

<p>Committee Members</p> <p>City of Seaside <i>Victor Damiani - Chair</i></p> <p>California American Water <i>Chris Cook</i></p> <p>City of Sand City <i>Mary Ann Carbone</i></p> <p>Coastal Subarea Landowners <i>Paul Bruno</i></p>
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**SEASIDE GROUNDWATER BASIN WATERMASTER
NOTICE
BUDGET AND FINANCE COMMITTEE
MEETING, AUGUST 16, 2021
11:00 A.M. – via Zoom Teleconference**

AGENDA

IN KEEPING WITH GOVERNOR NEWSOMS EXECUTIVE ORDERS N-29-20 AND N-35-20, THE BUDGET AND FINANCE COMMITTEE MEETING WILL NOT BE HELD IN PERSON YOU MAY ATTEND AND PARTICIPATE IN THE MEETING AS FOLLOWS: JOIN FROM A PC, MAC, IPAD, IPHONE OR ANDROID DEVICE (NOTE: ZOOM APP MAY NEED TO BE DOWNLOADED FOR SAFARI OR OTHER BROWSERS PRIOR TO LINKING) BY GOING TO THIS WEB ADDRESS:

<https://us02web.zoom.us/j/88407827767?pwd=Rk1iczFOZm1BUy9QcEZ0TytDbHEyZz09>

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

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Meeting ID: 884 0782 7767 Password: 468538

The public may comment 3 minutes on any item within the committee’s jurisdiction.

Action Items:

- 1. Fiscal Year 2022 Annual Budgets.
 - A. Administrative Fund..... 3
 - B. Monitoring and Management Fund—Operations 5
 - C. Monitoring and Management Fund—Capital 13
 - D. Replenishment Fund (No Action Required) 25
- 2. Replenishment Assessment Unit Costs for Natural Safe Yield and Operating Yield
Overproduction for Water Year October 1, 2021 through September 30, 2022 27
- 3. Consider approving 2021 Budget transfers 33

Other Items: None

If requested, the agenda and documents in the agenda packet shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof.

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SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Watermaster Budget and Finance Committee
FROM: Laura Paxton, Administrative Officer (AO)
DATE: August 16, 2021
SUBJECT: Proposed Fiscal Year (Calendar Year) 2022 Annual Administrative Fund Budget

RECOMMENDATION:

Recommended the Board approve the attached proposed Administrative Fund Budget for FY 2022.

DISCUSSION:

The court decision states that next fiscal year's budgets must be approved by the Board of Directors no later than the end of October each year in order for tentative budgets to be circulated to each adjudication Party "no earlier than November 1 and no later than November 15" each fiscal year.

The need for legal services in 2021 has been minimal with \$8,487 spent to date. There is nothing foreseen for 2022 of legal significance. A \$25,000 administrative reserve is in place that could cover unforeseen legal issues that may arise. Therefore, the Legal line item has been reduced to \$20,000.

It is proposed that the Administrative Officer receive a 10% rate increase, from \$100/hour that began with appoint to the AO position in 2016, to \$110/hour. The CPI has increased an average of 2.96% each year over the last five years-or roughly 15% total (April figures SF-Oakland-Hayward All Items), and COLA has increased 8% over the last 5 years. Furthermore, publicly recorded rates of four comparable water management agency administrative positions (although Watermaster AO is a somewhat unique position) had pay increases ranging from 8.5%-18%, averaging 13.25% over a three-to-four-year period:

Sr. Admin Specialist	Water Replenishment District of SoCal	8.5% over three years
Water Demand Manager	MPWMD	16.0% over three years
Executive Assistant	Marina Coast Water District	10.6% over three years
Executive Assistant	San Gabriel Water Quality Authority	18.0% over four years

Such an increase in AO rate calculates to a budgeted amount of \$55,000, up from \$50,000.

FISCAL IMPACT:

An estimated \$34,500 in unspent 2021 funds are expected to be carried over to 2022.

An Administrative Fund Assessment of \$65,500 is proposed:

$\$55,000(\text{AO}) + \$20,000(\text{Legal}) + \$25,000(\text{Reserve}) = \$100,000 - \$34,500(\text{Carryover}) = \$65,500$

The assessments for the parties required to contribute to the Administrative Fund are:

California American Water	83.0%	\$54,365
City of Seaside	14.4%	9,432
City of Sand City	2.6%	<u>1,703</u>

ATTACHMENTS

- 1) Proposed Administrative Fund Budget for FY (Calendar Year) 2022

**Seaside Groundwater Basin Watermaster
Administrative Fund
Proposed Budget August 16, 2021
Administrative Year 2022**

	<u>2021</u> <u>Adopted</u> <u>Budget</u>	<u>2021</u> <u>Total</u>	<u>2022</u> <u>Adopted</u> <u>Budget</u>
Assessment Income			
Reserve/Rollover*	\$ 38,000	\$ 56,000	\$ 34,500
Administrative Assessment	<u>62,000</u>	<u>62,000</u>	<u>65,500</u>
Totals	<u>100,000</u>	<u>118,000</u>	<u>100,000</u>
Expenditures			
Contractual Services - Administrative	50,000	48,000	55,000
Legal Services	<u>25,000</u>	<u>10,500</u>	<u>20,000</u>
Total Expenses	<u>75,000</u>	<u>58,500</u>	<u>75,000</u>
Total Available	25,000	59,500	25,000
Less Reserve	<u>25,000</u>	<u>25,000</u>	<u>25,000</u>
Net Available	<u>\$ -</u>	<u>\$ 34,500</u>	<u>\$ -</u>

** Note: The reserve/rollover balance of \$34,500 was determined upon completion by Watermaster staff of a detailed reconciliation from 2006 through March 2021 of the Administrative Fund financial records held at the Watermaster office against the Administrative Fund financial records held by the City of Seaside - the Watermaster fiscal agent.*

**SEASIDE BASIN WATER MASTER
BUDGET AND FINANCE COMMITTEE**

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

MEETING DATE:	August 16, 2021
AGENDA ITEM:	1. B.& C.
AGENDA TITLE:	Approve the FY 2022 Monitoring and Management Program (M&MP) Operations and Capital Budgets
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Attached are the proposed M&MP Operations and Capital Budgets for 2022 and 2023. The Board has asked that two-year budgets be developed to alert the Board to potential changes in scope and/or cost in near future years. Only the 2022 budgets are before the TAC for approval, the 2023 budgets are for information only.

The following are comments and/or principal revisions from the 2021 M&MP Budget:

Technical Program Manager: Due to the large number of meetings being held by the Salinas Valley Basin's and Marina Coast Water District's Groundwater Sustainability Agency's committees that I serve on representing the Watermaster, and the increasing work associated with working toward obtaining replenishment water to protect the Seaside Basin against the threat of seawater intrusion, the budget amount for the Technical Program Manager had to be increased in 2021 through a mid-year budget amendment from an initial \$60,000 to \$95,000. I anticipate that this increased workload will begin to reduce in 2022 after the Monterey Subbasin GSP has been completed. Therefore, the proposed line-item budget amount has been reduced to \$75,000 in 2022.

Tasks M.1.c, M.1.d, and M.1.e (On-call/as-needed Consulting Services): In 2020 and again in 2021 we have needed a greater amount of assistance from Montgomery and Associates in evaluating a number of different issues that have come before the TAC, than has been the case in prior years. In 2022 there will be some hourly rate increases for the Montgomery and Associates staff that will likely be the ones to provide on-call/as-needed hydrogeological consulting services under Tasks M.1.c, M.1.d, and M.1.e (Derrick Williams, Pascual Benito, and Georgina King). I also anticipate that there may be an ongoing need for a greater amount of services in 2022, and have accordingly increased the on-call consulting services allowance for this budget line-item.

Task M.1.g (SGMA Documentation Preparation): Although the scope of work for this Task is unchanged from 2021, in 2022 there will be some hourly rate increases for the Montgomery and Associates staff that perform this work. Therefore, the amount proposed for 2022 is slightly increased from 2021 amount.

