney RFS No. 2023-02 covering his providing general hydrogeologic consulting services.
- Todd Groundwater RFS No. 2023-01 covering their providing general hydrogeologic consulting services.

These consultants have reviewed the cost and scope details of these proposed contracts and their input has been included in the attached versions of the contracts. The contracts were reviewed by the TAC at its November 16, 2022 meeting and the TAC recommended that each of the contracts be approved.

If geochemical modeling needs to be performed on Cal Am's desalination plant water in 2023, and if that indicates the need to develop mitigation measures for possible adverse impacts from introducing non-native water into the Basin, I will develop an additional RFS for Montgomery & Associates during 2023 to use the Seaside Basin Groundwater Model to provide information to MPWMD's consultant (Pueblo Water Resources) to use in performing that geochemical modeling to develop such mitigation measures. Funds for this additional RFS have been included in the M&MP Operations Budget for 2023. When and if drafted, the RFS would come to the TAC for approval before going to the Board.

These contracts are being presented to the Board for approval at today's meeting to ensure the contacts will be in effect by the start of 2023. All of these costs are included in the Budgets that the Board approved at its October 5, 2022 meeting, and the work covered by these contracts is essentially the same as the work performed for the Watermaster by these consultants in prior years.

ATTACHMENTS:

Six Proposed Consultant Contracts for FY 2023:
2 RFSs – Montgomery & Associates
2 RFSs – Martin Feeney
1 RFS – Todd Groundwater
1 SOW - MPWMD

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2023

RFS NO. 2023-01
(To be filled in by WATERMASTER)

TO: Cameron Tana
Montgomery & Associates
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: General hydrogeologic consulting and document preparation services. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2023, and shall be performed in accordance with the Schedule contained in Attachment 2.

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

Total Price Authorized by this RFS: $ 22,744.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by: _____ Date: _____
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK

On an ongoing and as-requested basis, PROFESSIONAL will provide general hydrogeologic consulting services to WATERMASTER on a variety of topics. These may include, but not be limited to interpretation of water level and water quality data collected by WATERMASTER, BMAP and SIRP implementation issues, and preparation of documents for WATERMASTER's use in fulfilling its Sustainable Groundwater Management Act reporting requirements.

Providing these services will likely involve attending certain of WATERMASTER's Technical Advisory Committee (TAC) meetings, most of which will be attended remotely. These TAC meetings do not include special TAC or other meetings which may be required as part of performing other work which may be authorized under other RFSs issued to PROFESSIONAL by WATERMASTER. Any such other scope and cost proposals will incorporate costs for those meetings.

The Tasks in WATERMASTER's 2023 Monitoring and Management Program (M&MP) to which this RFS No. 2023-01 pertains are:

M. 1. c & M.1. d - Preparation and Attendance of Meetings
M. 1. e - Peer Review of Documents and Reports
M.1.g – Sustainable Groundwater Management Act Documentation Preparation

ESTIMATED COSTS

Tasks M.1.c, M.1.d, and M.1.e: General Consulting Services will consist of working on these Tasks and attending some TAC and other meetings either remotely or in-person in Monterey, as requested by WATERMASTER.

$20,280 in labor, travel, and incidental costs of this RFS No. 2023-01 are allocated to performing work on these Tasks.

Task M.1.g: Section 10720.8 of the Sustainable Groundwater Management Act (SGMA) requires adjudicated basins to submit annual reports. Most of the documentation that needs to be reported is already generated by the WATERMASTER in conjunction with preparing its own Annual Reports. However, information regarding changes in basin storage is not currently generated. PROFESSIONAL will provide an estimate of the change in basin storage under this RFS No. 2023-01.

$2,464 in labor costs of this RFS No. 2023-01 are allocated to performing work for Task M.1.g.

All work under this RFS No. 2023-01 will be billed at the following hourly rates, including all markups and other direct costs:

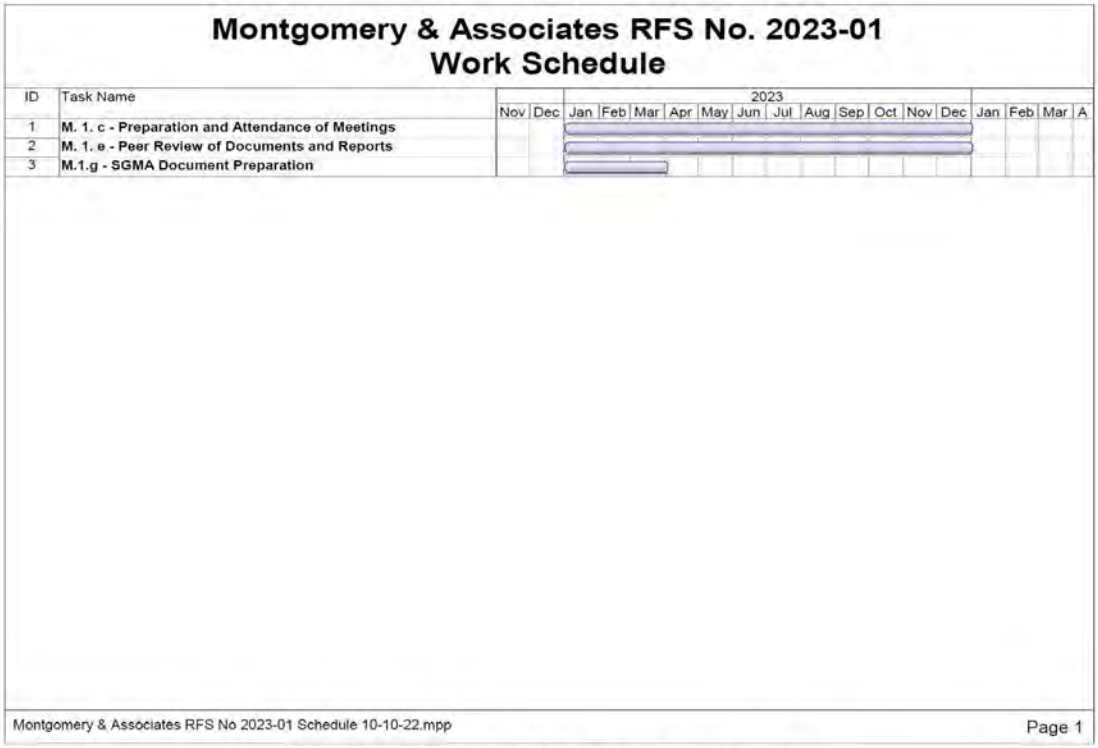
Derrik Williams = $275.00/hour Georgina King = $228.00/hour Staff = $160.00/hour

The total cost authorized by this RFS No. 2023-01 is $22,744.00.

These costs are summarized in the table below.

Task	Hours			Costs		
	Derrik Williams $275/hr	Georgina King $228/hr	Staff $160/hr	Consulting Fees	Expenses	Total Costs
Prepare 2023 Change in Storage Calculation per SGMA Requirements	0	8	4	$2,464	$0	$2,464
General Consulting	24	60	0	$20,280	$0	$20,280
TOTALS	**24**	**68**	**4**	**$22,744**	**$0**	**$22,744**

ATTACHMENT 2
SCHEDULE



SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: 1/1/2023

RFS NO. 2023-02
(To be filled in by WATERMASTER)

TO: Cameron Tana
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: Prepare the Seawater Intrusion Analysis Report for 2023. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2023, and shall be performed in accordance with the Schedule contained in Attachment 2.

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

Total Price Authorized by this RFS: $ 27,176.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 3 for Detailed Breakdown of Estimated Costs).

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

Requested by: _____ Date: _____
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK

The scope consists of providing professional consulting services to WATERMASTER for preparation of the 2023 Seawater Intrusion Analysis Report (SIAR).

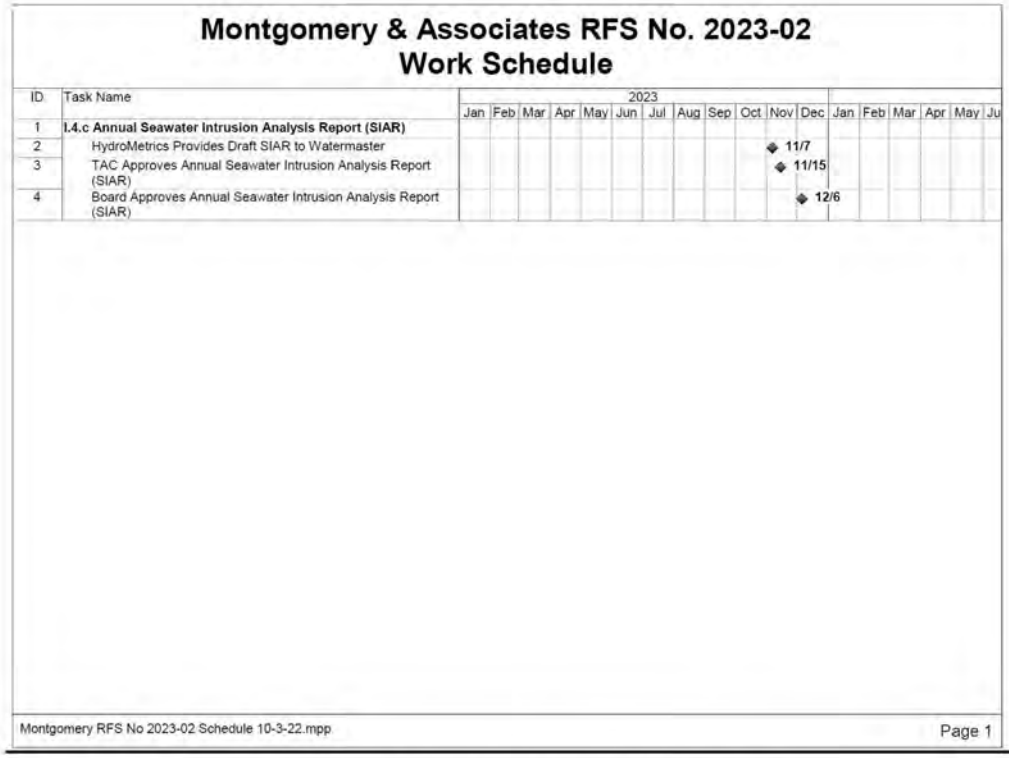
To promote efficiency, much of the text and graphics from the 2022 SIAR will be incorporated directly into the 2023 SIAR.

Preparing the 2023 SIAR will involve analyzing all water quality data at the end of Water Year 2023 (October 1, 2022 to September 30, 2023) and producing semi-annual (2^{nd} and 4^{th} quarters 2023) chloride concentration maps for each aquifer in the Basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. Second and fourth quarter groundwater elevation maps will also be produced. The annual EM logs will be analyzed to identify changes in seawater wedge locations. A determination of whether there is any evidence of seawater intrusion will be made, and recommendations will be included as warranted.

Water level and water quality data for WY 2023 will be provided to PROFESSIONAL in MS Access format. PROFESSIONAL will put this data into a report format and will include it as an attachment to the 2023 SIAR.

A Draft 2023 SIAR will be provided to WATERMASTER in electronic (not printed) form for review. WATERMASTER will provide its review comments and those of its TAC members through direct discussions with PROFESSIONAL at a TAC meeting which PROFESSIONAL will attend remotely via teleconference or Zoom. In addition to these oral comments, some TAC members may also provide recommended editorial changes electronically directly to PROFESSIONAL. These comments will be addressed in a Final 2023 SIAR. PROFESSIONAL will also present the Final version of the SIAR to the Board at a meeting which PROFESSIONAL will attend remotely via teleconference or Zoom. A CD containing an electronic version of the entire Final 2023 SIAR in MS Word will be provided to WATERMASTER. No printed copies of the 2023 SIAR will be required.

ATTACHMENT 2



ATTACHMENT 3

DETAILED BREAKDOWN OF ESTIMATED COSTS

Note: Regardless of the use of the term "Estimated Cost" in this RFS, if the work of this RFS is to be compensated for using Lump Sum Payment method, it is understood and agreed to by PROFESSIONAL that the Total Price listed on page 1 of this RFS is binding and limiting as defined in Section V of the Agreement.

2023 Seawater Intrusion Analysis Report

Task	Hours		Costs		
	Georgina King $228/hr	Staff $160/hr	Consulting Fees	Expenses	Total Costs
Prepare 2023 SIAR, including added appendices for groundwater levels and quality	32	108	$24,576	$0	$24,576
Prepare for and Attend One TAC Meeting and One Board Meeting Online to Present Results of SIAR	10	2	$2,600	$0	$2,600
TOTALS	**42**	**110**	**$27,176**	**$0**	**$27,176**

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2023 **RFS NO.** 2023-01
(To be filled in by WATERMASTER)

TO: Martin Feeney
Martin Feeney
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose:
Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2023 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2023-01 shall be completed in accordance with the schedule described in Attachment 1.

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

Total Price Authorized by this RFS: $ 11,013.30 (See Attachment 2 for a Breakdown of this Total Price. Cost is authorized only when evidenced by signature below.)

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

Authorized by: _____ Date: _____
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____
PROFESSIONAL

ATTACHMENT 1

Detailed Scope of Work for RFS No. 2023-01

Background:
Performance of the work of RFS No. 2023-01 will require compliance with the State Department of Parks and Recreation Right of Entry Permit contained in Attachment 3. The document contained in Attachment 3 was issued in 2020, but was amended in 2022 to extend the term into 2023. PROFESSIONAL agrees to comply with the requirements of the Right of Entry Permit in conjunction with PROFESSIONAL's performance of this work.

Note: Sentinel Well No. 4 is located within the fenced compound of Marina Coast Water District's (MCWD's) Ord Village Pump Station. Access to perform induction logging of Sentinel Well No. 4 will be impacted by the demolition of that pump station, which is scheduled to take place in late 2022. Once the demolition is completed, the California Department of Parks and Recreation requires MCWD to restore the pump station site and the access road to that site. The restoration work will include removing the pavement materials from the access road and planting native vegetation to restore the pump station site and the access road. The van used by the induction logging contractor may still be able to drive to the well site, however, this will not be known until the restoration work is completed. If the van is not longer able to drive to the well site, logging can still be performed by parking the van on a paved road that will still exist near the pump station site, and, by using tripods and sheaves, running the induction logging cable from the van's location to the well site. In addition, to ensure that the well itself does not become overgrown with vegetation, a short riser pipe will need to be added to the existing at-grade well access box after the demolition is complete. The costs for this additional work will not be accurately known until sometime in mid-2023, shortly prior to the scheduled October 2023 logging event. Once those costs are known, an addendum to this RFS will need to be issued to increase the RFS amount accordingly.

Scope of Work
This RFS No. 2023-01 authorizes PROFESSIONAL to perform the work described in PROFESSIONAL's Proposal for Hydrogeologic Services, dated October 6, 2022 and contained in Attachment 2, with the following clarifications and/or additions:

PROFESSIONAL will collect water level data from the wells identified as SBWM-1, SBWM-2, SBWM-3, and SBWM-4. PROFESSIONAL will also perform induction logging on each of these wells. These wells are commonly referred to as WATERMASTER's Sentinel Wells. Water level data collection and induction logging will be performed on each of these wells as described below and according to the schedule described below:

Induction Logging
Induction logging will be performed on each of the four Sentinel Wells annually in September.

Water Level
Water levels in each of the four Sentinel Wells will be continuously measured by data loggers and will be downloaded annually when induction logging is being performed.

PROFESSIONAL will transmit the digital water level data to the Monterey Peninsula Water Management District (MPWMD), Montgomery and Associates, and to the WATERMASTER promptly after the data is acquired, so that (1) MPWMD can use that data in preparing its reports to the WATERMASTER and (2) Montgomery and Associates and the WATERMASTER will be made promptly aware of the data. Digital induction data will also be provided to MPWMD, Montgomery and Associates, and to the WATERMASTER as soon as it becomes available to PROFESSIONAL. Digital induction data will also be reduced and presented graphically and provided to Montgomery and Associates for use by Montgomery and Associates in preparing reports for the WATERMATER.

ATTACHMENT 2

Martin B. Feeney
Consulting Hydrogeologist

P.G. 4634
C.E.G. 1454
C.Hg 145

October 6, 2022

Seaside Basin Watermaster
PO Box 51502
Pacific Grove CA.
93950

Attention: Bob Jaques, PE

Subject: Sentinel Well Data Collection Program 2023 – Proposal for Hydrogeologic Services

Dear Bob:

Following up on our discussions, I'm pleased to provide this proposal to assist the Seaside Basin Watermaster (Watermaster) with data collection from the Sentinel Wells for the upcoming year. Presented in this proposal is an outline of the data collection plan and an estimate of associated costs.

Based on the previously collected data and the opinion of other qualified hydrogeologists, the data collection program for the Sentinel Wells will be reduced from semi-annual induction logging to annual. The data collection program will now include annual induction logging and continuous water level data collection. The program previously included depth-specific downhole water quality sampling, however, the data proved unreliable and this portion of the program was terminated. The subcontractor for the induction logging remains unchanged.

The components of this program are as follows:

Data collection from each well:

- Annual down-loading of water level data logger.
- Annual induction logging (September/October)
- Transmittal of water level data to Monterey Peninsula Water Management District personnel.
- Processing of induction log data and presentation

The well vaults that protect the Sentinel Wells continue to need maintenance to remain functional. This could include painting of the vault covers, repairing stripped threads for the bolts that hold down the covers, and general cleaning. Costs of these services are included in this proposal.

It is understood that, as in the past, the Monterey Peninsula Water Management District (District) will share some of the data collection and analysis tasks of the overall data collection program. The District will collect water level data from the array of data loggers on the all but the fall quarter. Water level data from the data loggers will be collected as part of this scope of services only when induction logging is performed. Collected water level data will be transmitted to the District for compilation and processing. Induction logging data will continue to be compiled and processed by this author.

Annual costs for the data collection program are estimated at $ 11,013 inclusive of outside services. Cost is up from previous year due to an additional increase in the service charge and mileage for Pacific Surveys. Also the vaults are in bad shape and need maintenance. A breakdown of costs is presented in the table below.

P.O. Box 23240, Ventura, CA 93002 ♦ **Phone: 831-915-1115** ♦ e-mail mfeeney@ix.netcom.com

SENTINEL WELLS LOGGING/SAMPLING WL DATA COLLECTION PROGRAM
2023

Pacific Surveys	Unit Cost	Number	Semi-Annual Cost	# per annum	Annual Cost
Service Charge	1435.2	1	1435.2	1	$ 1,435.20
Induction Logging	1.01	5310	5363.1	1	$ 5,363.10
E-file generation/transmittal	115	1	115	1	$ 115.00
mileage	500	1	500	1	$ 500.00
					$ 7,413.30
Professional Services (hrs)					
Well Vault Maintainance	175	8	1400	1	$ 1,400.00
Supervise Logging/Download Data Loggers	175	8	1400	1	$ 1,400.00
Process Induction Data	200	2	400	1	$ 400.00
Transmit Water Level Data	200	1	200	1	$ 200.00
per diem	200	1	200	1	$ 200.00
					$ 3,600.00
				Total	$ 11,013.30

The opportunity to present this proposal is appreciated. Please call if you have any questions.

Sincerely,

Martin B. Feeney

ATTACHMENT 3

RIGHT OF ENTRY PERMIT	Agency: Department of Parks and Recreation Project: Fort Ord Dunes State Park – Monitoring Wells

This Right of Entry Permit (Permit) is made and entered into this 1st day of August 2020, between the State of California, acting by and through its Department of Parks and Recreation, hereinafter called State, and Seaside Groundwater Basin Watermaster hereinafter called Permittee; State and Permittee may hereinafter be referred to as a Party, or collectively the Parties.

RECITALS

- **Whereas**, the State owns, operates and maintains the State Park known as Fort Ord Dunes State Park, in the County of Monterey, State of California; and
- **Whereas**, Permittee has applied to State for permission to access Fort Ord Dunes State Park for purposes of carrying out Permittee's Monitoring Wells project (the Project); and
- **Whereas**, the State desires to accommodate Permittee's application for permission to enter Fort Ord Dunes State Park for purposes of the Project.

TERMS AND CONDITIONS

Now therefore, the State by this Permit hereby grants to the Permittee permission to enter upon State's property, conditioned upon the agreement of the Parties that this Permit does not create or vest in Permittee any interest in the real property herein described or depicted, that the Permit is revocable and non-transferable, and that the Permit is further subject to the following terms and conditions:

1. **Project Description:** By this Permit, the State hereby grants to the Permittee permission to enter onto those lands depicted and/or described on **Exhibit A** (the Property), attached hereto and herein incorporated by this reference, solely for the purpose of monitoring four (4) wells twice yearly, and as described in the completed Project Evaluation Form, **Exhibit B**, attached hereto.

2. **Permit Subject to Laws and Regulatory Agency Permits:** This Permit is expressly conditioned upon Permittee's obtaining any and all regulatory permits or approvals required by the relevant regulatory agencies for the Project and Permittee's use of the Property, and upon Permittee's compliance with all applicable municipal, state and federal laws, rules and regulations, including all State Park regulations. Permittee shall, at Permittee's sole cost and expense, comply with the Project Description, and requirements and mitigations contained in the Environmental Document.

   Prior to commencement of any work, Permittee shall obtain all such legally required permits or approvals and submit to the State full and complete copies of all permits and approvals, including documentation related to or referenced in such permits and approvals, along with the corresponding agency contact and telephone numbers, and related California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation as applicable.

3. **Term of Permit:** This Permit shall only be for the period beginning on August 1, 2020, and ending on August 1, 2021, or as may be reasonably extended by written mutual agreement of the Parties.

4. **Consideration:** Fee waived.

5. **Permit Subject to Existing Claims:** This Permit is subject to existing contracts, permits, licenses, encumbrances and claims which may affect the Property.

6. **Waiver of Claims and Indemnity:** Permittee waives all claims against State, its officers, agents and/or employees, for loss, injury, death or damage caused by, arising out of, or in any way connected with the condition or use of the Property, the issuance, exercise, use or implementation of this Permit, and/or the rights herein granted. Permittee further agrees to protect, save, hold harmless, indemnify and defend State, its officers, agents and/or employees from any and all loss, damage, claims, demands, costs and liability which may be suffered or incurred by State, its officers, agents and/or employees from any cause whatsoever, arising out of, or in any way connected with this Permit, exercise by Permittee of the rights herein granted, Permittee's use of the Property and/or the Project for which this Permit is granted, except those arising out of the sole active negligence or willful misconduct of State. Permittee will further cause such indemnification

and waiver of claims in favor of State to be inserted in each contract that Permittee executes for the provision of services in connection with the Project for which this Permit is granted.

7. **Contractors:** Permittee shall incorporate the terms, conditions and requirements contained herein when contracting out all or any portion of the work permitted hereunder. Permittee shall be responsible for ensuring contractor/subcontractor compliance with the terms and conditions contained herein. Failure of Permittee's contractors to abide by State's terms and conditions shall constitute default by Permittee (see DEFAULT paragraph below) allowing State to terminate this Permit and seek all legal remedies.

8. **Insurance Requirements:** As a condition of this Permit and in connection with Permittee's indemnification and waiver of claims contained herein, Permittee shall maintain, and cause its contractors to maintain, a policy or policies of insurance as follows:

General Provisions Applying to All Policies

A. **Coverage Term** – Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten (10) days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.

B. **Policy Cancellation or Termination & Notice of Non-Renewal** – Contractor is responsible to notify the State within five business days before the effective date of any cancellation, non-renewal, or material change that affects required insurance coverage. In the event Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.

C. **Deductible** – Contractor is responsible for any deductible or self-insured retention contained within their insurance program.

D. **Primary Clause** – Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.

E. **Insurance Carrier Required Rating** – All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the Contractor is self-insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.

F. **Endorsements** – Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.

G. **Inadequate Insurance** – Inadequate or lack of insurance does not negate the contractor obligations under the contract.

H. **Satisfying an SIR** - All insurance required by this contract must allow the State to pay and/or act as the contractor's agent in satisfying any self-insured retention (SIR). The choice to pay and/or act as the contractor's agent in satisfying any SIR is at the State's discretion.

I. **Available Coverages/Limits** - All coverage and limits available to the contractor shall also be available and applicable to the State.

J. **Subcontractors** - In the case of Contractor utilization of subcontractors to complete the contracted scope of work, contractor shall include all subcontractors as insured's under Contractor and insurance or supply evidence of insurance to The State equal to policies, coverages and limits required of Contractor.

COMMERCIAL GENERAL LIABILITY:
Commercial General Liability Insurance covering bodily injury and property damage in a form and with coverage that are satisfactory to the State. This insurance shall include personal and advertising injury liability, products and completed operations, and liability assumed under an insured contract. Coverage shall be written on an occurrence basis in an amount of not less than $1,000,000 per occurrence. Annual aggregate limit shall not be less than $2,000,000. **The State of California, its officers, agents, and employees are to be covered as additional insureds with respect to liability arising out of work or operations.**

AUTOMOBILE LIABILITY INSURANCE:

Automobile Liability Insurance covering all owned, non-owned, and hired vehicles with a combined single limit of not less than $1,000,000 for bodily injury and property damage. **The State of California, its officers, agents, and employees are to be covered as additional insureds with respect to liability arising out of work or operations.**

WORKERS COMPENSATION AND EMPLOYERS LIABILITY:
Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease. **The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the State of California.**

9. **Reservation of Rights:** State reserves the right to use the Property in any manner, provided such use does not unreasonably interfere with Permittee's rights herein.

10. **Access Limits and Conditions:** Access to the Property shall be limited to the access designated by State.

11. **Notice of Work:** Any required notices to State shall be sent to the State authorities in charge of Fort Ord Dunes State Park named below. At least forty-eight (48) hours prior to any entry upon the Property for any of the purposes hereinabove set forth, Permittee shall provide the State contact[s] named below with written notice of Permittee's intent to enter the Property. Permittee shall also notify the State contact[s] listed below in writing at least -eight (48) hours prior to any change in the Project schedule or cessation or completion of work. Should State personnel need to contact Permittee, State shall notify Permittee's contact person listed below:

STATE:
Contact: Brent C. Marshall, District Superintendent

District: Monterey District

Address: 2211 Garden Road
Monterey, CA 93940
Telephone: 831-649-2836

PERMITTEE'S CONTACT:
Contact: Seaside Groundwater Basin Watermaster
Robert S. Jaques, email: bobj83@comcast.net
Address: PO Box 51502 Pacific Grove, CA 93950
Telephone: 831-375-0517

12. **Limits of Work:** In no event shall this Permit authorize work in excess or contrary to the terms and conditions of any regulatory agency permit or approval. Under no circumstances, whether or not authorized by any regulatory agency, other permit or any person or entity other than State, shall work exceed that which is authorized by this Permit.

13. **Public Safety:** Permittee shall erect orange plastic temporary construction fencing and appropriate signage prior to commencement of work to prevent public access to the construction zone. Permittee shall remove such fencing within two (2) days after the completion of work. Permittee shall take, and shall cause its contractors or subcontractors to take, any and all necessary and reasonable steps to protect the public from harm in connection with the Project or implementation of this Permit.

14. **Compliance with Project Requirements:**

Permittee's activities conducted under this Permit shall comply with all State and Federal environmental laws, including, but not limited to, the Endangered Species Act, CEQA, and Section 5024 of the Public Resources Code.

Any of Permittee's archaeological consultants working within the boundaries of the Property shall submit a DPR 412A permit application to the District cultural resource specialist for approval prior to commencing any archaeological or cultural investigations of the Property.

Permittee shall immediately advise State's contact person if any new site conditions are found during the course of permitted work. State will advise Permittee if any new historical resources (including archaeological sites), special status species, threatened/endangered species protocols, or other resource issues are identified within the Project site. Permittee shall abide by District Superintendent or designee's instructions to protect the resource(s) during the permitted work or risk revocation of the Permit.

Permittee shall make all excavation activities on the Property available to the State archaeologist for observation and monitoring. During excavation, the State archaeological monitor may observe and report to the State on all excavation activities. State archaeological monitor shall be empowered to stop any construction activities as necessary to protect significant cultural resources from being disturbed.

In the event that previously unknown cultural resources, including, but not limited to, dark soil containing shell, bone, flaked stone, groundstone, or deposits of historic trash are encountered during Project construction by anyone, work will be suspended at that specific location, and the Permittee's work will be redirected to other tasks, until a State archaeologist or professionally qualified designee has evaluated the find and implemented appropriate treatment measures and disposition of artifacts, as appropriate, in compliance with all applicable laws and department resource directives.

If human remains are discovered during the Project, work will be immediately suspended at that specific location and the District Superintendent or designee shall be notified by Permittee. The specific protocol, guidelines and channels of communication outlined by the California Native American Heritage Commission (NAHC), and/or contained in Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.9 et seq., will be followed. Those statutes will guide the potential Native American involvement in the event of discovery of human remains.

If resource monitoring is required to be performed by State staff, the Permittee shall provide a written work schedule to the State at least 48 hours in advance of the work. Permittee shall provide reasonable advance notice of and invite the District Superintendent or designee to any preconstruction meetings with the prime contractor or subcontractors.

15. **Restoration of Property:** Permittee shall complete the restoration, repair, and revegetation of the Property in consultation with, and to the satisfaction of, the State Environmental Scientist within one (1) year after completion of the Project or the expiration or termination of this Permit, whichever comes first. This obligation shall survive the expiration or termination of this Permit.

16. **Performance Bond:** If required by State in order to ensure that Permittee performs and completes its obligations in accordance with the terms of the Permit, Permittee shall obtain a Performance Bond in the amount of from a surety duly licensed in the State of California. Permittee shall provide State with a copy of such insurance bond.

17. **Right to Halt Work:** The State reserves the right to halt work and demand mitigation measures at any time, with or without prior notice to Permittee, in the event the State determines that any provision contained herein has been violated, or in the event that cessation of work is necessary to prevent, avoid, mitigate or remediate any threat to the health and safety of the public or state park personnel, or to the natural or cultural resources of the state park.

18. **Use Restrictions:** The use of the Property by Permittee, including its guests, invitees, employees, contractors and agents, shall be restricted to the daytime hours between sunrise and sunset on a day-by-day basis, unless otherwise approved in advance in writing by State. No person shall use or occupy the Property overnight.

    Activities on the Property shall be conducted only in a manner which will not interfere with the orderly operation of the state park. Permittee shall not engage in any disorderly conduct and shall not maintain, possess, store or allow any contraband on the Property. Contraband includes, but is not limited to: any illegal alcoholic beverages, drugs, firearms, explosives and weapons.

    Roads and trails where motorized vehicles are normally prohibited may be used for vehicle access by Permittee, its employees, agents or contractors for patrol, maintenance or repair purposes only, and only to the extent specified by State, and shall be otherwise subject to all other conditions and/or restrictions of this Permit and any applicable laws, state park regulations and state park policies.

    Permittee shall not use or allow the Property to be used, either in whole or in part, for any purpose other than as set forth in this Permit, without the prior written consent of the State.

19. **State's Right to Enter:** At all times during the term of this Permit and any extension thereof, there shall be and is hereby expressly reserved to State and to any of its agencies, contractors, agents, employees, representatives, invitees or licensees, the right at any and all times, and any and all places, to temporarily enter upon said Property to survey, inspect, or perform any other lawful State purposes.

    Permittee shall not interfere with State's right to enter.

20. **Protection of Property:** Permittee shall protect the Property, including all improvements and all natural and cultural features thereon, at all times at Permittee's sole cost and expense, and Permittee shall strictly adhere to the following restrictions:

(a) Permittee shall not place or dump garbage, trash or refuse anywhere upon or within the Property, except in self-contained trash receptacles that are maintained to State's satisfaction by Permittee.

(b) Permittee shall not commit or create, or suffer to be committed or created, any waste, hazardous condition or nuisance in, on, under, above or adjacent to the Property.

(c) Permittee shall not cut, prune or remove any vegetation upon the Property, except as identified in the Project description and herein permitted or subsequently approved in writing by the District Superintendent.

(d) Permittee shall not disturb, move or remove any rocks or boulders upon the Property, except as identified in the Project description and herein permitted or subsequently approved in writing by the District Superintendent.

(e) Permittee shall not grade or regrade, or alter in any way, the ground surface of the Property, except as herein permitted, or subsequently approved in writing by the District Superintendent.

(f) Permittee shall not bait, poison, trap, hunt, pursue, catch, kill or engage in any other activity which results in the taking, maiming or injury of wildlife upon the Property, except as identified in the Project description and herein permitted or subsequently approved in writing by the District Superintendent.

(g) Permittee shall not use, create, store, possess or dispose of hazardous substances (as defined in the California Hazardous Substances Act) on the Property except as herein permitted, or subsequently approved in writing by the District Superintendent.

(h) Permittee shall exercise due diligence to protect the Property against damage or destruction by fire, vandalism and any other causes.

21. **Default:** In the event of a default or breach by Permittee of any of the terms or conditions set forth in this Permit, State may at any time thereafter, without limiting State in the exercise of any right of remedy at law or in equity which State may have by reason of such default or breach:

(a) Maintain this Permit in full force and effect and recover the consideration, if any, and other monetary charges as they become due, without terminating Permittee's right to use of the Property, regardless of whether Permittee has abandoned the Property; or

(b) Immediately terminate this Permit upon giving written notice to Permittee, whereupon Permittee shall immediately surrender possession of the Property to State and remove all of Permittee's equipment and other personal property from the Property. In such event, State shall be entitled to recover from Permittee all damages incurred or suffered by State by reason of Permittee's default, including, but not limited to, the following:

(i) any amount necessary to compensate State for all the detriment proximately caused by Permittee's failure to perform its obligations under this Permit, including, but not limited to, compensation for the cost of restoration, repair and revegetation of the Property, which shall be done at State's sole discretion and compensation for the detriment which in the ordinary course of events would be likely to result from the default; plus

(ii) at State's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

22. **State's Right to Cure Permittee's Default:** At any time after Permittee is in default or in material breach of this Permit, State may, but shall not be required to, cure such default or breach at Permittee's cost. If State at any time, by reason of such default or breach, pays any sum or does any act that requires the payment of any sum, the sum paid by State shall be due immediately from Permittee to State at the time the sum is paid. The sum due from Permittee to State shall bear the maximum interest allowed by California law from the date the sum was paid by State until the date on which Permittee reimburses State.

23. **Revocation of Permit:** The State shall have the absolute right to revoke this Permit for any reason upon ten (10) days written notice to Permittee. Written notice to Permittee may be accomplished by electronic or facsimile transmission, and the notice period set forth in this paragraph shall begin on the date of the electronic or facsimile transmission, or, if sent by mail, on the date of delivery. If Permittee is in breach of the Permit or owes money to the State pursuant to this Permit, any prepaid monies paid by Permittee to State shall be held and applied by the State

as an offset toward damages and/or amounts owed. Nothing stated herein shall limit the State's exercise of its legal and equitable remedies.

24. **Recovery of Legal Fees:** In any action brought to enforce or interpret any provisions of this Permit or to restrain the breach of any agreement contained herein, or for the recovery of possession of the Property, or to protect any rights given to the State against Permittee, and in any actions or proceedings under Title 11 of the United States Code, if the State shall prevail in such action on trial or appeal, the Permittee shall pay to the State such amount in attorney's fees in said action as the court shall determine to be reasonable, which shall be fixed by the court as part of the costs of said action.

25. **Voluntary Execution and Independence of Counsel:** By their respective signatures below, each Party hereto affirms that they have read and understood this Permit and have received independent counsel and advice from their attorneys with respect to the advisability of executing this Permit.

26. **Reliance on Investigations:** Permittee declares that it has made such investigation of the facts pertaining to this Permit, the Property and all the matters pertaining thereto as it deems necessary, and on that basis accepts the terms and conditions contained in this Permit. Permittee acknowledges that State has made, and makes, no representations or warranties as to the condition of the Property, and Permittee expressly agrees to accept the Property in its as-is condition for use as herein permitted.

27. **Entire Agreement:** The Parties further declare and represent that no inducement, promise or agreement not herein expressed has been made to them and this Permit contains the entire agreement of the Parties, and that the terms of this agreement are contractual and not a mere recital.

28. **Warranty of Authority:** The undersigned represents that they have the authority to, and do, bind the person or entity on whose behalf and for whom they are signing this Permit and the attendant documents provided for herein, and this Permit and said additional documents are, accordingly, binding on said person or entity.

29. **Assignment:** This Permit shall not be assigned, mortgaged, hypothecated, or transferred by Permittee, whether voluntarily or involuntarily or by operation of law, nor shall Permittee let, sublet or grant any license or permit with respect to the use and occupancy of the Property or any portion thereof, without the prior written consent of State.

30. **Choice of Law:** This Permit will be governed and construed by the laws of the State of California.

STATE OF CALIFORNIA
Department of Parks and Recreation

By: Brent C. Marshall
Name: Brent C. Marshall
Title: District Superintendent

SEASIDE GROUNDWATER BASIN WATERMASTER

By: Robert Jaques
Name: Robert S. Jaques
Title:
Address: PO Box 51502 Pacific Grove, CA 93950
Phone: 831-375-0517


Sentinel Wells
Data Collection Travel
Legend
Sentinel Well
Travel Path
SBWM #1
CDM #1
SBWM #2
SBWM #3
SBWM #4
Parker Flats Cut Off Rd
1 mi
Google Earth

State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Project Name _____

PROJECT EVALUATION (PEF)

PROJECT CONCEPT

PROJECT TITLE		PARK UNIT NAME & NUMBER
Right of Entry Permit - Monitoring Wells		Fort Ord Dunes SP
DISTRICT NAME & NUMBER		FACILITY NUMBER
Monterey District 720		
PROJECT MANAGER & TITLE	PHONE NUMBER	EMAIL
Stephen Bachman, Sr Park & Rec Spec	831-649-2862	stephen.bachman@parks.ca.gov
DISTRICT PROJECT MANAGER & TITLE	PHONE NUMBER	EMAIL
PROJECT BID DATE	CONSTRUCTION START DATE	FUNDING SOURCE & PCA #
n/a	n/a	n/a

PROJECT DESCRIPTION

Identify the scope of the project in detail, including its purpose, location, and potential impacts. If the ground is to be disturbed, describe the depth and extent of excavation. Describe the existing site conditions, including previous development. Note if work will impact or extend beyond park property. Indicate if work will be done in conjunction with, or as part of, other projects. (Use additional pages if necessary.)

Issue Right of Entry Permit to the Seaside Groundwater Basin Watermaster for continued access to four (4) monitoring wells at Fort Ord Dunes State Park. Access is only for monitoring wells twice yearly. See attached map for wells locations.

SECTOR SUPERINTENDENT OR DESIGNEE CONCEPT APPROVAL

SECTOR SUPERINTENDENT OR DESIGNEE CONCEPT APPROVAL	TITLE	DATE
[signature]	SPS III	7/27/2020

DISTRICT SUPERINTENDENT OR DESIGNEE CONCEPT APPROVAL

DISTRICT SUPERINTENDENT OR DESIGNEE CONCEPT APPROVAL	TITLE	DATE

State of California - The Resources Agency
CALIFORNIA STATE PARKS

Project Name 0

PROJECT EVALUATION (PEF)

DOCUMENTS ATTACHED

- ☑ 7.5 minute (quad) map of project area (***Required***)
- ☑ Site Map (***Required*** - *Scale should show relationship to existing buildings, roads, landscape features, etc.)*
- ☑ Graphics *(Specify - photos, diagrams, drawings, cross-sections, etc.)*
- ☑ DPR 727 Accessibility Review & Comment Sheet *(Note: Environmental Coordinator will send PEF to the Accessibility Section for review & comment)*
- ☐ Sea-Level Rise Worksheet *(for coastal park units)*
- ☐ Other (Specify):

REGULATORY REQUIREMENTS

IS AN APPLICATION, PERMIT, OR CONSULTATION REQUIRED?

	YES	MAYBE	NO
PRC 5024 - Historical Review/Archaeological Review	☐	☐	☑
Native American Consultation	☐	☐	☑
Coastal Development Permit	☐	☐	☑
CDFW Stream Alteration Permit	☐	☐	☑
State & Federal Endangered Species Consultation	☐	☐	☑
DPR Right to Enter or Temporary Use Permits	☐	☐	☑
US Army Corps of Engineers 404 Permit	☐	☐	☑
Regional Water Quality Control Board (RWQCB) Permit	☐	☐	☑
National Pollutant Discharge Elimination System Permit	☐	☐	☑
Stormwater Management Plan	☐	☐	☑
Encroachment Permit *(Specify Agency)*:	☐	☐	☑
Other *(Specify)*:	☐	☐	☑

DEPARTMENT POLICY COMPLIANCE

	YES	NO
HAS A GENERAL PLAN BEEN APPROVED FOR THE UNIT?	☑	☐
If YES, is the project consistent with the GP?	☑	☐
If NO, what is the project justification?		
Is it a temporary facility? (No permanent resource commitment)	☐	☐
Health and Safety project?	☐	☐
Is it a Resource Management Project?	☐	☐
Is it repairing, replacing, or rehabilitating an existing facility?	☐	☐
IS THE PROJECT WITH A CLASSIFIED SUBUNIT?		
Natural Preserve	☐	☑
Cultural Preserve	☐	☑
State Wilderness	☐	☑
IS THE PROJECT CONSISTENT WITH THE DEPARTMENT'S CULTURAL RESOURCE MANAGEMENT DIRECTIVES? DOM CHAPTER 1600	☑	☐
IS THE PROJECT CONSISTENT WITH THE DEPARTMENT'S OPERATIONS MANUAL CHAPTER 0300, NATURAL RESOURCES?	☑	☐

State of California - The Resources Agency
CALIFORNIA STATE PARKS

Project Name: ROE - Monitoring Wells

PROJECT EVALUATION (PEF)

RESOURCES

Explain all 'Yes' or 'Maybe' answers in the 'Evaluation and Comments' section (reference by letter and number). Attach additional pages, if necessary.

YES	MAYBE	NO	**A. EARTH** - *WILL THE PROJECT:*
☐	☐	☑	1. Create unstable soil or geologic conditions?
☐	☐	☑	2. Adversely affect topographic features?
☐	☐	☑	3. Adversely affect any unusual or significant geological features?
☐	☐	☑	4. Increase wind or water erosion?
☐	☐	☑	5. Adversely affect sand deposition or erosion of a sand beach?
☐	☐	☑	6. Expose people, property or facilities to geologic hazards or hazardous waste?
☐	☐	☑	7. Adversely affect any paleontological resource?

YES	MAYBE	NO	**B. AIR** - *WILL THE PROJECT:*
☐	☐	☑	1. Adversely affect general air quality or climatic patterns?
☐	☐	☑	2. Introduce airborne pollutants that may affect plant or animal vigor or viability?
☐	☐	☑	3. Increase levels of dust or smoke?
☐	☐	☑	4. Adversely affect visibilty?

YES	MAYBE	NO	**C. WATER** - *WILL THE PROJECT:*
☐	☐	☑	1. Change or adversely affect movement in marine or fresh waters?
☐	☐	☑	2. Change or adversely affect drainage patterns or sediment transportation rates?
☐	☐	☑	3. Adversely affect the quality or quanity of groundwater?
☐	☐	☑	4. Adversely affect the quantity or quality of surface waters?
☐	☐	☑	5. Expose people or property to flood waters?
☐	☐	☑	6. Adversely affect existing or potential aquatic habitat(s)?

YES	MAYBE	NO	**D. PLANT LIFE** - *WILL THE PROJECT:*
☐	☐	☑	1. Adversely affect any native plant community?
☐	☐	☑	2. Adversely affect any unique, rare, endangered, or protected plant species?
☐	☐	☑	3. Introduce a new species of plant to the area?
☐	☐	☑	4. Adversely affect agricultural production?
☐	☐	☑	5. Adversely affect the vigor of any tree?
☐	☐	☑	6. Encourage the growth or spread of exotic (non-native) species?
☐	☐	☑	7. Interfere with established fire management plans or practices?

YES	MAYBE	NO	**E. ANIMAL LIFE** - *WILL THE PROJECT:*
☐	☐	☑	1. Adversely affect any native or naturalized animal population?
☐	☐	☑	2. Adversely affect any unusual, rare, endangered, or protected species?
☐	☐	☑	3. Adversely affect any animal habitat?
☐	☐	☑	4. Introduce or encourage the proliferation of any non-native species?