Tasks I.2.a.1 (Conduct Ongoing Data Entry/ Database Maintenance/Enhancement), I.2.b.2 (Collect Water Levels), and I.2.b.3 (Collect Quarterly Water Quality Samples and Perform Sentinel Well Induction Logging): Although the scope of work for these Tasks is essentially unchanged from 2021, in 2022 there will be significant hourly rate increases for the MPWMD staff that perform this work, and additional charges for direct and indirect MPWMD costs associated with performing this work. Also, under the new Scope of Work being used with MPWMD under the new Master Agreement starting in

**SEASIDE BASIN WATER MASTER BUDGET
AND FINANCE COMMITTEE**

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

AGENDA ITEM:

1.B. & C. (Continued)

2022, some of the cost allocations between their work on these Tasks is slightly different than in 2021. The proposed cost for the induction logging work that is performed by Mr. Feeney and his subcontractor in Task I.2.b.3 is slightly higher than it was in 2021. This is because more maintenance work on the Sentinel wells is anticipated in 2022, and the induction logging contractor's costs have gone up.

Therefore, the amounts proposed for these Tasks in 2022 differ significantly from the 2021 amounts, and are generally higher than they were in 2021.

Task I.2.b.6 (Reports): Although the scope of work for this Task is unchanged from 2021, in 2022 there will be hourly rate increases for the MPWMD staff that perform this work. Therefore, the amount proposed for 2022 is slightly increased from 2021 amount.

Task I.2.b.7 (CASGEM Data Submittal for Watermaster's Voluntary Wells): MPWMD has been able to reduce the amount of time needed to format and submit this data to DWR in 2022 to comply with the SGMA requirements for adjudicated basins. Even with MPWMD's hourly rate increases, it has been possible to reduce the budget for this Task in 2022 from the amount budgeted in 2021.

Task I.3.a.3 (Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions): Included in Task I.3.a.3 is \$40,000 to perform work to update modeling performed in 2013 pertaining to injection of water to raise groundwater levels. This additional work was initially proposed for 2020, but was removed based on input from Todd Groundwater and Montgomery & Associates that pointed out that if all the water injected by the PWM and desalination plant projects is subsequently extracted, there would be little if any net increase in groundwater levels. Reinstating that work was proposed for 2021 in order to work on getting additional water above and beyond that which would be injected by the desalination plant or the PWM Expansion Project (depending on which of these moves forward to construction) and not extracted, in order to raise groundwater levels to protective elevations Basinwide. However, in the event the Board decides to defer this work until 2022, funds to perform that work have been included in the 2022 budget for this Task. If the Board proceeds with that work in 2021, the scope and budget for this Task in 2022 will delete that work.

Task I.4.c (Annual Report- Seawater Intrusion Analysis): Although the scope of work for this Task is essentially unchanged from 2021, Montgomery & Associates has been able to slightly reduce its costs to prepare the 2022 Seawater Intrusion Analysis Report, and no costs for MPWMD to perform work under this Task is anticipated. Therefore, the amount proposed for 2022 is lower than the 2021 amount.

As indicated by the right-hand column titled "Comparative Costs from 2021 Budget" in the proposed 2022 M&MP Operations Budget in Attachment 1, the proposed 2022 Budget is \$30,809 higher (\$314,878-\$284,069) than the 2021 Budget. However, if the replenishment water modeling update work in Task I.3.a.3 is performed 2021 rather than in 2022, the 2022 Budget will be \$9,191 lower than the 2021 Budget.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

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

AGENDA ITEM:

1. B. & C. (Continued)

Following TAC approval of the 2022 M&MP and Budgets, they will be forwarded to the Budget and Finance Committee and then to the Board for approval.

It is anticipated that a new well to replace monitoring well FO-9 Shallow will be constructed in 2022. The 2022 M&MP Capital Budget includes the estimated Watermaster cost to perform that work.

ATTACHMENTS:

1. 2022 and 2023 M&MP Operations Budgets
2. 2022 and 2023 M&MP Capital Budgets

**RECOMMENDED
ACTION:**

Approve, or make changes to, the attached Budgets and then recommend these for approval by the Board

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Monitoring and Management Program Operations Budget For Tasks to be Undertaken in 2022							Comparative Costs from 2021 Budget	
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽³⁾				Total
				MPWMD	Private Consultants	Contractors		
Labor								
			Technical Project Manager ⁽¹⁸⁾	\$0	\$75,000	\$0	\$75,000	\$60,000
M.1 Program Administration								
	M.1.a		Project Budget and Controls	\$0	\$0	\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0	\$0	\$0	\$0	\$0
	M.1.c, M.1.d, & M.1.e		Preparation for and Attendance at Meetings and Peer Review of Documents and Reports ⁽⁸⁾	\$0	\$27,560	\$0	\$27,560	\$23,000
	M.1.f		QA/QC	\$0	\$0	\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$2,380	\$0	\$2,380	\$2,320
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)								
I.2 Production, Water Level and Quality Monitoring								
	I.2.a.		Database Management					
		I.2.a.1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement ⁽¹⁵⁾	\$20,776	\$2,400	\$0	\$23,176	\$17,004
		I.2.a.2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0	\$0
	I.2.b.		Data Collection Program					
		I.2.b.1.	Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0
		I.2.b.2.	Collect Water Levels ⁽⁶⁾	\$21,490	\$0	\$0	\$21,490	\$3,726
		I.2.b.3.	Collect Quarterly Water Quality Samples and Perform Sentinel Well Induction Logging ⁽¹⁾⁽⁵⁾	\$18,770	\$0	\$20,565	\$39,335	\$42,101
		I.2.b.4.	Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0	\$0
		I.2.b.5.	Monitor Well Construction ⁽⁷⁾	\$0	\$0	\$0	\$0	\$0
		I.2.b.6.	Reports	\$3,136	\$0	\$0	\$3,136	\$2,086
		I.2.b.7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$4,704	\$0	\$0	\$4,704	\$5,960
I.3 Basin Management								
	I.3.a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)				
		I.3.a.1.	Update the Existing Model ⁽¹¹⁾	\$0	\$0	\$0	\$0	\$0
		I.3.a.2.	Develop Protective Water Levels ⁽¹²⁾	\$0	\$0	\$0	\$0	\$0
		I.3.a.3.	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions ⁽¹⁰⁾	\$0	\$60,000	\$0	\$60,000	\$70,000
	I.3.b.		Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0	\$0
	I.3.c.		Refine and/or Update the Basin Management Action Plan	\$0	\$0	\$0	\$0	\$0
	I.3.d.		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	\$0	\$0	\$0	\$0	\$0
	I.3.e.		Seaside Basin Geochemical Model ⁽¹³⁾	\$0	\$10,000	\$0	\$10,000	\$10,000
I.4 Seawater Intrusion Contingency Plan								
	I.4.a.		Oversight of Seawater Intrusion Detection and Tracking ⁽¹⁷⁾	\$0	\$0	\$0	\$0	\$0
	I.4.c.		Annual Report- Seawater Intrusion Analysis ⁽¹⁶⁾	\$0	\$26,290	\$0	\$26,290	\$27,502
	I.4.e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾	\$0	\$0	\$0	\$0	\$0
	I.4.f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2021. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)				
TOTALS CONSULTANTS & CONTRACTORS				\$68,876	\$128,630	\$20,565		
SUBTOTAL not including Technical Program Manager =							\$218,071	\$203,699
Contingency (not including Technical Program Manager) @ 10% ⁽⁴⁾ =							\$21,807	\$20,370
Technical Program Manager =							\$75,000	\$60,000
TOTAL⁽¹⁹⁾=							\$314,878	\$284,069

Footnotes:
(1) Under this Subtask the Watermaster will directly contract with an outside contractor to perform the Sentinel Well induction logging work, and to also collect water level data in conjunction with doing the induction logging. MPWMD will perform the other portions of the work of this
(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.
(3) Within the context of this document the term "Consultant" refers either to a Private Consultant providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term "Contractor" refers to a firm providing construction or field services such as well drilling, induction logging, or meter calibration.
(4) Due to the uncertainties of the exact scopes of some of the larger Tasks listed above at the time of preparation of this Budget it is recommended that a Contingency of approximately 10% be included in the Budget.
(5) The MPWMD portion of this Task includes: (1) \$900 to purchase a new sampling pump if an existing one needs to be replaced, (2) \$476 for vehicle mileage costs for both this Task and Task I.2.b.2, (3) \$6,200 for laboratory analytical costs, (4) \$150 for CO2 bottles to run the sample pumps, and (5) \$504 of administrative support costs for preparing billings and processing invoices from the water quality laboratory.
(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks. Includes the purchase and installation of one new replacement datalogger at a price of \$850 including installation parts, or to keep in inventory as a spare if needed,
(7) A replacement for monitoring well FO-9 Shallow is expected to be constructed in 2022. The costs for this work are contained in the Capital Budget for 2022 and no costs for it are included in the Operations Budget for 2022.
(8) This cost is for Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager. This work may include, but not be limited to, participation in conference calls and reviewing documents prepared by others.
(9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.
(10) The 2021 budget line-item for this Task included doing replenishment water updated modeling for an estimated \$50,000. A cost proposal for this work was received and it was found that this work could be performed for approximately \$40,000. The 2021 budget also included \$20,000 for evaluating other issues the Board might wish to evaluate. Depending on direction from the Board, the replenishment modeling update work may be performed in 2021. If so, the funds in this Task would only be used if there were other issues the Board wished to evaluate and which were not covered in the updated BMAP, and the budget amount for this Task would be reduced from \$60,000 to \$20,000.
(11) The Model was updated and recalibrated in 2018, so no costs for this Task are anticipated in 2022.
(12) The protective water levels developed in 2009 were examined in 2013 to see if they needed to be updated. It was concluded that the 2009 protective levels were still satisfactory for Basin management purposes, and that no revisions were needed. No work under this Task is anticipated in 2022.
(13) This was a new Task that was started in 2018, and was completed for the PWM AWT water in 2019. Funds allocated for this Task in 2022 would only be used if geochemical modeling is performed in 2022 for the MPWSP desalination plant water, and if that modeling indicates the need to have Montgomery and Associates use the Seaside Basin groundwater model to provide additional information needed by the geochemical model to develop mitigation measures for any adverse water quality impacts the geochemical model predicts could occur from introducing desalinated water into the Basin.
(14) This Task is included to provide funds for the Watermaster to perform modeling and other investigative work to aid in making Basin management decisions.
(15) Includes \$200/month for an outside consultant to maintain the Watermaster's website and post documents on it. Also includes \$1,960 for MPWMD to respond to requests from consultants and others for data from the database.
(16) MPWMD's costs to assist in this Task are included in its costs under Task I.2.b.6.
(17) MPWMD's and Montgomery & Associates' costs to provide oversight in this Task are included under their other Tasks.
(18) The amount originally budgeted for the Technical Program Manager in 2021 was \$60,000. However, this was increased to \$95,000 by a budget amendment in mid-year when it became apparent that more work needed to be done than was originally anticipated.
(19) As noted in footnote 10, the Total Cost for the 2022 M&MP budget would be reduced by \$40,000 if the replenishment water modeling update is performed in 2021.

Monitoring and Management Program Operations Budget							
For Tasks to be Undertaken in 2023 ⁽¹²⁾							
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽⁹⁾			Total
				MPWMD	Private Consultants	Contractors	
Labor							
			Technical Project Manager	\$0	\$75,000	\$0	\$75,000
M.1 Program Administration							
	M.1.a		Project Budget and Controls	\$0	\$0	\$0	\$0
	M.1.b		Assist with Board and TAC Agendas	\$0	\$0	\$0	\$0
	M.1.c, M.1.d, & M.1.e		Preparation for and Attendance at Meetings and Peer Review of Documents and Reports ⁽⁸⁾	\$0	\$28,387	\$0	\$28,387
	M.1.f		QA/QC	\$0	\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$2,451	\$0	\$2,451
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)							
I.2 Production, Water Level and Quality Monitoring							
	I. 2. a.		Database Management				
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement	\$21,399	\$2,472	\$0	\$23,871
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	\$0
	I. 2. b.		Data Collection Program				
		I. 2. b. 1.	Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	\$0
		I. 2. b. 2.	Collect Monthly Water Levels ⁽⁶⁾	\$22,135	\$0	\$0	\$22,135
		I. 2. b. 3.	Collect Quarterly Water Quality Samples ⁽¹⁾⁽⁵⁾⁽⁶⁾	\$19,333	\$0	\$21,182	\$40,515
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	\$0	\$0	\$0	\$0
		I. 2. b. 5.	Monitor Well Construction ⁽⁷⁾	\$0	\$0	\$0	\$0
		I. 2. b. 6.	Reports	\$3,230	\$0	\$0	\$3,230
		I. 2. b. 7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$4,845	\$0	\$0	\$4,845
I.3 Basin Management							
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)			
		I. 3. a. 1	Update the Existing Model	\$0	\$0	\$0	\$0
		I. 3. a. 2	Develop Protective Water Levels	\$0	\$0	\$0	\$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions	\$0	\$20,000	\$0	\$20,000
	I. 3. b.		Complete Preparation of Basin Management Action Plan	\$0	\$0	\$0	\$0
	I. 3. c.		Refine and/or Update the Basin Management Action Plan ⁽¹¹⁾	\$0	\$0	\$0	\$0
	I. 3. d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential ⁽¹³⁾	\$0	\$0	\$0	\$0
	I. 3. e		Seaside Basin Geochemical Model ⁽¹⁴⁾	\$0	\$0	\$0	\$0
I.4 Seawater Intrusion Contingency Plan							
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking	\$0	\$0	\$0	\$0
	I. 4. b.		Analyze and Map Water Quality from Coastal Monitoring Wells	(Costs Included Under I.4.a)			
	I. 4. c.		Annual Report- Seawater Intrusion Analysis	\$0	\$27,079	\$0	\$27,079
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾	\$0	\$0	\$0	\$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2019. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)			
TOTALS CONSULTANTS & CONTRACTORS				\$70,942	\$80,389	\$21,182	
SUBTOTAL not including Technical Program Manager =							\$172,513
Contingency (not including Technical Program Manager) @ 10% ⁽⁴⁾ =							\$17,251
Technical Program Manager							\$75,000
TOTAL=							\$264,764

Footnotes:						
(1) Under this Subtask the Watermaster will directly contract with an outside contractor to perform the Sentinel Well induction logging work, and to also collect water level data in conjunction with doing the induction logging. MPWMD will perform the other portions of the work of this Subtask.						
(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.						
(3) Within the context of this document the term "Consultant" refers either to a Private Consultant providing professional engineering or other types of technical services, or to the Monterey Peninsula Water Management District (MPWMD). The term "Contractor" refers to a firm providing construction or field services such as well drilling, induction logging, or meter calibration.						
(4) Due to the uncertainties of the exact scopes of some of the Tasks listed above at the time of preparation of this Budget, it is recommended that a 10% Contingency be included in the Budget.						
(5) A portion of this cost is for maintaining sampling equipment that was installed in prior years.						
(6) Does not include costs for MPWMD to collect water level data or water quality samples from wells other than those that are part of the basic monitoring well network, i.e. for private well owners who have requested that the Watermaster obtain this data for them. Costs to obtain that data are to be reimbursed to the Watermaster by those well owners, so there should be no net cost to the Watermaster for that portion of the work under these Tasks.						
(7) No additional monitoring well is expected to be constructed in 2023.						
(8) For Montgomery and Associates, Todd Groundwater, and Martin Feeney to provide hydrogeologic consulting assistance to the Watermaster, beyond that associated with performing other specified Tasks, when requested to do so by the Technical Program Manager.						
(9) If work under this Task is found to be necessary, it will be funded through the Contingency line item in this Budget.						
(10) Not used.						
(11) If necessary to reflect knowledge gained from modeling work or other data sources. Since the BMAP was updated in 2018, no work on this Task is anticipated in 2022.						
(12) Includes a 3% inflation factor on most annually recurring costs in the 2022 Budget, except the Technical Program Manager cost which has no inflation factor applied to it.						
(13) No further work on this Task is anticipated in 2023.						
(14) It is assumed that all work of this Task will be completed in 2022.						