State of California - The Resources Agency
CALIFORNIA STATE PARKS Project Name ROE - Monitoring Wells

PROJECT EVALUATION (PEF)

YES	MAYBE	NO	F. CULTURAL RESOURCES - *WILL THE PROJECT:*
☐	☐	☑	1. Adversely affect a prehistoric or historic archaeological site or tribal cultural resource?
☐	☐	☑	2. Adversely affect a prehistoric or historic building, structure or object?
☐	☐	☑	3. Cause an adverse physical or aesthetic effect on an eligible or contributing building, structure, object, or cultural landscape?
☐	☐	☑	4. Diminish the informational or research potential of a cultural resource?
☐	☐	☑	5. Increase the potential for vandalism or looting?
☐	☐	☑	6. Disturb any human remains?
☐	☐	☑	7. Restrict access to a sacred site or inhibit the traditional religious practice of a Native American community?

YES	MAYBE	NO	G. AESTHETIC RESOURCES - *WILL THE PROJECT:*
☐	☐	☑	1. Adversely affect a scenic vista or view?
☐	☐	☑	2. Significantly increase noise levels?
☐	☐	☑	3. Adversely affect the quality of the scenic resources in the immediate area or park-wide?
☐	☐	☑	4. Create a visually offensive site?
☐	☐	☑	5. Be incompatible with the park design established for this unit or diminish the intended sense of "a special park quality" for the visitor?

YES	MAYBE	NO	H. RECREATIONAL RESOURCES - *WILL THE PROJECT:*
☑	☐	☐	1. Be in a public use area?
☐	☐	☑	2. Have an adverse effect on the quality of the intended visitor experience?
☐	☐	☑	3. Have an adverse effect on the quality or quantity of existing or future recreational opportunities or facilities?
☐	☐	☑	4. Have an adverse effect on the accessibility of recreational facilities (e.g. ADA requirements)?

YES	MAYBE	NO	I SEA-LEVEL RISE AND EXTREME EVENTS (COASTAL UNITS ONLY):
☐		☑	1. Has this project been evaluated for potential impacts from sea-level rise, coastal storm surge, and other extreme events, using the Department's Sea-Level Rise and Extreme Events Guidance Document or an equivalent process? *Please attach the Sea-Level Worksheet or other detailed evaluation.*
☐	☐	☑	2. Based on the evaluation described above, will the project be adversely impacted by frequent flooding or permanent inundation during its expected lifetime?
☐	Non-coastal unit		

EVALUATION AND COMMENTS

PROJECT EVALUATION (PEF)

Project Title: Fort Ord Dunes SP – Well Monitoring ROE Permit

ENVIRONMENTAL SCIENTIST COMMENTS AND SIGNATURE (REQUIRED FOR ALL FINDINGS)

FINDINGS:

☐ No Impact

☒ Project Conditions necessary, see below

☐ Potential Significant Impact

EXPLANATION AND COMMENTS:

Vehicles must stay on established routes, minimize vegetation disturbance, and avoid protected species and their habitat.

SIGNATURE *Matthew Allen*	PRINTED NAME Matthew Allen
TITLE SENIOR ENVIRONMENTAL SCIENTIST	DATE 8/27/2020

PROJECT EVALUATION (PEF)

Project Title: Fort Ord Dunes SP – Well Monitoring ROE Permit

HISTORIAN COMMENTS AND SIGNATURE (REQUIRED FOR ALL FINDINGS)

FINDINGS:

☒ No PRC 5024 necessary (explain below)

☐ PRC 5024 attached, project approved as written

☐ PRC 5024 attached, conditions necessary

☐ PRC 5024 attached, mitigations and/or significant impacts

EXPLANATION AND COMMENTS:

No historical resources at the monitoring well sites. There will be no impacts to surrounding historical resources as a result of the project either.

SIGNATURE MATT BISCHOFF	PRINTED NAME MATT BISCHOFF
TITLE HISTORIAN III	DATE 7/28/20

PROJECT EVALUATION (PEF)

Project Title: Fort Ord Dunes SP – Well Monitoring ROE Permit

ARCHAEOLOGIST COMMENTS AND SIGNATURE (REQUIRED FOR ALL FINDINGS)

Findings:

☐ No PRC 5024 necessary (provide justification) ☐ PRC 5024 attached; project approved as written

☐ PRC 5024 attached, conditions necessary ☐ PRC 5024 attached; mitigations and/or potential significant impacts

Explanation/Comments: No archaeological resources are known or expected at the well sites or within path of travel to the well sites. No archaeological resources will be disturbed by well-monitoring

SIGNATURE Rae Schwaderer	PRINTED NAME RAE SCHWADERER
TITLE ASSOCIATE ARCHAEOLOGIST	DATE 8/04/2020

TRIBAL LIAISON COMMENTS AND SIGNATURE (REQUIRED FOR ALL FINDINGS)

☒ Reviewer is Designated District/Service Center/Division Tribal Liaison of Designee

☐ NAHC Listed Tribe(s) contacted (attach correspondence record for contact and findings) No tribes contacted.
- ☐ DN 2007-05 Tribal Consultation Only
- ☐ AB52 Consultation Initiated

FINDINGS:

☒ Project action does not have potential to affect "tribal cultural" resources (explain). No tribal cultural resources will be affected by this ROE permit to monitor wells.

Check more than 1 box if tribes offering differing responses, and describe all consultation below.

☐ Tribe(s) did not respond.

☐ Tribe(s) approved project as written.

☐ Tribe(s) approved project with treatment or conditions.

☐ Tribe(s) and DPR unable to reach mutual agreement on treatment or conditions.

SIGNATURE Rae Schwaderer	PRINTED NAME RAE SCHWADERER
TITLE ASSOCIATE ARCHAEOLOGIST	DATE 8/04/2020

PROJECT EVALUATION (PEF)

Project Title: Fort Ord Dunes SP – Well Monitoring ROE Permit

COMMENTS:

I have no comments.

SIGNATURE	PRINTED NAME MIKE ZUCCARO
TITLE ASSOCIATE ARCHITECT	DATE AUGUST 3, 2020

State of California - The Resources Agency
CALIFORNIA STATE PARKS

Project Name ROE - Monitoring Wells

PROJECT EVALUATION (PEF)

ENVIRONMENTAL COORDINATOR REVIEW

YES	MAYBE	NO	CUMULATIVE IMPACTS
☐	☐	☑	1. Will the project be conducted in conjunction with or at the same time as other projects at the park?
☐	☐	☑	2. Will the project be part of a series of inter-related projects?
☐	☐	☑	3. Are there any other projects that must be completed for any part of this project to become operational?
☐	☐	☑	4. Are there any other projects (including deferred maintenance) that have been completed or any probable future projects that could contribute to the cumulative impacts of this project?
☐	☐	☑	5. Are any of the projects that relate to work outside of the General Plan?

COMMENTS:

RECOMMENDATION:

☐ Not a project for the purposes of CEQA compliance.
☐ Project is covered activity under DOM 0600 (Figure F) that does not require Notice of Exemption.
☐ Project is covered activity under previously prepared CEQA document; SCH # _____
☑ Project is exempt. Notice of exemption will be prepared.
☐ A Negative Declaration should be prepared.
☐ A Mitigated Negative Declaration should be prepared.
☐ An EIR should be prepared.
☐ AB52 Consulation Initiated. See Tribal Liaison Section.

SIGNATURE Jill Poudrette PRINTED NAME Jill Poudrette
TITLE DISTRICT ENVIRONMENTAL COORDINATOR DATE 9/1/2020

DISTRICT SUPERINTENDENT REVIEW

I acknowledge any constraints placed on the project as a result of the specialists' comments above and recommend the project proceed.

DISTRICT SUPERINTENDENT APPROVAL SIGNATURE	TITLE	DATE

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2023

RFS NO. 2023-02
(To be filled in by WATERMASTER)

TO: Martin Feeney
Martin Blair Feeney
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: Consultation and other hydrogeologic services. See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2023.

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

Total Price Authorized by this RFS: $4,000.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for derivation of this Total Price).

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

Requested by: _____ Date: _____.
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____.
PROFESSIONAL

ATTACHMENT 1

On an ongoing and as-requested basis, PROFESSIONAL will provide general hydrogeologic consulting services to WATERMASTER on a variety of topics. These may include, but not be limited to, interpretation of water level and water quality data, and seawater intrusion analysis issues.

Providing these services will likely involve attending certain of WATERMASTER's Technical Advisory Committee (TAC) and /or Board meetings, most of which will be attended telephonically or via Zoom.

Consulting services will be provided at the rate of $200/hour. Related other direct costs (such as travel costs) will be billed at actual cost. Services under this RFS No. 2023-02 will only be provided when specifically requested by WATERMASTER.

The total cost authorized by this RFS No. 2023-02 is $4,000.

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2023

RFS NO. 2023-01
(To be filled in by WATERMASTER)

TO: Gus Yates
Todd Groundwater
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose: See Scope of Work in Attachment 1.

Completion Date: All work of this RFS shall be completed not later than December 31, 2023.

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

Total Price Authorized by this RFS: $ 4,000.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by: _____ Date: _____.
WATERMASTER Technical Program Manager

Agreed to by: _____ Date: _____.
PROFESSIONAL

ATTACHMENT 1

Scope of Work

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

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

Estimated Costs

Consulting services provided under this RFS No. 2023-01, including attending meetings either remotely or in-person as requested by WATERMASTER, will be billed at PROFESSIONAL's standard hourly rates for calendar year 2023, including all markups and other direct costs.

The total cost authorized by this RFS No. 2023-01 is $4,000.00.

SEASIDE BASIN WATERMASTER
SCOPE OF WORK

Note: The work described in this Scope of Work (SOW) will be performed in accordance with the terms and conditions set forth in the Master Services Agreement for Groundwater Monitoring and Database Services (Agreement) executed between the Monterey Peninsula Water Management District (DISTRICT) and the Seaside Groundwater Basin Watermaster (WATERMASTER), with an effective date of January 1, 2022.

DATE: January 1, 2023

SOW NO. 2023-01
(To be filled in by WATERMASTER)

TO: Jonathan Lear
DISTRICT

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose:
Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2023 (M&MP) (See detailed Scope of Work in Attachment 1).

Schedule:
The work of this SOW No. 2023-01 shall be completed in accordance with the column titled "Schedule" in Table 1 of Attachment 1.

Method of Compensation:
Time and Material Payment Method (As defined in Section 6 of the Agreement).

Total Price Authorized by this SOW:
$ 64,297.00 (See Attachment 1 for a Breakdown of this Total Price. Cost is authorized only when evidenced by signature below.)

Total Price may not be exceeded without prior written authorization by WATERMASTER in accordance with Section 6 of the Agreement (Payment of Services).

Requested by: _____ Date:_____.
WATERMASTER

Agreed to by: _____ Date:_____.
DISTRICT

ATTACHMENT 1

Detailed Scope of Work for SOW No. 2023-01

Background:

This SOW No. 2023-01 authorizes DISTRICT to perform certain work on certain of the Tasks described in the WATERMASTER's 2023 M&MP. The Task numbers listed in the first column of Table 1 below correspond to the Task numbers in the 2023 M&MP. The Task numbers listed in the second column of Table 1 correspond to DISTRICT's task numbering system.

The wells from which water level and water quality data are to be obtained are listed below in Table 2.

Table 1. Scope of Work and Costs							
WATERMASTER M&MP Task No.	DISTRICT Task No.	Description	Time	Rate	Cost	Comments	Schedule
I.2.b.2	1	**Collect Monthly Water Levels**					
		Collect Monthly Water levels at 20 wells	96	113	$10,848		Ongoing
I.2.b.2	2	**Collect Quarterly Water Levels**					
		Collect Quarterly Water levels at 8 wells	32	113	$3,616		Ongoing
I.2.b.3	3	**Collect Quarterly Water Quality Samples**					
		Collect 7 Water Quality Samples Quarterly (28 total Samples)	48	113	$5,424		Ongoing
		Order bottles and COC to Laboratory	4	113	$452		
I.2.b.3	4	**Collect Annual Water Quality Samples**					
		Collect 12 Water Quality Samples Annually	16	113	$1,808		Ongoing
		Order bottles and COC to Laboratory	1.5	113	$170		
		RMA/Procure Replacement pump and Deploy (replaces one pump)	8	113	$904	Only if necessary	
I.2.a.1	5	**Enter Water Level Data QA/QC**					
		Enter Qa/QC 272 Water Level Measurements Collected by MPWMD	20	170	$3,400		Ongoing
		Enter Qa/QC 264 Water Level Measurements Reported to Watermaster	20	170	$3,400		Ongoing
I.2.a.1	6	**Enter Water Quality Data QA/QC**					
		Enter Qa/QC 40 Water Quality Samples Collected by MPWMD	40	170	$6,800		Ongoing
		Enter Qa/QC 12 Water Quality Samples Reported to Watermaster	16	170	$2,720		Ongoing
I.2.b.7	7	**Upload Water Level Data to CASGEM**					
		Upload 536 Water Level Measurements to DWR Database	24	170	$4,080		Ongoing
I.2.b.6	8	**Provide Data Tabulation for SIAR Appendix**					
		Tabulate and Transfer Water Level and Quality Data to Watermaster Consultant	16	223	$3,568		November-23
N/A	9	**Respond to Data Requests**					
		Produce Data Requests as Necessary	10	223	$2,230	Only if necessary	
I.2.b.2	10	**Annual Data Logger Downloads and Data Transfer**					
		Download Loggers Field Work	24	113	$2,712		
		Transfer data	4	223	$892		October-23
		Exchange logger if not working RMS process (replaces one logger)	4	113	$452	Only if necessary	
		Answer questions re transferred logs	2	223	$446	Only if necessary	
		Program and Deploy New Data Logger	2	113	$226	Only if necessary	
I.2.b.3	11	**Water Quality Sample for Camp Huffman**					
		Air lift samples from Camp Huffman Deep and Shallow	6	113	$678		
		Air lift samples from Camp Huffman Deep and Shallow	6	223	$1,338		
N/A	N/A	**Administrative Staff**					
		Create Billings and Cut Checks to Water Quality Laboratory	8	89	$712		Ongoing

Table 1. Summary						
WATERMASTER M&MP Task No.	DISTRICT Task No.	Item	Quantity	Rate	Subtotal	
		Labor (Hours)	407.5		$56,876	
I.2.b.2 and I.2.b.3	1, 2, 3, 4, and 10	Estimated Fleet Support (Mileage)	850	0.59	$502	
I.2.b.3	3 and 4	Watermaster Standard Panel Laboratory Analysis (Number of Analyses)	40	135	$5,400	
		Air Compressor Rental (Camp Huffman)	1	150	$150	
I.2.b.3	3 and 4	Fuel (CO_2 Bottle) to run sample pump	10	25	$250	
I.2.b.3	3 and 4	Replacement Low Flow Pump	1	900	$900	Only if necessary
I.2.b.2	1, 2, and 10	Replacement Data Logger	1	850	$850	Only if necessary
		TOTAL			**$64,927**	

If necessary total = $6,008

Note: Fleet Support, Laboratory Fees, Co_2 Bottle Exchange, Data Loggers, and Sample Pumps are estimated costs. Direct costs incurred by District will be passed through to the Watermaster according to Time and Expense method

Table 2. Wells to be Monitored

Monthly Water Levels

1 MSC - Shallow
2 MSC - Deep
3 FO 10 (S)
4 FO 10 (D)
5 CDM MW-1
6 CDM MW-2
7 CDM MW-3
8 CDM MW-4
9 Plumas 1990 Test
10 K-Mart
11 MW-BW-08A
12 MW-BW-09
13 Sand City Public Works
14 CAW Granite Construction
15 Cypress Pacific
16 Sand City - Design Center
17 DBO - Target
18 MMP - MM Production
19 PCA West (S)
20 PCA West (D)

Quarterly Water Levels

1 SBWM MW-1
2 SBWM MW-2
3 SBWM MW-3
4 SBWM MW-4
5 Camp Huffman (S)
6 Camp Huffman (D)
7 Shea
8 Laguna Seca Driving Range

Quarterly Water Quality Sampling

1 PCA W (S)
2 PCA W (D)
3 MSC (S)
4 MSC (D)
5 FO 09 (D)
6 FO 10 (S)

Annual Water Quality Sampling

1 PCA E (S)
2 PCA E (D)
3 Ord Terrace (S)
4 FO 10 (D)
5 CAW Del Monte Observation
6 Sand City Public Works
7 Laguna Seca County Park #2
8 York School
9 Laguna Seca Golf New #12
10 Pasadera Main Gate
11 Cypress Pacific
12 MMP - MM Production
13 Camp Huffman (S and D) (Every 5 years starting in 2023)

Water Level Data Reported to Watermaster

1 SNG
2 LSCP
3 Nicolas
4 City of Seaside
5 Cal Am

ITEM VI.F.
12/7/2022

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Board of Directors

FROM: Laura Paxton, Administrative Officer

DATE: December 7, 2022

SUBJECT: Watermaster Declaration of **NO** Replenishment Water Available for Water Year 2023

PURPOSE: To notify all Seaside Groundwater Basin producers that the Watermaster has declared for Water Year 2023 that **NO** Artificial Replenishment Water is available to offset Over-Production in excess of Basin Operating Yield

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RECOMMENDATION:
Consider approving the Declaration of No Artificial Replenishment Water Available for Water Year 2023.

DISCUSSION:
The Court has declared in Section III L 3 j iii of the adjudication Decision that in the event Watermaster cannot procure Artificial Replenishment Water to offset Operating Yield Over-Production during the ensuing Water Year that the Watermaster Board shall so declare in December that no Operating Yield Over-Production then in effect may occur during the ensuing Water Year.

Watermaster has determined that there is no foreseeable replenishment water available for Water Year 2023. As ordered by the Court at the January 12, 2007 hearing, commencing with the fourth Water Year, and triennially thereafter the Operating Yield for both Subareas will be decreased by ten percent (10%) until the Operating Yield is equivalent of the Natural Safe Yield. A sixth and final full triennial 10% reduction in Operating Yield went into effect Water Year 2021.Beginning with Water Year 2022 Operating Yield is equivalent of the Natural Safe Yield.

The 2020 (most current) Declaration of Useable Storage Space in the Basin is attached listing Standard Producer Allocations of Storage Space, revised to account for storage space recalculated in the updated Basin Management Action Plan finalized in 2019. (The Court declared in Section III F of the adjudication Decision that Carryover of a Standard Producer's unproduced allocation is limited to the total amount of the Standard Producer's Storage Allocation, and that in no circumstance may the sum of a Producer's Storage Credits and Carryover Credits exceed the Producer's available Storage Allocation.) Only Standard Producers are allocated storage space.

If replenishment water becomes available in Water Year 2023, a revised Declaration will be issued.

ATTACHMENTS
1) 2023 Declaration of Unavailability of Replenishment Water with production limits
2) 2020 Declaration of Useable Storage Space in the Basin

NOTICE TO ALL SEASIDE GROUNDWATER PRODUCERS:

Case No. M66343 Amended Decision Section III.B.2.

Commencing with the fourth Water Year, and triennially thereafter, the Operating Yield for both Subareas will be decreased by ten percent (10%) until Operating Yield is the equivalent of the Natural Safe Yield unless:

a. *The Watermaster has secured and is adding an equivalent amount of Non-Native water to the Basin on an annual basis; or*
b. *The Watermaster has secured reclaimed water in an equivalent amount and has contracted with one or more of the Producers to utilize said water in lieu of their Production Allocation, with the Producer agreeing to forego their right to claim a Stored Water Credit for such forbearance; or*
c. *Any combination of a and b above which results in the decrease in Production of Native Water required by this Decision; or*
d. *The Watermaster has determined that Groundwater levels within the Santa Margarita and Paso Robles aquifers are at sufficient levels to ensure a positive offshore gradient to prevent seawater intrusion.*

The Watermaster has determined that the conditions necessary to avoid the ten percent Operating Yield reduction have not been met as follows:

1. Watermaster has not secured water for adding an equivalent amount of Non-Native water to the Basin on an annual basis.
2. The Watermaster has not secured reclaimed water in an equivalent amount.
3. The Watermaster has not secured Non-Native water or reclaimed water that results in the decrease in Production of Native Water required by the Decision.
4. The firm contracted by Watermaster for technical analyses continued to report in 2019 that Groundwater levels within the Santa Margarita and Paso Robles aquifers are not at sufficient levels to ensure a positive offshore gradient to prevent seawater intrusion, so the requirement for this item continues to not be met.

Section III.L.3.j.iii: Watermaster declares that for Water Year 2023 Artificial Replenishment Water is not available to offset Operating Yield Over-Production and producers are limited in production to the following quantities of water:

<u>Coastal Subarea Alternative Producers:</u>

Seaside (Golf)	540.00 acre-feet
SNG	149.00 acre-feet
Cypress (Calabrese)	6.00 acre-feet
Mission Memorial (Alderwood)	31.00 acre-feet
Sand City	9.00 acre-feet

Laguna Seca Subarea Alternative Producers:

The Club at Pasadera	251.00 acre-feet
Bishop	320.00 acre-feet
York School	32.00 acre-feet
Laguna Seca County Park	41.00 acre-feet

Coastal Subarea Standard Producers:

California American Water.....	1,576.48 acre-feet*
Seaside (Municipal)	120.28 acre-feet**
Granite Rock	260.96 acre-feet***
D.B.O. Development 30	467.70 acre-feet****
Cypress (Calabrese)	16.45 acre-feet*****

Laguna Seca Subarea Standard Producers:

California American Water.....	0.0 acre-feet

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* Total is the 2023 base allocation of 1,466.03 acre-feet, plus transferred credits of 3.17 & 2.31 acre-feet plus 104.97 of "not free" carryover. California American Water has a positive balance of 2072.58 acre-feet of stored water credit at WY-end 2022 from Basin injections exceeding extractions since WY 2010 under the CAW/MPWMD ASR Program, formalized through a Storage Agreement in 2012; and under the CAW/M1W Pure Water Monterey Program formalized through a storage agreement in 2019.

** Total is the 2023 base allocation of 120.28 acre-feet.

*** Total includes 222.49 acre-feet of "free" carryover and 27.12 acre-feet of "not-free" carryover credit from previous water years, plus the 2023 base allocation of 11.35 acre-feet.

**** Total includes 410.44 acre-feet of "free" carryover plus 38.98 acre-feet of "not-free" carryover credit from previous water years, minus 2.31 in transferred water rights, plus the 2023 base allocation of 20.59 acre-feet.

***** Total includes 15.28 acre-feet of "free" carryover and 1.58 acre-feet of "not-free" carryover credit from previous water years, minus 3.17 acre-feet in transferred water rights, plus the 2023 base allocation of 2.76 acre-feet.