**Monitoring and Management Program Capital Budget
For Tasks to be Undertaken in 2022**

A replacement for monitoring well FO-9 Shallow is expected to be constructed in 2022. All costs including consultants for design and the well drilling contractor for construction are included in this Capital Budget. It is assumed that there will be a 3-way cost sharing agreement between the Watermaster, MPWMD, and MCWD for that work. MPWMD estimated the cost of a replacement well with a depth of 600 feet would be approximately \$114K, based on an estimated per-foot cost of \$140 and a construction supervision cost of \$30K. Mr. Feeney estimated it would cost about \$280 per-foot, which would increase the MPWMD estimated cost to \$198K. The amount budgeted for this Task is based on a 3-way share of an estimated cost of \$200K, with the Watermaster's share being

Monitoring and Management Program Capital Budget
For Tasks to be Undertaken in 2023

No Capital projects are anticipated to be undertaken in 2023, so this budget is \$0.

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Seaside Groundwater Basin

2022 Monitoring and Management Program

The tasks outlined below are those that are anticipated to be performed during 2022. Some Tasks listed below are specific to 2022, while other Tasks are recurring such as data collection, database entry, and Program Administration Tasks.

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

M.1 Program Administration

M. 1. a
Project Budget and
Controls
(\$0)

Consultants will provide monthly or bimonthly invoices to the Watermaster for work performed under their contracts with the Watermaster. Consultants will perform maintenance of their internal budgets and schedules, and management of their subconsultants. The Watermaster will perform management of its Consultants.

M. 1. b
Assist with Board and TAC
Agendas
(\$0)

Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.

M. 1. c., M. 1. d., & M.1.e
Preparation for and
Attendance at Meetings,
and Peer Review of
Documents and Reports
(\$27,560)

The Consultants’ work will require internal meetings and possibly meetings with outside governmental agencies and the public. For meetings with outside agencies, other Consultants, or any other parties which are necessary for the conduct of the work of their contracts, the Consultants will set up the meetings and prepare agendas and meeting minutes to facilitate the meetings. These may include planning and review meetings with Watermaster staff. The costs for these meetings will be included in their contracts, under the specific Tasks and/or subtasks to which the meetings relate. The only meeting costs that will be incurred under Tasks M.1.c, M.1.d, and M.1.e will be:

- Those associated with attendance at TAC meetings (either in person or by teleconference connection), including providing periodic progress reports to the Watermaster for inclusion in the agenda packets for the TAC meetings, when requested by the Watermaster to do so. These progress reports will typically include project progress that has been made, problem identification and resolution, and planned upcoming work.
- From time-to-time when Watermaster staff asks Consultants to make special presentations to the Watermaster Board and/or the TAC, and which are not included in the Consultant’s contracts for other tasks.

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

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

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

M. 1. f
QA/QC
(\$0)

A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These costs are included in the other tasks.

M.1.g
Prepare Documents for
SGMA Reporting
(\$2,380)

Section 10720.8 of the Sustainable Groundwater Management Act (SGMA) requires adjudicated basins to submit annual reports. Most of the documentation that needs to be reported is already generated by the Watermaster in conjunction with preparing its own Annual Reports. However, some information such as changes in basin storage is not currently generated and will require consultant assistance to do so. This task will be used to obtain this consultant assistance, as needed.

I. 2 Comprehensive Basin Production, Water Level and Water Quality Monitoring Program

I. 2. a. Database Management

I. 2. a. 1
Conduct Ongoing Data
Entry and Database
Maintenance/
Enhancement
(\$23,176)

The database will be maintained by a Consultant (MPWMD) performing this work for the Watermaster. MPWMD will enter new data into the consolidated database, including water production volumes, water quality and water level data, and such other data as may be appropriate. Other than an annual reporting of data to another Watermaster Consultant at the end of the Water Year, as mentioned in Task I.4.c below, no reporting of water level or water quality data during the Water Year is required. However, MPWMD will promptly notify the Watermaster of any missing data or data collection irregularities that were encountered.

Under this Task, when requested MPWMD will also respond to requests from consultants and others for data from the database.

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

No enhancements to the database are anticipated during 2022.

A separate consultant will maintain the Watermaster's website.

I. 2. a. 2
Verify Accuracy of
Production Well Meters
(\$0)

To ensure that water production data is accurate, the well meters of the major producers were verified for accuracy during 2009 and again during 2015. No additional work of this type is anticipated during 2022.

I. 2. b. Data Collection Program

I. 2. b. 1
Site Representation and
Selection
(\$0)

The monitoring well network review that was started in 2008 has been completed, and sites have been identified where future monitoring well(s) could be installed, if it is deemed necessary to do so in order to fill in data gaps. No further work of this type is anticipated in 2022.

**I. 2 b. 2
Collect Water Levels
(\$21,490)**

Each of the monitoring wells will be visited on a regular basis. Water levels will be determined by either taking manual water levels using an electric sounder, or by dataloggers. The wells where the use of dataloggers is feasible or appropriate have been equipped with dataloggers. All of the other wells will be manually measured.

This Task includes the purchase of one datalogger and parts for the datalogger to keep in inventory as a spare if needed.

**I. 2. b. 3
Collect Water Quality
Samples.
(\$39,335)**

Water quality data will be collected quarterly from certain of the monitoring wells, but will no longer be collected from the four coastal Sentinel Wells. Discontinuing water quality sampling in those wells is the result of the finding made in 2018 that the water quality samples being extracted from those wells are not representative of the aquifer. Those wells were designed for the purpose of electric induction logging, and will therefore continue to be induction logged twice a year in WY 2022.

In 2012 water quality analyses were expanded to include barium and iodide ions, to determine the potential benefit of performing these additional analyses. These two parameters have been useful in analyzing seawater intrusion potential in other vulnerable coastal groundwater basins, and are briefly mentioned in the Watermaster's annual Seawater Intrusion Analysis Reports. These parameters were added to the annual water quality sampling list ~~for the four Watermaster Sentinel wells (SBWM 1, SBWM 2, SBWM 3, and SBWM 4), and also~~ for the 3 most coastal MPWMD monitoring wells (MSC, PCA, and FO-09). Barium and iodide analyses will continue being performed on the 3 most coastal MPWMD monitoring wells in 2022., ~~but will no longer be performed on the Watermaster's coastal Sentinel Wells as discussed above.~~

As discussed in the 2013 Annual Report, the Watermaster reduced the frequency of water quality sampling at monitoring well SBWM-5 (the Camp Huffinan well) to once every 3 years beginning in WY 2014. This was based on the January 2010 well construction report in which the well installation hydrogeologic consultant (Martin Feeney) recommended doing initial sampling annually for several years, then reducing the frequency of sampling once it was felt that the water chemistry had been established. Mr. Feeney suggested going to once every five years after initial water quality had been established. Starting with WY 2014 the Watermaster elected to go to once every three years as a more conservative approach. The results from water quality sampling that has performed to date on these wells shows there has been little change in water quality at these wells. Therefore, the sampling frequency has been reduced to once every five years beginning in 2022.

Water quality data may come from water quality samples that are taken from these wells and submitted to a State Certified analytic laboratory for general mineral and physical suite of analyses, or the data may come from induction logging of these wells and/or other data gathering techniques. The Consultant or Contractor selected to perform this work will make this judgment based on consideration of costs and other factors.

Under this Task in 2013 retrofitting to use the low-flow purge approach for getting water quality samples was completed on all of the wells that are sampled. This sampling equipment sits in the water column and may periodically need to be replaced or repaired. Accordingly, an allowance to perform maintenance on previously installed equipment has been included in this Task. Also, in the event a sampling pump fails or is found to be no longer adequate due to declining groundwater levels, an allowance of \$900 to purchase a replacement sampling pump has been included in this Task.

Improvements to the QA/QC program for the water quality sampling work were adopted in mid-2017 and will be included in this work in 2022.

<p>I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. (\$0)</p>	<p>All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2022.</p>
<p>I. 2. b. 5 Monitor Well Construction (\$0)</p>	<p>A well to replace Monitoring Well FO-9 Shallow, which in 2021 was found to have a leaking casing, is expected to be installed in 2022. The costs for this work are included in the 2022 M&MP Capital Budget, and are not included in the 2022 Operations Budget.</p>
<p>I. 2. b. 6 Reports (\$3,136)</p>	<p>This task was essentially eliminated starting in 2020 by having the data collected by MPWMD under tasks I.2.b.1, I.2.b.2, and I.2.b.3 reported in the SIAR under Task I.4.c. The work remaining under this task is for MPWMD to prepare and provide the data appendix to the Consultant that prepares the SIAR.</p> <p>No formalized reporting on a quarterly basis is required. However, MPWMD will promptly notify the Watermaster and the Consultant that prepares the SIAR of any missing data or data collection irregularities in the water quality and water level data collected under Tasks I.2.b.2 and I.2.b.3.</p>
<p>I.2.b.7 CASGEM Data Submittal (\$4,704)</p>	<p>On the Watermaster’s behalf MPWMD will compile and submit data on the Watermaster’s “Voluntary Wells” into the State’s CASGEM groundwater management database. The term “Voluntary Well” refers to a well that is not currently having its data reported into the CASGEM system, but for which the Watermaster obtains data. This will be done in the format and on the schedule required by the Department of Water Resources under the Sustainable Groundwater Management Act.</p>

I. 3 Basin Management

<p>I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)</p>	<p>The Watermaster and its consultants use a Groundwater Model for basin management purposes.</p>
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I.3.a.1 Update the Existing Model (\$0)	<p>The Model, described in the report titled “Groundwater Flow and Transport Model” dated October 1, 2007, was updated in 2009 in order to develop protective water levels, and to evaluate replenishment scenarios and develop answers to Basin management questions. The Model was again updated in 2014.</p> <p>In 2018 the Model was recalibrated and updated. No further work of this type is anticipated in 2022.</p>
I. 3. a. 2 Develop Protective Water Levels (\$0)	<p>A series of cross-sectional models was created in 2009 in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work is discussed in Hydrometrics’ “Seaside Groundwater Basin Protective Water Elevations Technical Memorandum.” In 2013 further work was started to refine these protective water levels, but it was found that the previously developed protective water levels were reasonable. Protective water levels will be updated, if appropriate, as part of the work of Task I.3.c.</p>
I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions (\$60,000)	<p>In 2009 the updated Model was used to evaluate different scenarios to determine such things as the most effective methods of using supplemental water sources to replenish the Basin and/or to assess the impacts of pumping redistribution. This work is described in HydroMetrics’ “Seaside Groundwater Basin Groundwater Model Report.” In 2010, and again in 2013, HydroMetrics used the updated Model to develop answers to some questions associated with Basin management.</p> <p>Modeling performed to date indicates that the solution to the problem of water levels in the Seaside Basin being below Protective Water Levels will be to inject replenishment water.</p> <p>Within the next few years there may be the ability of either of two projects to provide additional water for Basin replenishment. One of these is the Monterey Peninsula Water Supply Project’s (MPWSP) desalination plant. The other is the Pure Water Monterey (PWM) Expansion Project. Growth is built into each of these projects’ plant capacity, and the full capacity of these plants will likely not all be needed for some years into the future. During the time period that these projects would have excess capacity, they could potentially provide water for Basin replenishment.</p> <p>Montgomery & Associates agrees that injection is the quickest way to bring groundwater levels up in the Seaside Basin. The original 3,500 AFY PWM Project is already in operation, and construction of either the MPWSP desalination plant or the PWM Expansion Project is expected to begin within the next few years. Modeling to determine the additional amount of replenishment water needed to achieve protective groundwater level elevations throughout the Basin, after either or both of those projects are constructed, would be performed to aid the Watermaster in pursuing approaches to obtain that additional water for Basin replenishment.</p> <p>Based on input from Montgomery & Associates it is expected to cost about \$40,000 to update the earlier replenishment water modeling that was performed in 2013. Hence, this Task includes a \$40,000 allowance to perform this modeling, if so directed by the Watermaster Board.</p>

Modeling performed in 2014, 2015, and 2016 led to the conclusion that groundwater levels in parts of the Laguna Seca Subarea will continue to fall, even if all pumping within that subarea is discontinued, because of the influence of pumping from areas near to, but outside of, the Basin boundary. Additional modeling work may be performed in 2022 after the Groundwater Sustainability Plan for the Monterey Subbasin (being jointly prepared by the Salinas Valley Basin and the Marina Coast Water District Groundwater Sustainability Agencies) to further examine this situation.

This Task provides a \$20,000 allowance to perform modeling or other work to develop answers to basin management questions, if so directed by the Watermaster Board.

**I. 3. b.
Complete Preparation of
Basin Management Action
Plan
(\$0)**

The Watermaster’s Consultant completed preparation of the Basin Management Action Plan (BMAP) in February 2009. The BMAP serves as the Watermaster’s long-term seawater intrusion prevention plan. The Sections that are included in the BMAP are:
Executive Summary
Section 1 – Background and Purpose
Section 2 – State of the Seaside Groundwater Basin
Section 3 – Supplemental Water Supplies
Section 4 –Groundwater Management Actions
Section 5 – Recommended Management Strategies
Section 6 – References

**I. 3. c.
Refine and/or Update the
Basin Management Action
Plan
(\$0)**

In 2019 the BMAP was updated based on new data and knowledge that has been gained since it was prepared in 2009.

No further work of this type is anticipated in 2022. However, although no funds are budgeted for this Task in 2022, at some point after the Groundwater Sustainability Plan (GSP) for the adjacent Monterey Subbasin of the Salinas Valley Groundwater Basin is completed, it may be appropriate to further update the BMAP to reflect the impacts of implementing that GSP. That GSP is scheduled to be completed by early 2022.

**I. 3. d.
Evaluate Coastal Wells for
Cross-Aquifer
Contamination Potential
(\$0)**

If seawater intrusion were to reach any of the coastal wells in any aquifer, and if a well was constructed without proper seals to prevent cross-aquifer communication, or if deterioration of the well led to casing leakage, it would be possible for the intrusion to flow from one aquifer to another. An evaluation of this was completed in 2012 and is described in MPWMD’s Memorandum titled “Summary of Seaside Groundwater Basin Cross-Aquifer Contamination Wells Investigation Process and Conclusions” dated August 8, 2012. This Memorandum did not recommend performing any further work on this matter, other than to incorporate into the Watermaster’s Database data from wells that were

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newly identified by the work performed in 2012. That data has now been incorporated into the Database. In 2021 the Watermaster TAC examined the feasibility of performing conductivity profiling of certain of the near-coastal wells that were evaluated in the 2012 Memorandum, as a method of determining if any of those wells was allowing downward migration of intruded water from the shallow dunes aquifer to enter the Paso Robles aquifer. However, it was concluded that conditions in those wells would make it infeasible to perform such work.

In late 2017 a request was made to MPWMD to destroy one of its no-longer-used monitoring wells that is perforated in multiple aquifers (Well PCA-East Multiple). MPWMD performed this work in 2018.

No further work of this type is anticipated in 2022.

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

When new sources of water are introduced into an aquifer, with each source having its own unique water quality, there can be chemical reactions that may have the potential to release minerals which have previously been attached to soil particles, such as arsenic or mercury, into solution and thus into the water itself. This has been experienced in some other locations where changes occurred in the quality of the water being injected into an aquifer. MPWMD's consultants have been using geochemical modeling to predict the effects of injecting Carmel River water into the Seaside Groundwater Basin under the ASR program.

In order to predict whether there will be groundwater quality changes that will result from the introduction of desalinated water and additional ASR water (under the Monterey Peninsula Water Supply Project) and advance-treated water (under the Pure Water Monterey Project) geochemical evaluations, and potentially modeling, will be performed in the areas of the Basin where injection of these new water sources will occur.