NOTICE TO ALL SEASIDE GROUNDWATER PRODUCERS

Pursuant to Section III.3.L.3.j.xix of the Amended Decision Filed February 2, 2007 in the Superior Court of the State of California, in and for the County of Monterey, Case No. M66343 (the "Decision"), the Seaside Basin Watermaster hereby Declares that the Total Usable Storage Space in the Seaside Groundwater Basin ("Basin") is as follows:

Total Usable Storage Space in the Coastal and Northern Inland Subareas is 75,610 acre-feet.
Total Usable Storage Space in the Laguna Seca Subarea is 28,560 acre-feet.
Total Usable Storage Space in the entire Seaside Groundwater Basin is 104,170 acre-feet.

Pursuant to Section III.B.3.b of the Decision, Alternative Producers do not receive a storage allocation, only Standard Producers receive such an allocation. Pursuant to Section III.H.2 of the Decision, the Seaside Basin Watermaster further Declares that the Total Usable Storage Space in the Basin shall be allocated to the Standard Producers, who are identified in the Decision, as follows:

	Current Allocation (Using Table 1 of the Decision)		
Producer	**Operating Yield Allocation Percentage (1)**	**Usable Storage Allocation Percentage (2)**	**Useable Storage Allocation Acre-Feet**
Coastal and Northern Inland Subareas			
California American Water (3)	77.55%	90.44%	68,382
City of Seaside (Municipal)	6.36%	7.42%	5,610
Granite Rock Company	0.60%	0.70%	529
DBO Development No. 27	1.09%	1.27%	960
Calabrese (Cypress Pacific Investors LLC)	0.15%	0.17%	129
SUBAREAS TOTAL	**85.75%**	**100.00%**	**75,610**
Laguna Seca Subarea			
California American Water (3)	45.13%	100.00%	28,560
SUBAREA TOTAL	**45.13%**	**100%**	**28,560**
BASIN TOTAL		**100%**	**104,170**

Footnotes:
(1) From Table 1 on page 19 of the Decision.
(2) Calculated as each Standard Producer's percentage of the total Standard Producers' operating yield allocation percentages within each subarea.
(3) CAW's Usable Storage Allocation is subject to the provisions and requirements of Section III.H.3 of the Decision.

Pursuant to Section III.H.6 of the Decision, no Producer may store water in the Basin without first executing with the Watermaster a Storage and Recovery Agreement.

Nov 2, 2019

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: December 7, 2022

SUBJECT: Consider Approving the Seawater Intrusion Analysis Report for 2022.

RECOMMENDATIONS:
It is recommended that the Board approve the Seawater Intrusion Analysis Report for WY 2022.

BACKGROUND:
Montgomery & Associates has prepared the Seawater Intrusion Analysis Report (SIAR) for Water Year 2022. 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 November 16, 2022 meeting the TAC reviewed a Draft version of the 2022 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 2022 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.

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 2022 SIAR reports that the evaluation of the data from the sampling and monitoring program continues to indicate that seawater intrusion is not occurring.

The 2020 SIAR reported on increases in chloride concentrations at monitoring wells FO-9 Shallow and FO-10 Shallow. The cause of the increase in well FO-9 Shallow was determined to be due to a casing leakage allowing water from the overlying Dunes Sands deposit to leak downward to the location where the Paso Robles aquifer (the Shallow) water quality samples were being collected. That well was destroyed by MPWMD and is currently not being used for monitoring. A replacement for well FO-9 Shallow is included in the 2023 Monitoring and Management Plan Capital Budget, and the replacement well is expected to be installed in 2023.

The reason for the increase in well FO-10 Shallow is not known at this time, but will be investigated by the MCWDGSA as it implements the GSP for the Marina-Ord subarea of the Monterey

Subbasin. The 2022 SIAR recommends that well FO-10 (both Shallow and Deep) be destroyed because this well, too, may be allowing water from the overlying Dunes Sands deposit to leak downward to the lower aquifer. The well is owned by MPWMD, and if the well is destroyed they would be responsible for performing that work. The MCWDGSA plans to install additional monitoring wells in the southwestern portion of the Marina-Ord area of the Monterey Subbasin as it implements its GSP, and will investigate the benefit of installing a well to replace FO-10 Shallow.

FISCAL IMPACTS:
None.

ATTACHMENTS:
Executive Summary of the WY 2022 Seawater Intrusion Analysis Report
(The complete SIAR is posted on the Watermaster's website at http://www.seasidebasinwatermaster.org/, for review by those who wish to examine the entire document, including all of its attachments.)

MONTGOMERY
& ASSOCIATES
Water Resource Consultants

November 8, 2022

Seaside Groundwater Basin
2022 Seawater Intrusion Analysis Report

Prepared for:

Seaside Groundwater Basin Watermaster

Monterey County, California

Prepared by:

Montgomery & Associates

1970 Broadway, Suite 225

Oakland, CA 94602

MONTGOMERY & ASSOCIATES

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 (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 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 ascertain when fresh groundwater mixes with seawater. At low chloride concentrations, it is often difficult to identify incipient seawater intrusion. This is due to the natural variation in fresh water chemistry at chloride concentrations below 1,000 milligrams per liter (mg/L). Mixing trends between groundwater and seawater are more easily defined when chloride concentrations exceed 1,000 mg/L. Common geochemical indicators of seawater intrusion are cation and anion ratios, chloride trends, sodium/chloride ratios, and electric induction logging.

As noted in the previous 3 Seawater Intrusion Analysis Reports (SIARs) (M&A, 2019; M&A, 2020; M&A, 2021), monitoring well FO-10 Shallow, located outside and just north of the Basin, has experienced sustained chloride increases and currently has a sodium/chloride molar ratio below 0.86, which may suggest a seawater chloride source. Induction logging of this well took place in March 2021 and confirmed chloride concentrations in groundwater but was inconclusive as to whether this results from seawater intrusion (Feeney, 2021). Following this development, analysis of historical records conducted in February 2022 discovered that a 1,300 foot long 2-inch diameter steel tremie pipe had been stuck in the FO-10 borehole since its construction in 1997 (Feeney, 2022). The presence of this steel pipe, which conducts electricity through the borehole and may be allowing water to travel between upper and lower zones, explains the inconclusive results from the March 2021 induction logging. It is suggested that FO-10 Shallow and FO-10 Deep be destroyed and replaced to maintain robust water quality monitoring in the area. Sentinel Well induction logs, now performed annually, remain stable over the historical record. No data collected in Water Year (WY) 2022 indicate that seawater intrusion is occurring within the Basin.

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

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

- Santa Margarita aquifer groundwater levels in the Northern Coastal subarea continue to be below sea level. WY2022 second quarter (winter/spring) coastal groundwater levels in that aquifer are more than 40 feet below sea level, and the fourth quarter (summer/fall) levels are more than 60 feet below sea level. Pumping depressions expanded both vertically and spatially from the previous year in both the Paso Robles and Santa Margarita aquifer systems.

- Groundwater levels remain below protective elevations in all Santa Margarita protective elevation monitoring wells (MSC deep, PCA-W Deep, and sentinel well SBWM-3), and 2 of 3 Paso Robles protective elevation monitoring wells (MSC Shallow and PCA-W Shallow). All 3 Santa Margarita monitoring wells' groundwater elevations are at the lowest in their historical records. Monitoring Elevations at PCA-W shallow were above protective elevations in early WY2020 but have since dropped below. Besides CDM-MW4, all wells for which protective elevations have been established declined in elevation from the previous year.

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

- Most groundwater samples for WY2022 from depth-discreet monitoring wells generally plot in a single cluster on Piper diagrams, with no water chemistry changes towards seawater. Increased chloride in recent measurements at FO-10 Shallow, north of the Basin, has shifted how this wells plots on Piper diagrams over the past 3 years. Currently, it appears to be shifting towards a chlorinated water type. As described above, induction logging of this well was inconclusive as to whether seawater intrusion is causing this change in water quality due to the presence of an abandoned steel pipe in the borehole

since the well's construction. This steel pipe may also be serving as a conduit to allow groundwater flow between aquifer zones. Groundwater quality in FO-10 Shallow should continue to be monitored closely to identify if further increases occur, and it is suggested that both FO-10 Shallow and FO-10 Deep be destroyed and replaced to maintain a water quality record in the area.

- In some production wells, groundwater quality plots differently on Piper diagrams compared to monitoring wells. This may be a result of mixed water quality from both the Paso Robles and Santa Margarita aquifers in which these wells are perforated. None of the production wells' groundwater qualities are indicative of seawater intrusion.
- None of the Stiff diagrams for monitoring and production wells show the characteristic chloride spike that typically indicates seawater intrusion in Stiff diagrams. The Stiff diagram for monitoring well FO-10 Shallow shows a slightly different shape than other Paso Robles aquifer wells because of increased chloride.
- Chloride concentration trends are stable for most monitoring wells, except FO-10 Shallow which experienced a 48 mg/L increase in chloride concentrations in WY2020 and has risen by another 8 mg/L since then. However, the sustained elevated concentrations in themselves do not indicate seawater intrusion. As noted above, recent induction logging of the well was unable to provide data with regard to whether seawater intrusion is the source of the elevated chloride level, and the well's integrity for water quality sampling may be compromised by a steel tremie pipe stuck in the borehole since 1997.
- Sodium/chloride molar ratios in most monitoring wells remained constant or increased over the past year. The sodium chloride ratio in 2 of the 3 samples taken at FO-10 Shallow in WY2022 were lower than what has been seen historically at the location. The ratio from 5 of the 7 samples tested since September 2020 are below 0.86. A sodium/chloride ratio less than 0.86 signifies a potential seawater chloride source. It is likely the groundwater quality changes in FO-10 Shallow are permanent and the well should continue to be monitored consistently to track if chloride concentrations increase further. If the well is destroyed and replaced due to the stuck steel pipe mentioned above, water quality from the replacement well should similarly be closely monitored to evaluate changes in chloride over time.
- Maps of chloride concentrations for the Paso Robles aquifer do not show chlorides increasing towards 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 155 mg/L and they do not have increasing trends. Two wells, Pasadera Golf- Paddock and Ord Terrace Shallow, sustained a >20 mg/L chloride

increase from WY2021, but as evidenced by their distance from the coast this is not a result of seawater intrusion.

- Induction logging data at the coastal Sentinel Wells do not show historical or recent changes over time that are indicative of seawater intrusion.

Other important findings from the analysis contained in this report are:

- 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 Paso Robles aquifer, and up to 4 feet per year in the Santa Margarita aquifer. These declines have occurred since 2001, despite triennial reductions in allowable pumping. The cause of the declines is due in part to the Natural Safe Yield of the subarea being too high and in part due to the influence of wells east of the Seaside Basin. In WY2022, groundwater elevations in the area appeared to experience some stabilization and recovery, potentially correlated with a cessation of pumping from CAWC's Laguna Seca Subarea wells. This recovery has continued in WY2022.
- Native groundwater production in the Seaside Groundwater Basin for WY2022 was 2,870 acre-feet, which is 43 acre-feet more than WY2021 but 129 acre-feet less than the Decision-ordered Operating Yield for WY2022 of 3,000 acre-feet. Despite WY2022 being a very dry year, recovery of 3,683 acre-feet of recycled water from PWM helped offset pumping. Native groundwater production was below the Decision-estimated Natural Safe Yield of 3,000 acre-feet for the third year in the historical record, largely due to increased injection of highly treated recycled water.

The following recommendations should be implemented to monitor and track seawater intrusion.

1. Following identification of a compromised well casing, monitoring well FO-9 Shallow was destroyed to prevent leakage of higher chloride water into the underlying aquifer. In accordance with current plans, a similarly constructed monitoring well will replace the destroyed well to ensure continuity of groundwater level measurements from this location. It is anticipated that a new well will be constructed in 2023.
2. The discovery of a 1,300-foot steel tremie pipe in the FO-10 borehole complicates evaluation of water quality at the location and may act as a conduit allowing groundwater to flow between overlying sediments and the underlying aquifers. These wells are outside of the Basin, yet still provide critical information regarding the extent of seawater intrusion north of the Basin in the Monterey Subbasin. Therefore, it is recommended that MPWMD develop plans to destroy both FO-10 Shallow and FO-10 Deep, and that MCWD install similarly constructed monitoring wells to maintain a continuous water quality record at the location. Because seawater intrusion cannot be

excluded as the source of increasing chloride concentrations at FO-10 Shallow over the past several years, groundwater quality sampling at this well should continue at the increased quarterly frequency until the well is destroyed. When the well is replaced, the replacement well should likewise be sampled at a quarterly frequency. As detailed in the Monterey Subbasin GSP (MCWDGSA and SVBGSA, 2022) Section 9.4.7, additional monitoring wells may be installed in both the Lower 180-Foot and 400-Foot Aquifer and the Deep aquifers of the Monterey Subbasin. The proposed location for these wells is in an identified data gap area northeast of FO-10 Shallow (see Monterey Subbasin GSP Figures 7-7 and 7-8). When these wells are installed, they may provide additional insight into potential seawater intrusion in the area.

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

4. It is important to remain vigilant and to closely monitor groundwater quality even though seawater intrusion has not yet been observed in monitoring or production wells in the Basin. As outlined in the most recent Basin Management Action Plan (M&A, 2018a), it is important that the Watermaster continues to promote projects to obtain replenishment water for the Basin that is not extracted out as water supply.

5. Based on the WY2020's SIAR recommendation, groundwater elevation data from the Carmel River water Aquifer Storage and Recovery project (ASR) and PWM monitoring wells are now incorporated into the analysis of groundwater elevations. Although the Watermaster asked for this data to be provided, data from the PWM monitoring wells was not provided for this year's analysis. As these and any future projects are implemented, groundwater levels, groundwater flow directions, and potentially groundwater quality will change. It is important that data from monitoring wells associated with these projects be evaluated in future SIARs.

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: December 7, 2022

SUBJECT: Discussion/Consider Approving Watermaster Annual Report for WY 2022

RECOMMENDATIONS:
It is recommended that the Board approve the Watermaster Annual Report for WY 2022.

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 Annual Report was presented to the TAC for its review and input at the TAC's November 16, 2022 meeting. The TAC did not request any revisions to it. The TAC then recommended that the Report be forwarded to the Board for its approval. Attached is the body of the Draft 2022 Annual Report. The complete Draft version is posted on the Watermaster's website at http://www.seasidebasinwatermaster.org/.

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, 2023 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 Draft version of the Watermaster 2022 Annual Report.

SEASIDE BASIN WATERMASTER ANNUAL REPORT – 2022

DRAFT

January 5, 2023

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SEASIDE BASIN WATERMASTER

ANNUAL REPORT – 2022

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 2022 Annual Report is being filed on or before January 15, 2023, 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 2022 (WY 2022) 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 2022." Water Year 2022 is defined as beginning October 1, 2021 and ending on September 30, 2022.

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 2022, 71acre-feet was diverted and stored in the Seaside Basin under the ASR program. Rainfall in the area was about 63% of normal, and Carmel River flow was about 34% of normal.

Based upon production reported for WY 2022, the following Standard Producers are entitled to Free and Not-Free Carryover Credits to WY 2023 in accordance with the Decision, Section III. H. 5:

Producer	Free Carryover Credit (Acre-feet)	Not-Free Carryover Credit (Acre-feet)
Granite Rock	222.49	27.12
DBO Development	410.44	38.98 (-2.31 transfer)
Calabrese (Cypress)	15.28	1.58 (-3.17 transfer)
CAWC	00.00	104.97 (+5.48 transfer)
City of Seaside Muni	00.00	00.00

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 2022 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin. No non-native water was made available to the Basin during Water Year 2022 under the April 7, 2010 Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water.

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

D. Leases or Sales of Production Allocation and Administrative Actions
As reported in the 2019 Annual Report, in WY2019 a transfer or assignment of water allocation was activated, as provided for in the Cypress Pacific Investors (CPI), successor to Muriel L. Calabrese 1987 Trust, front-loading delivery of water agreement that 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 2022 the Watermaster Board made changes to section 16.2 of the *Rules and Regulations* regarding replenishment assessment review.

During WY 2022 the Watermaster Board was comprised of the following Members and Alternates:

MEMBER	ALTERNATE	REPRESENTING
Director Paul Bruno	N/A	Coastal Subarea Landowner
Christopher Cook	Tim O'Halloran	California American Water
Wesley Leith	N/A	Laguna Seca Subarea Landowner
Director George Riley	Director Alvin Edwards	MPWMD
Mayor Mary Ann Carbone	City Manager	City of Sand City
Supervisor Wendy Askew	Supervisor Mary Adams	Monterey County (MCWRA)
Councilmember John Gaglioti	Council Member Scott Donaldson	City of Del Rey Oaks
Councilmember Dan Albert	Mayor Clyde Roberson	City of Monterey
Mayor Ian Oglesby	Council Member Jon Wizard	City of Seaside

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

The CAWC/MPWMD ASR Program operated in WY 2022 and 70.55 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 2022 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 2022 at its Board meeting of January 5, 2022. Copies of these declarations are contained in Attachment 2.

Total pumping for WY 2022 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 2022 amounted to $75,000 including a $25,000 dedicated reserve. Costs include the Administrative Officer salary and legal counsel fees. The "Fiscal Year 2022 Administrative Fund Report" and "Fiscal Year 2022 Operations Fund Report" are provided in Attachment 3.

H. Replenishment Assessments

At its meeting of October 5, 2022 the Watermaster Board determined that beginning with WY 2023 the Natural Safe Yield Replenishment Assessment unit cost should be updated to $3,461 per acre-foot, and the Operating Yield Replenishment Assessment unit cost should be updated to $865 per acre-foot. The Agenda transmittal which explains the basis of calculation for these new unit costs is contained in Attachment 4.

Alternative and Standard Producers report their production amounts from the Basin to the Watermaster on a quarterly basis.

Based upon the reported production for WY 2022, the City of Seaside's Replenishment Assessment for its Municipal System for Overproduction in excess of its share of the Natural Safe Yield is $38,116.08, and for overproduction in excess of its share of the Operating Yield is $9,529.02. The City of Seaside did not exceed its Alternative Production Allocation for its Golf Course System production.

Mission Memorial Park's Replenishment Assessment for Overproduction in excess of its share of the Natural Safe Yield is $9,607.87, and for overproduction in excess of its share of the Operating Yield is $2,401.97.

Based upon its reported production for WY 2021, Mission Memorial Park (Alderwoods)'s Replenishment Assessment for Overproduction in excess of its share of the Natural Safe Yield was $46,488.32, and for overproduction in excess of its share of the Operating Yield was $11,626.02. In early January 2022 Mission Memorial Park, through its attorney, filed a writ with the Court asking that its WY 2021 replenishment assessment be waived. Mission Memorial Park's attorney subsequently placed a hold on the writ and requested to appeal directly to the Watermaster to have its Replenishment Assessment either waived or reduced. At its September 7, 2022 meeting the Watermaster Board heard testimony from Mission Memorial Park's Manager Lorrie Muriel and Mission Memorial Park's Legal Counsel Steve Gurnee that provided details of what led to their inadvertent 2021 over-production, and actions now being taken to avoid any future over-production. The Board felt that the circumstances presented by Mission Memorial Park and the fact that in the past they had in every year pumped substantially less than the amount of their allocation warranted consideration. The Board then passed a motion to reduce the $58,114.34 2021 Mission Memorial Park over-production replenishment assessment to $25,000, payable over time, and required Mission Memorial Park to submit an action plan on how it would avoid future over-production.

To help avoid any future inadvertent over-production by any producer, the Watermaster will be sending to each Watermaster party on an annual basis a description of the Watermaster, the party's assigned production allocation, and the over-production fee schedule.

A summary of the calculations for Replenishment Assessments for WY 2022 is contained in Attachment 5. Credits against Replenishment Assessments are contained in Attachment 6.

I. All Components of the Watermaster Budget

The Watermaster budget has four separate funds: Administrative Fund; Monitoring & Management–Operations; Monitoring and Management–Capital Fund and; Replenishment Fund. Copies of the budgets for Fiscal Year 2023 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 2022 from the enhanced network of monitoring wells. The low-flow sampling method implemented in 2009 continued to be used in 2022 and is expected to continue to be used in the future to improve the efficiency of sample collection. Except as discussed below regarding Monitoring Well FO-9 Shallow and induction logging of the Sentinel Wells, no modifications to the quarterly data collection frequency from the enhanced network of monitoring wells were made during WY 2021.

It was intended to sample the Watermaster's Sentinel Well No. 5, located at Camp Huffman on the former Fort Ord, in WY 2022, based on the plan to monitor it once every five years. However, through a scheduling oversite the well was not sampled in WY 2022. It is scheduled to be sampled in WY 2023, and once every five years thereafter.

Monitoring and Management Program for the Upcoming Year

The 2023 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 differences between the 2022 M&MP and the 2023 M&MP are relatively minor, with the exception of Task I. 2. b. 3 (Collect Water Quality Samples). Barium and chloride data has been collected under this Task for the past ten years. The Watermaster's hydrogeologic consultants (Montgomery & Associates) reported that barium and iodide have been used to discriminate between sources of saline water if it is observed, but not to identify incipient seawater intrusion which can be identified without barium or iodide data. Since discriminating the source of salinity may be unnecessary, as a cost-saving measure it would be satisfactory to discontinue sampling for these parameters. If increasing salinity levels are detected, and if it is important to discriminate the source of salinity, then sampling for barium and iodide could be resumed at that time.

Discontinuing analyzing for these two parameters would result in an annual cost savings of approximately $2,160. The TAC therefore recommended discontinuing the analysis for these parameters, and the language in Task I. 2. b. 3 was revised to reflect this.

In 2007 the Watermaster constructed four of what are called "Sentinel Wells" along the coast. The purpose of these wells is to serve as a means of detecting the possible intrusion of seawater into the Seaside Basin aquifers, and induction logging technology is employed at these wells for this purpose. Induction logging is a process by which changes in conductivity, an indicator of possible seawater intrusion, are measured in the soil surrounding these wells. If a trend in increasing conductivity is detected, it would be an indication that seawater intrusion is occurring.

Induction logging was initially performed on a quarterly basis, with the intent that in subsequent years it might be feasible to reduce the induction logging frequency if a good correlation between the induction logging data from year-to-year was found to exist. In 2010, after several years of induction logging that showed the same results and showed no indication of seawater intrusion, the induction logging frequency was reduced to semi-annually.