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

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

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

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

<p>I. 4. a. Oversight of Seawater Intrusion Detection and Tracking (\$0)</p>	<p>Consultants will provide general oversight over the Seawater Intrusion detection program under the other Tasks in this Work Plan.</p>
<p>I. 4. c. Annual Report- Seawater Intrusion Analysis (\$26,290)</p>	<p>At the end of each water year, a Consultant will reanalyze all water quality data. Water level and water quality data will be provided to the Consultant in MS Access format. The Consultant will put this data into a report format and will include it as an attachment to the Seawater Intrusion Analysis Report. If possible, semi-annual chloride concentration maps will be produced for each aquifer in the basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. The annual EM logs will be analyzed to identify changes in seawater wedge locations. All analyses will be incorporated into an annual report that follows the format of the initial, historical data report. Potential seawater intrusion will be highlighted in the report, and if necessary, recommendations will be included. The annual report will be submitted for review by the TAC and the Board. Modifications to the report will be incorporated based on input from these bodies, as well as Watermaster staff.</p>
<p>I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan (\$0)</p>	<p>At the beginning of 2009, and again in 2021, it was thought that it might be beneficial or necessary to perform work to refine the SIRP and/or to update it based on new data or knowledge that was gained subsequent to the preparation of the SIRP. However, this did not prove to be necessary, and no further work of this type is anticipated in 2022.</p>
<p>I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan (\$0)</p>	<p>The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.</p>

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Seaside Groundwater Basin Watermaster								ITEM 1.D.	
Replenishment Fund								8/16/21	
Water Year 2020 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2020)								Page 1	
Balance through October 31, 2020									
Replenishment Fund	2006	2007	2008	2009	2010	2011	2012	2013	2014
Assessments:	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
Unit Cost:	\$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	\$675.50
Cal-Am Water Balance Forward	\$ -	\$ 1,641,004	\$ 4,226,710	\$ (2,871,690)	\$ (2,839,939)	\$ (3,822,219)	\$ (6,060,164)	\$ (8,735,671)	\$ (6,173,771)
<i>Cal-Am Water Production</i>	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
<i>Cal-Am Water NSY Over-Production (AF)</i>	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
Exceeding Natural Safe Yield Considering Alternative Producers	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
Operating Yield Overproduction Replenishment	-	20,235	8,511	-	-	-	154,963	181,057	281,012
Total California American	\$ 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
CAW Credit Against Assessment	(465,648)		(12,305,924)	\$ (3,741,714)	(5,095,213)	(5,425,799)	(5,111,413)	-	-
CAW Unpaid Balance	\$ 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)
City of Seaside Balance Forward	\$ -	\$ 243,294	\$ 426,165	\$ 1,024,272	\$ 1,619,973	\$ 891,509	\$ (110,014)	\$ (773,813)	\$ (1,575,876)
<i>City of Seaside Municipal Production</i>	332.00	287.70	294.20	293.44	282.87	240.68	233.72	257.73	223.64
<i>City of Seaside NSY Over-Production (AF)</i>	194.07	153.78	161.99	153.06	113.21	50.84	58.82	85.17	52.71
Exceeding Natural Safe Yield Considering Alternative Producers	219,689	174,082	402,540	465,300	314,721	141,335	163,509	236,782	142,410
Operating Yield Overproduction Replenishment	12,622	85	4,225	16,522	20,690	-	1,689	27,007	3,222
Total Municipal	232,310	174,167	406,764	481,823	335,412	141,335	165,198	263,788	145,631
City of Seaside - Golf Courses									
Exceeding Natural Safe Yield - Alternative Producer	-	-	131,705	69,701	-	-	-	-	-
Operating Yield Overproduction Replenishment	-	-	32,926	17,427	-	-	-	-	-
Total Golf Courses	-	-	164,631	87,128	-	-	-	-	-
Total City of Seaside*	\$ 232,310	\$ 174,167	\$ 571,395	\$ 568,951	\$ 335,412	\$ 141,335	\$ 165,198	\$ 263,788	\$ 145,631
City of Seaside Late Payment 5%	10,984	8,704	26,712	26,750	15,737				
In-lieu Credit Against Assessment	-		-	\$ -	(1,079,613)	(1,142,858)	(828,996)	(1,065,852)	(1,459,080)
City of Seaside Unpaid Balance	\$ 243,294	\$ 426,165	\$ 1,024,272	\$ 1,619,973	\$ 891,509	\$ (110,014)	\$ (773,813)	\$ (1,575,876)	\$ (2,889,325)
Total Replenishment Fund Balance	\$ 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)
Replenishment Fund Balance Forward	-	\$ 1,884,298	\$ 4,652,874	\$ (1,847,417)	\$ (1,219,966)	\$ (2,930,710)	\$ (6,170,178)	\$ (9,509,483)	\$ (7,749,648)
Total Replenishment Assessments	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
Total Paid and/or Credited	(465,648)	-	(12,305,924)	(3,741,714)	(6,174,826)	(6,568,657)	(5,940,409)	(1,065,852)	(1,459,080)
Grand Total Fund Balance	\$ 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)

Seaside Groundwater Basin Watermaster									ITEM 1.D.
Replenishment Fund									8/16/21
Water Year 2020 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2020)									Page 2
Balance through October 31, 2020									
2015	2016	2017	2018	2019	2020	Totals WY 2006 Through 2020	Budget WY 2021	Projected Totals Through WY 2021	
WY 14/15	WY 15/16	WY 16/17	WY 17/18	WY 18/19	WY 19/20		WY 20/21		
\$675.50	\$675.50	\$2,872 / \$718	\$2,872 / \$718	\$2,872 / \$718	\$2,872 / \$718		\$2,947 / \$737		
\$ (3,102,221)	\$ (676,704)	\$ (676,704)	\$ (491,747)	\$ (48,797,949)	\$ (47,979,851)		\$ (46,855,120)		
2,764.73	1,879.21	2,029.51	2,229.45	2,120.22	2,245.88	44,376.99			
782.17	-	64.40	374.65	284.85	334.21	14,638.57			
2,113,414	-	184,957	1,075,995	818,097	959,859	\$ 33,550,035	100,000	\$ 33,650,035	
312,103	-	-	-	-	164,872	1,122,753	20,000	1,142,753	
\$ 2,425,516		\$ 184,957	\$ 1,075,995	\$ 818,097	\$ 1,124,731	\$ 34,672,787	\$ 120,000	\$ 34,792,787	
-	-	-	(49,382,196)	-	-	(81,527,907)	-	(81,527,907)	
\$ (676,704)	\$ (676,704)	\$ (491,747)	\$ (48,797,949)	\$ (47,979,851)	\$ (46,855,120)	\$ (46,855,120)	\$ (46,735,120)	\$ (46,735,120)	
\$ (2,889,325)	\$ (3,346,548)	\$ (3,232,420)	\$ (3,142,500)	\$ (3,022,249)	\$ (2,919,806)		\$ (2,802,831)		
185.01	195.16	188.31	184.63	178.40	181.65	3,559.14			
25.77	37.87	30.47	32.46	27.82	32.06	1,210.10			
69,630	102,330	87,512	93,225	79,893	92,089	\$ 2,785,045	100,000	\$ 2,885,045	
38	11,959	2,409	27,026	22,550	24,886	174,929	10,000	184,929	
69,667	114,290	89,920	120,251	102,443	116,975	2,959,974	110,000	3,069,974	
-	-	-	-	-	-	201,406	-	201,406	
-	-	-	-	-	-	50,353	-	50,353	
-	-	-	-	-	-	251,759	-	251,759	
\$ 69,667	\$ 114,290	\$ 89,920	\$ 120,251	\$ 102,443	\$ 116,975	\$ 3,211,733	\$ 110,000	\$ 3,321,733	
						88,887		88,887	
(526,890)	(162)	-	-	-	-	(6,103,451)	-	(6,103,451)	
\$ (3,346,548)	\$ (3,232,420)	\$ (3,142,500)	\$ (3,022,249)	\$ (2,919,806)	\$ (2,802,831)	\$ (2,802,831)	\$ (2,692,831)	\$ (2,692,831)	
\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$ (51,820,198)	\$ (50,899,657)	\$ (49,657,951)	\$ (49,657,951)	\$ (49,427,951)	\$ (49,427,951)	
\$ (5,991,546)	\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$ (51,820,198)	\$ (50,899,657)		\$ (49,657,951)		
2,495,183	114,290	274,877	1,196,246	920,540	1,241,706	37,973,407	230,000	38,203,407	
(526,890)	(162)	-	(49,382,196)	-	-	(87,631,358)	-	(87,631,358)	
\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$ (51,820,198)	\$ (50,899,657)	\$ (49,657,951)	(49,657,951)	\$ (49,427,951)	\$ (49,427,951)	

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Watermaster Budget and Finance Committee
FROM: Laura Paxton, Administrative Officer
DATE: August 16, 2021
SUBJECT: Consider Approval of Unit Costs for Water Year 2021/22 Over Production Replenishment Assessment

RECOMMENDATION:

Recommend to the Watermaster board at its September 1, 2021 board meeting to adopt a Replenishment Assessment Unit Cost of \$3,260/AF and \$815/AF for Natural Safe Yield and Operating Yield Overproduction, respectively, for Water Year 2022, with the unit costs being presented to the board for modification once Aquifer Storage and Recovery and Regional Urban Water Augmentation Project costs are determined.