The induction logging data has been virtually identical each year since logging began in 2007, and has shown no detectable change in formation conductivity. For this reason it was felt by Martin Feeney, the Watermaster's consultant who has performed all of the induction logging, that the frequency of induction logging of these wells could be further reduced from semi-annually to annually. His recommendation was concurred with by Montgomery & Associates, the Watermaster's primary hydrogeologic consultants. This recommendation was then approved by the Watermaster's TAC and Board and is reflected in the description and cost of Task I.2.b.3 in the 2023 Monitoring and Management Program. Reducing the frequency of induction logging would result in an annual cost savings of approximately $9,500.

The 2023 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 the principal revisions from the 2022 M&MP Budget:

Tasks Involving MPWMD Montgomery & Associates: The scopes-of-work for both MPWMD and Montgomery & Associates are essentially unchanged from 2022. However, both will have hourly-rate increases in 2023, so the costs of the Tasks in which they are involved will all reflect somewhat higher dollar amounts in 2023 compared to 2022. MPWMD's costs are expected to be about $920 higher in 2023 and Montgomery & Associates' costs are expected to be about $1,690 higher in 2023.

Task I.2.a.1 (Conduct Ongoing Data Entry/Database Maintenance Enhancement: The costs for an outside contractor to maintain the Watermaster's website are covered in this line-item. The Watermaster's Administrative Officer asked that in 2023 the format on the website be converted from its current format to the WordPress format which reportedly is now the industry standard for websites. If at some time in the future maintenance of the website passes to a different contractor, it would be much more expensive to have the current format maintained. In addition, the graphics being developed for the Watermaster's Public Awareness Committee are better suited for WordPress than the current format. Included in the budget for this Task is $5,000 to make the format conversion, and an additional $100/month (from

$200/month in 2022 to $300/month in 2023) for the contractor to maintain the website. The contractor's $200 monthly fee has not been increased in many years.

Task I.2.b.3 (Collect Water Quality Samples): As reported earlier in this Annual Report, Task I.2.b.3 reflects the cost savings from reducing the induction logging of the Sentinel Wells from twice per year to once per year, and the cost savings from eliminating sampling for barium and iodide in the three monitoring wells where these two parameters have been historically monitored. These combined cost savings are over., $10,000.

Task I.3.a.3 (Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions): The amount budgeted for this Task is unchanged from the 2022 amount. Included in this Task is an estimated $30,000 to perform additional Flow Direction/Flow Velocity analyses, if the Board wishes to perform such work, and $30,000 for other work the Board may wish to undertake related to basin management.

Summary:

As a result of the changes described above, as indicated by the right-hand column titled "Comparative Costs from 2022 Budget" in the M&MP Operations Budget in Attachment 6, the proposed 2023 Budget is $10,052 higher ($324,930 - $314,878) than the 2022 Budget. It is anticipated that a new well to replace monitoring well FO-9 Shallow will be constructed in 2023, and the costs to install that well are included in the 2023 M&MP Capital Budget. The 2022 M&MP Capital Budget will cover the costs to plan and design that well, which is expected to be performed in late 2022.

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 2023.

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.

As reported in the 2021 Annual Report, monitoring well FO-9 Shallow had developed a leak in its casing and had to be destroyed to prevent cross-aquifer contamination. A Capital Project for the estimated Watermaster share of the replacement cost was included in the 2022 M&MP Capital Budget. Using money from the 2022 Capital Project budget, the Watermaster issued a contract to its consultant Montgomery & Associates to perform the planning and design work for a replacement well. The 2023 M&MP Capital Budget included the cost to have the replacement well installed in 2023. Efforts were underway in late 2022 to develop a three-party cost-sharing agreement (between MPWMD, the Watermaster, and MCWD) for the costs to replace the well.

The Security National Guaranty (SNG) well is privately owned and is located in the dunes area in the northern portion of Sand City. It is on land where a development project is being pursued by the owner. Prior to 2021this was an inactive well, and therefore water quality samples were not collected from it. In early 2021 it started to be pumped, thus making it an active well from which water quality samples are to be collected The first sample taken from this well had a very high chloride level (8,660 mg/L) which is a strong indicator that this well is sea water intruded. The well owner was contacted and he was asked to look into whether the well casing was leaking and allowing salty water from a shallow aquifer to flow downward into the Paso Robles aquifer and cause the higher chloride level. He responded that he would look into this, but 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 fall of 2021 he reported that he was awaiting the Court's Decision on the development project litigation, which he expected he would get in late January 2022. He went on to say that as soon as he got the Court's Decision, and finalized the title, he would be able to repair the well.

In October 2022 the well owner reported that the final Court Decision he originally expected would come out in January of 2022 did not come out until August 2022. He said that SNG found the Decision to be unacceptable and filed an appeal with the State Appellate Court in September 2022. He went on to say that he had sent an email to the other parties to the litigation notifying them that in spite of the Court process being delayed by what will probably be a lengthy time (for the appeal process) the SNG well needs to be repaired, and asking them to agree to have the repair work done. However, as of the date of preparation of this Annual Report he had not received their reply. The well is in inactive status now. In summary, the well problem cannot be remedied unless/until the other litigants agree to having the repair work performed prior to the Court appeal trial occurring, or there is some other resolution. The well owner did say that he would keep working on this to get the issue resolved.

Basin Management Action Plan (BMAP)

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

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

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

One of the findings in the Updated BMAP is that the Natural Safe Yield (NSY) of the Basin is 2,370 AFY, which is lower than the Adjudication Decision's initially-established 3,000 AFY. Another finding was that the Total Usable Storage Space of the Basin was increased from 52,030 acre-feet to 104,170 acre-feet as reported on page 52 of the Updated BMAP. This is partly due to an error in the 2009 estimate in which the deficit volume was subtracted, thereby resulting in a lower combined volume than it should have been; and partly because a different protective elevation contour map was used in this updated estimation.

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

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

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

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

In conjunction with updating the BMAP, Montgomery & Associates and Todd Groundwater (a hydrogeologic consultant the Watermaster used to perform a peer review of a draft version of

the Updated BMAP) recommended that at some point in the future the Watermaster change to a different approach (Sustainable Yield) rather than continuing to use the Natural Safe Yield approach that was used in the Adjudication Decision, for basin management purposes.

Attachment 11 in the 2019 Annual Report contains a discussion of the pros and cons of using the Sustainable Yield approach vs. the Natural Safe Yield approach. The Watermaster Board considered the information contained in that attachment at its June 5, 2019 meeting and made the following determinations:

- A Sustainable Yield analysis should not be performed at this time.
- The concept of using the Sustainable Yield approach to replace the Natural Safe Yield approach should be revisited after the Groundwater Sustainability Plans (GSP) for the subbasins within the Salinas Valley Groundwater Basin (notably the Monterey and 180/400-Foot Aquifer Subbasins) have been completed, and their impacts on the Seaside Groundwater Basin have been determined. The status of those GSPs is discussed below in the section of this Annual Report titled "Sustainable Groundwater Management Act."
- If something is learned, or events occur, that would warrant performing a Sustainable Yield analysis sooner, the Board should revisit the decision at that time.

The Watermaster Board revisited this topic at its September 1, 2021 meeting, 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.

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/.

When water quality sampling from monitoring well FO-9 Shallow in late 2020 and again in early 2021 appeared to indicate that seawater intrusion might have been detected in the Paso Robles aquifer in the vicinity of that well, the SIRP was immediately reviewed to determine

what steps should be taken in response to that finding. However, subsequent investigation of that well led to the determination that the increased chloride levels in the water quality sampling of that well were due to a casing leakage, and not from seawater intrusion in the Paso Robles aquifer as initially feared. Consequently, no actions to implement the SIRP were taken and no modifications to the SIRP were made in 2022.

Seawater Intrusion Analysis Report

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

The Watermaster retained Montgomery & Associates to prepare the WY 2022 SIAR required by the M&MP. The WY 2022 SIAR provided an analysis of data collected during that Water Year.

Based on an evaluation of geochemical indicators in prior years, seawater intrusion has not historically been observed in existing monitoring and production wells in the Seaside Basin. However, as noted in the previous two SIAR reports (2019 and 2020), two monitoring wells in the Watermaster's network 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, is just inside the northern boundary of the Northern Coastal Subarea of the Seaside Basin. Induction logging of both wells was performed by Mr. Martin Feeney, a hydrogeologic consultant to the Watermaster, in March 2021 to evaluate if seawater intrusion was evident.

A structural failure (leaking casing) was identified in monitoring well FO-9 Shallow. This caused the well to act as a conduit to allow shallow intruded groundwater in the dune sands to flow into the well and potentially into underlying aquifers. To prevent further leakage of poorer quality water, Well FO-9 Shallow was destroyed in 2021.

The induction logging of Well FO-10 Shallow confirmed the presence of higher chloride concentrations in the groundwater, but was inconclusive as to whether this was a result of seawater intrusion. However, it was subsequently learned, though communications with Mr. Joe Oliver of MPWMD who documented the installation of well FO-10 in 1996, that a long section of steel tremie pipe had to be abandoned in the well during construction. Mr. Feeney explained that the presence of this steel pipe interfered with the induction logging and prevented the logging from providing accurate information about the aquifer surrounding the well. He said this explains why the 2021 induction log differs so much from the 1996 elog. Based on this information, Mr. Feeney concluded that well FO-10 Shallow might also be allowing leakage to occur from the shallower Aromas or Dunes Sands formation into the Paso Robles aquifer below. One of the actions listed in the Monterey Subbasin GSP is for MCWD to install monitoring wells near the northern boundary of the Seaside Subbasin. Although work to destroy and replace monitoring well FO-10 Shallow is not mentioned, MCWD may wish to perform such work in order to restore that well for its monitoring purposes.

Induction logs of the Sentinel Wells remained stable over the historical record.

There continue to be ongoing detrimental groundwater conditions within the Basin that pose a potential threat of seawater intrusion. 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. However, No data collected in Water Year (WY) 2022 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 at: http://www.seasidebasinwatermaster.org/. All recommendations contained in the SIAR are being or will be carried out and are included in the budgeted activities contained in Attachment 6 and described in Attachment 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.

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

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

In 2022 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 obtaining the permits 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 2022 DWR did not issue any new regulations, or revisions to prior regulations, that impacted the Seaside Groundwater Basin or the Watermaster. In March of 2022 the Watermaster submitted to DWR the reporting information required of it, as an adjudicated basin, under SGMA.

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

In its notification to DWR, the City of Marina proposed becoming the GSA for the portion of the 180/400-foot Subbasin lying within the City's jurisdictional boundaries. However, since this overlapped with the SVBGSA's proposal to be the GSA for that area, DWR concurred with the SVBGSA's proposal, as authorized by SGMA, to have the County of Monterey be the GSA for that area. The County then delegated authority to prepare the GSP for that area to the SVBGSA. The SVBGSA submitted its GSP for the 180/400-foot Subbasin to DWR in January 2020. DWR approved the plan, with additional recommended actions, later that year. This plan is being updated annually by the SVBGSA.

Development of the GSP for the Monterey Subbasin was started in 2020. A Draft version of this plan was completed jointly by the SVBGSA and the MCWD GSA and submitted to DWR for its review in early 2022. This plan breaks the Monterey Subbasin into these two Management Areas:

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

The Watermaster participated in the Monterey Subbasin GSP Committee that the SVBGSA formed to provide input pertaining to the Corral de Tierra Area during development of this GSP. In 2020 the Watermaster's Technical Program Manager, jointly with Montgomery & Associates, made a PowerPoint presentation to that Committee describing issues of mutual concern between the Corral de Tierra area and the Seaside Groundwater Basin. The presentation highlighted the impacts that pumping in the Corral de Tierra area is having on groundwater levels in the Laguna Seca Subarea of the Seaside Basin. The Watermaster also participated in the stakeholders group formed by the MCWD GSA to provide input during the development of the Marina-Ord Area portion of this plan.

In addition, the Watermaster participated in the development of the SVBGSA's other GSPs through its membership on the SVBGSA's Advisory Committee. Although these GSPs have

now all been completed in draft form and submitted to DWR, the Watermaster continues to participate as a member of the SVBGSA's Advisory Committee. The Watermaster's participation in these committees and stakeholder groups helps to ensure that there is close coordination between the SVBGSA, MCWD GSA, and the Watermaster on matters of mutual interest.

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

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

Summary of Basin Conditions and Important Developments Concerning the Management of the Basin

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

In summary, the *2022 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 2022 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 overpumping 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-foo 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.

Planned Near and Long-term Actions of the Watermaster

Near-term actions are described in the 2023 Monitoring and Management Program discussed in Section J and Attachment 8 of this Annual Report.

Long-term actions will include:

- Continuing to carry out the duties and responsibilities assigned to the Watermaster by the Decision
- Continuing to coordinate with the Monterey County Water Resources Agency in their development of an updated hydrogeologic model of the Salinas Valley Basin, as discussed under the *Coordination of Watermaster's Seaside Groundwater Model with Salinas River Basin Model* subheading in Section J of the 2018 Annual Report (Note: In 2020 completion of this model was delayed and was still being completed as of the date of preparation of this 2022 Annual Report. The Watermaster will continue to coordinate with the Monterey County Water Resources Agency on this, once the model is completed and promulgated. However, it was found that the Salinas River Basin model did not adequately address groundwater conditions in the Monterey Subbasin, and for this reason MCWD retained a hydrogeologic consultant (EKI Environment and Water) to develop a new model for the Monterey Subbasin. This new model was used in the preparation of the GSP for that subbasin, including the Marina-Ord and Corral de Tierra subareas. As discussed above under the *Sustainable Groundwater Management Act (SGMA)* subheading in Section J, the Watermaster participated in the development of that GSP, and its hydrogeologic consultant (Montgomery & Associates) actively interfaces with EKI Environment and Water to ensure that there is hydrogeologic agreement between the new Monterey Subbasin model and the Watermaster' Seaside Basin model.
- Continuing to coordinate with the SVBGSA to develop measures to aid in groundwater management of the Laguna Seca Subarea, as discussed under the *Sustainable Groundwater Management Act* subheading in Section J of this Annual Report.
- Creating and activating a "Public Awareness Committee" of the Watermaster Board to educate decision makers and the public in general about the risk of seawater intrusion that the Seaside Basin faces, and the need to replenish the Basin to raise groundwater levels high enough to keep that from occurring, in addition to ensuring the Basin has sufficient groundwater resources to supply customer demands.

Information Concerning the Status of Regional Water Supply Issues

MPWSP

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

In mid-November 2019 the California Coastal Commission held a hearing on CAWC's application for a Coastal Development Permit for construction of the portions of the MPWSP located within the coastal zone. The Commission received public input at that hearing but deferred taking action on the application until early 2020. That action was originally scheduled for the Commission's May 2020 meeting, but was rescheduled to a September 2020 meeting by Commission staff, who stated that they needed more time to adequately evaluate all of the documents that had been submitted. Just prior to the scheduled September 2020 Commission meeting date, CAWC decided to withdraw its application in order to see if it could negotiate

modifications to the project with the opposing parties that would address their concerns and objections. On November 5, 2020 CAWC formally resubmitted its application for a Coastal Development Permit with the Coastal Commission. The Coastal Commission requested that CAWC submit additional information in order for the Commission to deem the application to be complete.

On December 3, 2020 the Coastal Commission sent a Notice of Incomplete Application, identifying certain additional information needed to consider the application complete. On March 5, 2021 CAWC submitted a partial response to the Coastal Commission's Notice of Incomplete, noting that additional information on the few remaining requested items would be submitted shortly. CAWC supplemented that response on May 19, 2021. On June 18, 2021, the Coastal Commission responded, acknowledging the responses and requesting certain additional information before the application could be considered complete. CAWC submitted the additional information, and in August of 2022 the Coastal Commission notified CAWC that is application was now complete. The Coastal Commission set a November 17, 2022 hearing date to consider approval of the application.

In early October 2022 the MPWMD Water Supply Planning Committee discussed adopting a policy position opposing construction of the MPWSP desalination plant. Instead of adopting such a position, the Committee opted to support a resolution that would cite MPWMD's authority to approve or deny CAWC's plan to introduce desalination plant water into the ground water supply. The MPWMD Board of Directors approved such a resolution (Resolution No. 2022-31) at its October 17, 2022 meeting.

Also in early October 2022 the MPWMD Board approved a contract with firm to provide public outreach services. Shortly after that, a series of emails began being sent out from MPWMD to a large list of addressees urging recipients to voice their objection to the desalination plant at the November 17, 2022 Coastal Commission meeting. Ads placed by the MPWMD and the MCWD also appeared in the local newspaper voicing objection to the desalination plant. On November 17, 2022 by an 8 to 2 vote the Coastal Commission approved CAWC's application for the desalination plant. That approval included a number of conditions for CAWC to fulfill.

In early October 2022 CAWC announced a phasing plan for the MPWSP. The application to the California Coastal Commission called for development of ocean slant wells to supply a 6.4 million gallon per day desalination plant. CAWC is now proposing a multi-phase plan to develop needed water supplies with the first phase of the desalination facility producing 4.8 million gallons per day.

Approval by the Coastal Commission is the last major permit needed to allow construction of the project to begin. The schedule on the MPWSP website has not been updated since CAWC anticipated getting its Coastal Development Permit approved in December 2018. With the Coastal Commission's November 17th approval, and allowing one to two years for CAWC to fulfill the conditions in its Coastal permit, if the same time periods for implementation of the project which are shown on the last posted schedule are accurate, the MPWSP desalination plant could become operational in early 2026.

PWM

Construction work on Monterey One Water's (M1W) Pure Water Monterey (PWM) recycled water project in Marina was completed in late 2019, and the Advanced Water Treatment plant began producing water in early 2020. Water began being injected into the Seaside Groundwater Basin in February 2020. In WY 2022, during the time period of October 1, 2021 through August 31, 2022 a total of 3,318 acre-feet of water had been injected.

The Title 22 Indirect Potable Reuse (IPR) Groundwater Replenishment regulations require that the water from the PWM project be retained underground no less than two months before it reaches the closest downgradient drinking water well. This is referred to as the Response Retention Time, and is intended to provide sufficient response time to identify a treatment failure and a quick response.

Underground retention time can be determined in three ways: (1) numerical modeling, (2) an intrinsic tracer study, or (3) an added (extrinsic) tracer study. A different credit factor for removal of pathogens is applied to each of these estimation methods to reflect the accuracy of the method. The credit factor indicates the amount of pathogen log removal per month that is credited for the time the injected water is retained underground before it is extracted for supply purposes. For numerical modeling, the factor is 0.5, for an intrinsic tracer study, the factor is 0.67, and for an extrinsic tracer study, the factor is 1.0. So for example, if numerical modeling indicated it would take 4 months for injected water to reach a supply well, 2 logs of pathogen removal would be credited. But if an intrinsic tracer study indicated this same 4 months of retention time, 2.68 logs of pathogen removal would be credited, and for an extrinsic tracer study that indicated this same 4 months, 4 logs of pathogen removal would be credited.

M1W performed an extrinsic tracer study that started in October 2021 and was completed in early 2022. The study demonstrated that the PWM water was qualified to get the full credit for underground retention time (factor of 1.0). At the time of preparation of this Annual Report, M1W had submitted to DDW the findings from its extrinsic tracer study and was awaiting DDW's approval of it .

Before the intrinsic tracer study was done, the numerical modeling predicted that the underground detention time would be 10.8 months before the water would reach ASR Wells 1 and 2. Once the intrinsic tracer study was completed, and the model was calibrated with data from this tracer study, the model showed that the shortest travel time from Deep Injection Well No.1 to ASR Monitoring Well No. 1 (adjacent to ASR Wells 1 and 2) was only 2.5 months. ASR-1 had been offline since February 2021, for independent reasons.

On September 14, 2021 the State Division of Drinking Water (DDW) issued a letter to Cal-Am stating that "the drinking water source designation of ASR Well 01 (ASR-1) has been changed from active to inactive." MPWMD reported that the inactive status remains in effect today and could only be removed if available data clearly demonstrated that the recycled water reaching ASR-1 when the well is in extraction mode meets at least a12-log virus reduction, the minimum underground retention time required by the recycled water regulations of 2 months, and all other applicable recycled water regulations. MPWMD went on to say that they did not believe that the Division of Drinking Water would accept the data and analysis by the M1W team to demonstrate minimum underground retention time without significant reduction of PWM injection capacity. And further, that they did not find any substantial rationale for changing the source designation of ASR-1 to active at this time or the foreseeable future.

Discussions between CAWC, MPWMD, and M1W were initiated in 2022 to discuss CAWC's concerns that it might not have sufficient pumping capacity, with ASR-1 no longer available as a supply well, to meet its customer's demands. The Watermaster participated in those discussions to monitor the issue. In October 2022 a teleconference discussion among these parties was held and progress was reported on work being done to address this situation. It focused on getting well ASR-4 permitted for use so it could be used in place of ASR-1 as a supply well. ASR-4 has been found to high a level of concentration of mercury that is above the drinking water standard. Therefore, CAWC was in the process of installing a mercury removal treatment unit so it could be permitted for use as a supply well. Installation of the mercury removal unit was expected to occur in November 2022, and that the well would become available as a supply well shortly thereafter.

In late 2021 M1W was also applying to the Division of Drinking Water to obtain additional pathogen reduction credits for certain of the treatment processes the PWM AWT provides, but which had not been previously used in determining the AWT's reduction credits. As of the date of preparation of this Annual Report, M1W reported that they had been approved by DDW to receive additional log reduction credits for chloramine due to the residual in the pipeline and the contact time during conveyance. They went on to report that they were still working on optimizing those credits. However, they consider additional credits to be "icing on the cake," since they consistently meet the regulatory requirement of 12-logs of virus reduction with their reverse osmosis and ultraviolet advanced oxidation treatment processes and underground retention time.

Public Buyout of CAWC's Water System

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

The 2021 Annual Report provided background information describing MPWMD's work on this matter and the status of its application to the Local Agency Formation Commission (LAFCO). LAFCO needs to approve the activation of MPWMD's latent powers in order for MPWMD to proceed with the acquisition process. This 2022 Annual Report updates the status of MPWMD's actions on this matter.

As reported in the 2021 Annual Report, at its December 6 meeting, on a 5 to 2 vote, LAFCO passed a resolution denying MPWMD's application to activate its latent powers in order to acquire CAWC's Monterey Water System, but directed its staff to prepare a new draft resolution laying out the Commission's reasons for denying the proposed latent powers activation. On January 5, 2022, the Commission, on a 5 to 2 vote, adopted the revised resolution denying the proposed activation of MPWMD's latent powers.

On January 31, 2022 MPWMD filed a formal Application for Reconsideration of LAFCO's disapproval of MPWMD's proposed activation of latent powers. At its February 28, 2022 meeting LAFCO denied MPWMD's Application for Reconsideration.

MPWMD indicated it would be considering taking legal action to try to overturn LAFCO's denial, and initiated litigation against LAFCO on April 1, 2022 as set forth in Monterey County Superior Court Case No. 22CV000925. A series of documents were subsequently submitted by the involved parties, hearings were held, and the next case management conference on the

litigation is scheduled for January 10, 2023.

Management Activities that May Bear on the Basin's Wellbeing

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

2. *Storm Water and Recycled Water.* Storm water and recycled water are both components of the Pure Water Monterey (PWM) project that is being implemented by Monterey One Water (M1W). CAWC has already contracted to receive 3,500 AFY of PWM recycled water for injection into, and recovery from, the Seaside Basin. 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.

Work to design the PWMX project is underway. However, construction of that project is dependent on the execution of the amended Water Purchase Agreement between MPWMD, CAWC, and M1W. If that agreement is executed, construction could begin as early as 2022, with the potential for the expansion project to become operational as early as 2024.

3. *Sustainable Groundwater Management Act.* Coordination between the Watermaster and the SVBGSA and the MCWD GSA is ongoing and is discussed in more detail above under Section J of this Annual Report. That coordination will aid in groundwater management of the Laguna Seca and Corral de Tierra subareas.

4. Climate Change. Higher seawater levels could exacerbate seawater intrusion concerns, which punctuates the importance of monitoring and long-term management to avoid seawater intrusion. From a water supply perspective, reliance on groundwater with sustainable management is ideal because the resource is a reservoir and therefore not subject to sharp fluctuations in availability resulting from year-to-year precipitation amounts as is the case with surface water supplies. Updating of the Watermaster's *Groundwater Model* in 2018 (discussed in Section J of the 2018 Annual Report) and *Basin Management Action Plan* in 2019 (discussed in Section J of the 2019 Annual Report) incorporated projected impacts from climate change and sea level rise.

5. *New Technical Issues or Activities.*

- Stormwater Projects Being Evaluated in the Monterey Peninsula Stormwater Resource Plan (SWRP).

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

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

Of the seven priority projects that were identified in the SWRP, several projects have been able to receive funding and are proceeding as described below.

City of Seaside: The Del Monte Manor project in the City of Seaside received grant in the amount of approximately $560,000 to complete the project, and the project was completed in 2022. This will divert stormwater that is captured in this area into the sanitary sewer so that it can become recycled water from the M1W Regional Wastewater Treatment Plant.

City of Sand City: The City of Sand City has two green street retrofit projects. They are the West End Stormwater Improvement Projects on Contra Costa Street and Catalina Street. The Contra Costa Street project is funded by an SWRCB Proposition 1 Stormwater Grant (technical assistance and implementation) and the Catalina Street project is funded by a DWR Proposition 1 IRWMP Grant. At the time of preparation of this 2022 Annual Report, both of these projects were in design at the 30% to 90% level with construction anticipated to occur in late 2023 or early 2024. They are described in more detail below:

- West End Stormwater Improvement Project – Contra Costa Street

Project Description
The West End Stormwater Improvement Project is a retrofit of an existing major collector street, Contra Costa Street between Olympia Avenue and Redwood Avenue. The Project will integrate Low Impact Development (LID) strategies to address flood control, water quality, and meet several community objectives. The Project proposes to install bioretention facilities (i.e. urban rain gardens), trash capture, permeable pavement, landscaping, and subsurface infiltration chambers and will improve pedestrian and Americans with Disability Act (ADA) access throughout the corridor. The Project will improve urban storm water runoff quality, augment groundwater quantity, provide climate change adaptation, reduce flooding, and create urban green space. The City developed the Project with a grant from the State Water Resources Control Board Proposition 1 Technical Assistance Funding Program for disadvantaged communities.

- West End Stormwater Improvement Project – Catalina Street

Project Description
The West End Stormwater Improvement Project is a retrofit of an existing minor collector street, Catalina Street, between Olympia Ave. and Ortiz Avenue. The Project will integrate Low Impact Development (LID) strategies to address flood control, water quality, and meet several community objectives. The Project proposes to install bioretention facilities (i.e. urban rain gardens), trash capture, permeable pavement, landscaping, and subsurface infiltration chambers and will improve pedestrian and Americans with Disability Act (ADA) access throughout the corridor. The Project will improve urban storm water runoff quality, augment groundwater quantity, provide climate change adaptation, reduce flooding, and create urban green space. The conceptual design of the Project was funded through a Proposition 1 Stormwater Technical Assistance grant which the City was previously awarded. Construction of the Project will be funded through a Proposition 1 Round 1 Integrated Regional Water Management (IRWM) Grant.

Note: Both Projects are designed to capture, treat, and infiltrate urban storm water runoff to reduce the amount of 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.

City of Monterey:

Oliver Street Stormwater Diversion Project

The City of Monterey applied to the MPWMD for a funding grant to help with the costs of development work for the Olivier Street Stormwater Diversion Project, also referred to as Lighthouse Tunnel Diversion Project and Monterey Tunnel Stormwater Diversion Project. The Project will divert urban drainage from an existing storm drain, currently discharging untreated to the Monterey Bay National Marine Sanctuary, to an existing City sanitary sewer utility for treatment at M1W's Regional Wastewater Treatment Plant. This diversion would 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 a point source discharge into Monterey Bay. MPWMD approved a grant of $25,000 for costs to plan and design this project at its October 17, 2022 Board meeting. The City is now coordinating with MPWMD to submit an application for State funding to construct the project, once its design has been completed.

Lake El Estero Urban Diversion Project

The City of Monterey has received State funding for this project and is beginning to work on the design and 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 so that it can become recycled water from the M1W Regional Wastewater Treatment Plant.

6. Reduction in Pumping in the Laguna Seca Subarea

In late 2020 CAWC completed construction of an intertie pipeline that enables 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%.

6. Obtaining Replenishment Water. As described in Section J under the subheading "Basin Management Action Plan," 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.

Replenishment water could potentially be obtained from either the MPWSP's desalination plant, or the proposed 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.

Research was performed to determine if there were any State or Federal funding programs that could provide money to purchase replenishment water. It was found that all of those programs only provide funding for planning, design, and construction of projects, but not for operational costs once the projects are constructed. In view of this, efforts were initiated by the Watermaster in 2021 to see if funds to cover these costs could be generated through some form of fee mechanism. Initial meetings 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. Further meetings to pursue obtaining replenishment water were expected to be held in 2022. However, no such meetings occurred because the Watermaster was having modeling performed (as described below) to better identify the quantities of replenishment water that would be needed.

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 every year 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 every year.
- 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 does not accomplish this, and an additional source of replenishment water will be needed. The only other potential source of replenishment water will be from desalination.

The entire Technical Memorandum describing the work that led to these conclusions is posted on the Watermaster's website at this link: http://www.seasidebasinwatermaster.org/Other/ExcecSummary_and%20TMs_Replenishment_Modeling_WaterBudget_and_AlternateScenario_Analysis%20_BOARD_DRAFT_20220901pdf.pdf.

A summary of this Technical Memo is contained in Attachment 9.

Studies performed for the Watermaster in 2022 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.

The entire Technical Memorandum describing the work that led to these conclusions is posted on the Watermaster's website at this link:
http://www.seasidebasinwatermaster.org/Other/Flow%20Direction-Flow%20Velocity%20Tech%20Memo%20Final%20Version%202-25-22.pdf

Information and graphics from this Technical Memo are contained in Attachment 10.

L. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. At the Watermaster Board meeting held on October 5, 2022 the Board adopted the FY 2023 budgets contained in Attachment 6, which support carrying out all elements of the 2023 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 2023.

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, will be implemented if seawater intrusion is detected within the Basin.

As of the date of preparation of this 2022 Annual Report, no future status conferences with the Court have been scheduled.

LISTING OF ACRONYMS USED IN THIS ANNUAL REPORT

AF - acre-feet
ASR - Seaside Basin Aquifer Storage and Recovery program
Basin - The adjudicated Seaside Groundwater Basin
BLM - Bureau of Land Management
BMAP - Basin Management Action Plan
CASGEM - California Statewide Groundwater Elevation Monitoring
CAWC - California American Water Company
DDW – State Water Resources Control Board Division of Drinking Water
Decision - Decision filed February 9, 2007 by the Superior Court in Monterey County under Case No. M66343 - California American Water v. City of Seaside et al.
DWR - California State Department of Water Resources
GSA - Groundwater Sustainability Agency
GSP - Groundwater Sustainability Plan
LSSA - Laguna Seca Subarea
M1W - Monterey One Water (formerly Monterey Regional Water Pollution Control Agency)
MCWD - Marina Coast Water District
MPWMD - Monterey Peninsula Water Management District
MPWSP - Monterey Peninsula Water Supply Project
M&MP - Monitoring and Management Program
NSY - Natural Safe Yield
PWM - Pure Water Monterey Project
PWMX – Pure Water Monterey Expansion Project
SGMA - Sustainable Groundwater Management Act
SIAR - Seawater Intrusion Analysis Report
SIRP - Seawater Intrusion Response Plan
SVBGSA - Salinas Valley Basin Groundwater Sustainability Agency
SWRCB - State Water Resources Control Board
TAC - Technical Advisory Committee
USGS - United States Geological Survey
WY - Water Year

TO: Board of Directors

FROM: Laura Paxton, Administrative Officer

DATE: December 7, 2022

SUBJECT: Watermaster Voting Positions and Weighted Voting

- -

RECOMMENDATION: It is recommended that the Board consider setting a policy on Watermaster voting positions and weighted voting by modifying section 3.1.1. to read: *Any Member may request a weighted roll call vote for any question or motion considered by the Watermaster Board, with voting positions of each vote called out by the clerk of the board. The request for a weighted roll call vote must be made prior to any question or motion considered by the Watermaster Board, and the ayes and noes, with voting positions of each, thereon shall be recorded in the minutes of the meeting.*

BACKGROUND: The Watermaster Rules and Regulations state: A vote by a Member shall cast the following number of voting positions on the question presented to the Watermaster Board.

Party/Group	Votes
California American Water	3 votes
City of Seaside	2 votes
Monterey County Water Resources Agency	2 votes
Monterey Peninsula Water Management District	2 votes
City of Sand City	1 vote
City of Monterey	1 vote
City of Del Rey Oaks	1 vote
Landowner Parties Group (Coastal Subarea)	1/2 vote
Landowner Parties Group (Laguna Seca Subarea)	1/2 vote

At the October 5, 2022 Watermaster Board meeting, Director Riley requested that staff review the Decision and the Watermaster Rules and Regulations with regard to a board member calling for a "weighted" vote and include as an agenda item at the next meeting.

DISCUSSION: Two attachments are provided: an excerpt from the Amended Decision that states the voting position of parties; and the first two pages of the Watermaster Rules and Regulations that also list voting positions (staff has added language suggested to address weighted voting). There is no verbiage in either document regarding calling for a "weighted" vote per se. The Board may want to consider setting policy on weighted voting. A red/blue-lined version of the Watermaster Rules and Regulations with the recommended wording to codify such a policy is provided.

Attachments:
Watermaster Rules and Regulations pages 1-2 with suggested verbiage for weighted voting procedure
Amended Decision excerpt

RULES AND REGULATIONS

OF THE

SEASIDE GROUNDWATER BASIN WATERMASTER

1.0 Introduction

The Watermaster for the Seaside Basin was created on March 27, 2006 by entry of Judgment in *California American Water v. City of Seaside, et al*. (Case No. M66343, California Superior Court, Monterey County). A copy of the Judgment is appended to these Rules and Regulations. The purpose of the Watermaster is to assist the Court in the administration and enforcement of the provisions of the Judgment. All actions of the Watermaster shall be governed by the terms of the Judgment and these Rules and Regulations. In the event of any conflict between the terms of the Judgment and these Rules and Regulations, the Judgment, together with any further or supplemental orders or directions from the Court, shall control the actions of the Watermaster.

2.0 Definitions

Words and phrases which are defined in the Judgment shall have the same meaning when used in these Rules and Regulations. Other terms used in these Rules and Regulations shall have the meaning ascribed to them herein.

2.1 Parties

"**Parties**" shall mean and refer, individually and collectively, to California American Water Company ("**CalAm**"), the Public Agency Parties and the Landowner Group Parties. "**Public Agency Party**" shall mean and refer individually to the cities of Seaside, Sand City, Del Rey Oaks and Monterey, the County of Monterey, the Monterey County Water Resources Agency and the Monterey Peninsula Water Management District. "**Landowner Party**" shall mean and refer to a Producer in the Coastal Subarea and the Laguna Seca Subarea which is not a Public Agency Party or CalAm.

3.0 Watermaster Board

3.1 Representatives and Voting

The Watermaster may only act by and through the Watermaster Board. The Watermaster Board shall consist of nine (9) members ("**Members**"). Members shall be appointed by each of the following Parties or group of Parties in accordance with the procedures set forth in section 4 of these Rules and Regulations. A vote by a Member shall cast the following number of voting positions on the question presented to the Watermaster Board.

Party/Group	Votes
California American Water	3 votes
City of Seaside	2 votes
Monterey County Water Resources Agency	2 votes
Monterey Peninsula Water Management District	2 votes
City of Sand City	1 vote
City of Monterey	1 vote
City of Del Rey Oaks	1 vote
Landowner Parties Group (Coastal Subarea)	1/2 vote
Landowner Parties Group (Laguna Seca Subarea)	1/2 vote

3.1.1 Quorum

A minimum of six (6) Members shall be required to constitute a quorum of the Watermaster Board. No fewer than seven (7) affirmative votes shall be required for any action by the Watermaster. Any Member may request a weighted roll call vote for any question or motion considered by the Watermaster Board, with voting positions of each vote called out by the clerk of the board. The request for a weighted roll call vote must be made prior to~~on~~ any question or motion considered by the Watermaster Board, and the ayes and noes, with voting positions of each,- thereon shall be recorded in the minutes of the meeting.

3.2 Organization of the Watermaster Board

At the first meeting of the Watermaster Board each year, the Watermaster Board shall elect a Chairperson, and a Vice Chairperson from its Membership. The Watermaster Board shall also select a Secretary, Treasurer and such assistant secretaries and assistant treasurer as may be appropriate. The Secretary, Treasurer, or any assistant or administrator appointed by the Watermaster Board need not be a Member.

3.3 Advisory Committees

The Watermaster Board may establish such committees and subcommittees as it deems necessary to advise Watermaster Board on specific issues. Persons appointed to such committees or subcommittees need not be a Member. The Watermaster Board shall appoint the Chairperson of any such committee or subcommittee. No more than five (5) Members or their Alternates shall sit on any individual committee or subcommittee. Each committee member shall be entitled to one (1) vote only.

3.3.1 Standing Committees

The Watermaster Board has established the following standing committees.

A. Technical Advisory Committee

K. Order of Accounting for the Production of Groundwater. Unless otherwise requested by a Producer in writing to Watermaster, Watermaster shall account for all Production of Water form the Seaside Basin by a Producer in any Water Year as follows: Production shall first be deemed Production of that Producer's Production Allocation up to that Producer's total Production Allocation, and thereafter shall be deemed Production of that Producer's Carryover Credits, if any, and thereafter shall be deemed Production of that Producer's Stored Water Credits, if any. So long as consistent with this section, Watermaster may prescribe administrative rules within its Rules and Regulations concerning the method and manner of accounting for the Production of Groundwater.

L. Appointment of Watermaster; Watermaster Administrative Provisions.

1. Establishment of Watermaster. A Watermaster shall be established for the purposes of administering and enforcing the provisions of this Decision and any subsequent instructions or orders of the Court. The Watermaster shall consist of thirteen (13) voting positions held among nine (9) representatives. California American, Seaside, Sand City, Monterey, and Del Rey Oaks shall each appoint one (1) representative to Watermaster for each two-year term of Watermaster. The Landowner Group shall appoint two (2) representatives to Watermaster for each two-year term of Watermaster. The MPWMD shall have one (1) representative and the MCWRA shall have one (1) representative. The representatives elected to represent the Landowner Group shall include one (1) representative from the Coastal Subarea and one (1) representative from the Laguna Seca Subarea. The California American representative shall possess three (3) voting positions; the. Seaside, MPWMD, and MCWRA representatives shall each possess two (2) voting positions; and every other representatives shall posses one (1) voting position. Each representative from the Landowner Group shall carry one-half of the Landowner Representative vote. Each representative under the Landowner Group may also act as an alternate for the other.

The right to assign a representative to Watermaster and the representative's respective voting power shall only transfer upon permanent sale of 51 percent or more of the Party's Base Water Right, but not upon the lease of any portion of the member's Base Water Right.

2. Quorum and Agency Action. A minimum of six (6) representatives shall be required to constitute a quorum for the transaction of Watermaster affairs. Unless otherwise provided herein, the affirmative vote of seven (7) voting positions shall be required to constitute action by Watermaster.

3. Qualification, Nomination, Election, and Administrative Procedures.

a. Qualification. Any duly authorized agent of the entities or groups provided for in Section III.L.1. is qualified to serve as a representative on the Watermaster board.

b. Term of Office. Each new Watermaster board shall assume office at the first regular meeting in January of every second year. Each Watermaster board member shall serve for a two-year term, subject to the retained jurisdiction of the Court. Should a vacancy arise on the Watermaster board for any reason, the respective entity or group from which that vacancy arises shall appoint a replacement representative in the manner prescribed by Watermaster Rules and Regulations. Such replacement shall complete the remainder of the term of the vacated office. Within 30 days of the appointment of any new Watermaster board member, any Party may file a motion with the Court challenging the appointment. The Court, acting *sua sponte*, may reject any Watermaster board appointment within the 30-day period. Challenges shall be based on allegations that the appointed board member does not possess the requisite skills necessary to effectively serve as a member of the Watermaster board.

c. Nomination and Election of Landowner Representative. The nomination and election of the Landowner Group representatives shall occur in November of every second year in the manner designated by Watermaster Rules and Regulations. The nomination and election of the Landowner Group representatives shall be by cumulative voting with each member of the Landowner Group entitled to one (1) vote for each acre-foot of annual entitlement under the member's Alternative Production Allocation. Voting rights may only be transferred upon permanent sale of 51 percent or more of the Landowner Party's Base Water Right.

d. Organization. At he first meeting of each newly comprised Watermaster board, the Watermaster shall elect a chairman and a vice-chairman from its membership. It shall

also select a secretary, a treasurer and such assistant secretaries and assistant treasurers as may be appropriate, any of whom may, but need not, be representatives appointed to Watermaster.

e. Minutes. Minutes of all Watermaster meetings shall be kept and shall reflect a summary of all actions taken by the Watermaster. Copies thereof shall be furnished to all Parties and interested Persons as provided for inn Section III.P.2. Copies of minutes shall constitute notice of any Watermaster action therein reported.

f. Regular Meetings. The Watermaster shall hold regular meetings at places and times to be specified in the Watermaster Rules and Regulations. Its first meeting must be held within 15 days from the date Judgment is granted in this case. Notice of the scheduled or regular meetings of the Watermaster and of any changes in the time or place thereof shall be mailed to all Parties and interested Persons as provided for in Section III.P.2.

g. Special Meetings. Special meetings of the Watermaster may be called at any time by the chairman or vice chairman or by any three (3) representatives appointed to Watermaster by written notice delivered personally or mailed to all Parties and interested Persons as provided for in Section III.P.2., at least twenty-four (24) hours on a business day before the time of each such meeting in the case of personal delivery, and five (5) days' notice prior to such meeting in the case of mail if the special meeting is being called under urgent circumstances. If a special meeting is called and no urgent circumstance exists, then at least ten (10) days' notice must be provided to all Parties. The notice shall specify the time and place of the special meeting and the business to be transacted at such meeting. No other business shall be considered at such meeting.

h. Meeting Procedures. Watermaster shall designate the procedure for conducting meetings within its Rules and Regulations. Rules and regulations for conducting meetings shall conform to the procedures established for meetings of public agencies pursuant to the California Open Meetings Law ("Brown Act"), California Government Code section 54950 et seq., as it may be amended from time to time.

i. Appointment of the Initial Watermaster Board. The initial Watermaster board, which shall take office immediately from the date Judgment is granted, shall be composed

D-R-A-F-T
MINUTES

Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
November 16, 2022
(Meeting Held Using Zoom Conferencing)

Attendees: **TAC Members**
City of Seaside – Nisha Patel
California American Water – Tim O'Halloran (Joined the meeting at 2:15 p.m.)
City of Monterey – Cody Hennings
Laguna Seca Property Owners – Wes Leith
MPWMD – Jon Lear
MCWRA – Tamara Voss
City of Del Rey Oaks – No Representative
City of Sand City – Initially Taylor Fagan, then at 2:30 p.m. Leon Gomez
Coastal Subarea Landowners – No Representative

Watermaster
Technical Program Manager – Robert Jaques

Consultants
Montgomery & Associates – Georgina King

Others
MCWD – Patrick Breen

The meeting was convened at 1:33 p.m.

1. Public Comments and Roll Call

There were no public comments. Ms. Voss conducted the roll call with the members listed above being in attendance.

2. Administrative Matters:

A. Make Findings Required Under AB 361 Regarding Holding Meetings Via Teleconference

Mr. Jaques briefly summarized the agenda packet materials for this item. A motion was made by Ms. Voss, seconded by Mr. Hennings, to adopt the findings contained in the agenda packet. The motion passed with Mr. Leith voting no.

Mr. Lear reported that beginning January 1 of 2023 there will be some changes in the requirements with regard to using remote participation in meetings. He will send Mr. Jaques the memo that MPWMD's legal counsel had provided them with information on this.

B. Approve Minutes from the August 10, 2022 Meeting

On a motion by Mr. Lear, seconded by Ms. Voss, the minutes were unanimously approved as presented.

C. Results from Martin Feeney's October 2022 Induction Logging of the Sentinel Wells

Mr. Jaques summarized the agenda packet materials for this item. Mr. Lear reported that a new datalogger had been put into the well last week. Ms. King asked if the old one could be fished out. Mr. Lear said he was not sure how successful that would be, and said he deferred to Mr. Feeney on doing future induction logging of the well. Mr. Jaques reported that Mr. Feeney felt okay with resuming induction logging next year. At that time it might be possible to determine if the induction logger could be retrieved. However, Mr. Feeney had reported that he expected the datalogger would have been damaged beyond repair and that no data could be retrieved from it if it had descended to the bottom of the well.