BACKGROUND:

Per page 33 of the Decision, “The per acre-foot (AF) amount of the Replenishment Assessments shall be determined and declared by Watermaster in October of each Water Year in order to provide Parties with advance knowledge of the cost of Over-Production in that Water Year.” Thus, the per acre-foot amount determined by the Board on or before October of 2021 will be used to calculate Replenishment Assessments for pumping that occurs during Water Year 2022 (October 1, 2021 through September 30, 2022).

For Water Years 2014, 2015, and 2016 the Board adopted a Replenishment Assessment Unit Cost of \$2,702/AF for Natural Safe Yield Overproduction. This unit cost was developed starting with Water Year 2014 by taking the average of the Base Unit Cost (\$/AF) of the four potential water supply projects that the Board felt were the most likely to be implemented. For Water Year 2017 the Board adopted a revised Replenishment Assessment Unit Cost of \$2,872. This revised Unit Cost was calculated using updated unit cost data for the three projects which the Board at that time felt were the most likely to be implemented. The number of projects was reduced from four to three, because when the WY 2017 Unit Cost was being calculated, it was determined that two of the previous four projects (Regional Desalination and the Pure Water Monterey Groundwater Replenishment Projects) would be part of a combined project referred to as the Monterey Peninsula Water Supply Project (MPWSP). The unit cost for Water Year 2017 was carried over to the three subsequent Water Years because no updated cost data was available for those projects, and no other viable projects could be identified. In 2020, a blended unit cost value was provided for the Monterey Peninsula Water Supply Project based on a reduced size desalination plant offset by water to be provided by the Pure Water Monterey Project. Based on the updated Pure Water Monterey Project’s unit cost, the blended unit cost for that combined project was updated from \$4,591/AF to \$4,817/AF, resulting in a Water Year 2021 Replenishment Assessment Unit Cost of \$2,947/AF.

DISCUSSION:

The attached Table includes updated cost data for two of the three projects, the Pure Water Monterey Project (PWM) and a partial updated cost for the Regional Urban Water Augmentation Project (RUWAP). In the attached Table, a blended unit cost value is provided for the MPWSP based on an updated PWM unit cost. The blended unit cost for that combined project was updated from \$4,817/AF to \$4,948/AF. Patrick Breen of Marina Coast Water District (MCWD) advised that a RUWAP Rate Study is underway to determine project operations & maintenance and financing costs; stating the per-acre foot cost could be noted as the PWM \$2,808/AF cost with the project O&M and financial costs added once determined. For purposes of the 2022 Replenishment Assess Unit Cost calculation, \$2,808 was used as the RUWAP cost/AF. Monterey Peninsula Water Management District had not yet provided updated costs for Aquifer Storage and Recovery expansion.

The updated Unit Cost would therefore be \$3,260/AF, calculated as: $(\$4,948 + \$2,025 + \$2,808) / 3$. These are the three **bold-faced** unit costs in the attached Table. The Operating Yield Over Production Replenishment Assessment Unit Cost is 25% of that amount, or \$815.

ATTACHMENTS: Updated Unit Cost Data Table 2022; Water Year 2017; 2021; & 2014 Unit Cost Data

WATER YEAR 2022 (October 1, 2021-September 30, 2022)

ANTICIPATED UNIT COSTS OF WATER THAT COULD POTENTIALLY BE USED FOR REPLENISHMENT OF THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISHMENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽¹⁾	BASE UNIT COST (\$/AF)	BASE UNIT COST YEAR
Regional Desalination ⁽²⁾	2024	6,250	\$6,147	2021
Groundwater Replenishment Project (Pure Water Monterey) ⁽⁶⁾	2020	3,500	2,808	2021
Monterey Peninsula Water Supply Project (Combined Regional Desalination with Groundwater Replenishment Project)	GWRP in 2020; Regional Desalination in 2024	9,750	\$4,948⁽³⁾	2021
Seaside Basin ASR Expansion ⁽⁴⁾	2021	1,000	\$2,025	2016
Regional Urban Water Augmentation Project ⁽⁵⁾	2021	1,400-1,700	\$2,808+TBD	2021

(\$4,948 + \$2,025 + \$2,808) / 3 =
\$3,260 = 2022 Replenishment Assessment Unit Cost for NSY
Overproduction
\$3,260/4 = \$815 Replenishment Assessment Unit Cost for OY
Overproduction

FOOTNOTES:

- (1) For the Regional Desalination Project this is the total amount of water from this source which could potentially come to the Cal Am distribution system, based on the desalination plant having a 6.4 MGD capacity equivalent to 7,169 AFY. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin for the RUWAP this is the total amount of non-potable water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 4). For the GWRP this is the quantity of water that is being planned at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.
- (2) Base unit cost data based on PUC filing documents and provided by Dave Stoldt of MPWMD. This unit cost was confirmed in August 2021 by Ian Crooks of Cal Am as being the latest unit cost available for this project.
- (3) Flow-weighted average unit cost of the combined desalination and groundwater replenishment projects, calculated as: $(6,250 \times \$6,147 + 3,500 \times \$2,808) / 9,750 = \$4,948$
- (4) Base unit cost data provided by MPWMD in 2016. No updated unit cost was provided for this project. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.
- (5) Project data updated by MCWD in 2021. Patrick Breen of MCWD noted that to determine total cost per acre-foot, use the \$2,808-acre foot cost from Pure Water Monterey (which would be RUWAP cost as well) and add MCWD O&M and Financing costs to be determined fall of 2021.
- (6) Base unit cost effective July 1, 2021 based on information provided by Ian Crook of Cal Am.

WATER YEAR 2021 (October 1, 2020-September 30, 2021)

ANTICIPATED UNIT COSTS OF WATER COULD POTENTIALLY BE USED FOR REPLENISHMENT OF THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISHMENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽¹⁾	BASE UNIT COST (\$/AF)	BASE UNIT COST YEAR
Regional Desalination ⁽²⁾	2022	6,250	\$6,147	2019
Groundwater Replenishment Project (Pure Water Monterey) ⁽⁶⁾	2020	3,500	\$2,442	2020
Monterey Peninsula Water Supply Project (Combined Regional Desalination with Groundwater Replenishment Project)	GWRP in 2020 Regional Desalination in 2022	9,750	\$4,817⁽³⁾	2018-2020
Seaside Basin ASR Expansion ⁽⁴⁾	2020	1,000	\$2,025	2016
Regional Urban Water Augmentation Project ⁽⁵⁾	2020	1,400-1,700	\$2,000	2018

FOOTNOTES:

(1) For the Regional Desalination Project this is the total amount of water from this source which could potentially come to the CAW distribution system, based on the desalination plant having a 6.4 MGD capacity which is equivalent to 7,169 AFY. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of non-potable water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 4). For the GWRP this is the quantity of water that is being planned at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.

(2) Base unit cost data based on PUC filing documents and provided by Dave Stoldt of MPWMD. This unit cost was confirmed in August 2020 by Tim O'Halloran of Cal Am as being the latest unit cost available for this project.