D. Sustainable Groundwater Management Act (SGMA) Update

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

E. Update on Security National Guarantee (SNG) Well

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

3. Discuss and Provide Input on the 2022 Seawater Intrusion Analysis Report (SIAR)

Mr. Jaques introduced this topic. Ms. King then made a presentation with the attached PowerPoint slides. She went into detail with regard to well FO-10 shallow, which has an abandoned steel tremie pipe in it which may have corroded and is allowing leakage downward. She feels that both FO-10 Shallow and Deep are compromised and therefore should be destroyed and replaced. Mr. Lear reported that he wasn't here when the well was installed, but did read Mr. Oliver's field notes that said that the tremie pipe had gotten stuck and could not be pulled back out.

Ms. Voss provided some helpful additional information with regard to some of the Stiff diagrams and how they are interpreted.

In the Northern Coastal Subarea groundwater levels are continuing to decline, but this has slowed somewhat as a result of injection of water under the Pure Water Monterey Project. In the Southern Coastal Subarea groundwater levels are relatively stable. In the Laguna Seca Subarea groundwater levels are continuing to fall at about 0.5 feet per year. Ms. King reported she was hopeful of getting data from the SVBGSA to input into the Watermaster's groundwater model to replace the assumed values that had to be used, since no data was available from the area to the east of the Laguna Seca Subarea when the model was created.

All pumping depressions have grown in size, probably due to the shortage of rainfall in the last water year. All Northern Coastal Subarea groundwater levels are below protective water levels, and all deep aquifer groundwater levels in the Northern Coastal Subarea are well below sea level. However, there are no current indications of sea water intrusion.

Groundwater production was slightly higher in WY2022 (by 43 acre-feet) than in WY 2021. However, the WY2022 production of 2,871 acre-feet is less than the 3,000 acre-feet per year of Natural Safe Yield in the Decision.

Recommendations in the report include (1) replacing well FO-9 Shallow, and (2) destroying and replacing wells FO-10 Shallow and Deep.

Mr. Lear reported that if well FO-10 is causing contamination by allowing shallow groundwater to travel downward into the deep aquifer, MPWMD, as the well owner, would have the responsibility to destroy it. Mr. Jaques asked Mr. Breen what Marina Coast Water District's plans were with regard to well FO-10. He said he would discuss this with their hydrogeologic consultants and seek their recommendations.

Ms. Voss said she supported the destruction and replacement of well FO-10. She felt the steel tremie pipe in there may confuse DWR's AEM flight data when that becomes available after DWR completes the AEM work. She wondered why the Pure Water Monterey monitoring well data has not been provided to Montgomery and Associates for inclusion in the SIAR. Mr. Lear said that MPWMD does not get that data, and that it would need to be obtained from M1W. Ms. King said that she had requested the data from M1W, but the data that was provided was not useful. For next year's SIAR, she will make another request to M1W to obtain the data in a useful form.

Mr. Leith asked how it is possible to differentiate between the shallow and deep aquifers. Ms. King responded that the Paso Robles is the shallow aquifer and the Santa Margarita is the deeper aquifer. They have different lithology (geologic properties) and are at different depths below ground level. Mr. Lear said there is an aquatard between the two aquifers that restricts flow between them. Mr. Lear reported that in the past most groundwater production had been from the Paso Robles aquifer, but now the majority of the production is from the Santa Margarita aquifer. He went on to note that the Ord Terrace shallow well has historically had fluctuations in chloride levels, but no trend is apparent. Ms. King said she concurred with that and felt that it may be affected by nearby production wells.

A motion was made by Mr. Lear, seconded by Mr. Gomez, for the TAC to accept the SIAR and to have it presented to the Board. The motion passed unanimously.

4. Discuss and Provide Input on the Preliminary Draft Watermaster 2022 Annual Report

Mr. Jaques summarized the agenda packet materials on this item. There were no suggested revisions or edits to the document as presented.

5. Approve Initial RFSs for Montgomery & Associates, MPWMD, Martin Feeney, and Todd Groundwater for 2023

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

Mr. Lear reported that he had been instructed to abstain from voting on the MPWMD contract, since that is the organization he represents.

A motion was made by Mr. Lear, seconded by Ms. Voss, to approve all of the contracts with the exception of the MPWMD contract. This motion passed unanimously.

A second motion was made by Ms. Voss, seconded by Mr. Leith, to approve the MPWMD contract. This motion passed unanimously with Mr. Lear abstaining.

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

7. Other Business
Mr. Jaques reported that he was working on draft cost-sharing agreements for replacement of well FO-9 Shallow, and also on sharing the costs of monitoring data for certain wells with Marina Coast Water District.

The meeting adjourned at 2:49 PM.

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 2022
(All Values in Acre-Feet [AF])

	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 2021	for WY 2022
Coastal Subareas																					
CAW - Coastal Subareas	SPA	373.37	267.89	196.91	**838.17**	336.11	456.67	483.60	**1,276.38**	474.44	527.94	526.22	**1,528.60**	546.50	530.29	474.04	**1,550.83**	**1,510.69**	1,466.02	165.15	1,631.18
Luzern		26.16	0.33	0.00	**26.49**	0.00	50.18	53.88	**104.06**	51.27	52.25	50.06	**153.58**	50.74	50.40	38.00	**139.14**	**423.26**			
Ord Grove		109.59	48.86	38.68	**197.13**	72.51	95.23	106.91	**274.65**	102.12	104.55	96.53	**303.20**	106.05	111.60	103.48	**321.13**	**1,096.11**			
Paralta		75.83	92.49	107.42	**275.73**	113.66	111.53	96.00	**321.19**	103.07	132.66	131.90	**367.64**	139.62	122.06	113.40	**375.08**	**1,339.65**			
Playa		0.00	0.00	0.00	**0.00**	0.00	0.00	0.14	**0.14**	0.00	13.98	32.33	**46.32**	33.33	33.07	31.74	**98.14**	**144.60**			
Plumas		18.98	0.00	0.00	**18.98**	0.00	14.47	29.35	**43.82**	28.04	28.88	27.46	**84.39**	28.43	27.78	27.42	**83.62**	**230.81**			
Santa Margarita		142.81	126.22	50.81	**319.84**	149.94	185.27	197.33	**532.53**	189.93	195.61	187.93	**573.47**	188.34	185.37	160.01	**533.71**	**1,959.56**			
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		(343.61)	(233.66)	(162.10)	**(739.37)**	(301.21)	(418.82)	(400.00)	**(1,120.03)**	(400.00)	(350.00)	(249.07)	**(999.07)**	(273.96)	(287.16)	(263.70)	**(824.82)**	**(3,683.29)**			
City of Seaside (Municipal)	SPA	14.61	13.21	12.59	**40.41**	11.66	13.07	15.87	**40.61**	14.19	16.66	14.78	**45.63**	0.15	13.98	14.34	**28.47**	**155.12**	120.28	0.00	120.28
Granite Rock Company	SPA	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	**0.00**	11.35	236.07	247.42
DBO Development No. 30	SPA	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	**0.00**	20.59	424.88	445.47
Calabrese (Cypress Pacific Inv.)	SPA	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	- -	- -	- -	**0.00**	**0.00**	2.76	13.57	16.33
City of Seaside (Golf Courses)	APA	27.41	7.17	5.14	**39.72**	5.45	30.92	43.83	**80.20**	44.89	74.47	88.67	**208.04**	57.13	80.54	45.56	**183.23**	**511.19**	540.00		540.00
Sand City	APA	0.12	0.03	0.11	**0.26**	0.09	0.10	0.20	**0.39**	0.14	0.19	0.17	**0.50**	0.15	0.19	0.16	**0.50**	**1.65**	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**	149.00		149.00
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	4.45	3.94	1.78	**10.16**	1.58	1.43	3.52	**6.53**	3.16	2.98	2.47	**8.61**	2.56	3.27	2.82	**8.65**	**33.95**	31.00		31.00
Coastal Subareas Totals					**189.35**				**284.08**				**792.31**				**946.86**	**2,212.60**	**2,356.00**	**839.68**	**3,195.67**
Laguna Seca Subarea																					
CAW - Laguna Seca Subarea	SPA	10.58	9.56	9.11	**29.24**	8.85	9.67	9.94	**28.46**	10.82	12.90	15.38	**39.10**	13.47	14.08	13.65	**41.21**	**138.02**	0.00		0.00
Ryan Ranch Unit		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			
Hidden Hills Unit		10.58	9.56	9.11	29.24	8.85	9.67	9.94	28.46	10.82	12.90	15.38	**39.10**	13.47	14.08	13.65	41.21	138.02			
Bishop Unit 3		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			
Bishop Unit 1		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			
The Club at Pasadera	APA	32.00	7.00	8.00	**47.00**	0.00	26.00	12.00	**38.00**	27.00	41.00	36.00	**104.00**	28.00	24.00	10.00	**62.00**	**251.00**	251.00		251.00
Laguna Seca Golf Resort (Bishop)	APA	17.51	5.83	0.00	**23.34**	0.00	7.07	9.69	**16.76**	14.87	32.55	36.24	**83.66**	37.66	41.08	22.80	**101.54**	**225.31**	320.00		320.00
York School	APA	1.13	0.29	0.04	**1.46**	0.18	0.62	1.52	**2.32**	2.14	2.88	1.81	**6.83**	2.15	3.42	2.50	**8.07**	**18.68**	32.00		32.00
Laguna Seca County Park	APA	1.55	1.73	1.41	**4.68**	1.04	1.28	1.02	**3.34**	2.40	1.87	1.99	**6.26**	3.61	4.23	3.11	**10.94**	**25.22**	41.00		41.00
Laguna Seca Subarea Totals					**105.72**				**88.89**				**239.85**				**223.77**	**658.23**	**644.00**	**0.00**	**644.00**
Total Production by WM Producers					**295.08**				**372.96**				**1,032.16**				**1,170.63**	**2,870.83**	**3,000.00**	**839.68**	**3,839.67**
										Annual Production from APA Producers								1,067.00			1,379.00
										Annual Production from SPA Producers								1,803.83			2,460.67

																			Previous Balance	*Total*
CAW / MPWMD ASR (Carmel River Basin source water)																				
Injection	0.00	0.00	61.69	**61.69**	8.86	0.00	0.00	**8.86**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**70.55**		
(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	61.69	**61.69**	8.86	0.00	0.00	**8.86**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	**70.55**	**801.55**	**872.10**
Pure Water Monterey (PWM) Injection and Cal-Am Recovery																			
Injection Operating Reserve	0.00	0.00	0.00	**0.00**				**0.00**				**0.00**				**0.00**	**0.00**	**1,200.48**	**1200.48**
Injection Drought Reserve	0.00	0.00	0.00	**0.00**				**0.00**				**0.00**				**0.00**	**0.00**	**0.0**	**0.00**
Delivery to Basin	298.20	289.97	312.27	**900.44**	320.51	282.22	341.92	**944.65**	362.09	295.58	264.55	**922.22**	273.96	287.16	318.90	**880.02**	**3647.33**	**0.0**	**3647.33**
CAW	(343.61)	(233.66)	(162.10)	**(739.37)**	(301.21)	(418.82)	(400.00)	**(1120.03)**	(400.00)	(350.00)	(249.07)	**(999.07)**	(273.96)	(287.16)	(263.70)	**(824.82)**	**(3683.29)**	**0.0**	**(3683.29)**

Notes:
1. The Water Year (WY) begins October 1 and ends September 30 of the following calendar year. For example, WY 2022 begins on October 1, 2021, and ends on September 30, 2022.
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, 2022.
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 2022* (see Item VIII.B. in 1/5/2022 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.

WATERMASTER PRODUCER ALLOCATIONS WATER YEAR 2022 IN ACRE-FEET (AF)

INCLUDING A 10% TRIENNIEL REDUCTION FOR 100% OF THIS WATER YEAR

Initial Basin-Wide Operating Yield[3]	**3000.00**	**Coastal Operating Yield[1]**	**2356.00**
Natural Safe Yield (NSY)[3]	**3000.00**	**Laguna Seca Operating Yield[2]**	**644.00**

ALTERNATIVE PRODUCER ALLOCATIONS

Coastal Subarea [5]	AF	Laguna Seca Subarea [5]	AF
Seaside (Golf)	540.00	Nicklaus Club Monterey	251.00
SNG	149.00	Bishop	320.00
Calabrese	6.00	York School	32.00
Mission Memorial (Alderwood)	31.00	Laguna Seca County Park	41.00
Sand City	9.00		
Total[1]	**735.00**	**Total[1]**	**644.00**

ALTERNATIVE PRODUCER AMOUNT PUMPED WY 2022

Coastal Subarea [5]	AF	Laguna Seca Subarea [5]	AF	
Seaside (Golf)	511.19	The Club at Pasadera	251.00	
SNG	0.00	Bishop	225.31	
Calabrese	0.00	York School	18.68	
Mission Memorial (Alderwood)	33.95	Laguna Seca County Park	25.22	**Total Alternative Producer WY 2022 Production**
Sand City	1.65			
Total[1]	**546.79**	**Total[1]**	**520.21**	**1067.00**

STANDARD PRODUCER ALLOCATIONS

Coastal Operating Yield Available to Standard Producers (AF)			1621.00	Laguna Seca Operating Yield Available to Standard Producers (AF)			0.00
Coastal Subarea	**Standard Producer Allocations**		**AF Available to This Producer**	**Laguna Seca Subarea**	**Standard Producer Allocations**		**AF Available to This Producer**
	Base Water Right %[4]	**Weighted %. [5]**			**Base Water Right %[4]**	**Weighted %. [5]**	
California American Water (CAW)	77.55%	90.44%	1466.03	CAW	45.13%	100.00%	0.00
Seaside (Municipal)	6.36%	7.42%	120.28				
Granite Rock	0.60%	0.70%	11.35				
D.B.O. Development No. 30	1.09%	1.27%	20.59				
Calabrese (Cypress Pacific Investors LLC)	0.15%	0.17%	2.76				
Total	**85.75%**	**100.0%**	**1621.00**	**Total**	**45.13%**	**100.0%**	**0.00**

Allocation of Available Operating Yield Among Standard Producers	**Base Water Right Available to this Producer (AF)**	**% NSY to SPA (Base Water Right ./. Total Water Right)**	**NSY Available to Producers (AF) Current Water Year**	**Free Carryover Credits from Prior Water Year**	**Not-Free Carryover Credits from Prior Water Year**	**Water Rights Transferred / Sold DBO to CAW 710 Amador (0.16) DBO to CAW 2 Upper Ragsdale (2.15)**	**Water Rights Transferred / Sold Calabrese to CAW Ryan Ranch CHOMP**	**Total Producer NSY (AF) (NSY Available + Free Carryover Credits)**	**Total Authorized Production Current WY (Base Water Right + APA non production[7] + All Carryover[6])**	**Actual AF Pumped by Producer in WY 2022**	**Free Carry over Credits to WY 2023**	**Not-Free Carry over Credits to WY 2023**	**Stored Water Credits to WY 2023**
		NSY 3000 - 1067 AF =	WY 2022 APA Pumped 1067 AF 1,933.00					NSY 3000 - 1067 AF =	WY 2022 APA Pumped 1067 AF 1,933.00				
California American Water	1466.03	90.44%	1748.20	0.00	0.00	2.31	3.17	1753.68	1753.68	1648.71	0.00	104.97	872.10
Seaside (Municipal)	120.28	7.42%	143.43	0.00	0.00	0.00	0.00	143.43	143.43	155.12	0.00	0.00	0.00
Granite Rock	11.35	0.70%	13.53	208.96	27.12	0.00	0.00	222.49	249.60	0.00	222.49	27.12	0.00
D.B.O. Development No. 30	20.59	1.27%	24.55	388.20	38.98	(2.31)	0.00	410.44	449.43	0.00	410.44	38.98	0.00
Calabrese (Cypress Pacific Investors LLC)	2.76	0.17%	3.29	15.16	1.58	0.00	(3.17)	15.28	16.86	0.00	15.28	1.58	0.00
Total	**1621.01**	**100.00%**	**1933.00**	**612.32**	**67.69**	**0.00**	**0.00**	**2545.32**	**2613.00**	**1803.83**	**648.21**	**172.65**	**872.10**

Footnotes:
(1) From page 17 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.
(2) From page 14 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.
(3) From page 21 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.
(4) From Table 1 on page 19 of Exhibit A (Amended Decision) of Court Order filed February 9, 2007.
(5) Calculated from the Base Water Right percentages in the adjacent column. Any discrepancy in totals is due to rounding.
(6) Base Water Right plus Free and Not Free Carryover Credit = 2019 Production Allocation no longer capped due to increase in storage allocation (see 2020 Declaration of Usable Storage Space)
(7) Commencing Water Year 2021 Natural Safe Yield = Operating Yield of 3,000AF. Therefore, the remainder of 3,000AF - APA production is applied to both NSY & OY Standard Producer allocations
Note: Calabrese (Cypress Pacific Investors LLC) opted to convert 8AF of its 14AF Alternative Production Allocation to Standard Production Allocation on January 22, 2015 (notice filed by Cypress with Superior Court).
Producers carryover is capped at their storage capacity.

CALCULATION OF REPLENISHMENT ASSESSMENTS WATER YEAR 2022

Using the Basin-wide methodology approved by the Court on January 12, 2007, and as shown in detail on the spreadsheet contained in this attachement, Watermaster calculated the Water Year (WY) (October 1st through September 30th) 2022 Replenisment Assessments as follows:

	2022 Replenishment Assessment NSYO Unit Charge =					$3,260.00			
	2022 Replenishment Assessment OSYO Unit Charge =					$815.00			
2022 Natural Safe Yield (NSY) Available to Standard Producers =						1,933.00	AF (3,000 AF NSY - 1067.00 Alternative Producers 2022 Production)		
Standard Producers	**WY 2022 Production (AF)**	**% of NSY Available**	**Volume of NSY Available (AF)**	**NSY Overproduction (AF)**	**NSY Overproduction Assessment**	**Operating Yield Available (AF)**	**Operating Yield Overproduction (AF)**	**Operating Yield Overproduction Assessment**	**Total Assessment**
California American Water	1,648.71	90.44%	1,748.20	-	$ -	1,753.68	-	$ -	$ -
Seaside (Municipal)	155.12	7.42%	143.43	11.69	38,116.08	143.43	11.69	9,529.02	47,645.11
Granite Rock	-	0.70%	13.53	-	-	249.60	-	-	-
D.B.O. Development No. 30	-	1.27%	24.55	-	-	449.43	-	-	-
Calabrese (Cypress Pacific Inv.)	-	0.17%	3.29	-	-	16.86	-	-	-
Total Production	**1,803.83**	**100.00%**	1,933.00	**11.69**	**$ 38,116.08**	**2,613.00**	**11.69**	**$ 9,529.02**	**$ 47,645.11**
Alternative Producers	**WY 2021 Production (AF)**	**% of NSY Available**	**Volume of NSY Available (AF)**	**NSY Overproduction (AF)**	**NSY Overproduction Assessment**	**Operating Yield Available (AF)**	**Operating Yield Overproduction (AF)**	**Operating Yield Overproduction Assessment**	**Total Assessment**
City of Seaside (Golf Courses)	511.19	N/A	540.00	0.00	$ -	540.00	0.00	$ -	$0
Security National Guaranty	-	N/A	149.00	0.00	-	149.00	0.00	-	-
Calabrese (Cypress Pacific Inv.)	-	N/A	6.00	0.00	-	6.00	0.00	-	-
Mission Memorial (Alderwoods)	33.95	N/A	31.00	2.95	9,607.87	31.00	2.95	2,401.97	12,009.84
City of Sand City	1.65	N/A	9.00	0.00	-	9.00	0.00	-	-
Nicklaus Club Monterey	251.00	N/A	251.00	0.00	-	251.00	0.00	-	-
Laguna Seca Golf Resort (Bisho	225.31	N/A	320.00	0.00	-	320.00	0.00	-	-
York School	18.68	N/A	32.00	0.00	-	32.00	0.00	-	-
Laguna Seca County Park	25.22	N/A	41.00	0.00	-	41.00	0.00	-	-
Total Production	**1,067.00**	**N/A**	**1,379.00**	**2.95**	**$ 9,607.87**	**1,379.00**	**2.95**	**$ 2,401.97**	**$12,010**

Seaside Groundwater Basin Watermaster
P.O. Box 51502, Pacific Grove, CA 93950
watermasterseaside@sbcglobal.net
(831) 595-0996

October 14, 2022

Mr. Tom Luster
California Coastal Commission
Energy and Ocean Resources Unit
445 Market Street, Suite 300
San Francisco, CA 94101

Re: Monterey Peninsula Water Supply Project, CDP Application No. 9-20-0603

Dear Mr. Luster,

The Seaside Groundwater Basin Watermaster is tasked by the Court to administer the Seaside Basin. Our board is comprised of elected officials and others who each have a role in the protection and management of the basin.

Today we once again write regarding the Coastal Development Permit (CDP) for California American Water Company's (CAW) Monterey Peninsula Water Supply Project (MPWSP). The Watermaster also wrote the Commission on October 4, 2019 and August 12, 2020. Please incorporate those prior letters by reference.

The Commission and other stakeholders must understand what is at stake for the Seaside Basin and the water supplies that are dependent on the health and security of the Basin. The long-term health of this basin is of the utmost importance. It has become the most critical water supply resource for the Monterey Peninsula. The Basin provides native groundwater for municipal uses in CAW's Monterey and Laguna Seca service areas and the City of Seaside. The Seaside Basin also provides critical groundwater storage for CAW's Aquifer Storage and Recovery (ASR) diversions from the Carmel River, and provides storage and treatment of recycled water for Monterey One Water's original Pure Water Monterey (PWM) Project as well as its expansion.

The loss of Seaside Basin storage as a result of overdraft and seawater intrusion would have a catastrophic impact on these crucial existing water supplies, not only for CAW's customers on the Monterey Peninsula, but for the other municipal and irrigation users in Monterey County.

We ask that the Commission take notice of the recent updates to our groundwater modeling and water budget analysis. Attached, please find the Summary of Updated Replenishment Water Analyses prepared by our Technical Program Manager. As noted, the original basin studies were performed in 2013. That work, as well as additional modeling, was referenced in prior correspondence. The two 2022 updates simulated groundwater conditions from 2018 through 2050. The most recent used a "hybrid water budget" that contained additional assumptions. In short, our technical team and the consulting hydrologists looked at both a "best case scenario" and a more "conservative" one. Montgomery & Associates presented these studies to our Board at its September 7, 2022 meeting where they were unanimously accepted.