(3) Flow-weighted average unit cost of the combined desalination and groundwater replenishment projects, calculated as:

$$(6,250 \times \$6,147 + 3,500 \times \$2,442) / 9,750 = \mathbf{\$4,817}.$$

(4) Base unit cost data provided by MPWMD in 2016. No updated unit cost was provided for this project. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.

(5) Project data provided by MCWD in 2016. This unit cost was confirmed in August 2020 by Patrick Breen of MCWD as being the latest unit cost available for this project.

(6) Base unit cost based on information provided by Dave Stoldt of MPWMD as reported in the Carmel Pine Cone in early August

TABLE 2

WATER YEAR 2017 (October 1, 2016-September 30, 2017)

ANTICIPATED UNIT COSTS OF WATER COULD POTENTIALLY BE USED FOR REPLENISHMENT OF THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISH-MENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽¹⁾	BASE UNIT COST (\$/AF)	BASE UNIT COST YEAR
Regional Desalination ⁽²⁾	2020	6,250	\$6,147	2019
Groundwater Replenishment Project (Pure Water Monterey) ⁽²⁾	2018	3,500	\$1,811	2018
Monterey Peninsula Water Supply Project (Combined Regional Desalination with Groundwater Replenishment Project)	GWRP in 2018 Regional Desalination in 2020	9,750	\$4,591	
Seaside Basin ASR Expansion ⁽³⁾	2020	1,000	\$2,025	2016
Regional Urban Water Augmentation Project ⁽⁴⁾	2018	1,400-1,700	\$2,000	2018

FOOTNOTES:

(1) For the Regional Desalination Project this is the total amount of water from this source which could potentially come to the CAW distribution system, based on the desalination plant having a 6.4 MGD capacity which is equivalent to 7,169 AFY. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of non-potable water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 3). For the GWRP this is the quantity of water that is being planned at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.

(2) Base unit cost data based on PUC filing documents and provided by Dave Stoldt of MPWMD.

(3) Base unit cost data provided by MPWMD. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.

(4) Project data provided by MCWD.

WATER YEAR 2014 (October 1, 2013-September 30, 2014)

ANTICIPATED UNIT COSTS OF REPLISHMENT WATER FOR THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLISHMENT WATER	POTENTIAL DATE REPLENISHMENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽¹⁾	LEVEL OF PROJECT DEVELOPMENT	CONTINGENCY INCLUDED IN BASE UNIT COST ⁽²⁾ (%)	BASE UNIT COST (\$/AF)	BASE UNIT COST YEAR	ADDITIONAL CONTINGENCY ADDED TO REFLECT LEVEL OF PROJECT DEVELOPMENT ⁽³⁾ (%)	UNIT COST INCLUDING ADDITIONAL CONTINGENCY (\$/AF)	UNIT COST INFLATED @ 3% FROM YEAR TO YEAR REPLENISHMENT WATER COULD BECOME AVAILABLE (\$/AF)	VOLUME-WEIGHTED AVG %
Monterey Peninsula Water Supply Project (Regional Desalination) ⁽⁴⁾	2018	9,752	Project Report	30%	\$3,507	2012	0%	\$3,507	\$4,188	56.53%
Seaside Basin ASR Expansion ⁽⁵⁾	2015	1,000	Conceptual	11%	\$1,800	2012	39%	\$2,502	\$2,734	5.80%
Regional Urban Water Augmentation Project ⁽⁶⁾	2017	3,000	Design	5%	\$2,000	2013	10%	\$2,200	\$2,476	17.39%
Groundwater Replenishment Project (GWRP) ⁽⁷⁾	2017	3,500	Conceptual	50%	\$3,500	2017	0%	\$3,500	\$3,500	20.29%

Total Quantity of Replishment Water (AFY) the Listed Projects Could Cumulatively Potentially be Able to Produce Within the Next 10 Years ⁽⁸⁾ = 17,252

FOOTNOTES:

- (1) For the Monterey Peninsula Water Supply Project this is the total amount of water from this source which could potentially come to the CAW distribution system. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 5). For the RUWAP this is the total amount of water that this project is expected to produce. Only a portion of this amount might be used as in-lieu replenishment of the Seaside Basin. For the GWRP this is the quantity of water that is being considered at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.
- (2)(3) The following Contingency percentages were considered reasonable for the indicated levels of project development: Conceptual Level - 50%, Project Report Level - 30%, and Design Level - 15%. The sum of the values in the columns titled "Contingency Included in Base Unit Cost" and "Additional Contingency Added to Reflect Level of Project Development" equals the Contingency appropriate for the project's level of development.
- (4) Project data based on documents provided by Cal Am and MPWMD.
- (5) Project data provided by MPWMD. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.
- (6) Project data provided by MCWD.
- (7) Project data provided by MRWPCA. MRWPCA reported that the GWRP quantity being used in the current CEQA documentation is 3,500 AFY, but that the project could potentially supply 6,500 AFY or more. The unit cost would be lower if a quantity larger than 3,500 AFY were produced.
- (8) This value is the cumulative production capacity of all of the Potential Sources of Replishment Water that listed in this table, and is used only to determine the "Volume-Weighted Average." It is not the amount of water that is expected to be available to the Seaside Basin.

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SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Budget and Finance Committee

FROM: Robert S. Jaques, Technical Program Manager

DATE: August 16, 2021

SUBJECT: Consider Approving Budget Transfer to Cover Costs for Montgomery & Associates to Perform Flow Direction/Flow Velocity Modeling and for Updated Replenishment Water Modeling

RECOMMENDATIONS:

Approve proposed budget transfers and recommend for approval by the Board at September 1, 2021 meeting

BACKGROUND:

At its February 13, 2021 meeting the Board directed the TAC to undertake several actions in response to the possible detection of seawater intrusion in Monitoring Well FO-9 Shallow. These actions included:

1. Updating the 2013 groundwater modeling to provide a more accurate indication of current replenishment water needs.
2. Developing maps that would enable the Watermaster to estimate the directions and velocities that seawater intruded water would move toward production wells.

DISCUSSION:

At its February and August 2021 meetings the TAC approved two contract amendments with Montgomery & Associates to perform this work. The combined contract amount to perform this work is \$59,200, broken down as follows:

1. \$37,510 to update the 2013 groundwater modeling.
2. \$21,690 to develop flow direction/flow velocity maps.

These two contracts will be presented to the Board for approval at its September 1, 2021 meeting.

Both of these items would fall under Task I.3.a.3 of the 2021 Monitoring and Management Program, which is titled "*Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions.*" The amount budgeted for this Task is \$70,000.

\$35,000 was transferred out of this Task earlier this year to cover the Technical Program Manager's increased workload in 2021, leaving \$35,000 remaining in the budget line-item for this Task. The \$59,200 cost to perform this work would exceed the remaining budget amount by \$24,200.

In addition it will be necessary to augment the cost authorization for Montgomery & Associates by \$5,000 for general consulting services for the remainder of 2021. This is because we have needed to use them more than originally expected, primarily for them to provide documents to, and interact with, consultants for the Marina Coast Water District and Salinas Valley GSAs in conjunction with those GSAs development of the Groundwater Sustainability Plan for the Monterey Subbasin.

To cover these shortfalls, which total \$29,200 (\$24,200 + \$5,000) the following budget transfers are recommended:

1. Transfer \$10,000 from M&MP Task I.3.e (budgeted at \$10,000 to perform geochemical modeling if necessary for Cal Am's desal plant) since it is clear that the desal plant will not start construction in 2021, and
2. Transfer \$10,000 from the Contingency line-item (originally budgeted at \$20,370 and still having slightly more than \$10,000 in it).
3. Transfer \$4,000 from M&MP Task M.1.c, d, and e (Preparation for and Attendance at Meetings and Peer Review of Documents and Reports) because we do not expect to need to use all of the
4. Transfer \$5,000 from the Technical Program Manager line-item as it appears the Technical Program Manager's costs will total about \$90,000 by year-end, which is \$5,000 less than the \$95,000 that was budgeted.

ATTACHMENTS: None.