As noted in the attached Executive Summary, our basin is in need of replenishment water. Specifically, it states –

> *"Under the "best case" scenario 1,000 acre-feet-per-year (AFY) of water would need to be injected into the Seaside Basin every year to replenish it and raise groundwater levels high enough to prevent seawater intrusion from occurring. Under the "conservative" scenario the amount needed would be 3,600 AFY every year.*
>
> *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 does not accomplish this, and an additional source of replenishment water will be needed. The only other potential source of replenishment water will be from desalination."*

While the Seaside Basin's need for additional replenishment water is universally recognized, there remains some disagreement as to how much is actually necessary. For instance, the Monterey Peninsula Water Management District's General Manager has argued that the actual amount may be less than what the studies show. Conversely, a presentation by Montgomery & Associates to our Board at its last meeting suggested that the basin needs may actually be greater. Specifically, they questioned "What is the new normal?" for rainfall. They noted that the percentage of critically dry years over the last 25 years was higher than over the last 50 years. This suggests that the negative impacts of climate change might not be fully accounted for in our current modeling.

We cannot stress enough the Seaside Basin's need for water so that it can build protective water levels and stave off seawater intrusion. While some projects appear to address this need, they really just treat the basin like a bank account…depositing, storing, and then removing water. The studies and modeling show what we really need is water that remains in the basin.

Please take our basin needs into account when making your water supply decision.

Sincerely,

Paul B. Bruno
Chairman

Attachment: Summary of Updated Replenishment Water Analyses, Seaside Basin Watermaster, October 10, 2022

Technical Memo

Date:	11/1/2022
To:	Candace Coleman, Senior Planning Engineer
Prepared By:	Jeroen Olthof
Project:	Monterey County District Urban Water Management Plan
Subject:	Water Demand Analysis

1.0 Background

The 2020 Urban Water Management Plan (UWMP) for the Monterey County District (Monterey Main) included an analysis of historic water use and projections of estimated future demand. Water use by the Monterey Main customers was categorized into different use categories, based on consumption data extracted from the billing system. The historical data was combined with other data sets to develop an estimate of future water use in the Monterey Main service area.

A summary of the demand projections from the 2020 UWMP is shown in Table 1.

Table 1. UWMP Table 4-4 Projected Water Demands 2025 Through 2045

	BASELINE (2016-2020)	2025	2030	2035	2040	2045
Demographics						
Service Area Population	91,717	93,577	95,437	97,297	99,157	101,017
Annual Population Growth Rate		0.41%	0.40%	0.39%	0.38%	0.38%
Service Area Employment	64,307	67,020	69,732	72,445	75,157	77,870
Residential Demand						
Residential Demand (GPCD)	48	48	52.8	52.8	52.8	52.8
Residential Demand (AF)	4,931	5,031	5,644	5,754	5,865	5,975
Non-Residential Demand						
Non-Residential Demand (AF)	4,372	4,556	4,741	4,925	5,110	5,294
Fire Service Demand (AF)		400	400	400	400	400
Other Future Demand						
Pebble Beach Entitlements (AF)		0	65	130	195	260
Tourism Rebound (AF)		250	500	500	500	500
Legal Lots of Record (AF)		0	300	520	740	960
Losses		205	233	245	256	268
Average Annual Demand (AFY)		**10,443**	**11,883**	**12,474**	**13,065**	**13,656**

2.0 Updated Demand Analysis

Since the 2020 UWMP was published, California American Water (CAW) has continued to review and update its projections of future demands and supplies to support on-going planning efforts. CAW's most recent demand projection update was completed for inclusion in California Public Utilities Commission (CPUC) proceeding A.21-11-024 as part of the direct Phase 2 testimony of Ian Crooks. As part of that process, CAW incorporated new data into the projections and resolved data inconsistencies affecting the categorization of historical water use in the 2020 UWMP. In order to establish an updated basis for continued planning efforts, CAW identified the following updates:

1. The baseline averages for residential and non-residential demands were recalculated to incorporate the most recent five years of data available, from 2017 through 2021. Non-residential demand includes the commercial, industrial, other public authority, company accounts, miscellaneous sales, sale for resale, fire service, and water loss categories, and is calculated as total water production minus residential metered sales.
2. The measured production from the Begonia Iron Removal Plant (BIRP) was used in the 2020 UWMP to quantify the volume of water entering the distribution system. However, using the total production from the wells gives a more accurate estimate of the portion of water that will be lost to leaks or unmetered use and thus the total demand. This update to projected total demand in Table 2 increases the portion of future total production that is expected to be attributed to water loss.
3. The 400 AFY that had been projected for Fire Service Demand was based on historical data for that use category. CAW subsequently determined that the applicable meters had not registered that much consumption, and that much of the water thought to be used in this category was actually non-revenue water; the water was produced and pumped into the system, but it did not flow through any customer meter and was lost to leaks or unmetered use. Essentially, the Fire Service Demand in Table 1 should be combined with the losses and categorized as total non-revenue water. In Mr. Crooks' testimony (and in Table 2 below), the water used for fire service is included as non-revenue water in the non-residential demand category. Because this volume (400 AFY) was previously included as Fire Service Demand, the shift of the 400 AFY to non-revenue water has no impact on the total projected demand. There was no error in the reported total production, only a misallocation of the non-revenue water.
4. The 2020 UWMP population growth is based on AMBAG data for the years 2020 and 2040 for the geographic areas served by CAW. Linear growth was assumed through 2040 and extended through 2045. In Table 2, this same linear growth was extended through 2050.

5. Residential demand includes both indoor and outdoor water use. Consistent with the 2020 UWMP, residential water use is expected to increase by 10 percent when a new water source is available, assumed by 2030.

A summary of the updated demand projections is shown in Table 2.

Table 2. Updated Projected Water Demands 2025 Through 2050

	BASELINE (2017-2021)[1]	2025	2030	2035	2040	2045	2050[2]
Demographics							
Service Area Population	91,717	93,577	95,437	97,297	99,157	101,017	102,877
Annual Population Growth Rate		0.41%	0.40%	0.39%	0.38%	0.38%	0.37%
Service Area Employment	64,307	67,020	69,732	72,445	75,157	77,870	80,583
Residential Demand							
Residential Demand Indoor/Outdoor (GPCD)[3]	47.3	48	52.8	52.8	52.8	52.8	52.8
Residential Demand (AF)	4,857	5,031	5,644	5,754	5,864	5,974	6,084
Non-Residential Demand							
Non-Residential Demand (AF)	4,686	4,834	5,019	5,204	5,389	5,574	5,759
Fire Service Demand (AF)	Included as non-revenue water in the non-residential demand category						
Other Future Demand							
Pebble Beach Entitlements (AF)		0	65	130	195	260	325
Tourism Rebound (AF)		250	500	500	500	500	500
Legal Lots of Record (AF)		0	300	520	740	960	1,180
Residential (Single)		0	59	103	147	190	234
Residential (Multi)		0	35	60	86	111	137
Commercial		0	158	274	389	505	621
Residential Remodels		0	27	47	66	86	106
Commercial Remodels		0	21	36	51	67	82
RHNA Demands[4]		0	370	745	745	745	745
Losses	Included as non-revenue water in the non-residential demand category						
Average Annual Demand (AFY, rounded to tenth)	**9,540**	**10,110**	**11,900**	**12,850**	**13,430**	**14,010**	**14,590**

1. The average residential and non-residential demand was updated from the 2020 UWMP to include data from 2017-2021. Non-residential demand includes the commercial, industrial, other public authority, company accounts, miscellaneous sales, sale for resale, fire service, and water loss categories, and is calculated as total water production minus residential metered sales

2. Service area population and employment are projected to continue through 2050 as projected through 2045 using AMBAG population and employment growth rates

3. Residential demand includes both indoor and outdoor water use. Residential water use is expected to increase by 10% when a new water source is available, assumed by 2030.

4. RHNA includes 6,213 estimated units multiplied by 0.12AF per unit, assuming all RHNA units are multi-family units, which equals 745 AFY

VIA EMAIL

September 29, 2022

Mr. Paul Bruno, Chair
Seaside Groundwater Basin Watermaster
PO Box 51502
Pacific Grove, CA 93950

RE: August 5, 2022 Draft Technical Memorandum – Hybrid Water Budget Analyses of Basin Replenishment Options & Alternate Assumptions

Dear Mr. Bruno:

The Monterey Peninsula Water Management District previously disagreed with the assumptions underlying Montgomery & Associates modeling work related to an additional replenishment water analysis.

The August 5, 2022 Draft Technical Memorandum documents "Development of an alternative set of baseline supply and demand assumptions based primarily on Cal-Am's Urban Water Management Plan (UWMP), with some additional assumptions provided by Cal-Am and the City of Seaside." This is troubling because Cal-Am has admitted there is a 400 acre-foot per year (AFY) error in the demand forecast in the UWMP.

The UWMP demand forecast states: "water use for fire service increased in 2019 and 2020 to an average of 400 AFY, when prior to 2019 the average fire demand was only 3 AFY. The increase is attributed to both better metering of fire services in 2019 and 2020, when some demand may have been tracked as water loss previously, as well as a warmer and drier climate increasing fire potential and lengthening the fire season, resulting in more fire flow use. Water use for fire service is projected to remain at about 400 AFY in the future." The 400 AFY was included in the UWMP demand numbers as shown in the table below.

Table 4-4. Projected Demands, 2025 through 2045

	BASELINE (2016-2020)	2025	2030	2035	2040	2045
Demographics						
Service Area Population	91,717	93,577	95,437	97,297	99,157	101,017
Annual Population Growth Rate		0.41%	0.40%	0.39%	0.38%	0.38%
Service Area Employment	64,307	67,020	69,732	72,445	75,157	77,870
Residential Demand						
Residential Demand (GPCD)	48	48	52.8	52.8	52.8	52.8
Residential Demand (AF)	4,931	5,031	5,644	5,754	5,865	5,975
Non-Residential Demand						
Non-Residential Demand (AF)	4,372	4,556	4,741	4,925	5,110	5,294
Fire Service Demand (AF)		400	400	400	400	400
Other Future Demand						
Pebble Beach Entitlements (AF)		0	65	130	195	260
Tourism Rebound (AF)		250	500	500	500	500
Legal Lots of Record (AF)		0	300	520	740	960
Losses		205	233	245	256	268
Average Annual Demand (AFY)		**10,443**	**11,883**	**12,474**	**13,065**	**13,656**

At the same time the Technical Memorandum was being produced, Cal-Am realized the Fire Service Demand numbers were incorrect, as evidenced in the attachment hereto. Being off by 400 AFY can cause an error of as high as 40% in the predicted calculated annual Net Recharge requirement.

Additionally, the District alleges the assumptions for Pebble Beach Entitlements, Tourism Rebound, and Legal Lots of Record in the demand forecast as shown above are actually double-counted because housing and economic growth are already captured in the Residential Demand line in the table (due to population growth) and the Non-Residential Demand line. Such double-counting will compound the error in calculated annual Net Recharge requirement.

More effort should be undertaken to develop assumptions for this effort that are reliable and supportable, and without recognized errors, so that the model results are meaningful. The Technical Memorandum conclusions are meaningless and the analysis should be re-run without errors in the assumptions.

Sincerely,

David J. Stoldt
General Manager
Monterey Peninsula Water Management District

Response Provided By:	**Ian C. Crooks**
Title:	**Senior Director of Engineering & Business Development**
Address:	**California American Water 655 West Broadway, Suite 1410 San Diego, CA 92101**
MPWMD Request:	**MPWMD DS 01 Q001 - Fire Service Water Use**
Date Received:	**August 1, 2022**
Date Response Due:	**August 12, 2022**

DATA REQUEST:

In Attachment A to the Phase 2 Direct Testimony of Ian C. Crooks at page 4-7 the following statement is made;

"Additionally, water use for fire service increased in 2019 and 2020 to an average of 400 AFY, when prior to 2019 the average fire demand was only 3 AFY. The increase is attributed to both better metering of fire services in 2019 and 2020, when some demand may have been tracked as water loss previously, as well as a warmer and drier climate increasing fire potential and lengthening the fire season, resulting in more fire flow use. Water use for fire service is projected to remain at about 400 AFY in the future."

1. Please provide the data supporting the 2019 water use for fire service.

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as if each was set forth fully here. California American Water further objects to the extent this request is vague and ambiguous, particularly as to the phrase: "data supporting the 2019 water use for fire service." Subject to, but without waiving, these objections, California American Water responds:

Due to the appearance of high water use for metered fire service connections in 2019 and 2020, an internal data review was conducted, and it was concluded that some of the metered fire service use was not calculated correctly by the billing system due to reverse water flow through customer backflow devices. This reverse flow caused the meter dial to turn back approximately one numerical unit, which the billing system interpreted as the meter turning over and thus reported a high usage, in other words,

resulted in “phantom usage.” Please see the table below showing the data for 2019 and 2020 determination of “phantom usage” and corrected metered fire service.

For my testimony in this proceeding, this does not change 2019 and 2020 total system demand as it is determined from the actual total water supply produced and delivered to the system, including fire flow use. Water use designated as fire service is part of the non-revenue water category and any meter inaccuracies for fire service are recategorized as water loss. In Table 5 of my testimony, fire service use is included in the non-residential demand category and fire service is not called out specifically going forward as the demand projections are based on historical and future total system production, which includes fire flow, water losses, etc.

Meter Fire Service Connections
Usage and Adjusted Usage
2019 and 2020

Monterey Main Fire Service (AF)	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total 2019
Uncorrected Fire Service (AF)	0.66	0.59	-1.08	0.27	0.18	46.17	23.18	104.70	23.18	53.97	23.19	61.67	336.68
Remove Phantom Fire Service (AF)	0.00	0.00	0.00	0.00	0.00	-45.91	-22.96	-104.51	-22.95	-53.65	-22.95	-61.38	-334.30
Corrected Fire Service (AF)	0.66	0.59	-1.08	0.27	0.18	0.27	0.23	0.20	0.23	0.32	0.23	0.29	2.39

Monterey Main Fire Service (AF)	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total 2020
Uncorrected Fire Service (AF)	53.93	107.69	-137.42	130.70	-69.78	7.92	0.49	69.16	130.44	-76.49	23.08	199.26	438.99
Remove Phantom Fire Service (AF)	-53.64	-107.22	137.91	-130.23	68.85	-7.47	0.00	-68.86	-130.24	76.60	-22.96	-199.10	-436.36
Corrected Fire Service (AF)	0.29	0.47	0.49	0.47	-0.93	0.45	0.49	0.30	0.20	0.11	0.13	0.17	2.63

Seaside Groundwater Basin Watermaster
P.O. Box 51502, Pacific Grove, CA 93950
watermasterseaside@sbcglobal.net
(831) 595-0996

October 17, 2022

California Department of Water Resources
Division of Regional Assistance
Attn: Ann Marie Ore
P.O. Box 942836
Sacramento, CA 94236-0001

Subject: Support for the Pure Water Monterey Expansion Project

Dear Ms. Ore:

On behalf of the Seaside Basin Watermaster, we support Monterey One Water's new project, the Pure Water Monterey Expansion (PWMX) Project.

In short, the PWMX Project will increase the amount of purified recycled water that the existing PWM project provides for injection into the Seaside Groundwater Basin. The PWMX Project will provide a large percentage of the existing Monterey Peninsula's water supply and it will diversify the area's water supply portfolio and improve groundwater sustainability.

As the Court-appointed body responsible for carrying out the requirements of the Adjudication Decision governing the Seaside Groundwater Basin, the Seaside Basin Watermaster has been involved with the PWM Project for many years. It meets the rigorous water quality standards and regulations from both the Central Coast Regional Water Quality Control Board and the State of California's Division of Drinking Water. We expect the PWMX Project will also meet or exceed all human health and safety concerns as it pertains to water quality within the Basin.

We are pleased to support the PWMX Project which will benefit the Basin by providing an additional supplemental source of water to help mitigate over-drafting conditions.

Sincerely,

Paul Bruno
Chair, Seaside Basin Watermaster

Cc Mike McCullough M1W

From: **Paul Bruno** paul@mpe2000.com
Subject: RE: CCC Thurs 11/17 and WM
Date: November 16, 2022 at 12:11 PM
To: George Riley georgetriley@gmail.com, John Gaglioti JGaglioti@delreyoaks.org, Ian Oglesby ioglesby@ci.seaside.ca.us, Dan Albert albert@monterey.org, Wes Leith wesleith@hotmail.com, Paul Bruno aol PBBMTRY@aol.com, Christopher Cook Christopher.Cook@amwater.com, Wendy Root Askew wendyrootaskew@gmail.com, Mary Ann Carbone maryann@sandcityca.org
Cc: Laura Paxton watermasterseaside@sbcglobal.net, Cc: Bob Jaques bobj83@comcast.net, Mary Adams adamsml@co.monterey.ca.us

PB

George,

I will ask Laura to note your protest email in the Correspondence section of next meeting's Board Packet.

I disagree with the assertions set forth in your 11th hour email. My participation at the tomorrow's Coastal Commission meeting as the Chair is consistent with prior precedent. The Watermaster has written letters in support and I have spoken as the Chair at public meetings referencing the letters. This is not news to you.

I wish to remind you of the following –

Two years ago you emailed Laura a question regarding the Chairman's planned participation at the September 17, 2020, Coastal Commission meeting. She replied by email stating –

> *"To answer your questions though, the Chair is speaking on behalf of the Watermaster. This is consistent with prior Coastal Commission and CPUC meetings. I was advised that he is not presenting a PowerPoint but will be referencing the letter of support that was sent to the Coastal Commission on August 12th. That letter included a memo from the Technical Program Manager regarding recharge water being needed to protect the Seaside Groundwater Basin against seawater intrusion. The letter and memo were included in the September 2nd Board package.*
>
> *Bob Jaques intends to speak on his own behalf."*

The next subsequent meeting was held on December 2, 2020. The meeting minutes have no reference of you raising this issue in a Director report or elsewhere.

Please recall that the Board took a position on the Cal Am desal plant at meeting on October 2, 2019. In Resolution No. 2019-01, the Board came out in support of "the proposed Phase 1 sub-surface slant intake wells, desalination plan, and relate facilities…." Your sole "nay" vote was recorded. The Resolution is posted on our website. To date, there has been no modification or rescission of this position. Our letter and my planned comments do not conflict with the Resolution.

Subsequent to the Resolution, the Watermaster, through its Chair, has written the Coastal Commission three letters in support of the project. The first letter was dated October 14, 2019. The letter is posted on our website. The next subsequent meeting was held on December 4, 2019. In the minutes, under Director's Reports, it states -

> *"Director Bruno reported that he had submitted Watermaster Resolution 19-01 adopted*

Director Bruno reported that he had submitted Watermaster Resolution 19-01 adopted at the October 2, 2019 board meeting expressing support of the Monterey Peninsula Water Supply Project Desalination Plant and Related Facilities to the California Coastal Commission for consideration at its November 14th hearing, and spoke in support at the meeting."

The Minutes record that you were in attendance at the December 4, 2019, meeting.

A second letter to the Coastal Commission in support of the project was written on August 12, 2020. A copy of the letter can be found starting on page 159 of the September 2, 2020, Board Packet. The Minutes of the meeting record that you were in attendance. There is no reference to you raising an issue about the letter or my participation as Chair in the upcoming meeting. You did not raise the question until your September 15, 2020, email to Laura. I can find no record of any Board action being initiated by you after receipt of her reply.

Fast forward to today. The Watermaster sent a third letter to the Coastal Commission on October 14, 2022, which is included in the Commission's correspondence packet. The letter is posted on our website and will be included in the upcoming Board packet. It references our recent Replenishment Water Analysis that was accepted by the Board at its September 7, 2022, meeting. A lot of work went into that analysis and its results were not meant to sit on a shelf. The letter does specifically point out that the MPWMD took issue some of what was presented. In conclusion the letter states "Please take our basin needs into account when making your water supply decisions." A close reading will find that I tried my best to be as even handed as possible.

This is my sole response. I will not debate this subject by email. I believe that it was inappropriate for you to email the entire Board in the manner that you have done. Doing so has forced this this response. I have laid out publicly available facts for you and the others. This matter can be discussed further at a Board meeting but not here.

Paul B. Bruno
Chairman

From: George Riley [mailto:georgetriley@gmail.com] **Sent:** Tuesday, November 15, 2022 9:51 PM
To: John Gaglioti; Ian Oglesby; Dan Albert; George Riley; Wes Leith; Paul Bruno; Paul Bruno aol; Christopher Cook; Wendy Root Askew; Mary Ann Carbone
Cc: Laura Paxton; Cc: Bob Jaques; Mary Adams (adamsml@co.monterey.ca.us)
Subject: CCC Thurs 11/17 and WM

The CA Coastal Commission has a hearing on Cal Am's desal that day in Salinas.

I understand that Paul Bruno is preparing to speak on behalf of the WM Board in support of Cal Am's desal.

I hereby protest Paul Bruno claiming to represent the WM Board. He has no authority to do so. Although he is Chair, the Bd has not authorized such a representation.

This will be the second time Mr Bruno has claimed to represent the WM Bd without authority. He presented a statement to the CPUC several months ago claiming to represent the WM Board in support of Cal Am's desal to provide water for a Basin protective water level.

The WM Board has discussed many times the issue of a protective water level, but the last extended discussion concluded that it is an issue, and worthy of public outreach, but not ready for a proposed approach. The dominant reason is the WM lacks any financial ability to pay for such a solution.

If Mr Bruno wants to speak to the CCC, he should do so as an individual, not as representing the WM Board.
George Riley

To: WM Board and Staff
From: George Riley
Date: November 29, 2022
Request for WM Study Session on Strategic Issues

The Seaside Basin is key to existing and future local water supply and management. The WaterMaster Board is having turnover in membership. Even those who have been around for a while may not have a good grounding in WM history, issues and responsibilities. I therefore ask that WM set a time for a study session in early 2023 for discussion and maybe priority setting or actions on certain strategic issues. My suggested format follows:

A. Background
1. Adjudication, court decision, WM mission
2. Overproduction facts, tracking, trends.
3. Threat of seawater intrusion, contingency options and trigger points, timing questions.
3. Replenishment Fund, purpose, use.

B. Current Issues
1. Current usage and impacts (ASR, PWM)
2. Protective water level
3. Replenishment Fund, factors used in accounting, suggested changes
4. Leakage

C. Administrative
1. Weighted voting
2. Membership: Re economic interests (Form 700), potential conflicts of interests, recusal questions.